Culture and Parenting: Psychological Adjustment Among Chinese Canadian Adolescents Culture et rôle parental : Adaptation psychologique chez les adolescents canadiens d'origine chinoise

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ABSTRACT

This study examined the relationships between adolescents' cultural identification, perceptions of maternal and paternal parenting, and psychological adjustment with a sample of 192 Chinese Canadian adolescents. Participants were recruited from public urban high schools and completed 4 self-report questionnaires. Data were analyzed using correlation and regression analyses. Results revealed that neither demographic nor cultural variables were significantly associated with psychological adjustment. Perceived maternal/paternal warmth was significantly and positively correlated with psychological adjustment and partially mediated the effect of perceived maternal/paternal control on psychological adjustment. The implications of these findings for counselling practice and future research are discussed.

RÉSUMÉ

À partir d'un échantillon de 192 adolescents canadiens d'origine chinoise, cette étude a permis d'analyser les relations entre l'identification culturelle des adolescents, les perceptions des rôles parentaux maternel et paternel, et l'adaptation psychologique. Les participants ont été recrutés dans des écoles secondaires publiques urbaines et ont rempli 4 questionnaires d'auto-évaluation. L'analyse des données s'est faite par corrélation et régression. Les résultats ont révélé que l'adaptation psychologique n'était significativement liée ni à des variables démographiques ni à des variables culturelles. La perception de la chaleur maternelle ou paternelle montrait une relation significative positive avec l'adaptation psychologique et modifiait partiellement l'effet perçu du contrôle maternel ou paternel sur l'adaptation psychologique. La discussion cerne l'incidence de ces résultats sur l'exercice du counseling et sur la recherche à venir.

The impact of parenting on children's developmental outcomes has been widely researched among Western, particularly North American, societies (Baumrind, 1971; Maccoby, 1980). Accumulating cross-cultural investigations have revealed that parenting style and its association with optimal child outcomes differ across cultural groups (Chao, 1994; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Lim & Lim, 2004; Lin & Fu, 1990; Steinberg, Mounts, Lamborn, & Dornbusch, 1991; Stewart, Bond, Kennard, Ho, & Zaman, 2002). Given that parenting is largely informed by culture, researchers

have speculated that immigration and acculturation, which refers to the process of cultural adaptation, may complicate issues of parenting to the detriment of children's overall adjustment (Chiu, Feldman, & Rosenthal, 1992; Costigan & Dokis, 2006; Juang, Syed, & Takagi, 2007; Tardif & Geva, 2006; Tsai-Chae & Nagata, 2008; Wu & Chao, 2005).

At this time, the Asian population represents North America's largest and fastest growing non-European ethnic group (Statistics Canada, 2004; U.S. Bureau of the Census, 2004). While immigrants from the People's Republic of China, Hong Kong, and Taiwan comprise a large proportion of North America's Asian immigrant population, Chinese immigrants continue to remain underrepresented in the parenting research literature (Lim & Lim, 2004; Yeh, Kim, Pituc, & Atkins, 2008). This study addressed this important need for a culture-specific inquiry into parenting and child outcomes among Chinese immigrant youth.

Parental acceptance-rejection theory (PARTheory; Rohner, Khaleque, & Cournoyer, 2005), along with its quantitative means of empirical inquiry, provides a coherent approach to the study of parenting and has been used in numerous cross-cultural studies. According to PARTheory, parenting style can be conceptualized using an orthogonal or bidimensional model whereby parental warmth (acceptance-rejection) and parental control (permissiveness-strictness) represent two independent dimensions of parenting behaviour. According to PARTheory, and for the purposes of this study, "parental control" refers specifically to the level of limitations that parents place on their children's behaviour. The term "parent" refers to a significant caregiver in a child's life and not necessarily a biological or adoptive parent.

Substantial cross-cultural evidence supports PARTheory's major postulate that children's perception of parental warmth is directly, positively, and universally associated with their psychological adjustment (Cournoyer, Sethi, & Cordero, 2005; Khaleque & Rohner, 2002a; Kim, Cain, & McCubbin, 2006; Lila, Garcia, & Garcia, 2007; Rohner, 2004; Rohner, Kean, & Cournoyer, 1991; Rohner & Rohner, 2005). The relationship between children's perception of parental control and their psychological adjustment is not specifically stated in PARTheory and remains inconsistent within the research literature (Chiu et al., 1992; Cournoyer et al., 2005; Kim et al., 2006; Rohner et al., 2005).

