

## **Inter-Ethnic and Mono-Ethnic Families: Examining the Association of Parenting and Child Emotional and Behavioural Adjustment**

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### **ABSTRACT**

Literature suggests that inter-ethnic children are not only one of the fastest growing populations in the last decade, but also show a higher prevalence of risk factor for poor outcomes, including family breakdown, academic underachievement and psychology maladjustment. The present research explores whether ethnically-mixed children are less well psychologically adjusted when compared to children from mono-ethnic families. Findings are reported from a study on the emotional and behavioural adjustments of children from 218 inter-ethnic Malay-Chinese and 214 mono-ethnic Malay and Chinese families in Malaysia. The centrality of familial ethnicity status (inter vs. mono), parental relationships quality, and parenting behaviour were also explored as correlates of children's psychological adjustment. Mother-child dyads were sampled for the survey and standardized self-administered questionnaires were utilised. In this sample of Malaysian families, multivariate analysis revealed that parental ethnicity mix, the quality of their marital relationships, and parenting behaviour predicted whether or not the children were emotionally and behaviourally adjusted. Overall, children from mixed parentage reported fewer emotional and behavioural problems than those from mono-ethnic minority families. The current study challenges traditional assumptions towards inter-ethnic families and shows that children of mixed-parentage may not be at risk of emotional and behavioural problems, as previously suggested. The findings have important implications for children development and interventions, with children of mixed-parentage in today's changing families.

**Keywords:** Emotional and behavioural adjustments, ethnically-mixed families, mixed-parentage children, parenting

### **INTRODUCTION**

Empirical evidence indicates a growth in interethnic marriages in the current societies, such as in the United Kingdom (Salt & Rees, 2006; Office for National Statistics, 2001), the United States (U.S. 2000 Censuses; Tafoya & Hills, 2004) and also in Asian countries like Malaysia (Sanusi, 1985; Asia Sentinal, 2007). The present research focused on a sample from the multiethnic population in Malaysia. The figures of the latest Census 2010 indicated that

the population of the country has increased from 22 million in year 2000 to 27.5 million, with a distribution of 53.4% Malays, 26.0% Chinese, 11.7% Aborigines, 7.7% Indians, and 1.2% other ethnics. In terms of religion, Islam is the most widely professed (60.4%), followed by Buddhism (19.2%), Christianity (9.1%), Hinduism (6.3%) and other religions (5.0%) (Economic Planning Unit Malaysia, 2010). Based on the statistics, Malay is the majority ethnic group in the country, while Chinese is considered as a significant ethnic

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minority. In this study, the term 'ethnically-mixed' family refers to the type of marriage or family, which comprises two individuals of different ethnic backgrounds, whereas the term 'mixed-parentage' refers to the children from families with parents of different ethnic backgrounds. The term 'mono-ethnic' refers to parents and children who are living in a single ethnic family background. The term 'ethnicity' is used in the present study in accordance to its utilization for ethnic identification in the latest census in Malaysia.

The 2000 Census highlighted the emergence of a mixed ethnicity population in Malaysia. It was revealed that about 10% or 51,000 of the total households in Malaysia were of a mixed-ethnic nature, where the married partners originated from different ethnic backgrounds. This has implied the existence of a new and relatively young generation of mixed-parentage families in the Malaysian society. In more specific, previous studies have also reported that interethnic-marriages tend to be most common between two major ethnic groups in Malaysia, namely Malay and Chinese, from the 1960s (Kuo & Hassan, 1976; Rozumah *et al.*, 2003; Sanusi, 1981). Thus, it is expected that Malay-Chinese inter-ethnic families may made up a significant proportion of this unique population.

International literature consistently indicates that the dynamic within an inter-ethnic marriage is more complicated and constantly challenged by more divergences on cultural, marital and familial issues than those in a mono-ethnic marriage (Root, 2001; Sung, 1990). Within the Malaysian context, inter-ethnic marriages not only could create social impact on the intermarrying couples, they also have implications on their religion and identity development. Under the Malaysian Islamic Family Law Act 1984, if one of the spouses is Muslim, the other non-Muslim spouse has to convert to Islam in order to legalize the intercultural marriage (Ahmad, 1997). This is due to the fact that the marriage between a Muslim and a non-Muslim is forbidden by the law. Besides, it is widely acknowledged that in

Malaysia, religion has close connections with custom and cultural practices among the ethnic groups. For example, Islam has been linked to the Malay identity (Tan, 2000b). Therefore, the conversion to the Muslim religion may imply the convergence and conformity of Malays, Islamic cultural practices and identity, specifically in the Malay-Chinese intercultural families. In other words, in the Malay-Chinese intercultural marriages, the spouses who are Chinese and non-Muslim are very likely to 'let go' of their original religion and cultural beliefs and subsequently acculturate to Muslim and Malay identity. In addition, both ethnic groups have very strong family traditions and kinship ties, and it is extremely important for the members of each group to preserve and pass on their cultural heritage from one generation to the next (Djamour, 1959; Yen, 2000). Thus, the legal requisition of the social impacts on the culture and on identity has created a crossroads for these inter-ethnic couples/parents in Malaysia. It is asserted that parents in inter-ethnic families were more likely to exhibit differences and have a higher likelihood than the same-culture parents to encounter the differences in parenting expectations, goals and aims, based on their respective cultural backgrounds (Mackey & O'Brien, 1998).

