

## Ecological Predictors of the Parenting Behaviour of Malay Mothers

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**Keywords: parenting behaviour, maternal characteristics, child characteristics, family context, child-care, home environment**

### ABSTRAK

Objektif utama kajian ini adalah untuk mengenalpasti faktor yang berkaitan dengan kualiti tingkah laku keibubapaan di kalangan ibu Melayu. Sampel kajian terdiri daripada 128 ibu Melayu bersama anak mereka yang berumur di antara 8 hingga 9 tahun, yang telah dipilih secara persampelan sistematik untuk kajian ini. Data telah dikumpulkan secara temubual dan pemerhatian di rumah responden. Kualiti tingkah laku keibubapaan telah diukur menggunakan 'Home Observation for Measurement of the Environment (HOME)' (Caldwell dan Bradley 1984). Hasil kajian menunjukkan terdapat perkaitan di antara ciri ibu, ciri anak dan faktor kontekstual dengan tingkah laku keibubapaan ibu Melayu. Ibu yang mempunyai tahap pendidikan, penghargaan sendiri dan pendapatan keluarga yang lebih tinggi menunjukkan tingkah laku keibubapaan yang lebih berkualiti berbanding dengan ibu lain dalam kajian. Walau bagaimanapun, ibu yang mempunyai bilangan anak yang ramai dan mempunyai persepsi bahawa anak sukar untuk dijaga menunjukkan tingkah laku keibubapaan yang kurang menyokong. Hasil daripada kajian ini menunjukkan bahawa pelbagai faktor dalam ekologi keluarga bergabung untuk mempengaruhi kualiti penjagaan ibubapa terhadap anak. Hasil kajian ini mempunyai implikasi penting untuk perancangan program keibubapaan dan pendidikan kehidupan keluarga.

### ABSTRACT

The primary purpose of this study was to identify factors related to the quality of the parenting behaviour of Malay mothers. The sample comprised 128 Malay mothers with children aged 8 to 9 years. The respondents were identified using a systematic sampling procedure. Data were collected by interviews and observation in the homes of the respondents. Parenting behaviour was assessed using the Home Observation for Measurement of the Environment (HOME) (Caldwell and Bradley 1984). Results of the study show that maternal characteristics, child characteristics, and contextual factors are all related to the parenting behaviour Malay mothers provide for their school-age children. Mothers with higher levels of education, self-esteem, and family income showed better quality parenting than other mothers in the study. However, mothers with a larger number of children, and those who perceive their children as difficult to care for demonstrated less supportive parenting behaviour. Findings from the study suggest that numerous factors within the ecology of the family may combine to influence the quality of care parents provide for their children. The findings, therefore, have important implications for planning parenting and family life education programmes.

### INTRODUCTION

Numerous studies have documented the influence of parenting practices on children's cognitive and socio-emotional development (Rollins and Thomas 1979; Maccoby and Martin 1983). However, very few studies have focused on why parents rear their children the way they do. Thus, the central question

addressed by the present study is why parents differ in their approaches to child-rearing.

According to Belsky (1984) the quality of care that parents provide for their children is influenced by multiple factors within a family's ecosystem. Belsky suggested that these factors could be grouped into three broad categories: maternal characteristics,

contextual factors and child characteristics. Of the three factors, Belsky argued that parent's personal characteristics are the most important factor, followed by social support and characteristics of the child.

Belsky predicted that a child would be more likely to experience low quality care or an unsupportive home environment if his parents lack personal resources, his family is in high levels of stress and low social support, and he is perceived by his parents as difficult to care for. Although the three sets of factors interact in systematic ways to influence parental behaviour, Belsky argued that they are not equally influential. Stress in one subsystem may be buffered by support in other systems.

All three ecological factors in Belsky's process model of parenting were used in this study as predictors of parenting behaviour. The maternal characteristics focused on in this study included age, level of education and self-esteem. Consistent with past research on parenting, the present study expects that mothers would provide a higher quality rearing environment if they were older and had higher levels of education and self-esteem. Numerous studies found that older mothers were more satisfied with their parenting role and demonstrated more optimal parental behaviour than younger mothers (Field *et al.* 1980; King and Fullard 1982; Ragozin *et al.* 1982).