Cross-cultural researchers have suggested that the extent to which parental control is exerted, as well as its association with parental warmth, varies across cultural contexts depending upon the outcomes valued by a particular cultural group (Lim & Lim, 2004; Lin & Fu, 1990; Markus & Kitayama, 1991; Rothbaum, Morelli, Pott, & Liu-Constant, 2000; Rudy & Grusec, 2006). In individualistic societies (e.g., Western European) that value independence and individual initiative, parents overtly express warmth, empathy, and encouragement toward their children and support them to actively discover and express their unique inner attributes. Parents tend to avoid the use of strict control that is considered to be an infringement on their children's need for autonomy.

In collectivistic societies (e.g., Asian) that value interdependence and conformity to social norms, filial piety and deference to parental authority are culturally endorsed. Reciprocal parent-child roles are evident within Confucian cultures (e.g., Chinese, Korean, Japanese, and Vietnamese) that are hierarchical and patriarchal. Within this context, emotional restraint is highly valued and parents, particularly fathers, are discouraged from being emotionally expressive toward their children. Rather, parents demonstrate their care through rigorously teaching, disciplining, and governing their children to act in morally, culturally, and socially responsible ways. In turn, children are expected to respect, honour, and unquestioningly obey their parents.

Research supports that parental control is inconsistently associated with parental warmth (i.e., acceptance or rejection) across individualistic and collectivistic societies. Given that research using Chinese and Chinese immigrant youth is scarce, and although Korean and Chinese research samples cannot be assumed to be the same, findings obtained from more commonly conducted studies with Korean adolescents may be useful. In Korea, Rohner and Pettengill (1985) found that adolescents who perceive their mothers and fathers as controlling also tended to perceive them as warm and accepting.

In the United States of America, Kim (2005) examined a group of Korean adolescents and found that only those born in America tended to associate parental control with parental hostility, aggression, and rejection. Korean-born adolescents, in her study, did not associate parental control with any attributes of reduced parental warmth or acceptance. One possible interpretation of these findings is that the more time Asian immigrant youth spend in the Western context, the more they adopt Western values of autonomy and consequently perceive parental control as a negative aspect of parenting.

When incorporating the research on culture, parenting, and child outcomes, the current understanding is that (a) perceived parental warmth is positively and universally associated with psychological adjustment; (b) perceived parental control is inconsistently associated with perceived parental warmth; and (c) perceived parental control is inconsistently associated with psychological adjustment. Given these relationships, it is tenable that the effect of perceived parental control on psychosocial adjustment is mediated by children's interpretation of parental control as a form of either acceptance or rejection.

In a related study, Rohner et al. (1991) found that the effect of physical punishment on adolescents' psychological adjustment was mediated by adolescents' perception of caretaker rejection. Mediation is a causal model. The speculation in this study is that the perception of parental control (predictor) affects the perception of parental warmth (mediator), which in turn affects psychological adjustment (outcome). In this way, perceived parental control would be related to better psychological adjustment when perceived parental warmth is high but to poorer psychological adjustment when perceived parental warmth is low. No study has examined this mediation model. Given that parenting is culturally embedded, such that the interpretation of parenting behaviours is largely culture-based, it

is likely that immigration and the process of cultural adaptation complicate and strain family functioning.

When Chinese families immigrate to North America, parents and children encounter a new context that challenges their traditional values, beliefs, and practices. Berry (2006) has proposed an orthogonal or bidimensional model of cultural adaptation that yields four acculturation strategies. A person can (a) exclusively follow their heritage culture (separation); (b) exclusively follow mainstream culture (assimilation); (c) balance both cultures (integration); or (d) follow neither culture (marginalization).

Studies on immigrant families suggest that while children tend to prefer values and norms associated with mainstream culture, parents tend to retain values and norms consistent with their heritage culture (Baptiste, 1993; Buki, Ma, Strom, & Strom, 2003; Costigan & Dokis, 2006; Hwang, 2006; Rudy & Grusec, 2006; Wu & Chao, 2005). Studies further suggest that immigrant youth who adopt an integrative acculturation strategy, maintaining aspects of their heritage culture while simultaneously adopting aspects of mainstream culture, tend to exhibit optimal psychological and sociocultural outcomes (Berry, Phinney, Sam, & Vedder, 2006). Given that Chinese youth living in North America straddle two distinct and opposing cultures, it is likely that they experience more difficulty achieving and maintaining healthy psychological adjustment than their Western European peers.