As for children's psychological outcomes, some researchers reported adjustment difficulties among children of mixed-parentage, while a few documented positive implications or found that mixed-parentage children were not less well-adjusted compared to the children of mono-ethnic families (Rosenblatt, 1999; Tizard & Phoenix, 2002). However, little attention has been given to the dynamics and functioning of parenting by the parents in the inter-ethnic families and the ways it may relate to the psychological adjustments of their children. The aims of this paper were to examine the psychological adjustment among children from ethnically-mixed family background from an ecological perspective and to find out how they fare compared to those from the ethnically-matched family background. The following

sections review the literature on parenting behaviour and psychological adjustment among parents and children from ethnically-mixed families.

#### *Parenting in Ethnically-Mixed Marriages*

The healthy development of a child is dependent on how the child is treated by their parents during childhood (Stewart-Brown, 2000). Literature shows that parents in ethnically-mixed families face the similar parenting difficulties as those from ethnically-matched families, but they have additional concerns related to other aspects of child outcomes such as differences in physical appearance, cultural factors, ethnic identification, sibling's diverse appearance and possible shame or rejection by their own children (Kerwin *et al.*, 1993; Sung, 1990). More specifically, family scholars suggest that, even though nurturing behaviour is universal for parents, the different socialization goals and distinct expectations among parents, as a result of distinct cultural and family values, foster culturally specific parenting strategies and social environments for the children (Keller *et al.*, 2004; Quah, 2003). For example, Chao's (1994), in her comparative study of parenting behaviour, found that parents of Chinese- and European-American families have commonalities in their parenting goals; although, methods employed by these parents vary greatly. Therefore, in ethnically-mixed families, both parents with distinctive ethnic backgrounds may claim the same values; however, their definitions may be different.

In terms of parenting process, parents living in ethnically-mixed families may encounter issues related to social isolation, weaker network support, and identity conflict rather than poverty or other risk factors. Twine (1999), who had examined the parenting process among 65 White mothers with Black children in Britain, noted that mothers with mixed-parentage children are subjected to close evaluation from their Black communities; it appeared that these mothers are required to demonstrate greater 'maternal competence' in relation to cooking,

discipline, hair care, decoration and dressing of their children. These additional challenges may be more prevalent in ethnically-mixed family settings and affect the parenting process among these parents. Different approaches in the teaching values and distinct (perhaps contradictory) parenting strategies reflective of the parents' differing ethnic backgrounds may create tension in the child of multicultural background if parents fail to negotiate and resolve their differences (Romano, 2001; Vivero *et al.*, 1999).

Meanwhile, parents from an ethnically-mixed family background were found to put in an extra effort to secure "healthy environments, interaction and relational outcomes for their children" (Radina & Cooney, 2000, p. 453). Such efforts may lead the parents to become more sensitive to signs of child problematic behaviour and buffer anxiety problems. In addition, Cheng and Powell (2007) found little evidence to support the idea that the differing values and preferences within the ethnically-mixed family have a negative impact on parenting practice in terms of allocating fewer educational investments and providing a lack of cultural resources compared to ethnically-matched families. Children being raised in ethnically-mixed families, however, are indeed less exposed to beneficial familial and social interaction. This may be explained by the problematic relationships between their parents and their immediate or extended family members, and also the societal disapproval that is prevalent in inter-ethnic families (Cheng & Powell, 2007; Sung, 1990). Nonetheless, such assumptions have not been widely investigated and the effect on the development of children in ethnically-mixed families has not yet been studied empirically.

#### *Emotional and Behavioural Adjustment among Mixed-parentage Children*

Traditional theorists and scholars propose that mixed-parentage children are more vulnerable and at risk of developing problematic psychological outcomes than children from

ethnically-matched families (Robinson, 1995). In more specific, the existing research on ethnically-mixed families has indicated that the lack of familial support (Barn, 1999), bi-cultural role models, (Sung, 2003), the confusion and tension accompanying early cultural development (Vivero & Jenkins, 1999), and conflicting parenting strategies (Bowles, 1993) may have detrimental effects on the children's psychological adjustments. Barn (1999), in her study on British mixed-parentage children, also found that children of mixed-parentage are more likely to enter the care system, tend to do so at a younger age, and spend longer periods in care than the White children.

