

The Relations among Acculturation, Parenting and Depressive Symptoms for  
Immigrant Chinese Mothers and Fathers

by

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Abstract

The relations among acculturation, parenting and depressive symptoms were examined among 98 immigrant Chinese mothers and fathers with early adolescents in Canada. Parents completed measures assessing their involvement in Canadian and Chinese culture, their symptoms of depression, and their parenting practices (i.e., expressive warmth, firm control, Chinese parenting beliefs and restrictive control). Greater Canadian orientation was associated with more expressive warmth and firm control for parents, whereas greater Chinese orientation was associated with stronger Chinese parenting beliefs. Greater Canadian orientation was associated with fewer depressive symptoms for all mothers, and for fathers who were low in Chinese orientation. Symptoms of depression were negatively related to firm control and expressive warmth for parents, and positively related to restrictive control for fathers. Finally, symptoms of depression partially mediated the relation between Canadian orientation and firm control for mothers, as well as the relation between Canadian orientation and expressive warmth for fathers.

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## Introduction

Immigration presents tremendous challenges and opportunities for individuals and families. A key concern for immigrants involves reconciling their traditional cultural values, beliefs and behaviours with those of the host culture. *Acculturation* refers to cultural changes that result from continuous contact between two distinct cultural groups (Berry, Kim, Minde, & Mok, 1987). These cultural changes can occur in multiple domains, including cultural orientation, identity, and cultural values (Tsai, Chentosva-Dutton, & Wong, 2002). Individuals differ in the extent to which they seek to maintain their traditional cultural beliefs and values versus adopting those of the new culture (Costigan & Su, 2004).

Examining acculturation in immigrant parents represents an important opportunity to understand not only how acculturation influences an individual's personal values and behaviours, but also how it impacts child-rearing practices. Culture helps shape which child-rearing practices parents consider to be effective, legitimate and acceptable. When families immigrate, parents differ in the extent to which they retain their traditional parenting practices and adopt the child-rearing customs of the new culture. The process of acculturation may influence the way parents raise their children, as they are introduced to different parenting beliefs and strategies and attempt to appropriately socialize their child to thrive in a new cultural context.

Past research has demonstrated that the process of acculturation also significantly effects individuals' psychological adjustment (Cuéllar, 2000). That is, the extent to which an immigrant is oriented towards and involved in the host culture, in addition to their ethnic culture, has important implications for their psychological well-being. Furthermore, in a separate line of research, it has been well established that an

individual's psychological well-being significantly affects the quality of their parenting (Jacob & Johnson, 2000). Specifically, depression has been shown to detrimentally impact the parenting practices of both mothers and fathers, as demonstrated by lower levels of parental warmth and acceptance and by higher levels of coercive and psychological control (Fendrich, Warner, & Weissman, 1990). The current study integrates these three lines of research to explore how acculturation, mediated by parental symptoms of depression, impacts the parenting practices of immigrant Chinese mothers and fathers.

Few studies have empirically examined the link between acculturation and parenting practices, and even fewer have extended beyond testing the direct relation between these two constructs to examine possible mediators of the link between acculturation and parenting. Chinese individuals and their families represent one of the largest immigrant groups in North America and now account for 20% of immigrants arriving in Canada (Wang & Lo, 2004). Yet despite the substantial numbers of Chinese immigrants in North America, relatively little is known about how the process of acculturation impacts the well being and family functioning of Chinese immigrants. The current study addressed this significant gap in the research by utilizing contemporary theories of acculturation to examine the relations between acculturation and parenting. Furthermore, it moves beyond simply describing this relation and attempts to explain why it occurs by exploring the mediating role of symptoms of depression. Importantly, these processes are examined among immigrant Chinese mothers *and* fathers. Very few studies have examined the parenting and mental health of immigrant fathers or included both mothers and fathers in their sample. An examination of the similarities and differences

between immigrant mothers and fathers as they apply to acculturation, parenting and depression will make an important contribution to the literature.

To explore these issues, several areas of relevant literature are reviewed (see Figure 1). First, the relation between acculturation and mental health is reviewed, with particular attention to the experience of depression. Competing hypotheses are presented to explain why the literature in this area has traditionally revealed contradictory results. Second, literature examining the link between acculturation and parenting is examined. Specifically, emic classifications of parenting in Chinese culture are discussed, followed by an exploration of the influence of acculturation on parental firm control, restrictive control and warmth. Third, the relation between symptoms of depression and parenting is examined. The rationale for selecting symptoms of depression as a specific mental health indicator and mediator of the relation between acculturation and parenting is discussed, and the influence of depression on parenting in both Western and Chinese samples is explored.

#### *Acculturation and Mental Health/Depression*

Although researchers have proposed that the process of acculturation significantly impacts individuals' well-being and adjustment, the relations between acculturation and mental health and adaptation are neither simple, nor direct (Berry & Annis, 1974; Berry et al., 1987; Cuéllar, 2000). Empirical studies examining acculturation and a variety of mental health outcomes have produced conflicting results, and it is difficult to identify a consistent pattern of findings (Moyerman & Forman, 1992; Shen & Takeuchi, 2001). Although a meta-analysis has yet to be conducted, two selective reviews of the literature on acculturation and mental health conducted by Rogler, Cortes, and Malgady (1991) and Berry and Kim (1987) call attention to the complexity of the research in this area.

Rogler et al. (1991) reviewed thirty studies on the relation between acculturation and mental health status among Hispanic migrants in the United States. The majority of studies under review used proxy measures of acculturation, including language use, length of residence and generational status. However, several studies used psychometrically derived scales measuring attitudes towards the values and behaviours of the host culture and the ethnic culture, including Cuéllar, Harris, & Jasso's (1980) Acculturation Rating Scale for Mexican Americans. Greater acculturation was conceptualized as increased involvement in the host culture. Overall, their findings suggest an inconsistent pattern, with 12 studies supporting a positive relation between acculturation and psychological distress, 13 studies supporting a negative relation, 3 studies suggesting a curvilinear relation, and finally, 2 studies reporting both a positive and negative relation depending on which psychological distress variable was evaluated. Rogler et al. report that they were unable to summarize the magnitude of effect sizes within the category of psychological distress due to a lack of common elements running through any subset of studies, including a lack of shared operationalizations and measurement of acculturation.

Berry and Kim (1987) reviewed several studies which utilized whole nation-states and hospital admission data to investigate the relation between mental health and immigration. In the past, it was generally assumed that immigrants were automatically at a greater risk for experiencing mental health problems as compared with non-immigrants. Based on their review, Berry and Kim concluded that earlier generalizations made about the lower mental health of immigrants based on hospitalization rates are no longer tenable because these studies have methodological problems and fail to take into account other

important variables which may affect the relation between immigration and mental health, such as the sociocultural and psychological characteristics of the acculturating individual.

Overall, the reviews by Rogler et al. (1991) and Berry and Kim (1987) highlight the complexity of examining the relation between acculturation and mental health and underscore the importance of ceasing to rely on generalizations about this multifarious research area. Although acculturation and its relation with mental health is a complicated topic, several hypotheses have been proposed to elucidate the association between acculturation and psychological functioning (Rogler, et al., 1991; Takeuchi, Chun, Gong, & Shen, 2002).

First, the immigrant adjustment or acculturative stress hypothesis argues that less acculturated immigrants will experience poorer mental health outcomes than more acculturated non-immigrant individuals from their same ethnic group, due to the immediate stressors they face upon relocating to a new country, such as language difficulties, a loss of social support and general problems adapting to new cultural behaviours and values (Berry & Annis, 1974; Takeuchi et al., 2002). A significant literature has linked both short-term and long-term stressors with adjustment difficulties such as depression (Avison & Gotlib, 1994). Therefore, it appears that the less acculturated an individual is, the more acculturative stress they experience, which contributes to greater mental health problems.

Consistently, indirect evidence suggests that foreign-born Asian American immigrants are at a greater risk for experiencing mental health problems than their peers who were born in the United States or Canada (Abe & Zane, 1990; Hwang et al., 2005). Hwang et al. (2005) examined data from U.S.-born and foreign-born Chinese Americans and found that the risk for experiencing a 1<sup>st</sup> depressive episode decreased as length of

residence in the United States increased. Similarly, Abe and Zane (1990) found that foreign-born Asian Americans were significantly more psychologically maladjusted as measured by interpersonal and intrapersonal distress, than were U.S.-born Asian Americans. These differences persisted after controlling for confounding influences such as response styles and personality styles, including extraversion, social desirability, self-consciousness and other-directedness. That being said, the aforementioned studies by Hwang et al. and Abe and Zane are indicative of many others in this area, in that they fail to measure acculturation directly; instead, they assume that U.S.-born Asian individuals are more acculturated than their foreign-born peers. Length of residence is regularly used as a proxy measure for acculturation, making it more difficult to draw conclusions about the impact of acculturation on mental health.

Studies which have directly measured acculturation among Asian immigrants have also found evidence of a positive relation between acculturation and mental health. For instance, Lam, Pacala, & Smith (1997) assessed depressive symptomatology in elderly Chinese American immigrants. Acculturation was measured using a scale which assessed the individual's language use and other preferences, including friends, neighbors and food. Lam et al. (1997) found that immigrants with higher acculturation scores exhibited fewer depressive symptoms. Utilizing a sample of Chinese, Japanese, and Korean immigrant students, Yeh (2003) investigated the relation between acculturation and mental health. The Suinn-Lew Asian American Self-Identity Acculturation Scale (SL-ASIA) was used to measure acculturation, and covers topics such as language use, identity, cultural customs and ethnic attitudes. Results indicated that students who were more acculturated (i.e. reported a higher identification with American culture) experienced fewer mental health symptoms.

Overall, a significant number of studies suggest that higher levels of acculturation into the host culture are associated with more positive psychological well-being among Asian immigrants, potentially because more highly acculturated individuals have a better command of the English language, a larger support network and have coped with the immediate stressors of adjusting to a new sociocultural environment (Gim, Atkinson, & Whiteley, 1990; Mehta, 1998).

The second hypothesis proposed to explain the relations between acculturation and mental health is referred to as the immigrant paradox or the cultural assimilation hypothesis. This hypothesis suggests that the mental health of immigrants is likely to be *better* than that of more acculturated immigrants or native-born individuals (Landale, Oropresa, & Gorman, 2000; Takeuchi et al., 2002). According to this theory, as individuals increasingly adopt the beliefs and values of the host culture, a process often referred to as cultural assimilation, their mental health is negatively affected (Hwang et al., 2005). In other words, a person's retained traditional values and behaviours (such as close-knit, extended family support systems) protect them from the stressors and lifestyles of the host culture that may increase their susceptibility to mental health problems (Escobar, 1998; Takeuchi et al., 2002).

For example, Takeuchi et al. (2002) surveyed Chinese American immigrants living in Los Angeles and found that greater acculturation to US society was associated with elevated symptoms of depression. Acculturation was assessed with items tapping several domains, including language use, social networks and the practice of Chinese customs. Similar findings are often reported in studies examining Mexican American immigrants, in that those individuals who demonstrate high levels of acculturation to the

host society have higher prevalence rates of depression (Burnam, Hough, Karno, Escobar, & Telles, 1987; Escobar, 1998).

Whereas the immigrant adjustment hypothesis and the cultural assimilation hypothesis focus on immigrants' involvement in the host culture, a third hypothesis suggests that involvement in both the host culture and ethnic culture are related to mental health. This theory assesses acculturation orthogonally, meaning that an immigrants' level of involvement in their ethnic culture (e.g., Chinese orientation) is considered independently from their level of involvement in the host culture (e.g., Canadian orientation). An orthogonal model assumes that it is possible to adopt features of the host culture while concomitantly retaining important traditional values and behaviours (Zane & Mak, 2003). Therefore, unlike the aforementioned theories, which tend to emphasize only one aspect of the acculturation process, this third theory considers these aspects of acculturation simultaneously.

Berry et al. (1987) theorized a model of four distinct acculturation strategies which are related to an individual's adjustment following their relocation to a new cultural milieu: assimilation, integration, separation and marginalization. In *assimilation*, one's cultural identity is relinquished in favor of accepting the cultural values of the host or dominant society. In contrast, *integration* refers to maintaining one's cultural values, identity and behaviours while concomitantly participating in and identifying with the host culture. *Separation* represents maintaining one's ethnic cultural identity and values without participation in the host culture. Finally, in *marginalization*, the individual does not participate in or identify with their ethnic culture or that of the host society. Importantly, these strategies assume that the individual who has immigrated has the freedom to choose how they want to acculturate. In many countries, the attitudes and

policies of the larger society restrict acculturation options. For example, an integration strategy can be best pursued in societies that are explicitly multicultural, with widespread acceptance of diversity and low levels of prejudice and discrimination (Berry, 1997).

Overall, when researchers examine acculturation strategies orthogonally, an integrated acculturation strategy is associated with higher levels of psychological adjustment than other acculturation strategies (Berry, 1998; Leiber, Chin, Nihira, & Mink, 2001; Ying, 1995). Being bicultural (participating in both the ethnic and host cultures) may allow an individual to adjust their behaviour to the appropriate cultural context and maintain positive relationships in both milieus (LaFromboise, Coleman, & Gerton, 1993). This in turn could promote psychosocial benefits, such as an increase in their sense of self-efficacy and an expanded social support network, buffering them against potential mental health problems. In contrast, an assimilation strategy, where an individual relinquishes their cultural identity in favor of identifying with the host culture, could lead to a loss of personal identity and ethnic social support network. Alternately, a separation strategy, where an individual participates primarily in their ethnic culture, could lead to a loss of opportunities in the host culture and subsequent negative self-evaluation (Berry, 1998). In the case of marginalization, where the individual is not strongly involved in their ethnic culture or the host culture, psychological well-being is likely to be lower due to the absence of a support network and a lack of attachment to, or identification with, a particular group.

Ying (1995) examined the relation between cultural orientation strategies and well-being among a sample of Chinese American adults and found that being oriented towards both Chinese and American culture was associated with fewer symptoms of depression and greater life satisfaction than being exclusively oriented towards Chinese

culture. Similarly, Leiber et al. (2001) utilized the SL-ASIA to survey Chinese American immigrants and found that individuals who reported high levels of both ethnic identity and acculturation to US society reported greater life satisfaction than individuals who reported low levels of ethnic identity or acculturation to US society. Importantly, the interaction between ethnic identity and acculturation predicted perceptions of quality of life beyond the effects of socioeconomic status or time lived in the United States, suggesting that biculturalism is a critical factor in determining immigrant's well-being.

It is important to note that these three hypotheses which attempt to explain the relations between acculturation and mental health do not necessarily contradict one another, but rather work together to explain how immigrants may be at a greater risk for mental health problems depending on their length of residence, involvement with the host culture, and retention of their ethnic culture. It appears that multiple risk processes are operating in different subgroups, and more research needs to be conducted to understand why both newly arrived immigrants and highly acculturated immigrants may be at risk for experiencing mental health difficulties.

#### *Methodological Concerns in Research Examining Acculturation and Mental Health*

The aforementioned hypotheses serve the important purpose of elucidating the possible mechanisms underlying the relation between acculturation and mental health. Each hypothesis has received empirical support, and therefore, an important question remains: Why has no consistent pattern of findings been identified?

Methodological limitations and the diversity among studies in regards to their measurement of acculturation and mental health outcomes likely contribute to the contradictory findings in the area. For example, in the aforementioned review conducted by Rogler et al. (1991), the examined studies assessed acculturation using various scales

and proxies, including language use, generational status, travel, occupation and education, making it difficult to compare results across studies. In addition, many studies utilize minimal proxies of acculturation, such as how often an individual speaks English or their length of residence in the host country. However, simply because an individual has lived in another culture for a certain period of time, or speaks the language of the host society, does not automatically suggest they have relinquished their traditional cultural beliefs and practices (Berry, 1997).

Moreover, studies often use simple, one-dimensional definitions of acculturation and therefore measure acculturation in only one domain, such as cultural behaviours or attitudes. Leading theorists contend that acculturation takes place in multiple domains, both internal and external. For example, an individual's cultural orientation can differ in internal domains, such as their identity, values, child-rearing goals, and external domains, including specific cultural behaviours, language use and social networks (Tsai et al., 2002). Therefore, a person may be highly acculturated in certain areas, such as language use, while their cultural values and beliefs remain traditional.