Adolescence represents a critical stage of development when youth actively seek to discover their identity and assert their independence. This has been associated with parenting stress and parent-child conflict within both North American and Chinese societies (Small, Eastman, & Cornelius, 1988; Yau & Smetana, 1996). Within Chinese immigrant families, parent-child acculturation disparity often exacerbates normal family stresses (Buki et al., 2003; Chiu et al., 1992; Juang et al., 2007; Tardif & Geva, 2006; Tsai-Chae & Nagata, 2008).

Many Chinese immigrant adolescents must struggle to establish a coherent sense of self while simultaneously negotiating and adapting their roles and responsibilities according to competing Asian and Western values and expectations (Costigan & Dokis, 2006; Yeh et al., 2008). At this time, research examining the psychological adjustment of Chinese immigrant adolescents, within the context of culture and parenting, is insufficient. So long as counsellors lack the information necessary to form an accurate conceptualization of Chinese immigrants' experiences, their ability to identify and address the needs of this rapidly growing population will remain impeded.

The purpose of this study was to examine the impact of Chinese Canadian adolescents' perceptions of parental (maternal and paternal) warmth and control on their psychological adjustment, while taking their cultural identity into consideration. Previous studies suggest that it is adolescents' perception of parenting behaviours that is meaningful to their overall adjustment, above and beyond their parents' reports (Kim et al., 2006; Steinberg et al., 1991). The specific questions that were examined in this study include:

- 1. To what extent are demographic variables (i.e., gender, age, and mother's level of education¹), cultural variables (i.e., identification with Chinese/Canadian culture), and parenting variables (i.e., perceived maternal/paternal warmth and control) associated with psychological adjustment?
- 2. Does the perception of maternal/paternal warmth mediate the association between the perception of maternal/paternal control and psychological adjustment?

METHOD

Participants

The sample consisted of 192 self-identified Chinese Canadian adolescents (female participants = 140, or 72.9%; male participants = 52, or 27.1%) enrolled at four public urban high schools in western Canada. Participants ranged in age from 12 through 18 years (M = 15.32, SD = 1.38). The majority of participants were born in Asia (37.5% in the People's Republic of China, 19.3% in Hong Kong, and 12% in Taiwan), 25% were born in Canada, and 6.2% were born elsewhere around the world. Regarding immigrant status, 74.5% identified as first generation Canadian residents, 22.4% as second generation, and 3.1% as third or later generation. Participants who were not born in Canada had lived in Canada for an average length of 78.82 months (SD = 51.50) or 6.57 years.

Participants spoke predominantly Chinese with their mothers (85.4%, n = 164) and fathers (82.3%, n = 158). Participant self-report data revealed that their mothers were generally well-educated, such that 10.4% graduated from high school (n = 20), 13.5% attended vocational/technical school or college/university (n = 26), 35.9% graduated from college/university (n = 69), and 24% attended graduate or professional school (n = 46). The remaining 8.9% of adolescents did not know their mothers' highest level of education (n = 17).

Procedures

Ethical approval for this study was received from a University Behavioural Research Ethics Board and two local school board research committees. Participants were recruited from four public urban high schools. The first author visited each participating school and described the nature and purpose of this study to students via classroom visits and public announcements. Students who expressed interest were given a parent/guardian consent form to take home.

Participation was strictly voluntary, and only students who met each of the following criteria were invited to take part: (a) self-identified as Chinese Canadian, (b) had adequate English fluency to provide informed assent and complete the study questionnaires, (c) had both a female and a male caregiver in their lives that they could reflect upon when reporting their perceptions of maternal/paternal warmth and control, (d) received written parent/guardian consent for their participation, and (e) provided written assent for their own participation. To promote the return rate of parent/guardian consent forms, all students who

returned their forms to identified school personnel within one week, regardless of whether their parent/guardian gave them permission to participate in this study or not, were entered into a draw to win two movie passes. One student from each participating school was randomly selected as the winner.

The first author administered study questionnaire packages to students in group format at their home school during free time (i.e., lunch or after school). Students were informed of their rights as research participants and assured that their responses would remain confidential and anonymous, prior to completing the assent form and questionnaire measures. Students were asked to complete all questionnaires independently, read all instructions carefully, and respond to each question by selecting one response. It took students an average of 45 minutes to complete the battery of questionnaires. Each participant received a \$10 gift certificate to the local mall as a token of appreciation for their involvement in this study.