On one hand, parents from ethnically-mixed families were found to be more sensitive to early signs of difficult behaviour among their children (Radina & Cooney, 2000), but on the other, parents from ethnically-mixed families can be over-protective (Bowles, 1993). This may promote an emotional over-reliance or over-dependence, or conversely, even increase the occurrence of behavioural difficulties such as delinquency (Shih & Sanchez, 2005) and substance misuse (Beal *et al.*, 2001) amongst mixed-parentage children as compared to their monoethnic peers. Shih and Sanchez (2005) also reported depression to be severe among mixed-parentage individuals in comparison to those being raised in ethnically-matched families. However, the findings tend to depend on the type of population sampled, be it clinical or general.

Previous research has documented positive interaction and acceptance among mixed-parentage children (Chang, 1974; Cooney & Radina, 2000). Although mixed-parentage family backgrounds are always considered as a source of stress which could eventually lead to greater health and behavioural risk (Udry *et al.*, 2003), some studies argue that discrimination from both the dominant groups in society, as well as the minority community can also result in higher levels of resiliency. Other studies have also reported mixed results, with some studies documenting better psychological outcomes among multicultural individuals (Cauce *et al.*, 1992; Stephan & Stephan, 1991) and others

indicating their psychological health just as positive as their monoethnic peers (Field, 1996), benefiting from their exposure to a wider range of cultures and integrated identities (Stephan & Stephan, 1991). Some researchers assert that multicultural identification is considered to be a healthy process for child development (Korgen, 1998), while others reported that mixed-parentage children may choose an identity they find most appropriate or comfortable in a particular social situation or environment (Tizard & Phoenix, 2002).

A number of scholars assert that some of the clinical impressions dominating the literature may overstate the extent and range of problematic outcomes for mixed-parentage children (Stephan & Stephan, 1991). The focus on clinical populations and the failure to address the effects of children's minority status in general (i.e. without controlling for minority status), on their comparisons, are likely to lead to more pessimistic psychological outcomes among mixed-parentage children (Cheng & Powell, 2007). Tizard and Phoenix (2002) noted that studies which reported serious personality and identity problems in mixed-parentage children are restricted to clinical studies, where children were sampled because of their problems, as opposed to children found through schools or in the general community. This inconsistency calls for further clarification.

Published research on inter-ethnic marriage is still limited in Malaysia. The small number of available studies tended to concentrate on exploring the extent of these intercultural marriages and has described the processes and dynamics in intercultural families (Edmonds, 1968; Rozumah *et al.*, 2003; Sanusi, 1981). For example, a recent study by Rozumah and colleagues (2003) reported that among a sample of 659, almost half of intermarrying respondents reported high level of marital conflicts, low level of marital satisfaction and social support (e.g. emotional or instrumental), especially from close family members. Among the children, their identity development was found to be associated with religious factors, where Muslim parents put an emphasis on Malay and Islamic

identity. However, less attention is being paid on parent's child-rearing behaviour and how it relates to the psychological outcome of mixed-parentage children.

### *Theoretical Rationale*

The aims of this paper were to examine the psychological adjustment among children from ethnically-mixed family background from an ecological perspective and to find out how they fare compared to those from ethnically-matched families. It is argued that the psychological adjustment of mixed-parentage children is determined by multiple individual, familial and social factors that are embedded within their developmental context.

Based on Bronfenbrenner's ecological theoretical framework (1979), the experiences and characteristics of the child and primary caregivers (such as parents) are crucial for understanding child development. This theoretical framework suggests that parenting behaviour is shaped by the different ethnic and cultural backgrounds of the parents within a family (in this case ethnically-mixed families). Thus, conflicting values about parenting among these families may possibly be influenced by the parental relationship and cultural adjustments between the parents (Vivero & Jenkins, 1999; Romano, 2001; Fu *et al.*, 2001). Meanwhile, the differences in the values, role expectations, family obligations and religion practices may create considerable problems and pressure for inter-ethnic couples (Sung, 1990), can lead to a low frequency of shared activities and decrease their consensus in decision-making, and thus, affect the level of relationship quality (Fu *et al.*, 2001). Therefore, it is hypothesized that the emotional and behavioural adjustment of the children in ethnically-mixed families is dependent not just on parenting behaviour, but also on the marital relations and cultural adjustments between the parents. All these factors may collectively influence parenting practices and contribute to the emotional and behavioural adjustment of the mixed-parentage children. In the present study, socio-

demographical characteristics and parental relationship quality, as measured by marital satisfaction and cultural adjustments were treated as controls.