Parents with higher educational qualifications have been found to have positive parental values (Kohn 1963; Luster and Rhoades 1989). They are also more likely to value educational activities and structure their home environment in ways that are cognitively stimulating for their children (Caldwell and Bradley 1984; Gottfried and Gottfried 1984; Menaghan and Parcel 1991). In addition, past studies have indicated that parents with high self-esteem construct better quality home environments and behave positively toward their children (Luster and Dubow 1990; Hannan and Luster 1991; Menaghan and Parcel 1991). A positive self-regard and maternal behaviour are likely to produce favourable outcomes in children (Ricks 1985; Small 1988).

The contextual factors examined in this study were family income, number of children, and marital quality. Research has consistently shown that low-income parents, on average, provide less cognitively stimulating home environments than middle- or high-income parents (Elder and Caspi 1988; Luster and Dubow 1990; Hannan and Luster 1991; Menaghan and Parcel 1991). Living in poverty can produce life stresses that may affect parental behaviour. The quality of care the parents provide may also be affected by the number of children in the family. Families with fewer children have been shown to provide a more supportive home environment than families with many children (Blake 1989; Luster and Dubow 1990; Menaghan and Parcel 1991).

For a variety of reasons, one would expect that parents with a satisfying, supportive marital relationship would provide a more responsive and affective climate in the home than those in unsatisfying marriages (Belsky *et al.* 1984; Easterbrooks and Emde 1988; Simons *et al.* 1990). Belsky (1984) argued that the marital relationship is the principal support system for parents. Thus, parents with good marriages will provide better quality parenting.

The third factor in Belsky's model of the determinants of parenting is the characteristics of the child. The present study focused on three child characteristics: age, gender, and difficulty level. Past studies have shown that parents change their child-rearing behaviour as their children mature (Roberts *et al.* 1984; Steinberg 1987). However, more recent findings indicated that the child's age had no effect on parental behaviour (Hannan and Luster 1991; McNally *et al.* 1991).

The child's gender has been found to have an inconsistent effect on parents. Some researchers have found that parents interact differently with their sons and daughters (Bronfenbrenner *et al.* 1984; Bradley *et al.* 1988), while others have found the child's gender has little effect on the quality of the home environment (Hannan and Luster 1991; Menaghan and Parcel 1991).

Consistent with Belsky's (1984) model, the present study expects that a child's

chances of experiencing a low-quality home environment are higher if he/she displays a behavioural style that makes him/her hard to parent. Recent studies found that children with a difficult temperament received less supportive care than easier children (Hannan and Luster 1991; Simons *et al.* 1990).

The primary purpose of this study was to predict factors related to the quality of care mothers provide for their 8- to 9-year-old children. More specifically, the study determined what maternal characteristics (age, level of education and self-esteem), contextual factors (family income, number of children, and marital quality), and child characteristics (age, gender, and difficulty level) influence mothers' parenting behaviour. The present study differs from earlier studies in that it examined the combined effects of parent, child, and contextual factors on parenting in a single study. This approach is consistent with the ecological perspective on parent-child interaction (Bronfenbrenner 1979; Belsky 1984; Bubolz and Sontag 1993), which suggest that numerous factors within the ecosystem of the family may simultaneously influence the way parents behave towards their children.

## METHODOLOGY

### *Subjects*

The sample for the study was 128 mothers and their 8-to 9-year-old children from Bandar Tun Razak, Cheras, Kuala Lumpur. These mothers were systematically selected via children in Standard 2 and 3 of Sekolah Kebangsaan Bandar Tun Razak I. Table 1 shows the background characteristics of the sample.

The mean age of the 128 mothers sampled was 39.0 years; the age range was 27-52 years. The number of years of education completed by the mothers ranged from 0 to 18 years; the average was 8.7 years of education (i.e., secondary-level education). Most (97.5%) of the mothers were married, and were not employed (55.7%) outside the home at the time of the study. Those who were employed engaged in a variety of occupations. Clerical workers formed the

largest group (16.4%). Employed mothers reported an average income of \$408 per month. The mean family income of the sample was determined by combining the income of the mother and her spouse with other financial resources they received (such as from their employed children or part-time jobs) per month was RM1429.60.

The average number of children in the family was 4.9, with a range from 2 to 11. The number of male and female children in this study were almost equal. Their ages ranged from 90 to 100 months with a mean of 93.9 months (7.8 years).