Instruments

DEMOGRAPHIC AND BACKGROUND QUESTIONNAIRE

A demographic questionnaire was constructed for use in this study and consisted of questions pertaining to participants' gender, age, grade, place of birth, length of residence in Canada, Canadian generational status, language(s) used in general (i.e., spoken, understood, and read), language(s) used with their mother, language(s) used with their father, and their mother's highest level of education.

CULTURAL IDENTIFICATION

Adolescents' identification with Chinese and Canadian culture was measured using the *Vancouver Index of Acculturation* (VIA; Ryder, Alden, & Paulhus, 2000). The VIA is a 20-item self-report questionnaire on which respondents rate their level of agreement with a series of statements pertaining to their identification with different domains relevant to acculturation. This measure was created using a bidimensional conceptualization of acculturation and consists of two subscales (10 items each): *Heritage Dimension* and *Mainstream Dimension*. Subscale items are identical, except for reference to one's heritage or mainstream culture, and are arranged in alternate order (e.g., "I enjoy social activities with Chinese/Canadian people"). Items are rated on a 9-point Likert-type scale ranging from 1 (*strongly disagree*) to 9 (*strongly agree*). Subscale scores are averaged, with higher scores reflecting higher levels of identification with one's respective culture.

Internal consistency reliability estimates of the VIA, reported in two studies that used culturally diverse undergraduate samples, ranged from α = .91 to α = .92 for the Heritage Dimension and from α = .85 to α = .89 for the Mainstream Dimension (Kennedy, Parhar, Samra, & Gorzalka, 2005; Ryder et al., 2000). Evidence of construct validity of the VIA has been supported by factor analysis, which revealed that all items significantly loaded at .40 or more onto their anticipated subscale, and by significant correlations in the expected directions between each subscale and seven concurrent measures (Ryder et al., 2000). In the present study, scores

on the VIA demonstrated high internal consistency with α = .92 for the Heritage Dimension (i.e., Chinese identification) and α = .86 for the Mainstream Dimension (i.e., Canadian identification).

PERCEPTIONS OF PARENTAL (MATERNAL AND PATERNAL) WARMTH AND CONTROL

Adolescents' perceptions of maternal and paternal warmth and control were measured using the mother and father versions of the *Child Parental Acceptance-Rejection/Control Questionnaire* (Child PARQ/Control; Rohner, 2005a). This measure is essentially a combination of the items from the Child Parental Control Scale (Child PCS; Rohner & Khaleque, 2005a) and the Child Parental Acceptance-Rejection Questionnaire (Child PARQ; Rohner, 2005b).

The Child PARQ/Control is a 73-item self-report questionnaire on which respondents rate the truth of statements pertaining to their mother's or father's behaviours toward them. The total scale consists of five subscales: Warmth/Affection (20 items) (e.g., "My mother/father makes me feel wanted and needed"); Hostility/Aggression (15 items) (e.g., "My mother/father goes out of her/his way to hurt my feelings"); Indifference/Neglect (15 items) (e.g., "My mother/father pays no attention to me as long as I do nothing to bother her/him"); Undifferentiated Rejection (10 items) (e.g., "My mother/father does not really love me"); and Control (13 items) (e.g., "My mother/father sees to it that I know exactly what I may or may not do").

Subscale items are arranged in cyclical order. Items are rated on a 4-point Likert-type scale ranging from 1 (almost never true) to 4 (almost always true). In the present study, the Warmth/Affection and Control subscales were used to assess perceived parental warmth and control. Subscale scores are summed. A portion of the items on the Control subscale are reverse scored in order to reduce response bias. Warmth/Affection scores range from 20 to 80 and Control scores range from 13 to 52, with higher scores reflecting higher levels of perceived parental warmth and control. Specifically, the Control subscale score is interpreted as follows: 13–26 indicates low/lax control; 27–39 indicates moderate control; 40–45 indicates firm control; and 46–52 indicates strict/restrictive control.

Analyses of reliability and validity for the Child PARQ and PCS show the instruments to be applicable to cross-cultural research. For example, internal consistency reliability estimates of the Child PARQ and PCS in numerous studies, which used culturally diverse youth samples, ranged from α = .71 to α = .96 (Khaleque & Rohner, 2002b; Kim, 2005; Kim et al., 2006; Kim & Rohner, 2002; Lila et al., 2007; Rohner, 2005b; Rohner & Khaleque, 2003; Rohner & Khaleque, 2005a; Rohner & Pettengill, 1985). The mother and father versions of the Warmth/Affection subscale were used with a sample of Chinese adolescents in Hong Kong, and both versions yielded α = .94 (Wong, DeMan, & Leung, 2002).