### *Research Questions*

The existing literature has shown that parenting among ethnically-mixed parents is likely to be influenced by familial ethnicity status (mixed vs. matched) and relationship quality as functions of parenting behaviour. Literature in mixed-parentage children and their family is limited by its qualitative nature, clinical sample and a strong focus on the role of family, communities and society on children's multicultural identity development. The current study contributes to existing research by examining the unique and combined influences of personal, parental and family factors on the psychological adjustment of children from ethnically-mixed families in comparison to those from ethnically-matched families from the general population. The aim of this paper was to address three key research questions related to children from Inter-ethnic background.

- Do parents from ethnically-mixed and ethnically-matched families differ with regard to parenting behaviour?
- Do children from ethnically-mixed families differ with regard to psychological outcomes when compared to those from with Mono-ethnic families?
- What are the individual and combined influence of the familial ethnicity status, parental relationships and parenting behaviour on the quality of psychological adjustment among the children?

## **MATERIALS AND METHODS**

### *Participants*

A total of 423 mother-child dyads of Inter-ethnic (n = 218) and matched (n = 214) Malay

and Chinese families from the central zone of Peninsular Malaysia were recruited for this study. As there was no uniform database for ethnically-mixed marriages in Malaysia, as suggested by officials from agencies who are handling Islamic affairs and ethnic issues in Malaysia (including the Department of National Unity and Integration (DNUI) and Department of Islamic Development Malaysia (JAKIM), the sampling frame concentrated on two main sources: (1) government agencies and (2) non-governmental organizations (e.g., Malaysian Muslim Welfare Department (PERKIM), Malaysian Chinese Muslim Association (MACMA), Al-Hunafa and Al-Khaliffah) which have direct contact with ethnically-mixed families in Malaysia. The initial recommendations and referral from these agencies and their current members increased the response rate to the study. Due to the scarcity of this population, purposive and snowball sampling strategies were also used, where participating respondents were asked to refer to other ethnically-mixed families. These strategies were also the most common strategies used by research on ethnically-mixed families/population (see Alibhai-Brown, 2001; Breger & Hill, 1998; Romano, 2001). In this study, only mothers and targeted children, aged 8-19 years old, from families with spouses from different ethnicity (either a Malay or Chinese ethnic background) and those from an ethnically-matched family (with spouses from the same ethnic group), participated in the study. The inclusion of only the mothers in the study was driven by the literature, i.e. mothers are more often in-charge with care-giving task than are fathers and child socialization is still mainly performed by the mothers in Asian communities (Chao, 2002; Kling, 1995; Ho, 1996). Thus, the exclusion of fathers from the study also meant that the researcher was unable to explore within-family cultural differences that exist between the parents in ethnically-mixed partnership.

#### *Procedure*

A set of standardized survey questions was used to gather information from the mother

and child respondents. Standardized measures without a Malay and Chinese (Mandarin) version were translated using the forward and backward translation procedure (Werner & Campbell, 1970). The study used bilingual interviewers, where a total of 4 Malay and 4 Chinese interviewers were recruited for data collection. The ethnic backgrounds and linguistic preferences of both interviewers and respondents were arranged to match for interviews. Anonymous questionnaires were used, consent forms providing a brief description of the study were provided and personal written permission was sought from each mother and child. Both the mother and child were made aware they were free to withdraw from the study at anytime for any reason. Interviewers worked in pairs to interview the mother and child separately. This allowed for confidentiality, maximizing the comfort of the participants and ensuring the data quality. The distributions of geographical (state/district) and residential areas (urban/suburban/rural) were used as matching variables to maximize the comparability of inter-ethnic and mono-ethnic samples. It is often argued by researchers of comparative studies that subject samples from similar settings tend to have similar demographic profiles (Van de Vijver & Leung, 1997). Besides, in order to overcome any possible bias, statistical control was used as a second strategy to secure comparability amongst the two samples. This strategy is often used to control demographical differences across cultural groups, whereby these key demographic variables are treated as covariates and controlled for when cultural comparisons are made (Van de Vijver & Leung, 1997).

#### *Measures*

**Parenting practice:** The Asian Parenting Inventory (API) was used to measure parenting constructs (Stewart *et al.*, 2000; Stewart *et al.*, 1998) in terms of 'parental warmth' (6 items) and 'control' (8 items). Children were asked to indicate their degree of agreement on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Items in the parental warmth

subscale reflected the level of parental warmth and acceptance. The parental control subscale included items assessing the restrictions or high demands made on their child. Higher scores in each subscale reflected higher levels of parental warmth and dominating-control, respectively. Some previous studies on Asian parents, which utilized these subscales, have consistently reported high alpha values (Cronbach alpha,  $\alpha = 0.59$  to  $0.83$ ) for both mother's and father's reports (Stewart *et al.*, 2000; 2002). In the present study, the Cronbach alphas for the warmth and control subscales were found to be  $0.60$  and  $0.62$ , respectively.