Studies are also highly variable in their definition and conceptualization of mental health outcomes. A plethora of mental health outcomes have been examined, including depression, substance abuse, relationship quality and general life satisfaction, making it difficult to draw comparisons between results (Hwang, Chun, Takeuchi, Myers, & Siddarth, 2005; Lieber, Chin, Nihira, & Mink, 2001; Moyerman & Forman, 1992).

On the whole, a substantial majority of studies indicate that the process of acculturation has an important influence on the mental health of immigrants. Although a few studies have reported a null relation between acculturation and mental health, this finding is usually restricted to samples with little variation in acculturation levels or

where two main pathways between acculturation and mental health are observed, offsetting each other's effect (Lee, Crittenden, & Yu, 1996; Shen, & Takeuchi, 2001). On balance, most studies point towards a positive relation between acculturation and psychological functioning, indicating that higher levels of acculturation are associated with improved mental health outcomes. What remains less clear, however, is whether retaining one's orientation towards ethnic cultural beliefs and behaviors has an equal or more important role in contributing to an immigrant's psychological well being.

Many studies which have found a positive relation between acculturation and mental health only measure immigrants' orientation towards the host culture, and fail to assess their orientation towards their ethnic culture (Hwang et al., 2005). It is possible that immigrants who are described as highly acculturated also have a strong orientation towards their ethnic culture; this may be why studies that use an orthogonal model to measure acculturation most often find that being oriented towards both the host and the ethnic culture is associated with the highest psychological functioning. In other words, it is the co-occurrence of high traditional value retention and high participation in the host society, which is most likely to be associated with positive mental health outcomes. This unique dual-adaptation strategy allows an immigrant to effectively navigate through two distinct cultural milieus, likely providing them with an increased social network and additional vocational and personal opportunities, which may promote self-esteem and buffer them against possible mental health problems such as depression (LaFromboise et al., 1993).

In conclusion, the relation between acculturation and mental health is complex. Findings from different studies are difficult to compare due to disparities in the methods used to measure and conceptualize the process of acculturation. Nevertheless, it appears

that immigrants who participate in the host culture report greater psychological well-being. In addition, recent research suggests that an immigrants' simultaneous retention of ethnic values and participation in the host culture may offer even greater protection against mental health difficulties such as depression.

#### *Acculturation and Parenting*

Similar methodological difficulties are present in research examining how acculturation is associated with parenting practices. Due to the scarcity of research in this area and the need for culturally competent conceptualizations of parenting, a comprehensive understanding of Chinese child-rearing practices will provide insight into how parenting behaviours may be affected by the process of acculturation.

#### *Traditional Chinese Parenting Practices*

The teachings of Confucius, which emphasize filial piety and hierarchical relationships, have historically guided child-rearing practices and beliefs throughout Asia, and these teachings continue to exert influence today (Chan & Leong, 1994). According to Confucian philosophy, the father is the official head of the household and is responsible for providing for his children. Traditionally, the father took on the role of educator and disciplinarian, whereas the mother was responsible for nurturing and caring for the children (Ho, 1987). Chinese fathers had very little involvement with the care of infants and young children, and their responsibilities began once the child, around age 7, entered school (Jankowiak, 1992). Fathers were not encouraged to develop strong emotional attachments with their children, for fear this would compromise their ability to promote education and discipline. Parental roles were thus illustrated by the traditional expression, "strict father, kind mother," wherein the father was characterized as a stern disciplinarian, and the mother as affectionate, warm and kind (Chao & Tseng, 2002).

Solomon (1971) noted that these parenting roles were considered complementary, and each contributed to the development of children into ethical and responsible individuals. Importantly, Solomon also argued that Chinese fathers were not without love or warm sentiment for their children. Rather, their expression of these emotions was constrained due to their culturally prescribed parenting role.

With increased urbanization and immigration, some researchers question how prevalent traditional Chinese parenting practices remain. Wu (1996) argues that Confucian teachings on child-rearing still have a great influence on Chinese parents due to a re-emphasis on these ancient texts and filial piety by Communist educators in the 1980's. Wu compared Chinese and Chinese American parents' approaches to child-rearing in China, Taiwan, Singapore, Honolulu and Los Angeles and found that the parents, irrespective of differences in geographical location or acculturation, shared many of the same values and practices based on Confucian teachings. They endorsed the importance of teaching children to respect the authority and discipline of their parents, to have strong morals, and to maintain harmonious relationships. Based on this comparative study, Wu concluded that traditional Chinese parenting practices and values based on Confucian philosophy do indeed demonstrate historical continuity.

An intergenerational study by Ho and Kang (1984) found few differences in child-rearing attitudes between mother and grandmother pairs in Hong Kong. In contrast, the present generation of fathers showed substantial differences from their fathers regarding parenting beliefs and practices. Present-day fathers placed less emphasis on filial piety and encouraged the child's expression of opinions and independence. Present-day fathers were more involved in infant caregiving than their own fathers, presumably in part due to women's greater participation in the workforce. Therefore, according to Ho and Kang

(1984), the role of fathers has changed more substantially than the role of mothers over time.

*Contemporary Roles of Chinese Mothers and Fathers*

Many theorists and researchers of parenting behaviours have proposed that mothers and fathers differ from one another on the major dimensions of warmth and control (Maccoby & Martin, 1983). In European and American populations, it has been found that mothers generally express greater warmth and are less controlling than fathers (Collins & Russell, 1991; Hosley & Montemayor, 1997; Larson & Richards, 1994). It appears that modern-day Chinese mothers and fathers assume similar types of complimentary roles as in European and American families, although the roles of Chinese parents may be more sharply divided.

Results from various studies suggest that contemporary Chinese mothers and fathers exhibit different parenting characteristics (Berndt et al., 1993; Shek, 1995, 1998a, 2000; Stewart et al., 1998). For example, Berndt et al. found that mothers were considered as generally warmer and less controlling than fathers in Mainland China, Taiwan and Hong Kong. In a study examining adolescents' perceptions of their mothers and fathers in Hong Kong, Shek (1995) found that fathers were perceived as more restrictive and as showing less concern than mothers. In subsequent analyses using similar samples, Shek (1998a, 2000) has also found that Chinese fathers are perceived as more harsh as compared with Chinese mothers. Stewart et al. (1998) examined perceived parenting styles of late adolescent girls in Hong Kong and found they rated their mothers as significantly warmer and less controlling, than their fathers. Therefore, it appears that Chinese mothers are consistently perceived as warmer than fathers, and generally, as less controlling.

Shek (2000) suggests several cultural factors that may contribute to these differences. First, according to Confucian beliefs, fathers are not encouraged to express their emotions which may explain why they are perceived as less warm than mothers. Additionally, fathers are traditionally urged to take on the role of disciplinarian, which may encourage them to be stricter, and influence their children to perceive them as harsh or controlling.

#### *Measurement of Parenting Characteristics*

Several strategies are currently used to conceptualize parenting. One strategy involves the use of typologies, which describe qualitatively different combinations of parenting characteristics in which any single aspect is dependent upon the other aspects in the combination. In North America, Baumrind's (1966, 1989) three prototypic patterns of parenting- authoritative, authoritarian and permissive have been consistently utilized to describe parenting styles and predict child and adolescent outcomes. According to Baumrind, authoritative parenting is a rational, democratic approach that recognizes the rights of both parents and children. Authoritative parenting is characterized by high parental standards, reasonable demands and consequences, appropriate autonomy granting and sufficient affection, warmth and encouragement. In contrast, authoritarian parents place a high value on unquestioning obedience. They attempt to control the behaviour of their children and often resort to punishment and force when they are not obeyed. Finally, the permissive parent is frequently nurturant and accepting, but fails to make age-appropriate demands or impose controls on their children, allowing them to make many of their own decisions before it is developmentally appropriate.

Although both authoritative and authoritarian parents use high levels of control, Baumrind (1966) distinguishes between functional and dysfunctional types of control.

Authoritative parents use functional control by setting rules and maintaining order in a rational manner by explaining their reasoning to their children. In contrast, authoritarian parents use dysfunctional control by setting restrictive rules without justifying their basis and using harsh or coercive discipline (Lau & Cheung, 1987). High levels of parental warmth and positive or functional control generally characterize authoritative parenting, whereas low levels of parental warmth and high levels of parental restrictive control characterize authoritarian parenting.

Instead of the use of typologies to conceptualize parenting characteristics, other researchers measure parenting along single dimensions. In other words, individual parental characteristics, which combine to make up a particular typology, are measured separately. For example, restrictive control and coercive discipline practices would be conceptualized along distinct orthogonal dimensions rather than combined to classify parenting as 'authoritarian'. Similarly, Maccoby and Martin (1983) propose parenting should be measured using two central parenting dimensions, responsiveness (largely measured by the degree of warmth in the parenting relationship) and demandingness (the degree of control).

Parental warmth has been defined fairly consistently as referring to the overt expression of affection, emotional support and closeness. Warmth is consistently linked with positive child and adolescent outcomes (Lim & Lim, 2004; Steinberg & Silk, 2004). On the other hand, control is conceptualized in a number of different ways, and studies investigating its effects on children have often revealed complex and equivocal findings (Lim & Lim, 2004). Recently, theorists have emphasized the distinction between psychological/restrictive control and behavioural/firm control (Barber, 1996). Psychological control refers to parental behaviours which intrude on the psychological

and emotional development of children. Examples of psychological control include restricting the autonomy of children by limiting their decision-making ability and using guilt-inducing techniques and withdrawal of affection to force the child to comply. Psychological or restrictive control is generally conceptualized as a negative form of control (Baumrind, 1966) and has been consistently linked with the development of internalizing problems in children and adolescents (Kim & Ge, 2000). In contrast, behavioural or firm control refers to parental behaviours which attempt to manage children's behaviour, such as monitoring their whereabouts and activities, and closely resembles the functional control exemplified by authoritative parents (Baumrind, 1966). Insufficient behavioural control has been directly associated with externalizing problems, including aggression and delinquency in children and adolescents (Maccoby & Martin, 1983). Therefore, psychological/restrictive control inhibits the development of children, whereas appropriate levels of behavioural/firm control facilitate their development (Barber, 1996).

In sum, parenting characteristics are generally conceptualized using typologies or are placed along single dimensions, such as warmth and control. The use of these different methods of conceptualizing parenting is highly variable, as is the definition of many parenting constructs, often making it difficult to draw overarching conclusions across studies. These difficulties are compounded when researchers attempt to export methods of measuring parenting characteristics developed in North America to other cultural milieus.

*Emic Classifications of Parenting: The Case of Training*

Parenting is a culturally mediated behaviour, reflecting historical beliefs and current societal influences. For this reason, conceptualizing and comparing the diverse

parenting styles and practices that exist in different ethnic cultures is a complex task. In the past, most researchers utilized an etic approach to study parenting behaviours. Etic approaches consider concepts such as specific parenting behaviours to occur universally, regardless of culture. An etic approach focuses on comparing two or more cultures, in order to identify similarities and differences and make generalizations about concepts. In contrast, an emic approach involves studying one culture from within (Triandis, 1998). Researchers heralding from an emic perspective seek to develop measures within a particular culture and use these to explore culturally specific behaviours and concepts.

Through the increased use of emic approaches in recent years, researchers have become progressively more aware that utilizing measurement and classification techniques developed in one culture to evaluate parenting in another culture may not always be appropriate or valid. For example, a large body of research has demonstrated the beneficial effects of authoritative parenting on child and adolescent development in European American families, including higher self-esteem, academic achievement and improved social and psychological functioning (Forehand, Long, Brody, & Fauber, 1986; MacFarlane, Bellissimo, & Norman, 1995; Steinberg & Silk, 2002). However, studies conducted with Asian families have revealed contradictory findings. Similarly, studies report that Chinese and Chinese American parents are more likely to endorse an authoritarian parenting style than Caucasian parents (Chao, 1994, 2001; Chiu, 1987; Lin & Fu, 1990). Although an authoritarian parenting style has generally been linked with negative outcomes for European American children, including poor academic achievement, researchers have found that Chinese children have consistently high levels of academic success, despite their parents' endorsement of an authoritarian parenting style (Leung, Lau, & Lam, 1998). These discrepancies led some researchers to question

the validity of using Baumrind's parenting styles to describe Asian child-rearing practices.

Chao (1994, 2001) argues that applying western labels, such as authoritarian, to the child-rearing practices of Chinese parents may not accurately depict their parenting behaviour. Chao suggests that researchers need to consider the emic notion of parental control, a concept called *chiao shun* or training, when examining Chinese parenting practices. According to Chao, child training involves teaching children appropriate conduct and culturally desirable behaviours, such as academic achievement and respect for authority. *Chiao shun* is closely related to the concept of *guan*, which literally means "to govern", but can also mean "to care for" or also, "to love". Chao argues that the concept of training or *guan* may more accurately depict the Chinese style of parenting than the dimension of authoritarianism. Unlike the type of restrictive or hostile control associated with authoritarian parenting, in training, "parental care, concern, and involvement are synonymous with firm control and governance of the child" (Chao, 1994, p. 1112). Therefore, traditional Chinese parenting beliefs emphasize the concomitant role of parents as teachers, nurturers and authority figures. Chao argues that the construct of authoritarianism incorrectly conceptualizes Chinese parenting style by failing to acknowledge the level of warmth Chinese parents demonstrate towards their children, in conjunction with their relatively high levels of control.

Chao (1994) examined the child-rearing practices of immigrant Chinese and European American mothers of preschool children and found that Chinese mothers endorsed ideologies of training more often than European American mothers, even after controlling for mothers' levels of authoritative and authoritarian parenting. Chao's notion of training was further supported in a study carried out by Gorman (1998), who

conducted semi-structured interviews with immigrant Chinese mothers of adolescents. Gorman found that the mothers were not highly restrictive or demanding of their children, which is typically exemplified in an authoritarian parenting style. Rather, the mothers approached disagreements rationally and allowed their children to make their own decisions, while maintaining high expectations for their moral development and goal attainment, especially in the area of schooling. Additionally, Stewart et al. (1998) found that *guan* items for both Chinese mothers and fathers in Hong Kong overlapped significantly with the dimension of warmth, and noted that, “although, on the surface, many of the items do not suggest warmth as the construct is understood in the West, the items (representing *guan*) do represent commitment and involvement” (p. 354). Similarly, Stewart, Bond, Kennard, Ho, and Zaman (2002) found that nursing students in Hong Kong positively associated traditional Chinese parenting beliefs with parental warmth and reported that ideal parents were seen as showing high levels of traditional Chinese practices. Experts also suggest that Chinese parents may outwardly express their affection less openly and freely than European or American parents, especially as children age, and that this has been incorrectly construed as a lack of warmth, when Chinese parents do in fact care deeply for their children (Solomon, 1971).

Importantly, Asian youths’ perceptions of parental control have been found to be positively correlated with perceived parental warmth, indicating that parental control is not necessarily associated with parental hostility and rejection, as is often the case in North American samples (Berndt, Cheung, Lau, Hau, & Lew, 1993). For example, Rohner and Pettengill (1985) found that adolescents in Korea associated both paternal and maternal control with parental warmth and low neglect, suggesting that warmth and control may not be considered opposite concepts in Asian cultures. Therefore, although

Chinese child-rearing practices may closely resemble Baumrind's authoritarian parenting style due to their strong emphasis on firm control and governance, Chinese parents' actions generally stem from a genuine care and concern for their children's well-being, and high levels of control are often tempered by high levels of warmth.

It should be noted that most studies examining parental control are limited to Chinese mothers. Chao and Tseng (2002) question the applicability of using the concept of training to describe the behaviour of Chinese fathers, as their traditional role as disciplinarians may predispose them to exhibit more absolute forms of authority and control. The few studies which have examined the concept of training in Asian fathers have found that items emphasizing traditional Chinese parenting beliefs also characterize their parenting, but that mothers are generally perceived as showing more traditional parenting practices than fathers (Stewart et al., 1998; 2002).

In conclusion, Chinese parents generally rate higher on dimensions of control and restrictiveness than their western counterparts. However, unlike the negative child outcomes associated with parental control in western populations, it appears that emic measures of control as defined by the concepts of *guan* and training have a positive impact on the psychosocial development of Chinese children and adolescents (Chao, 1994, 2001; Chiu, 1987; Stewart et al., 1998). In addition, some evidence suggests that if children and adolescents perceive parental control as stemming from authentic concern, rather than hostile or overprotective intentions, they are less likely to resent this form of parenting and are more likely to have cohesive relationships with their parents (Gorman, 1998; Lau & Cheung, 1987). Thus, it appears that the type of parental control used, and how children perceive it, largely predicts its impact on the development of both European and Asian children.