Factor analyses of the Child PARQ and PCS across numerous sociocultural groups worldwide revealed the same two-factor structure, acceptance-rejection and permissiveness-strictness, everywhere (Rohner & Cournoyer, 1994; Rohner & Khaleque, 2005b). Further, the Warmth/Affection subscale was significantly

correlated with a concurrent measure, the Acceptance subscale of Schaefer's Children's Report of Parental Behavior Inventory, at r = .83, p < .001 (Rohner, 2005b). In the present study, scores on the Warmth/Affection and Control subscales of the Child PARQ/Control demonstrated high internal consistency with α = .93 for maternal warmth, α = .95 for paternal warmth, α = .82 for maternal control, and α = .85 for paternal control.

PSYCHOLOGICAL ADJUSTMENT

Adolescents' psychological adjustment was measured using the *Adult Personality Assessment Questionnaire* (Adult PAQ; Rohner & Khaleque, 2005b). The Adult PAQ is a 63-item self-report questionnaire on which respondents rate the truth of statements pertaining to the way they feel about themselves. This measure is scored in the direction of psychological maladjustment. The total scale consists of seven subscales (9 items each): Hostility/Aggression (e.g., "I get so angry I throw and break things"); Dependency (e.g., "I like my friends to feel sorry for me when I am ill"); Negative Self-Esteem (e.g., "I certainly feel worthless"); Negative Self-Adequacy (e.g., "I think I am a failure"); Emotional Unresponsiveness (e.g., "I feel distant and detached from most people"); Emotional Instability (e.g., "I am cheerful and happy one minute and gloomy or unhappy the next"); and Negative Worldview (e.g., "I view the universe as a threatening, dangerous place").

Subscale items are arranged in cyclical order. Items are rated on a 4-point Likert-type scale ranging from 1 (almost never true) to 4 (almost always true). Total scores are summed after reverse scoring a portion of the items on each subscale in order to reduce response bias. Total scores range from 63 to 252, with higher scores reflecting lower levels of psychological adjustment. Scores that fall below the midpoint of 158 reflect more overall psychological adjustment than maladjustment.

While the Adult PAQ is intended for use with adolescents and adults, there is no information available on the measure when used with adolescent and/or Asian immigrant samples. In a study using undergraduate students in the metropolitan Washington, D. C. area, all seven subscales of the Adult PAQ revealed acceptable internal consistency reliability estimates that ranged from α = .73 to α = .85 (Rohner & Khaleque, 2005b). Convergent, discriminant, and construct-related evidence of validity in support of the Adult PAQ have also been documented (Rohner & Khaleque, 2005b). In the present study, scores on the full Adult PAQ demonstrated acceptable internal consistency with α = .78.

MISSING DATA

In the current study, there were no missing data for the VIA or the PARQ/Control. There were a total of five PAQ questionnaires that were returned with missing data, none of which contained missing data for more than one item on any given subscale or more than six items on the entire measure. According to the test manual, a score was computed for each missing item by (a) computing the sum of the completed items on the respective subscale, after reverse scoring

the relevant items; (b) dividing the obtained value by the number of items on the respective subscale that were answered; and (c) rounding the obtained value up to the nearest whole integer. This newly created mean score was entered in place of the missing value and was further reverse scored, when summing up the Total PAQ score, if this is what would normally be required for the respective item.

There were a total of four questionnaires returned on which participants endorsed the midpoint between two responses on the PARQ/Control and/or the PAQ. A random coin toss was performed in these instances to force a decision for either one of the two responses, with "heads" in favour of the lower value and "tails" in favour of the higher value. The respective item was subsequently reverse scored if this is what would normally be required.

RESULTS

Analyses

DESCRIPTIVE STATISTICS

Descriptive statistics for all study variables were calculated and are presented in Table 1. As a whole, participants in this study reported moderately high levels of identification with Chinese culture and Canadian culture. They tended to report their mothers and fathers as moderately warm and controlling and, on average, tended to report more overall psychological adjustment than maladjustment. Recall when interpreting study findings that the measure used to assess psychological adjustment, the Personality Assessment Questionnaire, was scored such that lower scores indicate higher levels of psychological adjustment.