**Children's adjustment:** The 25-item Malay version of Goodman Strength and Difficulties Questionnaire (SDQ) (1997) was used to measure 5 types of behavioural attributes among child/adolescents: 1) the prosocial subscale (5 items) focuses on the positive (strength) aspects of behaviour (Cronbach alpha,  $\alpha = 0.64$ ); and 2) the emotional symptoms subscale (5 items) measures emotional problems among the children (Cronbach alpha,  $\alpha = 0.72$ ); 3). The conduct problems subscale (5 items) measures behaviours, such as anger, fighting, cheating and stealing (Cronbach alpha,  $\alpha = 0.59$ ); 4). The hyperactivity subscale (5 items) focuses on child restlessness, fidgetiness and distraction ( $\alpha = 0.37$ ) and 5). The peer relationship problem subscale (5 items) assesses the child's relationship with peers (Cronbach alpha,  $\alpha = 0.34$ ). The total score for difficult behaviour was obtained by summing the score from hyperactivity, emotional symptoms, conduct problems and peer problems subscales. The child's emotional and behavioural problems were measured by the total score obtained in the emotional symptoms, conduct problems, hyperactivity and peer relationship subscales, where a higher total score indicated higher levels of emotional and behavioural problems. The reliability for the overall difficulties scale, i.e. Cronbach alpha ( $\alpha = 0.77$ ) is deemed to be acceptable, despite the fact that low reliabilities were recorded in the subscales.

#### *Control Variables: Socio-Demographic Characteristics*

Information on the socio-demographic factors related to the parents and children was also collected. This included father's and mother's levels of education, total family income, as well as child's age, gender and parity.

Parental relationships quality was measured in terms of marital satisfaction and cultural adjustments. The 4-item Kansas Marital Satisfaction Scale (KMSS) by Schumm (1986), adapted by Rumaya (1997), was used to assess mother's perception on their marital quality. The total score could range from 4 to 28, where higher scores refer to a higher level of marital quality among the mothers (Cronbach alpha,  $\alpha = 0.95$ ). As for cultural adjustment, a 20-item scale, adapted from Rozumah, Rumaya and Tan's report on interethnic marriage in Malaysia (Rozumah, et al., 2003), was used to assess the adjustments or interethnic exchange experience and practice in the family. The mothers were asked to indicate their degree of agreement on day-to-day and cultural aspects with their spouse (i.e. family relations, religious practice, child-rearing, friends, taboo, ethnic identity, festivals and diet) on a five-point Likert scale, ranging from 1, 'Never/Rarely' to 5, 'Always'. A score was summed up from the total responses with higher scores reflecting couples with better adjustment to the cultural heterogeneity in their families (Cronbach alpha,  $\alpha = 0.94$ ).

#### *Categorization of the Family Context*

Children were asked to report the ethnicity of both of their parents: Malay or Chinese. Based on this information, the respondents were classified into two groups: (a) ethnically-mixed families were those in which child respondents reported their mothers and fathers were of different ethnicities; and (b) ethnically-matched families were those in which child respondents reported both of their parents were of similar ethnicity. All the sampled inter-ethnic and Malay-Chinese families were Muslim families;

while mono-ethnic families could be either Muslim, Christian, Buddhist families, or reported other traditional religion practices. The inter-ethnic families were the reference group.

#### *Data Analysis*

Independent sample t-tests were computed to examine family context differences in parenting behaviour and children's adjustment. Next, the multivariate regression analysis method was used to assess the links between the correlates and the outcome measures, where predictor variables were entered sequentially in blocks into the regression model. In the first step, the socio-demographic characteristics of the parents (both parents' education levels, household income), the child (age, sex, parity) and the indicators for relationship quality (the mother's perception on marital quality and cultural adjustment) were entered. The second step included family context and mother's ethnicity. Finally in the fourth step, the variables related to parenting behaviour (warmth and control) were also added. Examinations of all the independent and dependent variables met the assumptions for the multivariate analysis. In particular, examinations for *normality*, *linearity* and *homoscedasticity* were carried out before further multivariate analysis (Foster *et al.*, 2006; Tabachnick & Fidell, 2007). Tests of the assumptions of the multivariate analysis were also carried out, with residuals scatter plots show normality, linearity and homoscedasticity; there is sufficient sample, and there is no evidence of multicollinearity. Besides, the statistics of skewness and kurtosis of all the independent and dependent variables show reasonable normal distributions.