### *Dependent Variables*

The mother's parenting behaviour was assessed using the elementary version of the Home Observation for Measurement of the Environment (HOME) developed by Caldwell and Bradley (1984). The HOME was designed to measure the quality of children's rearing environment by means of direct observation and interviews with parents. In general, the HOME assessed how parents organized the physical (e.g., books and other learning materials in the home), and the social environment (e.g., parent reading to a child, use of physical punishment) of the home for their children. The HOME scale contains 59 items divided into eight subscales: 1. emotional and verbal responsiveness, 2. encouragement of maturity, 3. emotional climate, 4. growth fostering materials and experiences, 5. provision for active stimulation, 6. family participation in developmentally stimulating experiences, 7. paternal involvement, and 8. aspects of the physical environment. Each item is scored "1" for presence of quality stimulation in the home, and "0" for absence of quality stimulation. All the items in the HOME are added to produce a total score, with higher scores indicating the availability of high quality stimulation in the home.

HOME has been used in several countries, and with a variety of ethnic groups (Bradley *et al.* 1989). Caldwell and Bradley reported a reliability coefficient of .90 for the elementary version of the HOME. Cronbach's alpha for this measure in the present

TABLE 1  
Descriptive statistics of sample (n = 128) and predictor variables

	%	Mean	Std. Dev.
<i>Maternal Characteristics</i>			
Age		39.0	5.2
Years of education		8.7	3.3
Self-esteem		28.6	2.2
<i>Marital status:</i>			
Married	97.5		
Divorced	2.5		
<i>Occupation:</i>			
Professional and Technical	2.5		
Administrative and Mgt	5.5		
Clerk	16.4		
Sales	5.5		
Services	9.0		
Self-employed	4.5		
Unemployed	55.7		
<i>Contextual Factors</i>			
Family income		RM1429.6	RM1097.5
Number of children		4.9	1.9
Marital happiness		2.3	0.5
Marital communication		10.6	1.6
Marital conflict		28.7	5.1
<i>Child Characteristics</i>			
Age (in months)		93.9	9.9
Gender: Male	49.3		
Female	50.7		
Difficulty level		1.8	0.4
HOME Inventory Scores		41.7	6.3

study was 0.77. This indicates that the HOME is generally acceptable in measuring the quality of care the Malaysian respondents provide for their children. The mean score on the HOME for this sample was 41.7 (SD = 6.3), with a range of 23 to 54.

#### *Independent Variables*

Three *maternal characteristics* were examined in the study: 1. Mother's age – her age at the time of the interview. 2. Level of education – the number of years of formal education completed by the mother. 3. Self-esteem – mother's score on the Rosenberg (1965) 10-item self-esteem scale; an established measure with evidence of validity and reliability (Baker and Mott 1989). The self-esteem

scale was designed to measure an individual's feeling of self-worth. The respondent indicates whether he or she strongly agrees, disagrees or strongly disagrees with each item on the scale. A sample item is, "I am as capable as others". A high score on this scale indicates high/positive self-esteem. Reliability analysis found an alpha of .52 for this scale for the present study sample. Scores ranged from 20 to 36, with a mean of 28.6 (SD = 2.2).

Three contextual factors included in the analyses were: 1. Family income – the combined monthly income of the mother and her spouse and other financial resources the family received (such as from their employed children or part-time jobs). 2. Number of children – the number of children

living with the mother. 3. Marital quality – assessed using three sets of items: marital happiness, marital communication and marital conflict (Baker and Mott 1989). Marital happiness was the mother's assessment of her marital relationship, from 1 (not too happy) to 3 (very happy). The study found that marital happiness correlated significantly with marital communication ( $r = .47, p < .001$ ), and marital conflict ( $r = -.38, p < .001$ ). Marital communication was mother's score on 3 items concerning her pattern of communication with her husband. Responses to these items ranged from 1 (less than once a month) to 4 (almost every day). A sample item is, "How often do you and your husband tell each other about your day?" A cronbach alpha of .70 was found for this scale. Marital conflict was assessed using 9 items with responses ranging from 1 (never) to 4 (often). A sample item is, "How often do you and your husband argue about chores and responsibilities?" Coefficient alpha for this scale was .74. The decision to use separate indicators of marital quality was assured by the smaller reliability coefficient (.61) of all the 13 marital quality items combined.

Three child characteristics were included in the analyses of this study: 1. Age of child – the child's current age in months. 2. Gender of child – recorded as 1 (male) or 0 (female). 3. Difficulty level – the mother's response to a question regarding how 'easy' or 'difficult' it was to raise her child. Responses to this item ranged from 'very easy to raise' to 'very difficult to raise' (Simons *et al.* 1990). A high score on this measure indicates that the child is perceived by the mother as being difficult to care for.