Table 1
Descriptive Statistics for Study Variables

Variable	Mean	SD	Sample range	Possible range	Internal consistency (α)
Chinese identification	6.98	1.53	1-9	1–9	.92
Canadian identification	6.83	1.22	4–9	1–9	.86
Maternal warmth	62.85	10.71	25-80	20-80	.93
Paternal warmth	59.64	13.17	23-80	20-80	.95
Maternal control	34.14	6.62	19-52	13-52	.82
Paternal control	33.34	7.64	16-52	13-52	.85
Psychological adjustment	133.85	20.03	89-204	63-252	.78

Note. Psychological adjustment was scored in the direction of psychological maladjustment.

BIVARIATE CORRELATION ANALYSIS

Pearson correlations were conducted to determine the intercorrelations among study variables. Effect sizes for the correlations and subsequent results should be

considered using Cohen's (1992) criteria, whereby r = 0.1 indicates a small effect, r = 0.3 indicates a medium effect, and r = 0.5 indicates a large effect.

As shown in Table 2, bivariate correlations revealed that neither demographic variables (i.e., gender, age, and mother's level of education) nor cultural variables (i.e., Chinese/Canadian identification) were significantly associated with psychological adjustment. As expected, adolescents' warmth scores (i.e., high maternal/paternal warmth) were significantly and negatively related to their PAQ scores (i.e., healthy psychological adjustment). Results further revealed that adolescents' control scores (i.e., high maternal/paternal control) were significantly and negatively related to their warmth scores (i.e., low maternal/paternal warmth) and significantly and positively related to their PAQ scores (i.e., poor psychological adjustment). Results of the correlation analysis served as a basis for subsequent regression analyses that sought to investigate the contribution of parenting variables to psychological adjustment.

Table 2
Intercorrelations among Demographic and Study Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Gender	-	.02	.03	09	18*	11	12	.09	03	.06
2. Age		-	13	.03	22**	30**	18*	.01	04	.09
3. Mother's education			-	08	14	.08	.17*	03	14	04
4. Chinese				-	.17*	.23**	00	.18*	.10	07
identification										
Canadian					-	.18*	.01	05	02	12
identification										
6. Maternal warmth						-	.61**	23**	25**	32**
7. Paternal warmth							-	14	30**	25**
8. Maternal control								-	.46**	.23**
9. Paternal control									-	.23**
10. Psychological adjustment										-

Note. Gender was coded as female = 1; male = 2. Mother's education was coded such that lower numbers represent lower levels of education. Psychological adjustment was scored in the direction of psychological maladjustment.

MEDIATION REGRESSION ANALYSIS

For data pertaining to each of mothers' and fathers' behaviours, a series of multiple regressions were conducted to examine whether the perception of maternal/paternal warmth served a mediating role in the association between perceived

^{*}p < .05. **p < .01.

maternal/paternal control and psychological adjustment. Path diagrams for direct and mediated effects are shown in Figures 1 and 2. A summary of the regression results are presented in Tables 3 (mother data) and 4 (father data). Four criteria for mediation were tested and met for each of mother and father data (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004).

Figure 1
Illustration of a Direct Effect; Predictor Affects Outcome

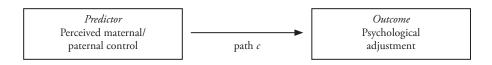
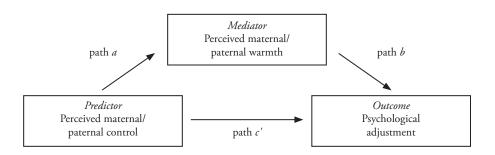


Figure 2
Illustration of a Mediated Effect; Predictor Affects Outcome Indirectly Through
Mediator



First, perceived maternal/paternal control had a significant effect on psychological adjustment (path *c*). Second, perceived maternal/paternal control had a significant effect on perceived maternal/paternal warmth (path *a*). Third, perceived maternal/paternal warmth had a significant effect on psychological adjustment when controlling for perceived maternal/paternal control (path *b*). Perceived maternal/paternal control had a significant effect on psychological adjustment when controlling for perceived maternal/paternal warmth (path *c'*).

Fourth, when comparing the direct effect c with the mediated effect c', the effect of perceived maternal/paternal control on psychological adjustment decreased in magnitude and significance when perceived maternal/paternal warmth was entered simultaneously as a predictor variable. According to Baron and Kenny (1986), this pattern suggests partial mediation. Sobel's (1982) test was conducted and further determined that the mediated effects were significant (z = 2.515, p < .05

for mothers; z = 2.273, p < .05 for fathers). As hypothesized, perceived maternal/paternal warmth partially mediated the effect of perceived maternal/paternal control on psychological adjustment.