## RESULTS

#### *Descriptive Statistics*

All participating adult samples were mothers, whereby about half of them were from ethnically-mixed families (50.5%), and the rest were from ethnically-matched Malay (25.0%) and Chinese (24.5%) families. All the parents in the inter-ethnic and mono-ethnic Malay

families were Muslim, while almost 50% of the mono-ethnic Chinese parents practiced ancestral worship, followed by 45.3% Buddhist and 11.3% Christian. In addition, all the Chinese parents in the ethnically-mixed families were Muslim converts and this contributed to a high percentage (75.5%) of Muslims mothers in the study. A majority (71.1%) of the families were residing in the urban settlements and almost half (43.7%) of them reported a monthly household income that is higher than the national average household income (MYR3000 or USD857) (Department of Statistics, 2004). About 30% of the mothers and 40% of the fathers had achieved tertiary qualifications (i.e. up to college or university level). Overall, almost 60% of the mothers were not working, while majority of the fathers (>90%) were in employment. These mothers were in their early 40s with the averages of 40 and 42 years for mothers from ethnically-mixed and -matched families, respectively. The average length of marriage for both the inter-ethnic and matched couples was 17 years and on average had 3 children at the time of the study. Among the child respondents, 47.7% were male and 52.3% were female. The average age of the target child was 13 years, where mixed- and mono-parentage children were averaged at 14 and 13 years, respectively.

#### *Family Context and Parenting Behaviour*

Table 1 presents the mean and standard deviations for parenting behaviour of the total sample, ethnically-mixed and ethnically-matched families. As shown in Table 2, for the total sample, the children's score for parental warmth and dominating-control averaged at 27.58 (SD = 4.08) and 26.75 (SD = 5.69), respectively. The result from the comparative analysis showed that the significant differences were detected between children from the ethnically-mixed and ethnically-matched family contexts in relation to their scores on parental warmth,  $t(423) = 2.45$ ,  $p < .05$ . In more specific, results showed that children from the ethnically-matched families experienced a lower level of parental warmth as compared to children from the ethnically-



TABLE 1  
A Descriptive Statistics of Demographic Variables (N=432)

Variables	Mean (SD)			No. of item (Range)
	Overall sample	Inter-ethnic (n=214)	Mono-ethnic (n=218)	
Descriptive variables				
Child's age	13.65 (3.39)	14.39 (3.27)	14.49 (3.11)	
Child's gender <sup>a</sup> (Male)	47.7%	44.0%	51.4%	0 - 1
Child's parity (Eldest)	50.9%	59.2%	42.5%	
Mother's age	41.82 (6.36)	42.72 (7.06)	40.90 (7.06)	
Mother's educational level <sup>†</sup>	3.03 (1.39)	3.57 (1.10)	3.00 (0.91)	1 - 6
Father's educational level <sup>†</sup>	3.31 (1.45)	3.79 (1.09)	3.22 (1.03)	1 - 6
Mother's employment status (Working)	41.2%	44.5%	37.9%	0 - 1
Family total income <sup>b</sup>	2.60 (1.09)	2.61 (1.09)	2.51 (0.89)	1 - 5
Length of marriage	17.77 (6.26)	17.68 (6.47)	17.86 (6.06)	
Number of children	3.44 (1.52)	3.34 (1.60)	3.53 (1.44)	
Family locality <sup>c</sup> (Urban)	71.1%	72.9%	69.2%	0 - 1

<sup>a</sup> Child's gender: 0 = female, 1 = male. <sup>b</sup> Family's income level: Higher score refers to higher level of economical earning. <sup>c</sup> Family's locality: 0 = rural, 1 = urban.

<sup>†</sup> Parent's education: Higher score refers to higher educational qualifications (ranged from no qualifications to graduate degree)

mixed families. Nevertheless, the result failed to detect any significant differences in the parental dominating control between the two types of family.

#### *Child Adjustment*

Goodman (1997) suggested that the cut-off points of clinical range of the SDQ scores are 80% of the children in the community are normal, 10% are borderline and 10% are abnormal. In the total sample, 74.3% of the children were within the range of normal adjustment (Mixed = 79.8%; Matched = 68.7%). However, the proportions of the children at risk of total difficulties were slightly higher than what had been expected: 25.7% borderline and abnormal cases (Mixed = 20.2%, Matched = 31.3%). As for the averaged score, significant differences in the total difficulties score were detected between children from the ethnically-mixed and ethnically-matched family background,  $t(430) = 4.24, p < .001$ . In more specific, it was found that the children from ethnically-matched

families reported a significantly higher score for the total difficulties behaviour as compared to children from the inter-ethnic families. The multivariate regression models were estimated to further examine the contributions of various ecological factors on child adjustment.