*Research Linking Acculturation and Parenting*

Research examining the relation between acculturation and the parenting practices of mothers and fathers is scarce (Lim & Lim, 2004). Most studies do not include fathers in their sample, or aggregate the responses from mothers and fathers to form an overall index of parenting styles (Shek, 1998). In addition, as was the case with research examining the impact of acculturation on mental health, few studies measure the level of parents' acculturation directly. Instead, minimal proxies of acculturation are often used, such as language use or the time spent in the host culture.

Keeping in mind these methodological limitations, the limited literature in this area suggests that immigration and subsequent acculturation affects specific dimensions of parenting in different cultures in different ways (Bornstein & Cote, 2003; 2004; Jain & Belsky, 1997). For example, Bornstein and Cote (2004) compared the parenting cognitions of Japanese and South American immigrant mothers to those of mothers from their country of origin and European American mothers in the United States. Two domains of parenting cognitions were examined: mothers' attributions for their success or lack of success in parenting and their self-perceptions about different aspects of their parenting role including competence and satisfaction. Using generational level as a measure of acculturation, Bornstein et al. found that immigrant Japanese mothers' attributions and self-perceptions were either similar to those of mothers in Japan or were intermediate in comparison with Japanese and U.S. mothers. In contrast, South American immigrant mothers' parenting attributions and self-perceptions were similar to those of U.S. mothers (enhanced feelings of competence and internal attributions of parenting success) and different from those of Argentine mothers in all cases. These findings suggest that the parenting cognitions of South American immigrant mothers more readily

acculturate to the U.S. style. Bornstein et al. attribute these differences to the longer time South American immigrant mothers had been in the U.S. as compared to the Japanese immigrant mothers, and speculate that the South American immigrant mothers may have shared more cultural beliefs with the U.S. mothers to begin with.

Research on Mexican American parenting suggests that the process of acculturation is associated with the gradual adoption of European American childrearing values and practices (Buriel, 1993; Ispa et al., 2004). Buriel compared the childrearing practices used by Mexican American parents of first, second, and third-generation adolescents. First generation adolescents were born in Mexico as were their parents, whereas second generation adolescents were born in the U.S. and one or both of their parents were born in Mexico. Finally, third generation adolescents were born in the U.S., as were both of their parents. Among first and second generation adolescents, parents reported similar socialization processes, including stressing earlier autonomy and strictness. Parents of third generation adolescents expressed more concern and support for their children, a socialization style more characteristic of European American parents, suggesting greater acculturation to U.S. society. However, no specific measures of acculturation were employed.

In a rare study investigating the relation between acculturation and parenting among immigrant fathers, Jain and Belsky (1997) examined the involvement of immigrant Indian fathers in the rearing of their 18 to 44 month-old children. Based on self-report and naturalistic observations, fathers were divided into three levels of involvement: engaged, where the father displayed mostly playful interactions; caretaker, where the father displayed mainly caretaking activities including feeding and bathing the child; and disengaged, where the father displayed limited involvement in caretaking and

playful activities. Acculturation was measured directly using scales tapping attitudes, feelings, and behaviours towards the ethnic and host culture. The least acculturated fathers were found to be less involved in childrearing overall (disengaged group), whereas the most acculturated fathers were more extensively and diversely engaged in parenting (engaged and caretaker groups). These results emerged after controlling for father's age, education and income, suggesting that acculturation may play a significant role in fathers' involvement with young children. Interestingly, although American fathers characteristically engage in high levels of play with their children, Indian fathers, including those who were acculturated to U.S. culture, did not endorse and were not observed to act extensively in the playmate role. Jain et al. point out that these findings highlight the selective nature of acculturation, in that some parenting behaviours may be more readily influenced by acculturation than others.

The aforementioned studies show that the relation between acculturation and parenting may vary among different cultural groups and specific parenting behaviours. Therefore, sweeping generalizations about acculturation and parenting are likely to be erroneous (Bornstein & Cote, 2003). When examining acculturation and parenting in immigrant Chinese populations, cautions must be taken owing to the heterogeneity of sample characteristics and the diverse and often indirect methods used to measure acculturation. In addition, as with most of the studies reviewed above, conclusions regarding the association between acculturation and parenting among Chinese parents are based almost exclusively on generational comparisons rather than direct, within-group assessments of acculturation. With these limits in mind, the following sections review the literature regarding the relation between acculturation and the specific parenting practices of control and warmth among immigrant Chinese parents.

*Acculturation and Parental Control in Chinese Immigrants*

Studies examining differences in parenting based on the acculturation status of Chinese parents have most often focused on characteristics of control. Unfortunately, most studies do not include both positive and negative forms of parental control in their measures (i.e., firm control and restrictive control). Furthermore, some studies fail to differentiate between which type of control they are actually measuring. As previously discussed, different types of control have divergent effects on children. Restrictive or psychological control inhibits the development of children, whereas an appropriate level of firm or behavioural control facilitates their development (Barber, 1996). Therefore, a distinction between different forms of this parenting behaviour is necessary to fully conceptualize the association between acculturation and parental control.

For example, Lin and Fu (1990) examined the parenting practices of Chinese, Chinese American and European American mothers and fathers by utilizing a subset of items from the Child-Rearing Practices Report (CRPR) (Block, 1986). The CRPR contains items measuring aspects of both firm control and restrictive control and Lin and Fu did not describe what specific form of control they were measuring through the selection of a subset of items. It appears that an overall measure of control was utilized, which likely combined aspects of firm and restrictive control. Therefore, distinctions regarding the effects of acculturation on different forms of parental control can not be made. Nevertheless, Lin and Fu found that parental control was highest among Chinese parents and lowest among European American parents, with Chinese American parents exhibiting an intermediary level of control. Specifically, Chinese mothers endorsed parental control more highly than Chinese American mothers, whereas Chinese and Chinese American fathers endorsed similar levels of control. Lin and Fu suggest the

higher ratings on parental control among Chinese American mothers confirm the importance of traditional cultural values on Chinese child-rearing practices and suggest a gradual change in values among immigrant mothers due to the process of acculturation. It is unclear why immigrant Chinese fathers did not show the same change in their levels of control. Because acculturation was not directly measured, it remains uncertain whether their level of adjustment to western society impacted this dimension of their parenting.

Chiu (1987) examined the child-rearing attitudes of Chinese, Chinese American and European American mothers and found that Chinese mothers endorsed restrictive control more often than European American and Chinese American mothers. In addition, Chinese American mothers endorsed more restrictive control than Anglo American mothers. Chiu hypothesized that the intermediary attitudes towards parental restrictive control of the Chinese American mothers was due to acculturation, although no specific measures of acculturation were administered.

In a cross-national study comparing a group of Hong Kong adolescents with immigrant Chinese adolescents in the United States and Australia and their non-immigrant peers in each host country, Chiu, Feldman, & Rosenthal (1992) found that the experience of immigration was associated with perceptions of parental control. However, in contrast to findings from previous studies, first generation adolescent immigrants in the United States and Australia reported *more* rule setting and decision making by their parents than did their peers in Hong Kong. Chiu et al. suggest that the Chinese youth may be responding to new values of individualism and personal freedom and thus perceive their parents as more controlling. Alternately, immigrant parents may in fact be demonstrating higher levels of control in an attempt to manage their children's changing behaviour in a new cultural environment.

Therefore, it appears that the experience of immigration and acculturation is associated with differences in the expression of control by immigrant Chinese parents. Generally, immigrant Chinese parents report that they use less control than non-immigrant Chinese parents; however the children of immigrant parents may not perceive this to be the case due to their own exposure to the new values of the host culture. Limited evidence also suggests that immigrant Chinese mothers' levels of control may be more susceptible to change associated with the acculturation process than fathers' levels of control. Additional cross-cultural research which specifically measures parents' experience of acculturation and makes the distinction between different forms of control is required before firm conclusions regarding the relation between acculturation and parental control can be drawn.

#### *Acculturation and Parental Warmth in Chinese Immigrants*

As with the dimension of control, conflicting findings have been reported regarding the impact of acculturation on the expression of warmth in immigrant Chinese families. This is due in part to difficulties researchers have encountered in defining and measuring warmth in Chinese families. For example, researchers suggest that western definitions of warmth and control that do not include *guan* principles likely underestimate the levels of warmth in Chinese families, as *guan* is a dimension which overlaps significantly with warmth and control (Stewart et al., 1998). Therefore, although it appears that parental warmth is associated with positive psychosocial outcomes in children and adolescents across cultures, it remains unclear whether Chinese parents express warmth as overtly or in the same manner as European or American parents. Without an adequate consensus in the literature regarding how Chinese parents express

affection, it is difficult to conceptualize how the process of acculturation may influence their levels or expression of this dimension.

In their comparison of Chinese, Chinese American, and European American mothers, Lin and Fu (1990) found no significant differences among these groups in their self-reported open expression of affection. Lin and Fu speculate that ethnic differences in the perception and evaluation of affective expression could have contributed to the lack of differences, suggesting that the mothers may have interpreted the meaning of the same items differently. Alternatively, they speculate that Chinese parents may be gradually moving away from traditional beliefs that limit the expression of emotion. Chiu et al. (1992) sampled immigrant Chinese adolescents in the United States and Australia, together with non-immigrant adolescents from the host cultures and the culture of origin (Hong Kong). No significant differences between immigrant and non-immigrant Chinese adolescents were found regarding their perceptions of parental warmth.

Based on the limited number of studies examining the expression of warmth in Chinese immigrant parenting, it appears that this dimension is more stable in the face of cultural change than the dimension of control. In other words, as compared with Chinese parents who remain in their country of origin, immigrant Chinese parents demonstrate similar levels of warmth. It is important to note that these findings are based on between-group generational comparisons rather than within-group samples. Additionally, most studies fail to include fathers in their sample. Further research which measures acculturation directly, utilizes within-group comparisons and examines both mothers and fathers is required before any firm conclusions regarding the relation between acculturation and parental warmth can be made.

*Symptoms of Depression as a Mediator of Acculturation-Parenting Relations*

Despite the limitations of the research in this area, acculturation appears to significantly related to the psychological adjustment and child-rearing practices of Chinese immigrant parents. Although the empirical literature linking acculturation with mental health, and acculturation with parenting, is beginning to grow and evolve, these two lines of research remain separate. To date, little research has attempted to integrate these concepts by examining possible mediator variables. Given that past research has demonstrated that the process of acculturation significantly relates to an individual's psychological adjustment and parents' psychological adjustment is known to impact the quality of parenting (Johnson & Jacob, 2000), this study will examine if and how symptoms of *depression* mediate the relation between acculturation and parenting. A particular variable is said to function as mediator to the extent that it accounts for the relation between the independent variable and dependent variable. Mediators attempt to explain how or why external events take on internal psychological significance (Baron & Kenny, 1986).

Symptoms of depression were selected as a specific indicator of mental health for several reasons. First, recent evidence suggests that the rate of depression in Chinese individuals increases after immigration. The Chinese American Psychiatric Epidemiological Study (CAPES), the first large scale study of its kind conducted on Chinese Americans, revealed that 6.9% of Chinese Americans experienced a major depressive episode in their lifetime (Takeuchi et al., 1998). Although this figure is lower than the rates of depression reported in the general population in North America, it is also significantly higher than rates reported among Chinese in Taiwan and Hong Kong, which

are usually reported to be between one and three percent (Hwu, Yeh, & Chang, 1989; Parker, Gladstone, & Tsee Chee, 2001).

Even when taking into account possible methodological problems, the substantially higher rate of depression found among Chinese immigrant individuals suggests that the process of acculturation may make individuals susceptible to this particular mental health problem. For instance, a considerable literature has linked stressful life events to the development and maintenance of depression (Avison & Gotlib, 1994), and numerous studies have identified that immigration and the process of acculturation is a significant source of stress for the individual (Berry & Anis, 1974; Liem, Lim, & Liem, 2000). Therefore, it is possible that a stressful life event such as immigration, in addition to the continuing stressors associated with adapting one's cultural beliefs and behaviours, could make an individual especially susceptible to this specific mental health problem. Indeed, a number of aforementioned studies found significant links between acculturation and the specific mental health outcome of depression in Chinese immigrants (Hwang et al., 2005; Lam et al., 1997; Takeuchi et al., 2002; Ying, 1995).

Second, symptoms of depression were examined as a mediator because they have been shown to detrimentally impact parenting behaviours (Goodman & Gotlib, 1999; Kane & Garber, 2004). A brief review of the literature will demonstrate the robust link between depression and parenting.

#### *Research Linking Depression and Parenting*

Until recently, the majority of research examining the effect of depression on parenting has focused on European American mothers. Although ample research has

demonstrated the deleterious effects of mothers' depression on their parenting behaviour, the impact of fathers' depression on parenting has been largely ignored (Phares, 1996).

Fortunately, over the last decade researchers have begun to include fathers in their samples. Recent meta-analyses have revealed that depression in fathers is a risk factor for the development of psychopathology in children and adolescents (Connell & Goodman, 2002; Kane & Garber, 2004). However, we know little about the impact of depression on fathers' parenting behaviours (Berg-Nielsen, Vikan, & Dahl, 2002). Based on the limited literature, it is difficult to make comparisons between mothers and fathers on the effects of depression on their parenting (Jacob & Johnson, 1997; Kane & Garber, 2004).- It is important to keep in mind that many of the conclusions that theorists have drawn are based on studies which have largely excluded fathers.

Similarly, the association between depression and parenting in other cultures has not received due attention and research examining these links in culturally diverse populations is still in its infancy (Chen & Luster, 2002). Researchers are only beginning to study the effects of depression on parenting in ethnic minority and immigrant populations. Although several studies examine the effects of parental depression on children and adolescents in Chinese and immigrant Chinese samples, very few extend their investigation to include possible mechanisms of transmission, such as parenting behaviour. To the author's knowledge, only one study utilizing a Chinese sample examines the association between depression and parenting.

Keeping in mind these gaps in the literature, a substantial body of research has shown that European American parents with depression are less likely to demonstrate warmth and affection towards their children and to use methods of firm control such as reasoning and child monitoring (Jacob & Johnson, 1997). For example, in a study

examining mothers and fathers with depression of children aged 10 to 18, Jacob & Johnson (1997) found that families with either a depressed mother or father demonstrated less positivity in comparison with non-depressed parents.

In addition, parents with depression are more likely to use methods of restrictive control, such as coercion or physical discipline (Goodman & Gotlib, 1999; Heaven, Newbury, & Mak, 2004). For example, utilizing reports from both parents and children aged 6 to 23, Fendrich, Warner, and Weissman (1990) found that parents experiencing major depression were significantly more likely to demonstrate the parenting style of affectionless control than non-depressed parents. Affectionless control is characterized by a lack of parental acceptance and warmth and by the excessive use of coercive and restrictive control.

Although research examining the effect of depression on the parenting behaviours of culturally diverse populations is scarce, it appears that there are consistent findings across cultural groups. For example, Bluestone and Tamis-LeMonda (1999) found that among African-American mothers of children aged 5-12, higher levels of depression were associated with less child-centered parenting (as measured by a mothers' willingness to allow their child to express an opinion or consider their child's point of view) and less frequent use of reasoning as a disciplinary strategy. The use of reasoning as a disciplinary strategy (versus coercion and punishment) is a key characteristic of firm control (Barber, 1996).

In a study of Romanian mothers of adolescents aged 12-14, Robila and Krishnakumar (2006) found that maternal depression was significantly positively associated with psychological control. As previously discussed, psychological control is

a form of restrictive control which limits children's decision-making abilities and applies guilt-inducing techniques.

Tomlinson, Cooper & Murray (2005) examined the mother-infant relationship in Black South African women living in extreme poverty. Upon reviewing video-taped interactions, the authors found that post-partum depression at 2-months was associated with lower maternal sensitivity, including lower warmth and acceptance.