Table 3
Multiple Regression Analysis Testing Perceived Maternal Warmth as a Mediator in the Association between Perceived Maternal Control and Psychological Adjustment

Regression, path, and variable	В	SE B	β	\mathbb{R}^2
Regression 1: Predicting psychological adjustment Path c				.052
Maternal Control	.689	.214	.228**	
Regression 2: Predicting maternal warmth Path a				.053
Maternal Control	371	.114	229**	
Regression 3: Predicting psychological adjustment Path b				.125
Maternal Warmth	519	.131	277***	
Path <i>c'</i> Maternal Control	.497	.212	.164*	

Note. Psychological adjustment was scored in the direction of psychological maladjustment. *p < .05. **p < .01. ***p < .001.

Table 4
Multiple Regression Analysis Testing Perceived Paternal Warmth as a Mediator in the Association between Perceived Paternal Control and Psychological Adjustment

Regression, path, and variable	В	SE B	β	\mathbb{R}^2
Regression 1: Predicting psychological adjustment Path c				.052
Paternal Control	.599	.185	.228**	
Regression 2: Predicting paternal warmth Path <i>a</i>				.088
Paternal Control	513	.119	297***	
Regression 3: Predicting psychological adjustment Path b				.087
Paternal Warmth	297	.111	196**	
Path c' Paternal Control	.447	.191	.170*	

Note. Psychological adjustment was scored in the direction of psychological maladjustment. $^*p < .05. \ ^{**}p < .01. \ ^{***}p < .001.$

DISCUSSION

The purpose of this study was to examine the impact of Chinese Canadian adolescents' perceptions of parental (maternal and paternal) warmth and control on their psychological adjustment, while taking their cultural identity into consideration. The findings reported herein are consistent when incorporating the literature on culture, parenting, and child outcomes (Baptiste, 1993; Hwang, 2006; Lim & Lim, 2004; Rohner et al., 2005).

Three major findings emerged when examining the intercorrelations among study variables. Although demographic and cultural variables were not significantly correlated with psychological adjustment, all parenting variables were. First, as expected, adolescents who reported higher levels of perceived parental (maternal and paternal) warmth also tended to report higher levels of psychological adjustment. Children everywhere have a need to feel accepted by their parents and significant caregivers (Baumrind, 1971; Maccoby, 1980; Rohner et al., 2005).

Second, adolescents' perception of parental (maternal and paternal) warmth tended to decrease as their perception of parental control increased. Also apparent was that older adolescents tended to report higher Canadian identification and perceived parental warmth than younger adolescents. It is possible that adolescents' age and corresponding development may be influencing their cultural identification and perception of parenting style. Third, while the relationship between perceived parental control and child outcomes remains inconsistent in previous research, this study found that adolescents who reported higher levels of perceived parental (maternal and paternal) control also tended to report lower levels of psychological adjustment.

The unique contribution of this study is support for the partial mediating role of perceived parental (maternal and paternal) warmth in the association between perceived parental control and psychological adjustment. Adolescents in this study who perceived their mothers/fathers as controlling tended to report lower levels of psychological adjustment, insofar as they perceived their mothers/fathers as less warm. This partial mediated effect explains why previous studies that sought to examine the relationship between perceived parental control and child outcomes across cultural contexts have yielded inconsistent results (Chiu et al., 1992; Cournoyer et al., 2005; Kim et al., 2006).

In sum, this study provides empirical support for the critical role of perceived parental warmth, not control, in adolescents' psychological adjustment. Specifically, findings revealed that it was not the presence of parental control that negatively impacted adolescents' psychological adjustment, but rather adolescents' perceived experience of reduced parental warmth or rejection. Practically, these findings offer counsellors several suggestions for providing services to Chinese immigrant parents, youth, and families.

Implications for Counselling

At the risk of tendering suggestions for Chinese immigrant families, who represent a rich, heterogeneous group of families, we suggest a plan of parent educa-

tion offered in schools. School counsellors are trained in basic principles of family therapy theory. Providing psychoeducation to groups of targeted parents regarding boundaries, power, and circular causation may increase their understanding of Western ideas of family processes.

Counsellors could help Chinese immigrant parents understand the importance of their child's development in mainstream culture, by first linking highly valued academic success with psychological wellness (Strickland & Shumow, 2008). Using psychoeducation approaches supported by research findings, counsellors can help parents understand that while 10% of academic success is accounted for by IQ, the remaining variance can largely be attributed to social-emotional competence that is a direct result of parental influence and interaction (Zins, Bloodworth, Weissberg, & Walberg, 2007). Engaging parents initially in this way may orient them to factors that enhance psychological wellness, paving the way for suggestions for enhanced parenting.