#### *Relationship between Parenting Behaviour and Child Adjustment*

As shown in Table 3, the socio-demographics characteristics of children and parents and, the indicators for parental relationship quality were entered as controls for child adjustment (Model 1). The results showed that cultural adjustment was significantly associated with the emotional and behavioral problems among children, after controlling for the variation in other demographical characteristics. Controlling for the preceding factors, it was shown that children raised in ethnically-mixed families had fewer emotional and behavioural problems than those from ethnically-matched families in the sample (see Model 2). In addition, children

TABLE 2  
Family Process Variables and Child Emotional and Behavioural Adjustment (N = 432)

Variables	Mean (SD)			No. of item (Range)
	Overall sample	Inter-ethnic (n=214)	Mono-ethnic (n=218)	
Family Processes				
Marital satisfaction	22.06 (4.46)	22.35 (4.55)	21.77 (4.34)	4 (7-28)
Cultural adjustment	72.55 (16.64)	72.67 (16.37)	72.44 (16.97)	20 (20-100)
Parenting practice (Warmth)	26.32 (4.68)	26.86 (4.65)	25.75 (4.64)	6 (6-36)
Parenting practice (Control)	27.48 (5.99)	27.63 (6.30)	27.34 (5.86)	8 (8-48)
Child emotional and behavioural adjustment	12.53 (5.77)	11.40 (5.46)	13.69 (5.84)	20 (0-40)

with a mother of Malay ethnicity also reported lower level of total difficulties as compared to those whose mother is of Chinese ethnicity. The inclusion of family context and mother's ethnicity further added to the fit of the model, accounting for an additional 10% of the total variability of adjustment among children.

In the final model, the aspects of the parenting behaviour contributed substantially to the prediction of emotional and behavioral adjustment among children, and detected unique contribution from both parental warmth and dominating-control behaviour, controlling for the preceding variables (see Model 3). The inclusion of parenting behaviour increased the fit of the model, accounted for an additional 6% of the total variability of children adjustment. In this final model, the results showed that higher levels of parental warmth and lower levels of parental dominating control were associated with lesser emotional and behavioural problems among children. In addition, the familial ethnicity status remained essentially unchanged by the inclusion of parenting dimensions. In this series of models, the final regression model (Model 3) explained the most variance for children emotional and behavioral adjustment - predicting a total of 18% of the variation in children adjustment. Overall, controlling for

the socio-demographical characteristics and parental relationship quality, mother's ethnicity explained the largest share of variance in children adjustment, followed by familial ethnicity status and parenting behaviour (parental warmth and dominating-control).

## DISCUSSION

The aims of the study were to explore parenting behaviour and children's psychological adjustment among ethnically-mixed and matched families. The current findings demonstrated that parents from ethnically-mixed families were more likely to be warm and accepting in parent-child interactions than those parents from the ethnically-matched families. These results could be explained by the parental concern about the social discrimination against children of mixed-parentage (Cheng & Powell, 2007; Radina & Cooney, 2000). This responsive parenting behaviour was also found to link with greater emphasis among parents from ethnically-mixed families on providing the appropriate guidance and assisting their children in understanding their multiracial identity (Barn *et al.*, 2005; Kerwin *et al.*, 1993). Family dynamics play a significant role in the identity development of their mixed-parentage children (Crawford & Alaggia, 2008).

TABLE 3  
Regression coefficients ( $\beta$ s) predicting child's emotional and behavioral adjustments

Predictors	Children's Emotional and Behavioral Adjustment		
	Model 1	Model 2	Model 3
Background variables			
Child's age	.09	.07	.10
Child's sex (Male)	-.02	-.04	-.06
Child's parity (Eldest)	-.06	.00	.00
Mother's education	-.04	.00	.02
Father's education	-.03	.02	.04
Household income	-.07	-.13*	-.10
Relationship quality			
Cultural adjustment	-.14**	-.13**	-.08
Marital satisfaction	.06	.09	.07
Family context (Mixed)			
Mother's ethnicity (Malay)		-.23***	-.22***
Parenting dimensions			
Parental warmth			-.16**
Parental dominating-control			.16**
Adjusted R <sup>2</sup>	.027	.119	.175
F	2.436*	6.505***	8.224***
F-change	2.436*	21.772***	14.599***
df1, df2	8,401	10,399	12,397

Note: Reference category is in parentheses.  $p < .10$ ,  $p < .05$ ,  $p < .01$ ,  $p < .001$ .

Meanwhile, parents from ethnically-mixed families endeavour to secure a healthy family environment and provide appropriate guidance for the positive psychological functioning of their children.

Another important finding of this study is the emotional and behavioural development among mixed-parentage children is more positive than those of children with ethnically-matched parents. This result contradicts the traditional assumption that a mixed-parentage family background is likely to have a negative effect on a child's emotional and behavioral adjustment. This is supported, however, by recent studies on the psychological adjustment among mixed-parentage children from the general population (Field, 1996; Shih & Sanchez, 2005). It is essential to point out that negative psychological outcome among mixed-parentage children are more often reported among studies sampling from looked-after or clinical population as compared to those from general population

(as indicated in this study). Thus, the different characteristics of the studies, such as the type of population sampled (i.e. the general population), may account for the positive outcomes in this study.