Much less research has been conducted examining the association between depression and parenting practices within Chinese samples. In one of the few studies of its kind, Chen and Luster (2002) examined the parenting practices of depressed and non-depressed Chinese mothers of preschoolers in Taiwan. The Parenting Behaviour Questionnaire (PBQ) was used to assess the mothers' use of authoritative and authoritarian parenting behaviours. Mothers' level of depression was significantly related to all of the subfactors of the authoritative scale except democratic participation, with lower levels of depression being associated with higher levels of warmth and involvement, reasoning and being good natured. Additionally, mothers' level of depression was significantly related to all of the authoritarian subfactors except for corporal punishment, with higher levels of depression being related to higher levels of verbal hostility, non-reasoning/punitive strategies and directiveness.

Although much less research has been conducted cross-culturally and with Chinese samples, the aforementioned studies suggest that depression relates to the parenting behaviours of culturally diverse parents similarly to that of European American parents. Specifically, higher levels of depression are associated with lower levels of warmth and firm control, and with higher levels of restrictive control. That being said, much more research is needed before conclusive statements can be made about the effects

of depression on parenting in other cultures and among immigrant parents. The current study represents an important step in this direction by examining these processes in a Chinese immigrant sample which includes both mothers and fathers.

### The Current Study

The current study examined the relation between acculturation and specific parenting practices, including expressive warmth, firm control, Chinese parenting beliefs and restrictive control among Chinese immigrant parents of children. Additionally, this study examined the role of parental symptoms of depression as a mediator of the relation between acculturation and parenting practices (see Figure 1).

The participants were immigrant parents of children aged 10 to 14. This age period is important for several reasons. Substantial changes in the parent-child relationship arise during the transition into adolescence (Collins & Russell, 1991). Specifically, small but significant increases in conflict take place as adolescents undergo the normative developmental process of asserting their physical and psychological independence from parents (Larson & Richards, 1994). Adolescents generally have a desire for increased involvement with their peers and subsequently desire less parental control over their lives in order to build independent relationships with their friends. Consequently, parents must balance the importance of granting their adolescents individual autonomy with the need to protect their well being by engaging in monitoring practices and maintaining control over certain aspects of their lives (Steinberg & Silk, 2002). This balancing act can be particularly challenging for immigrant parents, who may experience dissonance between their traditional cultural beliefs and the values of the host society regarding expectations surrounding adolescent autonomy and parental authority (Fulgini, 1998). Therefore, it is of particular interest to focus on parents of

immigrant adolescents because this is a time period where parents must renegotiate their strategies of autonomy granting and control.

#### Goals of Study and Hypotheses

1. The first goal of this study was to examine the relation between acculturation and symptoms of depression. Drawing on contemporary theories of acculturation, which recognize that it is possible to adopt features of the new culture while simultaneously retaining important ethnic values and behaviours (Berry 2003), acculturation was measured orthogonally. That is, Chinese parents' reports of their orientation towards both Canadian and Chinese cultures were assessed independently.

- a. Both Chinese and Canadian orientations were expected to have main effects on symptoms of depression. In both cases, it was expected that lower cultural orientations (either Chinese or Canadian) would be associated with greater symptoms of depression. That is, higher levels of both Canadian and Chinese orientations were expected to be protective in terms of depression.
- b. In addition, in order to evaluate their joint influence on depression, the association between Canadian orientation and symptoms of depression at different levels of Chinese orientation was examined. It was expected that among parents who were strongly oriented towards Chinese culture, levels of Canadian orientation would be unrelated to symptoms of depression. Among parents who reported a weaker orientation towards Chinese culture, higher levels of Canadian

orientation were expected to be associated with fewer symptoms of depression.

2. The second goal of this study was to examine the relations between acculturation and specific parenting practices of immigrant Chinese parents. As previously discussed, four specific parenting practices were assessed: expressive warmth, firm control, Chinese parenting beliefs and restrictive control.

- a. Specifically, it was expected that higher levels of acculturation to Canadian culture would be associated with higher levels of expressive warmth. Higher levels of Chinese orientation were expected to be associated with lower levels of expressive warmth.
- b. Due to the limited research examining the relations between acculturation and firm control, no specific predictions were made for this dimension of parenting.
- c. Canadian orientation was expected to be unrelated to Chinese parenting beliefs, whereas the more strongly parents reported a Chinese orientation, the more Chinese parenting beliefs they would show in their parenting.
- d. Chinese and Canadian orientations were expected to interact in predicting levels of restrictive control. Specifically, among parents who were strongly oriented towards Chinese culture, higher levels of acculturation towards Canadian culture were expected to be associated with lower levels of restrictive control. Among parents who reported a weaker orientation towards Chinese culture, levels of Canadian orientation were expected to be unrelated to levels of restrictive

control. As a result, the highest levels of restrictive control were expected among the parents who were strongly oriented towards Chinese culture and weakly oriented towards Canadian culture.

3. The third goal of this study was to examine the relation between symptoms of depression and the specific parenting practices of expressive warmth, firm control, Chinese parenting beliefs and restrictive control.

a. It was expected that greater symptoms depression would be associated with lower levels of expressive warmth, firm control and Chinese parenting beliefs, and with higher levels of restrictive control.

4. The fourth goal of this study was to examine the role of symptoms of depression as a mediator of the relation between acculturation and parenting.

a. It was expected that symptoms of depression would partially mediate the relation between acculturation and the parenting practices of expressive warmth, firm control, Chinese parenting beliefs and restrictive control.

5. The final goal of this study was to examine mother-father differences in the relations among acculturation, parenting and symptoms of depression. This goal was exploratory and no specific predictions were made.

## Method

### *Participants*

The data were collected as part of a larger study focusing on immigrant Chinese families in British Columbia (Costigan & Dokis, 2006; Costigan & Su, 2004). The larger study examines a range of issues including parents' and children's cultural identity and values, the quality of the parent-child, marital and co-parenting relationships, and the adjustment of children and their parents in multiple domains. The larger study also

examines differences and similarities in the acculturation process of parents versus children in order to evaluate how the process of immigration affects family relationships.

The participants utilized in the current study included 98 fathers and mothers from immigrant Chinese families residing in Canada. All mothers and fathers were born outside of Canada and immigrated after the age of 20. The average age of fathers was 44.9 years ( $SD = 4.5$  years). The average age of mothers was 41.9 years ( $SD = 4.2$  years). The average length of residence in Canada for fathers was 9.1 years ( $SD = 9.2$ ). Fathers emigrated from the following countries: 43.6% from the People's Republic of China (PRC), 39.8% from Taiwan, 10.2% from Hong Kong, 1.0% from Singapore, and 3.0% from a country other than the four mentioned above (e.g., Malaysia). The average length of residence in Canada for mothers was 7.53 years ( $SD = 6.6$  years). Mothers emigrated from the following countries: 40.8% from PRC, 43.9% from Taiwan, 12.2% from Hong Kong, and 2.0% from countries other than the three mentioned above<sup>1</sup>. All parents self-identified as ethnically Chinese. The vast majority of families indicated that they immigrated to Canada in pursuit of greater opportunities in terms of their own work prospects, their children's education, or a better living environment.

The mothers and fathers in the current study are generally representative of Chinese immigrants in Canada. Since the 1980s, 41.2% of Chinese immigrants to BC have come from PRC, 34.8% have come from Hong Kong, and 23.6% have come from Taiwan (Guo & Devoretz, 2005). Comparably, a large percentage of parents in this study came from PRC. However, the sample included a larger proportion of Taiwanese parents than would be expected and a smaller proportion of parents from Hong Kong. This is due to the fact that approximately half of the parents in this sample arrived after 1996, which coincides with an increase in emigration from Taiwan and a decline in emigration from

Hong Kong (Guo & Devoretz, 2005). In addition, the education level of the current sample may not completely represent the education level of the immigrant Chinese population. Among adults, 63% of immigrants from PRC and Taiwan since 1991 have completed 13 or more years of education (Guo & Devoretz, 2005). In comparison, the parents in this sample were more highly educated, with 84.3% of fathers and 75.6% of mothers reporting 13 or more years of education.

### *Procedures*

Families were recruited from two cities in Western Canada. Families that were eligible for this study were those in which both parents were born outside of Canada, had immigrated to Canada from a Chinese country, had been in Canada for at least a year, and had a child between the ages of 10 and 14. Families were approached by an intercultural community agency that serves the immigrant population (e.g., ESL classes) and explained the purposes and procedures of the study. Interested parents gave permission for their name and phone number to be passed on to the research team. Other families were recruited through word of mouth, in which immigrant families introduced the researchers to other immigrant families who were interested in the study.

A vast majority of participating families elected to meet with research assistants in their homes rather than the university. Two research assistants visited each family, and at least one assistant spoke the family's native language (Cantonese or Mandarin). All materials were available in both Chinese script and English, therefore family members were able to read consent forms and complete questionnaires in their language of choice. All materials had been translated and back-translated by a team of Chinese-speaking individuals from Taiwan, Hong Kong, Singapore and Mainland China. The few discrepancies between the original English version and the Chinese version were resolved

through group discussions. The vast majority of parents completed the questionnaires in Chinese (90.7% of fathers and 92% of mothers). Family members completed their questionnaire packets separately. Families were given \$30 as compensation for their time.

### *Measures*

*Demographic information.* A background questionnaire assessed factors such as participants' age, gender, highest level of education completed, age at the time of immigration to Canada, and length of residence in Canada.

*Acculturation.* Acculturation was assessed with an adapted version of the Acculturation Rating Scale for Mexican-Americans-Revised (ARSMA-Revised, Cuéllar et al., 1995). Items of this scale are applicable to all ethnic groups, consequently, the only adaptation required was to substitute "Chinese" for "Mexican" and "Canadian" for "American". The ARSMA-Revised was chosen because it assesses participants' orientation towards the ethnic and host cultures independently and because it has been found to be a reliable and valid measure of acculturation in Chinese populations (Liem, Lim, & Liem, 2000). The adapted version of the ARSMA-Revised utilized for this study consisted of a 9-item Canadian orientation subscale and a 10-item Chinese orientation subscale. In order to increase the clarity between the constructs of cultural orientation and ethnic identity, only the items from the original 30-item scale that tapped daily behavioral practices (e.g., "I enjoy reading in English [Chinese]"), and patterns of social interaction (e.g., "My friends now are Caucasian [Chinese] origin") were selected. Items were rated on a scale from 1, *not at all*, to 5, *extremely often or almost always*. The subscales for Chinese and Canadian orientation showed good internal consistency in the current sample (Chinese orientation subscale alpha of .72 and .76 for mothers and fathers,

respectively; Canadian orientation subscale alpha of .78 and .79 for mothers and fathers, respectively).

*Parenting practices.* Mothers' and fathers' separate reports on the levels of expressive warmth, Chinese parenting beliefs, firm control and restrictive control they display were analyzed. When responding to child-rearing questions, parents were asked to think about their child between the ages of 10 and 14 who also participated in the study.

*Expressive Warmth.* Parental expressive warmth was assessed using a 7-item scale that was created for this study. The items were created to assess parents' overt displays of affection, care, and concern (e.g., "are you affectionate with your child?"). Items were scored on a 7-point scale, ranging from 1, *never*, to 7, *always*. Higher scores indicate higher levels of parental expressive warmth. This variable was logarithmically transformed in order to produce skewness and kurtosis values nearest to zero. This scale showed good internal consistency in the current sample (alpha levels of .88 and .92 for mothers and fathers, respectively).

*Firm control.* A parental monitoring scale was used to assess the construct of firm control. Specifically, parental monitoring was assessed using a parenting practices questionnaire that Kim and Ge (2000) adapted from the Iowa Youth and Families Project (Conger, Patterson, & Ge, 1995). Monitoring involves parental knowledge about the whereabouts of the child and whom the child is with (e.g., "Do you know who your child is with when he or she is away from home?"). The scale consisted of 3 items that were scored on a 7-point scale ranging from 1, *never* to 7, *always*. Higher scores indicate higher levels of parental monitoring. Among a sample of Chinese parents, Kim and Ge (2000) report good reliabilities for this scale (alpha levels of .73 and .83 for mothers and

fathers, respectively). In order to produce skewness and kurtosis values nearest to zero, this variable was logarithmically transformed. This scale showed good internal consistency in the current sample (alpha levels of .84 and .88 for mothers and fathers, respectively).

*Chinese Parenting Beliefs.* An adapted version of the Role Disposition Questionnaire was used to assess the construct of Chinese parenting beliefs. The Role Disposition Questionnaire assesses the extent to which parents define their role as teachers and authority figures of their children (Segal, 1985). For the purposes of this study, a measure was needed to reflect traditional Chinese parenting beliefs, which emphasize the concomitant roles of parents as teachers, authority figures, and nurturers of their children (Chao, 2001). Therefore, items assessing parents' role as nurturers were added to this scale. The adapted version utilized for this study consisted of an 11-item scale which included 3 items assessing parents' teacher role beliefs (e.g., "parents are their children's best teachers"), 3 items assessing parents' authority role beliefs (e.g., "children should not question the authority of their parents") and five added items to reflect parents' nurturer role beliefs (e.g., "it is important to make a point of telling your child that you love them on a regular basis"). Items were rated on a 5-point scale ranging from 1, *strongly disagree* to 5, *strongly agree*. Higher scores indicate a greater endorsement of Chinese parenting beliefs. This scale showed adequate internal consistency in the current sample with alpha levels of .71 and .73 for mothers and fathers, respectively.

*Restrictive control.* The Decision-Making Questionnaire (DMQ) was used to assess the construct of restrictive control. The DMQ assesses the extent to which parents grant their adolescents decision-making opportunities (Dornbusch et al., 1985). The DMQ

is a checklist where the parent indicates whether their child is allowed decision-making opportunities in several domains, or if they jointly decide on issues with their child. For the purposes of this study, a measure of decision-making was needed to reflect the amount of restrictive control parents exerted over their children. Therefore, 10-items were selected which assessed decision-making opportunities in *personal* domains, where it would be developmentally reasonable to allow children between the ages of 10-14 either to make the decisions independently or in conjunction with their parents. Response options included “*child decides*” (1), “*parent decides*” and “*parents and child decide together*” (3). For example, parents were asked to indicate who decides, “[their]-child’s hairstyle” or “how [the child] spends their time after school.” In order to assess the degree to which parents use restrictive control, the percentage of items that were rated *parent-only decides* were used in the analyses. This score was calculated by summing the number of “parents decide” items and dividing by the total number of items on the scale (10).

The DMQ has been used in many studies with adolescents, and good reliability and construct validity have been established. Internal consistency reliability in past research was good (e.g., Fuhrman & Holmbeck, 1995,  $\alpha = .78$ ) and the scale also showed good internal consistency in the current sample (alpha levels of .79 and .77 for mothers and fathers, respectively).

*Depressive Symptoms.* The 20-item Center for Epidemiological Studies Depression Scale (CES-D) was used to assess the presence of symptoms of depression (Radloff, 1977). Parents report the frequency of symptoms over the past week on a 4-point scale ranging from 0, *rarely or none of the time (less than 1 day)*, to 3, *most of the time (5-7 days)*. Previous studies have demonstrated the validity and reliability of this

scale with Chinese and immigrant Chinese samples (Lin, 1989; Yen, Robins, & Lin, 2000). For example, among a sample of Chinese American university students, Lin (1989) reported good reliabilities for depressive symptoms using the CES-D (alpha level of .83). In order to produce skewness and kurtosis values nearest to zero, this variable was logarithmically transformed. Within the current sample, reliabilities for mothers' and fathers' depressive symptoms were .83 and .88, respectively. In addition, 17.5% of fathers and 19.1% of mothers met the clinical cut-off for depression (16 or greater) in this sample. The percentage of depressed parents is consistent with what has been found in other community samples of Chinese and immigrant Chinese participants (Chen & Luster, 2002; Lin, 1989).

## Results

### *Preliminary Analyses*

Before conducting the main regression analyses, differences in the main study variables (Chinese orientation, Canadian orientation, depressive symptoms, expressive warmth, firm control, Chinese parenting beliefs, and restrictive control) based on background variables (e.g., length of residence in Canada) were examined. In addition, the inter-correlations among the main study variables were examined, along with comparisons between mothers and fathers on the main study variables.