## RESULTS

### *Relations Among the Predictor Variables*

Although determining the extent of associations among the predictor variables was not one of the objectives of the study, it was interesting to find that there were several significant correlations among the variables. Table 2 shows the results of the correlational analyses computed among the predictor

variables. Generally the correlations among the variables were low to moderate in magnitude. The signs of the correlation coefficients were typically in the expected direction.

Consistent with expectations, mothers who completed more years of education had higher family income, higher levels of self-esteem and fewer children than mothers who completed fewer years of education. These mothers were also found to be younger, and tended to have younger children than the less educated mothers.

Results of the analyses also show that mothers who obtained more favourable scores on the self-esteem scale tended to be happier in their marriage and have good communications with their spouse. These mothers also perceived their child as 'easy' to care for compared to mothers with lower self-esteem.

As expected, mothers who were unhappy in their marriage experienced more marital conflict than other mothers in the study. Mothers with an unhappy marital relationship were also shown to communicate less well with their husbands. In addition, the results show that the mothers tended to perceive their child as difficult to care for when they were more involved in marital conflict.

### *Correlates of Parenting Behaviour*

Table 3 presents the zero-order correlations between each of the predictor variables and the quality of the mothers' parenting behaviour as assessed by HOME. Small to moderate correlations were found between the predictor variables and the dependent variable. Of all the predictor variables included in the analyses, only mothers' education, self-esteem, family income and number of children were significantly related to the mothers' parenting behaviour.

These findings show that at the bivariate level, mothers who provided a better quality home environment had higher levels of education and self-esteem. Mothers who scored higher on the HOME also had a higher family income. Furthermore, these mothers had fewer children.

TABLE 2  
Relations among predictor variables

	1	2	3	4	5	6	7	8	9	10	11
1. Age of mother	1.00										
2. Years of education	-.39***	1.00									
3. Self-esteem	-.17	.21*	1.00								
4. Family income	-.14	.56***	.16	1.00							
5. Number of children	.38***	-.22*	-.10	-.25**	1.00						
6. Marital happiness	-.05	.08	.32**	.04	.06	1.00					
7. Marital communication	-.04	.05	.23**	.12	-.10	.21*	1.00				
8. Marital conflict	.05	-.02	-.17	.01	-.05	-.25***	-.03	1.00			
9. Age of child (in months)	.22*	-.13	.05	.09	.04	.08	.10	.09	1.00		
10. Gender of child	-.05	.21*	.07	.12	.12	.08	.10	-.01	-.15	1.00	
11. Child difficulty level	.14	-.07	-.29**	.02	.03	-.15	-.23*	.29**	-.02	.10	1.00

Note: Gender of child is a dummy variable coded as 0=female, 1=male. \*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

TABLE 3  
Zero-order correlations between predictor variables and HOME

Variables	HOME	
	r	p
<i>Maternal Characteristics</i>		
Age	-.01	.909
Years of education	.23**	.008
Self-esteem	.18*	.040
<i>Contextual Factors</i>		
Family income	.25**	.005
Number of children	-.27**	.002
Marital happiness	.05	.556
Marital communication	.14	.112
Marital conflict	-.06	.485
<i>Child Characteristics</i>		
Age	-.07	.459
Gender	.04	.676
Difficulty level	.16 <sup>+</sup>	.063

Note: Gender of child is a dummy variable coded as 0 = female, 1 = male. <sup>+</sup>p < .10, \*p < .05, \*\*p < .01

#### *Multiple Predictors of Parenting Behaviour*

As indicated earlier, multiple factors may combine to influence the way parents behave towards their children. To examine the combined effects of the predictor variables on the outcome of interest, and to identify which of the variables are related to the dependent variable when other variables are controlled, several multiple regression analyses were conducted. A chance probability level of less than .10 was used in these analyses to reduce the risk of making a Type II error (Kerlinger 1973; Bronfenbrenner 1979).

In the first series of the regression analyses, all independent variables in each of the three categories identified earlier were entered simultaneously. The results of these analyses are presented in column 1 of Table 4.

Two of the three maternal characteristics included in the analyses were found to be predictive of the mothers' care-giving behaviour. Mothers with higher levels of education and self-esteem scored higher on the HOME inventory. Age was not a significant

predictor of the mothers' parenting behaviour when other maternal characteristics were statistically controlled. These predictor variables accounted for 8% of the variance in the HOME scores.

The five contextual factors accounted for 12% of the variance in the HOME scores. Levels of family income and number of children in the family were significant predictors of maternal behaviour when other contextual factors were controlled. None of the marital quality items was found to be a significant predictor of HOME when other contextual factors were partialled out.