Psychoeducation about overt displays of affection and its positive impact on psychological adjustment can be adapted to accommodate many Chinese clients' lack of comfort in discussing emotions and feelings (Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009). Counsellors can provide information about adolescents' lowered perception of parental warmth and its association with aggressive and delinquent behaviours (Wu & Chao, 2005). Direct instruction can detail the link between body sensations and emotions, given that somatic expressions of mental health issues tend to be less stigmatizing and more culturally acceptable to Chinese populations. Hwang (2006) very cleverly linked the popular Asian cartoon culture with psychological lessons.

Because parents tend to report significantly more parental warmth and acceptance than their children, it may be particularly useful to help parents distinguish between their perception and their child's perception of the parent-child relationship (Aquilino, 1999; Tein, Roosa, & Michaels, 1994). Counsellors could teach parents how to convey warmth, empathy, and encouragement overtly toward their children through a combination of didactic instruction, demonstration, and experiential role-play. Previous studies have found that this form of therapy, within the context of a 10-week support group, resulted in positive outcomes for Chinese immigrant parents and their children (Chau & Landreth, 1997; Yuen, Landreth, & Baggerly, 2000).

Similarly, when working with youth, either in schools or in private therapy, counsellors using psychoeducation in group or individual sessions could highlight that parenting is largely constructed by culture such that parental warmth is demonstrated differently, and parental control is interpreted differently, across cultural contexts. Acculturation and cultural adjustment have been identified as significant predictors of mental health among Asian immigrant youth (Berry et al., 2006; Yeh, 2003). Engaging immigrant youth in cross-cultural awareness can help validate their often confusing experience of living between two distinct cultures, enhance their adaptation to mainstream culture, and decrease associated mental health symptoms that include anxiety, depression, anger, and low self-esteem.

Helping youth become comfortable and competent when interacting with their parents, peers, and mainstream society, through the use of psychoeducation, demonstration, and experiential role-play, may further contribute to a coherent bicultural identity and other positive outcomes. Whiston and Quimby (2009) suggest that small-group counselling has benefits for a range of issues at both the elementary and secondary level. Group counselling can help immigrant youth experience peer belonging and acceptance, thereby counteracting common difficulties associated with adjusting to mainstream culture that include alienation and withdrawal.

The strategies suggested address both prevention and intervention of parent-child acculturation disparity that has been shown to threaten the parent-child relationship and further hinder the optimal development of Asian immigrant youth. The ultimate aim would be to promote children's experience of parental warmth and affection, as this has been implicated as crucial for their healthy psychological adjustment.

Strengths and Limitations

The strengths of this study include its focus on Chinese immigrant adolescents, its examination of perceived maternal and paternal parenting behaviours, and its unique investigation into the mediated relationship between perceived parental control and psychological adjustment through perceived parental warmth. Future research using Chinese and other Confucian immigrant groups (e.g., Korean, Japanese, and Vietnamese) is necessary to confirm or disconfirm present study findings.

Generalizability and interpretation of the findings should be considered in light of this study's limitations. First, the sample represented a narrow group of self-identified Chinese Canadian adolescents, attending four public urban high schools in middle-income areas in western Canada, who voluntarily agreed to participate. Second, the cross-sectional design of this study allows for the establishment of relationships among study variables but cannot confirm the direction of the relationships that are assumed by a mediation model. Third, while all the questionnaire measures used in this study demonstrated acceptable internal consistency estimates, parental acceptance-rejection theory's questionnaire measures have not been normed or validated for use with Chinese immigrant youth. Due to the inherent ethnocentric biases embedded in the PARQ/Control and PAQ, future research is needed to determine the appropriateness of these measures for cross-cultural research.

Subsequent research is needed to replicate this study's finding that perceived parental warmth partially mediates the effect of perceived parental control on psychological adjustment. More studies are also needed to examine the relative contribution of cultural and parenting variables to the psychological adjustment of Chinese immigrant youth. Longitudinal and qualitative investigations that include both children and parents would be particularly valuable to help counsellors gain insight into how cultural and parenting variables interact and contribute to Chinese immigrant parenting practice and children's overall adjustment. At this

time, culture-specific inquiries into diverse and underrepresented populations are warranted, given the quickly changing demographic of North America.

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Note

 Mother's level of education is often used as a proxy for socioeconomic status in student selfreport studies (Luo, Wilkins, & Kramer, 2006).

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