### *Relations among Main Study Variables and Background Variables*

The relations among the main study variables and six key background variables (i.e., length of residence in Canada, parent education, parent and child age, child gender, and child immigrant status) were examined separately for mothers and fathers. There were no significant relations between any of the background variables and parents' reports of acculturation. There were also no significant relations between any of the

background variables and depressive symptoms. Regarding parenting (i.e., expressive warmth, firm control, Chinese parenting beliefs and restrictive control) no significant relations were found between expressive warmth and firm control and the background variables. Fathers' reports of restrictive control were significantly negatively correlated with child age,  $r = -.37, p < .001$ , indicating that as the age of children increased, the amount of restrictive control reported by fathers was lower. A t-test revealed that child immigrant status was also significantly related to fathers' reports of restrictive control,  $t(94) = 2.68, p = .008$ . Fathers of 1<sup>st</sup> generation children (children who came to Canada at or after the age of 6) reported significantly less restrictive control than fathers of 1.5-2<sup>nd</sup> generation children (children who were born in Canada or who came to Canada before the age of 6). Chinese parenting beliefs were also related to background variables. First, mothers' length of time in Canada was significantly positively correlated with Chinese parenting beliefs ( $r = .25, p = .02$ ), indicating that the longer mothers had lived in Canada the more Chinese parenting beliefs they endorsed. Child immigrant status was also significantly related to mothers' reports of Chinese parenting beliefs,  $t(96) = 2.41, p = 0.18$ . Mothers of 1.5/2<sup>nd</sup> generation children more strongly endorsed Chinese parenting beliefs ( $M = 3.97, SD = .43$ ) than mothers of 1<sup>st</sup> generation children ( $M = 3.75, SD = .47$ ).

Based on these findings, parent length of residence in Canada was entered as a control variable in the first step of the hierarchical regression analyses. Parent length of residence in Canada was highly correlated with child immigrant status (for mothers,  $r = -.81, p < .01$ ; for fathers,  $r = -.79, p < .01$ ). Therefore, only one of these variables (parent length of residence in Canada) was included as a control variable. Finally, in specific analyses examining the parenting variable of restrictive control, child age was also entered as a control variable.

*Intercorrelations among Main Study Variables*

Correlations between Chinese and Canadian orientation were examined separately for mothers and fathers. The results of these correlations are presented in Table 1. Fathers' reports of Chinese orientation were not significantly correlated with their reports of Canadian orientation. In contrast, mothers' reports of Chinese orientation were significantly negatively correlated with their reports of Canadian orientation. The correlations for both mothers and fathers between Chinese and Canadian orientation were low, removing concerns about multicollinearity in subsequent analyses.

Correlations among the four parenting variables for mothers and fathers were also examined. As shown in Table 1, expressive warmth and firm control were significantly positively related for both mothers and fathers. For mothers, Chinese parenting beliefs was also significantly positively related with expressive warmth. There were no other significant correlations within the parenting constructs for either parent. The low to moderate correlations among the parenting variables indicated that these variables were not redundant and in fact measured distinct dimensions of parenting.

*Mother-Father Comparisons on the Main Study Variables*

As shown on the diagonal of Table 1, mothers' and fathers' reports of Chinese orientation and Canadian orientation were significantly related. Two paired t-tests were used to examine mother-father differences in acculturation. As shown in Table 2, mothers reported significantly higher levels of Chinese orientation than fathers,  $t(93) = -4.20, p < .001$ , whereas fathers reported significantly higher levels of Canadian orientation than mothers,  $t(93) = 3.49, p < .001$ .

Fathers' and mothers' reports of depressive symptoms were significantly positively correlated. Paired t-tests revealed no significant differences between fathers and mothers in their reported levels of depression,  $t(90) = -.96, p = .34$ .

Regarding parenting, mothers' and fathers' reports of firm control and restrictive control were significantly positively correlated. No significant correlations were found between mothers' and fathers' reports of expressive warmth or Chinese parenting beliefs. Mothers demonstrated significantly more expressive warmth,  $t(93) = 4.09, p < .001$ , and firm control,  $t(92) = 4.89, p < .001$ , than fathers. There were no significant differences in levels of restrictive control or Chinese parenting beliefs reported by mothers and fathers.

#### *Means and Standard Deviations among the Main Study Variables*

Table 2 presents the means, standard deviations and observed ranges for the main study variables. Overall, high levels of Chinese orientation were expressed by both mothers and fathers in this sample. Moderate levels of Canadian orientation were reported and a good range was observed for both Chinese and Canadian orientation. On average, parents reported high levels of expressive warmth, firm control and Chinese parenting beliefs and low levels of restrictive control. In terms of depressive symptoms, the mean for mothers (10.72) and for fathers (9.98) fell below the clinical cut-off score of 16 on the CES-D. Other studies utilizing the CES-D to measure depressive symptoms in Chinese American adults have found similar results when using community samples. For example, Yen, Robins and Lin (2000) reported mean CES-D scores of 7.93 and 9.82 for Chinese American women and men, respectively. Similarly, utilizing a large sample of Asian-American adults, Kuo (1984) reported a grand mean of 9.29 on the CES-D.

Table 1  
*Intercorrelations among All Study Variables*

	Chinese Orientation	Canadian Orientation	Depressive Symptoms	Expressive Warmth	Firm Control	Restrictive Control	Chinese Parenting Beliefs
Chinese Orientation	.27**	-.29**	.13	.11	-.06	-.05	.20*
Canadian Orientation	-.07	.37**	-.24*	.30**	.20*	.06	-.02
Depressive Symptoms	.09	-.20 <sup>a</sup>	.22*	-.11	-.25*	.01	.17 <sup>a</sup>
Expressive Warmth	-.02	.22*	.30**	.11	.28**	.03	.22*
Firm Control	-.03	-.02	.17	.45**	.28**	.04	-.10
Restrictive Control	.00	.03	.22*	-.08	-.09	.36**	.09
Chinese Parenting Beliefs	.31**	-.08	.08	.18	.10	.03	.04

*Note.* Mother-father correlations are presented on the diagonal; mother correlations are above the diagonal; father correlations are below the diagonal.

<sup>a</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

Table 2

Means, Standard Deviations and Observed Range for the Main Study Variables

	Means and SD		Observed Range	
	Mothers	Fathers	Mothers	Fathers
Chinese Orientation <sup>a</sup>	3.95 (.58)	3.66 (.50)	2.20-5.00	2.20-5.00
Canadian Orientation <sup>a</sup>	2.92 (.63)	3.30 (.60)	1.33-4.78	2.00-4.78
Depressive Symptoms <sup>b</sup>	10.72 (6.90)	9.98 (6.96)	0-36.00	0-41.00
Expressive Warmth <sup>c</sup>	6.23 (.60)	5.84 (.82)	4.14-7.00	2.71-7.00
Firm Control <sup>c</sup>	6.70 (.48)	6.31 (.93)	5.00-7.00	1.67-7.00
Chinese Parenting Beliefs <sup>a</sup>	3.86 (.46)	3.79 (.46)	2.73-4.91	2.91-4.82
Restrictive Control <sup>d</sup>	2.01 (2.51)	2.06 (2.62)	0-10.00	0-10.00

<sup>a</sup> Range of scale = 1-5<sup>b</sup> Range of scale = 0-60<sup>c</sup> Range of scale = 1-7<sup>d</sup> Range of scale = 1-10*Zero-order Relations among Acculturation, Depressive Symptoms, and Parenting*

Table 1 also presents the zero-order correlations between acculturation (Chinese and Canadian orientation), depressive symptoms, and parenting. First, correlations between acculturation and depressive symptoms were examined (path 1 of Figure 1). For mothers, consistent with hypotheses, Canadian orientation was significantly negatively related to symptoms of depression. In contrast, Chinese orientation was not significantly related to mothers' symptoms of depression. Similarly, fathers' Canadian orientation was marginally negatively related to depressive symptoms, but no significant relations were found between fathers' Chinese orientation and their depressive symptoms.

Correlations between acculturation and parenting were also examined (path 2 of Figure 1). Only one significant relation emerged between Chinese orientation and parenting for both mothers and fathers. Specifically, Chinese orientation was significantly positively related to Chinese parenting beliefs for both mothers and fathers. Canadian orientation was significantly positively related to firm control and expressive warmth for mothers. For fathers, there was one only significant relation between Canadian orientation and parenting. Specifically, Canadian orientation was significantly positively related to expressive warmth.

Finally, correlations between depressive symptoms and parenting were examined (path 3 of Figure 1). For mothers, as expected, the more depressive symptoms they endorsed, the less expressive warmth and firm control they reported. Contrary to expectations, mothers' symptoms of depression were significantly positively related to their reports of Chinese parenting beliefs. Finally, contrary to hypotheses, mothers' depressive symptoms were not related to their reports of restrictive control. For fathers, consistent with hypotheses, higher levels of depressive symptoms were associated with less expressive warmth and more restrictive control. Unexpectedly, no significant relations were found between fathers' symptoms of depression and their reports of firm control or Chinese parenting beliefs.

#### *Regression Analyses Predicting Parenting from Acculturation (Path 2)*

It was expected that Chinese and Canadian orientation would show independent, main effects on the parenting variables of expressive warmth, firm control and Chinese parenting beliefs. In contrast, it was expected that Chinese and Canadian orientation would interact to predict levels of restrictive control. Therefore, the analyses examining the main effects of Chinese and Canadian orientation on expressive warmth, firm control

and Chinese parenting beliefs are presented first, followed by the analyses examining the interaction of Chinese and Canadian orientation in the prediction of restrictive control.

A two-step hierarchical regression was used to examine the relation between acculturation and the parenting variables of expressive warmth, firm control and Chinese parenting beliefs. Parents' length of residence was entered in the first step. In the second step, Chinese orientation and Canadian orientation were entered simultaneously. This second step evaluates whether the acculturation variables account for variability in reports of parenting practices after accounting for the influence of parents' length of residence in Canada. The results of these analyses are presented in Table 3. Standardized beta coefficients are reported.

*Expressive Warmth.* As shown in Table 3, length of residence did not significantly contribute to reports of expressive warmth by either mothers or fathers. In step 2, after length of residence had been accounted for, acculturation significantly contributed to mothers' reports of expressive warmth, accounting for an additional 12% of the variance. As hypothesized, higher levels of Canadian orientation in mothers were associated with higher levels of expressive warmth. However, contrary to hypotheses, higher levels of Chinese orientation in mothers were also associated with higher levels of expressive warmth. For fathers, acculturation marginally contributed to reported levels of expressive warmth, accounting for an additional 6% of variance over and above the contribution of the control variable entered in step 1. Specifically, higher levels of Canadian orientation were associated with higher levels of expressive warmth. Contrary to expectations and inconsistent with the pattern observed in mothers, Chinese orientation did not significantly contribute to fathers' reports of expressive warmth.

*Firm Control.* As shown in Table 3, length of residence marginally significantly contributed to reports of firm control in both mothers and fathers. Specifically, parents who had lived in Canada for a longer period of time reported higher levels of firm control. Mothers' level of acculturation was marginally significantly related to reports of firm control. Specifically, there was a trend for higher levels of Canadian orientation to be associated with higher levels of firm control. In contrast, mothers' level of Chinese orientation was not significantly related to their reports of firm control. For fathers, level of acculturation did not significantly contribute to their level of firm control.

*Chinese Parenting Beliefs.* As shown in Table 3, length of residence significantly contributed to mothers' reports of Chinese parenting beliefs. Unexpectedly, mothers who had lived in Canada for a longer period of time reported significantly higher levels of Chinese parenting beliefs. Length of residence was not significantly related to fathers' reports of Chinese parenting beliefs. For mothers, the acculturation variables in Step 2 did not significantly contribute to the prediction of Chinese parenting beliefs.

Nonetheless, mothers' level of Chinese orientation was significantly related to their reports of Chinese parenting beliefs. Specifically, higher levels of Chinese orientation were associated with higher levels of Chinese parenting beliefs in mothers. For fathers, acculturation significantly contributed to reports of Chinese parenting beliefs, accounting for 11% of the variance over and above that contributed by length of residence in the first step. Consistent with hypotheses, higher levels of Chinese orientation were associated with higher levels of Chinese parenting beliefs in fathers.

In summary, higher Chinese orientation was related to higher levels of expressive warmth in mothers and to higher levels of Chinese parenting beliefs among both mothers and fathers. Higher Canadian orientation was related to higher levels expressive warmth

among mothers and fathers. For mothers, higher Canadian orientation was also marginally related to higher levels of firm control.

*Restrictive Control.* A three-step hierarchical regression was used to examine the relation between acculturation and restrictive control. In order to aid in the calculation and interpretability of interactions, the acculturation variables (Chinese orientation and Canadian orientation) were standardized (Aiken & West, 1991). As before, length of residence was entered in the first step, followed by main effects of acculturation in the second step. The third step involved computing a cross-product vector to reflect the interaction between Chinese orientation and Canadian orientation. A significant interaction term in step 3 indicates a moderating relationship. Significant interactions were probed with simple slope analyses (Aiken & West, 1991) in which the association between Chinese orientation and restrictive control was evaluated at high (one *SD* above the mean) and low (one *SD* below the mean) levels of Canadian orientation.

Table 4 presents the results regarding restrictive control. As shown in the table, length of residence did not significantly contribute to mothers' reports of restrictive control. For mothers, the second step revealed no significant main effects of acculturation. However, consistent with expectations, the third step revealed that the interaction between mothers' levels of Chinese and Canadian orientation was significantly related to their reports of restrictive control, accounting for 5% of the variance over and above that contributed by length of residence and Chinese and Canadian orientation when considered separately. This interaction is plotted in Figure 1. It was expected that among mothers who were strongly oriented towards Chinese culture, higher levels of acculturation towards Canadian culture would be associated with lower levels of restrictive control. Among mothers who reported a weaker orientation towards

Table 3

*Hierarchical Regressions Predicting Expressive Warmth, Firm Control and Chinese Parenting Beliefs from Length of Residence and Acculturation*

	Mothers <i>n</i> = 95			Fathers <i>n</i> = 91		
	R <sup>2</sup>	ΔR <sup>2</sup>	beta	R <sup>2</sup>	ΔR <sup>2</sup>	beta
Expressive Warmth						
Step 1	.03			.02		
Length of Residence			-.14			.15
Step 2	.15*	.12*		.08 <sup>a</sup>	.06 <sup>a</sup>	
Chinese Orientation			.20*			.00
Canadian Orientation			.34*			.25*
Firm Control						
Step 1	.03 <sup>a</sup>			.04 <sup>a</sup>		
Length of Residence			.22*			.21*
Step 2	.09*	.06 <sup>a</sup>		.04	.00	
Chinese Orientation			.00			-.05
Canadian Orientation			.20 <sup>a</sup>			-.00
Chinese Parenting Beliefs						
Step 1	.06*			.00		
Length of Residence			.26*			-.04
Step 2	.11*	.05		.11*	.11**	
Chinese Orientation			.21*			.33**
Canadian Orientation			-.00			-.05

<sup>a</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$

Chinese culture, levels of Canadian orientation would be unrelated to levels of restrictive control. However, probing the significant interaction revealed results contrary to expectations. Specifically, at higher levels of Chinese orientation, mothers' level of Canadian orientation was not significantly related to restrictive control ( $B = -.30, p = ns$ ). Instead, at lower levels of reported Chinese orientation, the less Canadian orientation mothers reported, the less restrictive control they reported ( $B = .58, p < .08$ ).

For fathers, length of residence did not significantly contribute to reports of restrictive control. Contrary to predictions, acculturation was not related to restrictive control for fathers. Neither main effects nor interactions approached significance. As previously mentioned, child age was significantly related to fathers' restrictive control. Therefore, this analysis was re-run with child age entered as a second control variable in Step 1. Although child age significantly contributed to fathers' reports of restrictive control ( $B = -.93, p < .01$ ), the association between acculturation and restrictive control in fathers did not differ based on the inclusion of child age in the regression equation (Canadian orientation  $B = -.08, p = ns$ ; Chinese orientation  $B = -.10, p = ns$ ).