The difficulty level measure of the child was the only significant predictor of the mother's parenting behaviour at the .10 level. Together, the child characteristics accounted for a very small percentage (3%) of the variance in the HOME scores.

To determine which of the five significant predictors uniquely contribute to the outcome variable, a second set of regression analysis was computed. Column 2 in Table 4 shows results of this analysis. At the .10 level, number of children and level of child's

TABLE 4  
Multiple regression analyses: predictors of HOME

Variables	HOME	
	$\beta$	$\beta$
<i>Maternal Characteristics</i>		
Age	.11	
Years of education	.25**	.10
Self-esteem	.15+	
	$R^2 = .08$	
<i>Contextual Factors</i>		
Family income	.18*	.15
Number of children	-.21*	-.20*
Marital happiness	.02	
Marital communication	.09	
Marital conflict	-.07	
	$R^2 = .12$	
<i>Child Characteristics</i>		
Age (in months)	-.06	
Gender	.04	
Difficulty level	-.17+	-.15+
	$R^2 = .03$	$R^2 = .14$

Note: Gender of child is a dummy variable coded as 0 = female, 1 = male. The first column shows the standardized regression coefficients that were obtained when variables in each of the three categories of predictors were entered simultaneously. The second column shows the standardized regression coefficients of the full model. + $p < .10$ , \* $p < .05$ , \*\* $p < .01$

difficulty to care for were significantly related to the mother's parenting behaviour. The two variables accounted for 14% of the variance in the HOME scores. Overall, the regression model's performance was rather modest.

## DISCUSSION

Findings from this study show that characteristics of the mother, child and family are all related to the quality of care Malay mothers provide for their 8- to 9-year-old children. The characteristics of the mother found to be predictive of HOME when other factors were controlled were levels of education and self-esteem. Two contextual variables that were significant predictors of HOME were family income and number of children. The child's characteristic that uniquely contributed to the mothers' HOME scores was the child's level of difficulty. Results of this study are, therefore, consistent with Belsky's ecological view of parenting which indicates that

individual differences in parenting are multiply determined. In addition, the findings parallel those of earlier investigations on the factors that shape parental behaviour.

Based on the results, the present study emphasizes the importance of considering the characteristics of the parent, the child, and the context in which the parent and child interact when working with families. This consideration is necessary to ensure that efforts at changing parenting behaviour and enhancing family functioning can be truly effective. Furthermore, examining several potential influences of parental behaviour concurrently may help those who work with families (e.g., counsellors, family life educators, community development agents) to easily identify which parents are at risk for suboptimal parenting (Luster and Okagaki 1993). Less supportive parents can, therefore, be helped as early as possible. In addition, parenting programmes will be more appro-

privately and effectively designed if based on a more global understanding of the whole family system and its interaction with the environment. Such ecologically designed parenting education will recognize the personal psychological needs of the parents and the child as well as the social context in which they are embedded. Thus, results of the present analysis provide useful information to educators, practitioners, policy makers and programme planners of the multiple influences of parenting, and of the importance of formulating parenting education programmes that focus on the broader aspects of the family environment.

Although the present study was able to demonstrate the value of using the ecological perspective in understanding parenting behaviour, several other variables which would have been useful in explaining variations in the way parents behave were not included in the study. For example, mother's age at birth of first child may be a better predictor of maternal behaviour than her current age. The extent to which other network members (e.g., spouse, in-laws, domestic helpers) provided support for the mother was also not included in the analysis. The child's age and gender are probably not good measures of the child characteristics, and therefore were not significant predictors of parenting behaviour in this study. Despite these limitations, the present study provides useful information on the determinants of parenting behaviour.

More research is needed to fully understand how characteristics of child, parent and context combine to influence the parent-child relationship. Additional research is also necessary to establish the validity and reliability of the instruments used in the present study for Malaysian samples. Future studies may include other predictor variables, for example, parent's developmental history, and parent's concerns and goals for the child. The effects of other contextual factors, such as the presence of other adults in the household, the levels of tension of cohesion in the family, and neighbourhood quality may be of interest to future researchers. Child characteristics that it may be productive to examine in future studies are child's health or medical

history, and the child's ability to evoke responses from the caregiver (Scarr and McCartney 1983). Finally, an ethnographic research design which focuses on the impact of factors discussed earlier on maternal behaviour may also increase the ability to explain individual differences in parenting.

#### ACKNOWLEDGEMENT

The author would like to thank, Zaiton Hassan and Roziyah Mohd. Rasdi, the research assistants for the present study.

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(Received 27 April 1995)