An additional argument for a better psychological adjustment among children from the ethnically-mixed families is the more responsive, sensitive parenting style adopted by these families as compared to those from ethnically-matched families. In particular, among the ethnically-mixed families, the emphasis on parental responsiveness and greater sensitivity to children's needs may create not only stronger parent-child relationships and a supportive family environment for the mixed-parentage children (Beckwith & Cohen, 1989), but also contribute significantly to their positive psychological adjustment. These valuable and effective parenting efforts are likely to promote resilient behaviour in mixed-parentage children. As suggested by Okagaki and Luster (2005),

the benefits associated with effective parenting may buffer hardship and account for positive psychological outcomes, and thus cannot be discounted.

This study has provided an indication that children's emotional and behavioral adjustment is based on multiple determinants; namely, the family context (Inter-ethnic and Mono-ethnic), the mother's ethnicity (Malay and Chinese) and parenting behaviour. It was found that children's emotional and behavioral adjustment is strongly associated with the family context and the mother's ethnic background in comparison to other predictor variables. This finding also indicates that, in addition to family context, ethnicity of the mothers also plays a role as determining predictor for children psychological outcome. In addition, the parents' responsiveness to their children and the reduced dominance the parents have on their children are also likely to have a positive impact on the children's emotional and behavioral adjustment. Therefore, in accordance to the ecological framework (Bronfenbrenner, 1979), the experience and characteristics of both child and parents are essential elements for understanding child psychological outcome. In the current study, parenting behaviour, which is moderated by the ethnic backgrounds of the parents within a family, has played a significant role in predicting child outcome.

#### **LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH**

The study included only children's assessment of their psychological adjustment. Although the child's self-reported assessment cannot be substituted for the reports from other informants, other perspectives should be included in future research, such as those of the parents' and teachers'. Meanwhile, the multi-resource approach is acknowledged as the best approach (Piacentini *et al.*, 1992).

The descriptive statistics has shown that ethnically-mixed and -matched families have

distinctive socio-demographic backgrounds. Thus, it is acknowledged that mixed parents tend to have higher educational qualifications compared to the general population of the households in Malaysia, especially among the ethnically-matched families. The hierarchical regression analysis also revealed a significant effect of family context for children's psychological adjustment after controlling for the variations in the family factors, parent's and child's characteristics. When parental and child background characteristics were controlled for, this statistical procedure reduces and rectifies the differences between these two types of family (Kerlinger & Lee, 2000). In most of the models, the regression co-efficient also demonstrated that none of the socio-demographical factors was a significant predictor of child adjustment. Therefore, the findings from the multivariate regression analyses strongly support the positive effect of the inter-ethnic families on child adjustment. Nevertheless, the effects of the socio-economic status, resulting from the demographical variation, should not be discounted as a possible explanatory context when investigating the differences in psychological outcomes among children from the two family groups.

Another limitation is that the current study is not a representative of the ethnically-mixed and -matched families because it was only based on the experiences of children and adolescents with parents associated with Malay and Chinese ethnic backgrounds from the central zone of Peninsular Malaysia. Besides, only mothers were sampled in the study, and thus, there is a lack of paternal/father perspective on the characteristics on parenting behaviour within the mixed-and matched ethnicity families. Future studies can include a qualitative approach to further explore and examine the interactions of the family context, mother's ethnicity and parenting behaviour in relations to children psychological adjustment. In addition, this study was also based on a cross-sectional design and therefore, the directions of the associations between variables could not be determined.

## CONCLUSIONS

The present study has provided empirical evidence for the positive adjustment amongst the mixed-parentage children growing up in a multicultural community in comparison to their monoethnic peers. It is important to note that ethnically-mixed marriages, with changes in their parenting strategies and the concurrent psychological adjustment of their offspring, will have impacts on the social development of the country in the long run.

Therefore, interventions which emphasize on the interactions within a family may prove to be valuable for encouraging psychological functioning among children. The current findings imply that parents need to be sensitive to the various ways their children experience their mixed-parentage backgrounds, and that they should actively monitor, be responsive to and intervene in situations and social relationships in order to identify potential problem areas to the child's well-being. These findings also suggest that interventions utilizing parental skills to develop positive self-perception, and to monitor and be sensitive towards their children's experiences on their psychological development are crucial for promoting positive children's adjustments. Just as important, possible strategies for promoting positive parenting strategies and parental consensus on day-to-day matters have the potential to reduce psychological distress not only amongst this particular group but also among children from the wider population. Based on this evidence, practitioners should take into consideration that differences in the family context, parental expectations and parent-child interaction have important implications on child behaviour and these must be acknowledged in the study of psychological outcomes among mixed-parentage children. This is important both for the children and parents, and also serves as a basis for designing family-specific interventions in Malaysia and other multicultural societies.

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