Table 4

*Hierarchical Regressions Predicting Restrictive Control from Length of Residence and Acculturation*

Variables Entered	Mothers <i>n</i> = 95			Fathers <i>n</i> = 91		
	R <sup>2</sup>	ΔR <sup>2</sup>	B	R <sup>2</sup>	ΔR <sup>2</sup>	B
Step 1	.01			.03		
Length of Residence			.12			.47
Step 2	.01	.00		.03	.00	
Chinese Orientation			.09			.12
Canadian Orientation			.12			-.03
Step 3	.06	.05*		.03	.00	
Chinese*Canadian Orientation			-.42*			-.09

<sup>a</sup>  $p < .10$ , \*  $p < .05$

*Regression Analyses Predicting Depressive Symptoms from Acculturation (Path 1)*

Recall that Chinese and Canadian orientations were expected to have independent main effects on symptoms of depression. Specifically, it was expected that lower levels of cultural orientations (either Chinese or Canadian) would be associated with more depressive symptoms. In addition, it was expected that among parents who were strongly oriented towards Chinese culture, levels of Canadian orientation would be unrelated to depressive symptoms. Among parents who reported a weaker orientation towards Chinese culture, higher levels of Canadian orientation would be associated with fewer symptoms of depression. The results of the regression analyses predicting depressive symptoms from acculturation are presented in Table 5. Because predictors were

previously standardized to aid in the calculation and interpretation of interactions, the unstandardized B coefficients are reported.

Length of residence did not significantly contribute to reports of depressive symptoms for mothers or fathers. For mothers, acculturation significantly contributed to reports of depressive symptoms, accounting for an additional 7% of the variance over and above the contribution of length of residence. More specifically, Canadian orientation was significantly negatively related to depressive symptoms, with higher reports of Canadian orientation being associated with fewer symptoms of depression. Contrary to expectations, the relation between Chinese orientation and depressive symptoms did not reach significance, nor did the interaction between Chinese and Canadian orientation. Contrary to predictions, fathers' level of acculturation did not significantly contribute to the prediction of depressive symptoms over and above the contribution of length of residence. However, similar to the pattern observed in mothers, Canadian orientation was significantly negatively related to reports of depressive symptoms in fathers. Consistent with expectations, the interaction between Chinese and Canadian orientation significantly contributed to fathers' reports of depressive symptoms when entered in the third step, accounting for 5% of the variance. This interaction is plotted in Figure 2. Probing this effect revealed that consistent with hypotheses, among fathers who were not strongly oriented towards Chinese culture, higher Canadian orientation was associated with fewer symptoms depressive symptoms ( $B = -.14, p < .01$ ). Fathers' level of Canadian orientation was not related to their reports of depressive symptoms among fathers who were strongly oriented towards Chinese culture ( $B = -.02, p = ns$ ).

Table 5

*Hierarchical Regressions Predicting Depressive Symptoms from Length of Residence and Acculturation*

Variables Entered	Mothers <i>n</i> = 94			Fathers <i>n</i> = 89		
	R <sup>2</sup>	ΔR <sup>2</sup>	B	R <sup>2</sup>	ΔR <sup>2</sup>	B
Step 1	.01			.00		
Length of Residence			.03			.03
Step 2	.08 <sup>a</sup>	.07*		.04	.04	
Chinese Orientation			.02			-.01
Canadian Orientation			-.06*			-.09*
Step 3	.09 <sup>a</sup>	.01		.09 <sup>a</sup>	.05*	
Chinese*Canadian Orientation			-.02			.07*

<sup>a</sup>  $p < .10$ , \*  $p < .05$

*Regression Analyses Predicting Parenting from Depressive Symptoms (Path 3)*

Recall that it was expected that higher levels of depressive symptoms would be associated with lower levels of the parenting practices of expressive warmth, firm control and Chinese parenting beliefs, and with higher levels of restrictive control. The results of the regression analyses predicting parenting from symptoms of depression are found in Table 6.

*Expressive Warmth.* Length of residence was marginally significantly related to reports of expressive warmth in mothers. Specifically, mothers who had lived in Canada for a longer period of time reported higher levels of expressive warmth. Contrary to expectations, mothers' reports of depressive symptoms did not significantly contribute to

reports of expressive warmth. For fathers, length of residence was not significantly related to reports of expressive warmth. However, in contrast with mothers and consistent with hypotheses, levels of fathers' depressive symptoms were significantly associated with reports of expressive warmth, accounting for an additional 9% of the variance. Specifically, higher levels of depressive symptoms were associated with lower levels of expressive warmth.

*Firm Control.* For mothers, length of residence was not significantly related to reports of firm control. As expected, depressive symptoms significantly contributed to mothers' reports of firm control, accounting for an additional 6% of the variance. More specifically, higher levels of depressive symptoms were associated with lower levels of firm control.

For fathers, length of residence was marginally related to reports of firm control. Fathers who had lived in Canada for a longer period of time reported higher levels of firm control. Unlike mothers and contrary to expectations, paternal depressive symptoms were not significantly associated with levels of firm control.

*Chinese Parenting Beliefs.* For mothers, length of residence was significantly positively related to reports of Chinese parenting beliefs. Unexpectedly, mothers' reports of depressive symptoms were not significantly associated with reports of Chinese parenting beliefs. For fathers, length of residence was not significantly related to reports of Chinese parenting beliefs. Contrary to expectations, and consistent with the pattern observed in mothers, paternal depressive symptoms did not significantly contribute to reports of Chinese parenting beliefs.

Table 6

*Hierarchical Regressions Predicting Expressive Warmth, Firm Control, Chinese Parenting Beliefs and Restrictive Control from Length of Residence and Depressive Symptoms*

	Mothers <i>n</i> = 94			Fathers <i>n</i> = 89		
	R <sup>2</sup>	ΔR <sup>2</sup>	beta	R <sup>2</sup>	ΔR <sup>2</sup>	beta
Expressive Warmth						
Step 1	.03 <sup>a</sup>			.01		
Length of Residence			-.19 <sup>a</sup>			.13
Step 2	.05	.02		.11*	.09*	
Depressive Symptoms			-.12			-.30*
Firm Control						
Step 1	.02			.03 <sup>a</sup>		
Length of Residence			.15			.19 <sup>a</sup>
Step 2	.08*	.06*		.05 <sup>a</sup>	.02	
Depressive Symptoms			-.24*			-.16
Chinese Parenting Beliefs						
Step 1	.06*			.00		
Length of Residence			.24*			-.05
Step 2	.09*	.03		.01	.01	
Depressive Symptoms			.15			.07

	Restrictive Control			
Step 1	.01		.01	
Length of Residence			.12	.12
Step 2	.01	.00	.06 <sup>a</sup>	.05*
Depressive Symptoms			-.00	.22*

<sup>a</sup> $p < .10$ . \* $p < .05$

*Restrictive Control.* For mothers, neither length of residence nor depressive symptoms made a significant contribution to the prediction of restrictive control, contrary to expectations. For fathers, length of residence was not significantly associated with reports of restrictive control. In addition, as expected, symptoms of depression were significantly associated with restrictive control, accounting for an additional 5% of the variance. Specifically, higher levels of depressive symptoms were associated with higher levels of restrictive control. Since preliminary analyses revealed that child age was significantly associated with fathers' reports of restrictive control, this analysis was re-run with child age as the second control variable. Child age significantly contributed to the prediction of restrictive control ( $B = .33, p < .05$ ). As a result, the association between depressive symptoms and restrictive control was reduced to marginal significance ( $B = .20, p = .06$ ), with depressive symptoms accounting for 3% of the variance over and above that contributed by length of residence and child age.

In summary, depressive symptoms were related to less firm control among mothers, and less expressive warmth and more restrictive control among fathers.

#### *Testing Mediation*

It was hypothesized that depressive symptoms would partially mediate the relation between acculturation and parenting (see Figure 1). According to Baron & Kenny

(1986), in order to establish a mediating relationship, four criteria must be met. First, the independent variable (acculturation) must be significantly associated with the mediator (depressive symptoms). Second, the independent variable (acculturation) must be significantly associated with the dependent variable (parenting practices). Third, the mediator (depressive symptoms) must be significantly associated with the dependent variable (parenting practices). Fourth, if these conditions hold, the association between the independent variable (acculturation) and the dependent variable (parenting practices) must be reduced when the mediator is in the equation.

For both mothers and fathers, Chinese orientation was not significantly related to depressive symptoms (Condition 1). Therefore, the first condition was not met, and a test for mediation using Chinese orientation as the independent variable could not be conducted.

In contrast, for mothers, Canadian orientation was significantly related to depressive symptoms, as shown in Table 5. Thus, Condition 1 was met. There was also a significant relation between Canadian orientation and the parenting practices of expressive warmth and firm control (Condition 2, as shown in Table 3). As shown in Table 6, maternal depressive symptoms were significantly related to firm control, but not to expressive warmth (Condition 3). Therefore, Condition 3 was met for firm control only. Overall, the required initial conditions only allowed for a full test of mediation for depressive symptoms between mothers' Canadian orientation and firm control.

Hierarchical regression analyses were used to evaluate whether the association between Canadian orientation and firm control among mothers was reduced when depressive symptoms were considered (Condition 4). Length of residence in Canada was controlled for in the first step, Canadian orientation was entered in the second step, and

depression was entered in the third. Condition 4 was met if the relation between Canadian orientation and firm control was reduced after the addition of depressive symptoms in Step 3.

The results of the analysis supported the proposed mediational model. As shown in Table 7, mothers' Canadian orientation accounted for a small, but significant proportion (6%) of the variance in firm control, after controlling for length of residence. Further, the addition of depressive symptoms to the regression equation reduced the contribution of Canadian orientation to non-significance. Therefore, there is evidence depressive symptoms may help to explain the positive relation between mothers' Canadian orientation and their firm control.

Table 7

*Test for Depressive Symptoms as a Mediator of the Relation between Canadian Orientation and Firm Control for Mothers*

Step and Measure	Model 1	Model 2
Length of Residence	-.21*	-.19 <sup>a</sup>
Canadian Orientation	-.25*	.20 <sup>a</sup>
Depressive Symptoms	--	-.16
R <sup>2</sup>	.09*	.12**

*n* = 94.

<sup>a</sup>*p* < .10. \**p* < .05. \*\**p* < .01

Similar to the results observed in mothers, fathers' Canadian orientation was also significantly related to their reports of depressive symptoms (see Table 5), and therefore Condition 1 was met. As shown in Table 3, fathers' Canadian orientation was only

significantly related to the parenting practice of expressive warmth (Condition 2). As shown in Table 6, fathers' depressive symptoms were significantly related to the parenting practices of expressive warmth and restrictive control (Condition 3). Because Condition 2 was only met for the parenting practice of expressive warmth, the overall required conditions only allowed for a full test of the mediating role of fathers' depressive symptoms on the relation between Canadian orientation and expressive warmth.

Table 8

*Test for Depressive Symptoms as a Mediator of the Relation between Canadian Orientation and Expressive Warmth for Fathers*

Step and Measure	Model 1	Model 2
Length of Residence	-.17	-.17 <sup>a</sup>
Canadian Orientation	.26*	.21*
Depressive Symptoms	--	-.27*
R <sup>2</sup>	.08*	.15**

*n* = 89.

<sup>a</sup>*p* < .10. \**p* < .05. \*\**p* < .01

Hierarchical regressions were employed to evaluate whether the association between fathers' Canadian orientation and expressive warmth was reduced when depressive symptoms were considered (Condition 4). The analyses followed the same pattern as previously discussed with regards to the mediating role of firm control in mothers. The results of this analysis supported the proposed mediational model for fathers. Canadian orientation significantly predicted expressive warmth at Step 2, accounting for 6% of the variance after controlling for length of residence. Further, the addition of depressive symptoms to the regression equation reduced the contribution of

Canadian orientation to the prediction of expressive warmth, suggesting partial mediation has occurred. Therefore, there is evidence that level of depression helps to explain the positive relationship between Canadian orientation and expressive warmth in fathers.

Recently, researchers have increasingly proposed an alternate method of testing for mediation (MacKinnon, Lockwood, Hoffman, West & Sheets, 2002; Preacher & Hayes, 2004). The Sobel test (Sobel, 1982) derives the standard error for the relation between the independent variable (acculturation) and the mediator (depressive symptoms) and the standard error for the relation between the mediator and the dependent variable (parenting practices). The Sobel test requires that there is an overall effect to be mediated (the relation between the independent and dependent variable is significant) and that the indirect effect is statistically significant in the direction predicted by the mediation hypothesis.

For mothers, the Sobel test contradicted the results observed by following the Baron and Kenny (1986) strategy for testing mediation and suggested that symptoms of depression did not significantly mediate the relation between Canadian orientation and firm control ( $t = -1.49, p = .14$ ). Similarly, the Sobel test revealed no significant mediation of symptoms of depression for the relation between Canadian orientation and expressive warmth among fathers ( $t = -1.47, p = .14$ ). Because of these contradictory results, the role of symptoms of depression as a mediator of the relation between acculturation and parenting remains unclear. Therefore, caution should be taken when interpreting these results.

## Discussion

The current study examined the relations among acculturation, depressive symptoms and parenting for immigrant Chinese mothers and fathers. The results highlight the different roles Canadian and Chinese orientation play in immigrants' parenting and mental health. In general, greater participation in Canadian culture was associated with more positive parenting practices (i.e., expressive warmth and firm control) and fewer depressive symptoms for both mothers and fathers. Greater participation in Chinese culture was related to higher reports of Chinese parenting beliefs and levels of participation in both cultures were related to parents' use of restrictive control. Therefore, it appears that immigrant parents' level of involvement in both the host and ethnic cultures are important for understanding their parenting, whereas their participation in Canadian culture is more important for understanding their symptoms of depression. The results also suggest the association between depressive symptoms and parenting for Chinese parents is similar to that found among European American parents. Specifically, higher levels of depressive symptoms were associated with lower levels of positive parenting practices and higher levels of restrictive control. Finally, by exploring the role of depression as a mediator, this study has begun to uncover underlying mechanisms linking acculturation to parenting. That is, parents' symptoms of depression helped to explain why being oriented towards the host culture was associated with positive parenting practices.

### *Acculturation and Parenting*

Overall, the results from the current study point to the significance of acculturation in shaping parenting. It appears that parents' orientations towards Canadian and Chinese culture are related to different aspects of child-rearing. In general, results

revealed that parents' orientation towards Canadian culture is more strongly linked to the positive parenting practices of expressive warmth and firm control than is their orientation towards Chinese culture. As expected, both mothers' and fathers' Canadian orientation was related to their levels of expressive warmth. While both Chinese and European American parents feel affection for their children, they differ in how overtly they express this affection (Lim & Lim, 2003). Specifically, previous research has demonstrated that European American parents are more likely to openly and freely express affection. The current results suggest that parents increasingly express warmth in an overt manner as they become progressively more involved in Canadian culture (Chiu, 1987; Lim & Lim, 2003).

The mediational analyses for fathers offered insight into why greater Canadian orientation was associated with higher levels of expressive warmth. According to the Baron and Kenny (1986) method, depressive symptoms partially mediated the relation between Canadian orientation and expressive warmth. Fathers with higher levels of participation in the host culture likely have a better command of the English language, which allows them to participate more fully in their new community and form a broader network of support compared to fathers who are lower in Canadian orientation. These opportunities may lead to a greater sense of self-efficacy, and this positive self-evaluation along with greater social support may help to buffer fathers against symptoms of depression. In turn, fathers' positive feelings may spillover into their parenting, enhancing their ability to care for their children and resulting in a greater expression of warmth.

Depressive symptoms also mediated the relation between mothers' Canadian orientation and levels of firm control, according to the Baron and Kenny (1986) method.

Similar to the results observed among fathers for expressive warmth, mothers with higher levels of Canadian orientation reported lower levels of depressive symptoms, and this better mental health likely enabled them to exert more positive forms of control over their children. Utilizing firm control requires significant energy in order to properly monitor children by being cognizant of their whereabouts and activities. Mothers who have more depressive symptoms may experience lethargy, which would make it difficult to implement these more positive forms of control. In sum, when parents were more oriented towards Canadian culture, they experienced fewer symptoms of depression, which may help to explain why higher Canadian orientation was associated with more positive parenting practices. As previously noted, these results are based on a test for mediation utilizing the Baron and Kenny method. When the Sobel method for examining mediation was used, the role of symptoms of depression as a mediator of the relation between acculturation and parenting was not supported. Therefore, interpretations regarding the role of symptoms of depression as a mediator should be considered as preliminary hypotheses until future research is conducted.

Unexpectedly, mothers' level of Chinese orientation was also positively related to expressive warmth. It was anticipated that parents' level of Chinese orientation would be negatively related to expressive warmth. Studies have shown that Chinese parents are very affectionate and openly express warmth toward children until around the age of 6 or 7 when formal education begins and emphasis is placed on teaching respect for authority and administering proper discipline (Jankowiak, 1992). Because immigrating to a new country can be a stressful and intimidating process for children, it is possible that immigrant Chinese mothers are utilizing the open and free expression of warmth that is typically reserved for younger offspring, in an attempt to assist their children through this

challenging transition. In addition, mothers who are higher in Chinese orientation may experience greater social support from the Chinese community and feel an increased sense of belonging as compared with mothers who are lower in Chinese orientation. Therefore, it is possible that immigrant mothers who remain more involved in Chinese culture have greater personal satisfaction with their lives overall, which may spillover to their parenting, resulting in an increased expression of warmth towards their children.

It is also possible that Chinese parents are changing their child-rearing practices, and moving away from traditional beliefs which limit the expression of emotion. This may help to explain why among fathers, Chinese orientation was unrelated to reports of expressive warmth. Traditionally, Chinese fathers were not encouraged to express high levels of affection towards their children as it was believed this would interfere with their primary role as disciplinarians (Chan & Leong, 1994). However, recent research suggests that present-day Chinese fathers are becoming increasingly involved in all aspects of child-rearing, including nurturing children through the provision of affection and outward expressions of warmth (Wu, 1996). As a result, variation in fathers' level of orientation towards Chinese culture may no longer contribute to differences in levels of expressive warmth. In addition, parents who chose to immigrate and experience a new culture may be less likely to adhere to traditional parenting roles, suggesting that selection effects may be at play.

Consistent with hypotheses, mothers and fathers with higher levels of Chinese orientation more strongly endorsed Chinese parenting beliefs in regards to their interrelated roles as authority figures, teachers, and nurturers of their children. This finding supports the validity of this emic conceptualization of parenting, as immigrant parents who were more oriented towards Chinese culture were more likely to endorse this

constellation of beliefs as compared with parents who were less oriented towards Chinese culture. Traditionally, central roles for Chinese parents included acting as teachers to their children and instilling a respect for authority in their children (Chao, 2000). It is important to note that although parents who are higher in Chinese orientation may place more emphasis on parental authority, this authority is expressed in the context of strong feelings of warmth. In other words, parents who are more involved in Chinese culture are not necessarily more controlling or less warm, as previous cross-cultural literature has reported, but rather maintain high expectations for their children in the areas of schooling and respect for authority, grounded in a genuine concern for their children's well-being and proper development.

As expected, level of Canadian orientation was unrelated to Chinese parenting beliefs for mothers and fathers. This result suggests that involvement in Canadian culture does not influence parents' core Chinese parenting beliefs. In the past, acculturation theory has assumed that by adopting behaviours and values of the host culture, immigrants would lose some of their ethnic behaviours and values (Berry & Anis, 1974). However, the current results confirm contemporary theories of acculturation, which suggest that it is possible to adopt features of the host culture while concurrently retaining important ethnic behaviours.

Unfortunately, the majority of studies in this area only measure immigrants' orientation towards the host culture. By failing to examine immigrants' ethnic orientation and utilize culturally relevant constructs, studies may fail to capture the full range of influences on parenting. For example, this study has demonstrated that for some domains of parenting, such as expressive warmth and firm control, individual differences are most closely tied to immigrant parents' involvement in Canadian culture. In the domain of

parent role beliefs, however, individual differences in the extent to which parents endorse Chinese parenting beliefs are most closely tied to involvement in Chinese culture. This highlights the importance of examining immigrant parents' orientation towards both the host and the ethnic culture.

Chinese and Canadian orientation interacted to predict levels of restrictive control for mothers. Specifically, Canadian orientation was positively related to restrictive control when Chinese orientation was low. This finding was unexpected, since previous research has found that Chinese parents tend to use more restrictive control than European American parents (Chiu, 1987). It is possible that mothers with low Chinese orientation may feel less connected and receive less support from the Chinese community, which may lead them to feel solely responsible for childrearing. Within this context, the higher mothers' Canadian orientation, the more they may become aware of undesirable activities or dangers their child may face in Canadian society. Therefore, mothers who are lower in Chinese orientation, but higher in Canadian orientation may exercise more restrictive control, due to their lack of parenting support, coupled with greater apprehension about their child's participation in Canadian culture.

When mothers demonstrated high levels of Chinese orientation, Canadian orientation was unrelated to their levels of restrictive control, perhaps because mothers highly involved in Chinese culture received cultural support and encouragement to exert relatively higher levels of authority. Consistent with previous research, mothers with higher levels of Chinese orientation demonstrated higher levels of restrictive control than mothers with lower levels of Chinese orientation (Chiu et al., 1992). Therefore, when Chinese orientation was high, mothers exerted more restrictive control regardless of their involvement in Canadian culture.

*Acculturation and Depressive Symptoms*

Overall, results revealed that parents' orientation towards Canadian culture is more strongly linked with depressive symptoms than is their retention of ethnic behaviours. Consistent with hypotheses, Canadian orientation was negatively related to symptoms of depression for both mothers and fathers. These findings support the immigrant adjustment hypothesis, which suggests that immigrants who have higher levels of acculturation towards the host culture have better mental health, ostensibly because they have a better command of the English language and a larger support network (Takeuchi et al., 2002). Interacting in a new language can be a frustrating experience which can lead to feelings of isolation that negatively impact one's mental health. As one Asian immigrant stated after arriving in the United States, "Overnight I became deaf and mute when I came to America" (Kim, 1996, p. 286). An inability to speak the language of the host culture could also lead to a loss of opportunities and negative self-evaluation, further increasing one's risk for depressive symptoms. In contrast, an increased ability to speak the language of the host culture allows immigrants to participate more fully in their new community and to form a broader network of support including friends and organizations, which may help them adjust to a new sociocultural environment and serve as a protective factor against depressive symptoms (Gim, Atkinson, & Whiteley, 1990).

Additionally, previous research has identified the process of acculturation as a significant source of stress for the individual (Berry & Anis, 1974) and stressful life events have been linked to the development and maintenance of depression (Avison & Gotlib, 1997). Perhaps the more involved in the host society an immigrant becomes, the less acculturation stress they experience, reducing their vulnerability to depressive symptoms.

For fathers, the positive relation between Canadian orientation and depressive symptoms was qualified by a significant interaction. Specifically, among fathers who were less strongly oriented towards Chinese culture, higher Canadian orientation was associated with lower levels of depressive symptoms. Among fathers who were higher in Chinese orientation, Canadian orientation was unrelated to depressive symptoms. Consistent with expectations, these results suggest that level of involvement in Canadian society is particularly important as a risk or protective factor for depressive symptoms among those fathers who are not highly involved in Chinese culture. Fathers who are less orientated towards the ethnic culture may be susceptible to depressive symptoms due to a lack of social supports and sense of belonging. Within this context, having a strong orientation towards the host culture may provide fathers with the social support they require to protect them against experiencing depressive symptoms.

Contrary to hypotheses, no significant main effects were observed between Chinese orientation and symptoms of depression for either mothers or fathers. The retention of traditional ethnic behaviours and social interactions was expected to be protective in terms of depressive symptoms for immigrant parents. For example, engaging in traditional behaviours such as watching Chinese movies and interacting with other Chinese individuals was expected to foster a sense of belonging and attachment, buffering parents against symptoms of depression (Landale et al., 2000; Takeuchi et al., 2002). In addition, traditional Chinese socio-cultural factors which emphasize stoicism, withstanding hardship and maintaining a high tolerance for distressing circumstances were also expected to be protective against symptoms of depression. Instead, the lack of relations between Chinese orientation and parents' depressive symptoms suggests that a lower emphasis on ethnic cultural behaviours alone is not necessarily associated with

higher levels of depressive symptoms in immigrant parents. This finding is consistent with previous literature that emphasizes the importance of immigrants' orientation towards the host culture, rather than their ethnic culture, for maintaining good mental health (Lam et al., 1997; Yeh, 2003).

That being said, it is important to keep in mind that in this sample, parents' depressive symptom scores and level of Chinese orientation fell within a limited range. Consistent with other community samples, the overall level of depressive symptoms in this sample was low, with few parents surpassing the clinical cut-off for depression. In addition, parents reported relatively high levels of Chinese orientation overall. With few actual reports of clinical depression or low Chinese orientation, it was difficult to fully evaluate this relation. Therefore, before firm conclusions regarding the association between ethnic orientation and depression can be made, future research needs to be conducted in samples that demonstrate a wider range of scores.

In sum, it appears that Canadian orientation is a more important factor in protecting immigrant parents at risk for depression, as compared to Chinese orientation. For mothers, being involved in Canadian culture is negatively related to symptoms of depression, regardless of their involvement in Chinese culture. For fathers, Canadian orientation is negatively related to depressive symptoms only when Chinese orientation is low. It appears that being involved in Canadian culture is essential to protect against symptoms of depression in mothers, whereas perhaps fathers who are highly involved in Chinese culture are able obtain support and a sense of belonging solely through their involvement in their ethnic culture. It is also possible that traditional values of stoicism and emotional control are more pronounced in Chinese men, which may help fathers who

are more highly oriented towards Chinese culture withstand depression regardless of their involvement in Canadian culture.

### *Depressive Symptoms and Parenting*

Overall, depressive symptoms were related to the child-rearing practices of both mothers and fathers in largely similar ways. Symptoms of depression were negatively related to positive parenting practices for both parents. Unexpectedly however, depressive symptoms were unrelated to the Chinese parenting beliefs of mothers and fathers. Finally, a mother-father difference was observed in terms of restrictive control; depressive symptoms were associated with this parenting practice among fathers only.

As expected, lower levels of depressive symptoms were related to higher levels of positive parenting practices for both parents. Specifically, depressive symptoms were negatively related to firm control for mothers and expressive warmth for fathers. As shown in previous research with European American samples, depressive symptoms interfere with parents' ability to provide positive, involved parenting (Jacob & Johnson, 1997; Kane & Garber, 2004). The results from the current study also corroborate the limited research examining this association in Chinese parents, supporting the hypothesis that depressive symptoms disrupt parents' expression of affection and positive forms of control (Chen & Luster, 2002).

It remains unclear exactly why depressive symptoms were related to firm control for mothers versus expressive warmth for fathers. In this sample, fathers reported a greater range of expressive warmth, and this may have contributed to why a significant relation was found between depressive symptoms and expressive warmth for fathers and not mothers. The divergent parenting roles that Chinese mothers and fathers traditionally adopt may also partially account for this difference. For example, stemming from

Confucian teachings in child-rearing, fathers are more likely to take on the role of disciplinarian of children and are not encouraged to outwardly express significant amounts of affection. In contrast, mothers are expected to be affectionate, warm and kind (Chao & Tseng, 2002). Perhaps, owing to their prescribed role, Chinese mothers make an effort to express affection even when experiencing depressive symptoms, whereas fathers' expression of warmth is more likely to be affected. In a similar vein, Chinese fathers may be primarily responsible for exerting control and monitoring children, and thus strive to exercise firm control despite symptoms of depression.

Contrary to hypotheses, Chinese parenting beliefs were unrelated to symptoms of depression for both mothers and fathers. Chinese parenting beliefs are conceptualized as positive child-rearing practices, because they represent care, commitment and involvement (Lim & Lim, 2003). Therefore, as was predicted for the other positive parenting practices (i.e., firm control and expressive warmth) it was expected that higher levels of depressive symptoms would be associated with lower levels of Chinese parenting beliefs. A strong emphasis on interdependence and the maintenance of harmonious family relationships are important characteristics of Chinese parenting and may account for the lack of relations between Chinese parenting beliefs and depressive symptoms (Chao & Tseng, 2002). In contrast to individualistic cultures which emphasize the importance of the individual, collectivist cultures place priority on group success as opposed to individual goals. Research has demonstrated that Asian cultures are more collectivistic than are European American cultures, and that this emphasis on interdependence extends to the family unit (Chao & Tseng, 2002). Therefore, Chinese parents may be especially motivated to prevent depressive symptoms from affecting their

traditional Chinese parenting beliefs in order to maintain harmonious family relationships.

The lack of relation between depressive symptoms and Chinese parenting beliefs may also be explained by differences in the way domains of parenting were assessed. Whereas the scales used in this study to measure expressive warmth, firm control and restrictive control asked about specific parenting *behaviours* (what parents actually do), the scale measuring Chinese parenting beliefs solicited parents' *attitudes* and viewpoints about child-rearing in general. It is possible that symptoms of depression may have a stronger relation with actual parenting behaviours than with underlying parenting beliefs.

Hypotheses regarding the association between depressive symptoms and restrictive control were supported for fathers, but not mothers. Specifically, higher levels of depressive symptoms were associated with more restrictive control for fathers, whereas for mothers, no significant relation between depressive symptoms and restrictive control emerged. Perhaps because Chinese fathers generally take on the traditional parenting role of disciplinarian, depressive symptoms are more likely to affect their expression of restrictive control, as compared to that of mothers. More research needs to be conducted before definite conclusions can be made regarding mother-father differences in the association between depressive symptoms and restrictive control.

#### *Similarities and Differences between Mothers and Fathers*

Overall, mothers and fathers were reasonably similar in the aspects of acculturation that predicted their parenting and depressive symptoms, and the way in which depressive symptoms predicted their parenting. For example, Canadian orientation predicted positive parenting practices for mothers and fathers, whereas Chinese orientation significantly predicted Chinese parenting beliefs. In addition, Canadian

orientation was also significantly related to depressive symptoms for both parents.

Finally, symptoms of depression were associated with lower levels of positive parenting practices, whereas they were unrelated to the Chinese parenting beliefs of both parents.

These similarities existed despite several significant differences in the extent to which parents demonstrated different aspects of acculturation and parenting. Overall, mothers reported more involvement in Chinese culture, whereas fathers were more involved in Canadian culture. In this sample, fathers were more likely to work outside the home, which may have provided them with more opportunity to interact with Canadian individuals and to practice using the English language. In contrast, mothers may have had fewer occasions to become involved in Canadian culture and may continue to speak Chinese with their husbands and children at home, promoting the preservation of traditional language and behaviours.

In terms of parenting practices, mothers utilized more overt expressions of warmth and firm control as compared to fathers. As previously described, Chinese mothers often take on the role of nurturer and caregiver, which may have contributed to their greater use of these parenting practices as compared with fathers. Although differences in parenting were observed, other findings shed light on aspects of Chinese parenting that may be changing over time. For example, although mothers used more expressive warmth in this study, fathers nevertheless reported relatively high levels of this parenting practice. In addition, mothers and fathers exhibited similar levels of restrictive control. Although Chinese parents traditionally play different roles in the family, as evidenced by the traditional Chinese expression "strict father, kind mother," (Chao & Tseng, 2002) these findings suggest that present-day immigrant parents may not strictly adhere to traditional

roles. Whether changes in Chinese parenting are occurring through previous exposure to Western ideals or following immigration remains to be evaluated in future research.

### *Implications*

The results from the current study strongly underscore the importance of investigating parents' involvement in the host and ethnic culture as each contribute independently and interact in the prediction of parents' child-rearing behaviours and symptoms of depression. Parents differ in the extent to which they seek to maintain their ethnic behaviours and beliefs versus adopting those of the new culture and variation on this dimension impacts their child-rearing practices and mental health in various ways. In other words, it appears that acculturation affects specific parenting behaviours in different ways and considerable within-group differences exist within the immigrant population. Therefore, researchers should be cautioned against making global statements about the parenting and mental health of immigrants.

In addition to the orthogonal measurement of acculturation, the current findings point to the importance of utilizing an orthogonal approach to measure parenting behaviours, where they are investigated separately rather than as typologies. As previously discussed, typologies developed in the West (e.g., Baumrind's authoritative, authoritarian and permissive typologies) do not necessarily translate to other cultures. Parenting is embedded within a cultural context and more meaningful and interpretable information will likely result from investigating parenting behaviour separately.

The findings from the current study suggest that parents who are more involved in Canadian culture express more positive parenting behaviours as compared with parents who are less involved in Canadian culture. Parents who are less involved in Canadian culture may have more difficulty interacting in English, thus limiting their ability to

obtain information about their children from their friends and school experiences (Buki, Ma, Strom, & Strom, 2003). Therefore, language barriers may make it more difficult for parents to engage in positive child-rearing behaviours. Monitoring children's behaviour may be more difficult when parents are unable to discuss their activities and whereabouts with the parents of their children's friends. In addition, parents who are less involved in Canadian culture may be uninformed of the challenges their children face growing up in a new culture, and thus be unaware of the increased need to express affection and praise children who may be having difficulty adjusting. Psychoeducational programs facilitated by their children's school or through community organizations could assist parents in learning English, finding appropriate translators, and provide parents with information about what it is like for their children to grow up in Canada.

While some parenting practices such as expressive warmth and firm control were related to parents' involvement in the host culture, other child-rearing attitudes such as Chinese parenting beliefs, were unrelated to the adoption of Canadian behaviours. Immigrant parents often experience difficulty balancing more traditional ways of parenting with Canadian ways of parenting. However, the current results suggest that some parenting beliefs may be stable in the face of cultural change, and that it is possible to adapt parenting to meet the challenges of raising a child in a new cultural context without having to give up traditional ethnic beliefs. The findings from the current study suggest that involvement in the ethnic culture is related to the maintenance of traditional Chinese parenting beliefs. Therefore, parents' willingness to adapt their child-rearing to best meet the needs of their children may be increased when they are aware that it remains possible to simultaneously communicate traditional ethnic parenting beliefs, such as respect for authority and the importance of education.

Involvement in the host culture seems particularly important for immigrants' mental health. For this reason, policies and programs that help immigrant parents to become involved in Canadian culture may foster a sense of belonging and help to form a broader network of support, which may help serve as a protective factor against symptoms of depression (Gim et al., 1990). Interacting with other parents in Canada and taking part in organizations allows immigrant parents to participate more fully in their new community and can increase their ability to speak English, leading to a decrease in feelings of isolation. Although some level of acculturation to the host society may be necessary for successful adaptation, findings from the current study suggest that ties to one's ethnic culture may also be important for good mental health, particularly when involvement with the host culture is limited. Involvement in one's ethnic culture in addition to the host culture can increase the number of social supports available to parents and allow them to move between two cultural milieus, increasing their sense of self-efficacy (Takeuchi et al., 2002).

Ideally, persons in the helping professions should encourage immigrant parents to be involved in the host and ethnic culture, as biculturalism may help to maintain their mental health. That being said, it is important for helping professionals to be well informed about the traditional values and practices of the ethnic culture. At times the principles of the ethnic culture may conflict with those of the host culture. When traditional ethnic practices are not legally or socially acceptable in the host culture, helping professionals should engage in an open dialogue with immigrants about how best to retain important ethnic values while observing the societal standards of the host culture.

Finally, similar to findings discovered in research with European American populations, depressive symptoms are associated with the parenting practices of Chinese immigrants, including the use of lower levels of positive parenting practices and more restrictive control. Informational and support groups run by community organizations which serve immigrants should teach parents that adjusting to a new culture can be a stressful time and sometimes result in symptoms of depression, which in turn may affect their parenting. Although Chinese fathers are traditionally less involved in care-giving, the results from this study suggest that symptoms of depression nevertheless impact their childrearing practices. In addition, traditional values of stoicism and emotional control may make it more difficult for fathers to acknowledge they are experiencing depressive symptoms (Jankowiak, 1992). Therefore, it would be especially important for helping professionals to inform Chinese immigrant fathers that symptoms of depression are often experienced by both men and women, and that without support or treatment, these feelings may become worse and have detrimental effects on their parenting.

#### *Limitations and Future Directions*

There are several limitations to this study. First, like most studies examining parenting, this study utilized parent's self-reports of their child-rearing behaviours. It is possible that parents' responses on questionnaires regarding their parenting behaviours are different than what they actually do. For example, parents may overestimate the amount or frequency of positive parenting behaviours they engage in and underestimate their application of negative parenting behaviours. Additional methods to assess parent's child-rearing behaviours would be to consider the input of other informants, such as their children, and to directly observe parent-child interactions.

In addition, the findings in this study were based on correlations, and thus, causal conclusions cannot be drawn. For example, although it was assumed that lower levels of Canadian orientation contributed to parents' symptoms of depression, it is also possible that parents experiencing depressive symptoms were less likely to become involved in the host culture. In order to better assess the relation between acculturation and depression, participants should be followed over time to establish if changes in Canadian and Chinese orientation are associated with changes in levels of depression. Longitudinal research would provide a more comprehensive understanding of how acculturation and depression affect parenting over time.

The age of children in this study limits the generalizability of these findings. When parents were answering questions about their child-rearing behaviours they were asked to think of their child between the ages of 10 and 14. Children between these ages have just begun the developmental process of exerting their independence and parents are in the initial stages of realigning their parenting behaviours to meet their children's changing needs. This restricted age range may explain why child age was not related to the main study variables (with the exception of fathers' reports of restrictive control), and hence, why it was not necessary to control for child age in the majority of the analyses. Therefore, more variation in reports of child-rearing behaviours such as monitoring and restrictive control may be found in a sample with older adolescents. Although this study is one of few to examine the relations among acculturation, depressive symptoms, and the child-rearing practices of immigrant parents, the findings cannot necessarily be applied to parents with children of different ages. For example, immigrant parents may exert more restrictive control as adolescents grow older and participate in new activities, such as driving and attending parties with the opposite sex. Alternately, parents of younger

children may display more expressive warmth, as is traditionally found in Chinese child-rearing. Future studies should examine these processes in parents of children and adolescents in various age ranges.

The method of sample recruitment also limits the generalizability of these findings. Parents who elected to participate in the study consisted of a convenience sample that was recruited through their involvement with an intercultural community agency that serves the immigrant population, or through word of mouth. Therefore, the current sample may not be representative of the entire immigrant Chinese population in British Columbia. In addition, parents immigrated from a variety of countries, including China, Taiwan and Hong Kong. In China alone there are over several hundred identifiable minority groups, 55 of which have been officially recognized (Lin, Tseng, & Yeh, 1995). Therefore, the parents in this sample represent a heterogeneous group. Factors such as China's one-child policy and differences in socioeconomic status and urbanization may contribute to differences among subgroups. Future research could utilize a random sampling method to select representative numbers from the immigrant Chinese populations in British Columbia. As well, a larger sample size would allow for comparisons among various Chinese ethnic groups.

It is also important to consider the nature of the host society and the type of acculturating group when interpreting findings. Canada is a multicultural society and British Columbia is home to a large, well-established Chinese community. Therefore, Chinese immigrants have some degree of choice regarding the extent to which they wish to participate in the host culture and maintain their ethnic behaviours, such as traditional parenting practices. This freedom to choose may increase their sense of personal autonomy and self-efficacy and help protect them against depressive symptoms. Parents

in this sample also voluntarily chose to move to Canada. Past research has demonstrated that individuals who are forced to relocate to a new cultural milieu, such as refugees, generally experience more mental health difficulties (Berry et al., 1987). Therefore, the results of this study have limited applicability to other acculturating groups, such as refugees, who have not freely chosen to experience a new culture.

Another limitation concerns the cross-cultural applicability of some of the measures used in this study. Substantial effort was made to utilize measures whose reliability with Chinese populations was previously established (e.g., the ARSMA-Revised for measuring acculturation, the Parenting Experiences Questionnaire for measuring expressive warmth and firm control, and the CES-D for measuring depression). However, some measures such as the Decision-Making Questionnaire (Dornbusch et al., 1985) have not previously been administered to Chinese participants. In addition, the Role Disposition Questionnaire (Segal, 1985) has not previously been used as a measure of Chinese parenting beliefs. Although the Role Disposition Questionnaire demonstrated good validity and reliability in this sample, further studies need to be conducted replicating these findings with Chinese and immigrant Chinese populations.

Although the current study is limited by a number of factors, it presents a rare and important examination of the role of acculturation, depressive symptoms and parenting among Chinese immigrant parents. This study has a number of strengths, including measuring acculturation orthogonally, employing cross-culturally valid measures and assessing both mothers and fathers. It represents a significant step forward in the literature by going beyond simply describing acculturation and parenting to examining depressive symptoms as a mediator of this relation. Future work would benefit from the

examination of additional factors which may affect the relations among acculturation, depression and parenting, including parents' mental health pre-immigration, the parent-child relationship and children's own level of acculturation. As studies begin to employ a more sophisticated understanding of acculturation, a next step would be to evaluate the relative importance of these factors overtime and in different cultural groups.

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## Appendix A: Acculturation Questionnaire

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

	1	2	3	4	5
	Not at all	Very little or not very often	Moderately	Much or very often	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.	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 contact with an Asian country has been...	1	2	3	4	5
17. My contact with Canadian culture has been...	1	2	3	4	5
18. My friends now are of Caucasian origin.	1	2	3	4	5
19. My friends now are of Asian origin.	1	2	3	4	5

Appendix B: Parenting Experiences Questionnaire

Part A. Please circle the number that best indicates how you relate to your child and what kind of expectations you have of him or her.

	<b>1</b> Never	<b>2</b> Almost Never	<b>3</b> Not Often	<b>4</b> About half the time	<b>5</b> Fairly often	<b>6</b> Almost Always	<b>7</b> Always
1. In the course of the day, how often do you know where he or she is?	1	2	3	4	5	6	7
2. Do you know who your child is with when he or she is away from home?	1	2	3	4	5	6	7
3. Do you show affection to your child?	1	2	3	4	5	6	7
4. Do you know if he or she came home or was in bed by the set time?	1	2	3	4	5	6	7
5. Do you enjoy talking things over with your child?	1	2	3	4	5	6	7
6. Do you feel you understand what your child is really like?	1	2	3	4	5	6	7
7. Do you comfort and help your child when he or she has troubles?	1	2	3	4	5	6	7
8. Do you feel happy when you are with your child?	1	2	3	4	5	6	7
9. Do you feel satisfied with the relationship you have with your child?	1	2	3	4	5	6	7
10. Do you smile at your child?	1	2	3	4	5	6	7

## Appendix C: Decision Making Questionnaire

Who decides about the following issues in your house?

	Child Decides	Parents Decide	Parents and child together
1. your child's hairstyle	1	2	3
2. what clothes your child buys	1	2	3
3. how much TV your child watches	1	2	3
4. which TV shows, videos, or movies your child watches	1	2	3
5. what sorts of clothes your child wears to school	1	2	3
6. which friends your child spends time with	1	2	3
7. how your child spends time after school	1	2	3
8. whether your child has to go on family outings	1	2	3
9. how much time your child spends with friends	1	2	3
10. what activities your child can take part in	1	2	3

## Appendix D: Chinese Parenting Beliefs Questionnaire

Please circle the number that best represents your views about raising children of this age.

	<b>1</b> <b>Strongly</b> <b>Disagree</b>	<b>2</b> <b>Mildly</b> <b>Disagree</b>	<b>3</b> <b>Not</b> <b>Sure</b>	<b>4</b> <b>Mildly</b> <b>Agree</b>	<b>5</b> <b>Strongly</b> <b>Agree</b>
1. The most important thing to teach children is absolute obedience to parents.	1	2	3	4	5
2. Parents should show their children how much they love them with hugs and kisses.	1	2	3	4	5
3. Parents are their children's best teachers.	1	2	3	4	5
4. Parents have the most influence on the development of children's attitudes and beliefs.	1	2	3	4	5
5. Once a child enters school, all of his or her education should take place there.	1	2	3	4	5
6. Children should always do what their parents say, no matter what.	1	2	3	4	5
7. Sharing your child's achievements with friends is a way of expressing how much you care about them.	1	2	3	4	5
8. Children should not question the authority of their parents.	1	2	3	4	5
9. Parents should praise their children for lots of things, not just academic achievement.	1	2	3	4	5
10. Parents should continue to teach their child, even after the child enters school.	1	2	3	4	5
11. It is important to make a point of telling your child that you love them on a regular basis.	1	2	3	4	5

## Appendix E: Depression Questionnaire

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** ...

	<b>0</b> Rarely or none of the time (Less than 1 Day)	<b>1</b> Some or a little of the time (1-2 Days)	<b>2</b> A lot of the time (3-4 Days)	<b>3</b> 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

## Footnotes

<sup>1</sup>To determine if country of origin was significantly related to any of the main study variables, a series of t-tests were conducted. Differences on all of the independent and dependent variables were examined between the two largest subgroups of families (China versus Taiwan). With regards to acculturation, one statistically significant difference emerged; fathers from China reported more Canadian orientation ( $M = 3.23$ ,  $SD = .56$ ) than did fathers from Taiwan ( $M = 2.88$ ,  $SD = .53$ ). No significant relations were found between depression and country of origin. In addition, country of origin was not significantly related to the parenting practices of expressive warmth, firm control or restrictive control. However, country of origin was significantly related to both mothers' and fathers' endorsement of Chinese parenting beliefs. Mothers ( $M = 3.98$ ,  $SD = .46$ ) and fathers ( $M = 3.87$ ,  $SD = .42$ ) from Taiwan endorsed significantly more Chinese parenting beliefs than mothers ( $M = 3.65$ ,  $SD = .39$ ) and fathers ( $M = 3.63$ ,  $SD = .43$ ) from China.

Figure 1

*The Relations among Acculturation, Parenting and Depressive Symptoms*

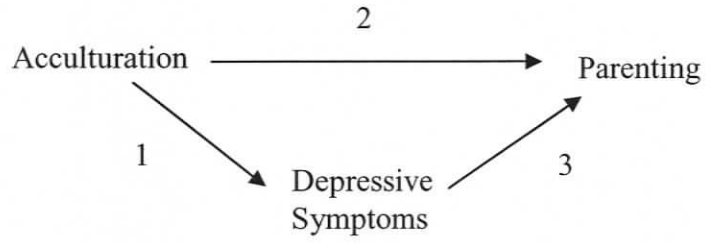


Figure 2

*Interaction between Canadian and Chinese Orientation for Mothers' Restrictive Control*

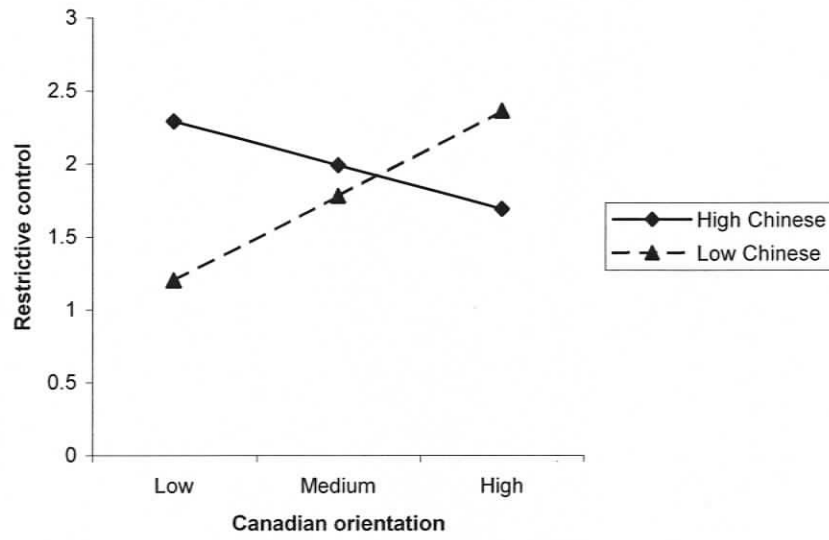
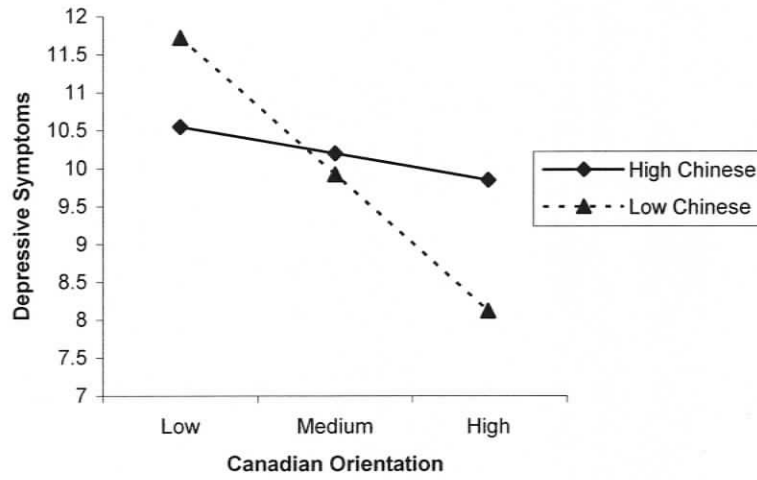


Figure 3

*Interaction between Canadian and Chinese Orientation for Fathers' Depressive Symptoms*




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