

Chapter 4

Parenting Behavior of Mothers and School Adjustments of Adolescents in Malaysia

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Introduction

Adolescents make up about one-third of the 27 million population of Malaysia. Although a majority of these adolescents are expected to be in school, there remain substantial proportions of them who are left behind. It was reported that adolescents' enrolment rates for 2005–2009 in secondary schools in Malaysia were lower when compared to the primary school levels [1]. The report indicates that the country's net enrolment in secondary schools for boys was approximately 66 % and for girls, 70 % [1]. These statistics reflect that a considerable number of adolescents are unable to benefit from the educational programs and services provided by the government to foster their development. Various sections in the Malaysian society are concerned that these school dropouts could further escalate the problem of adolescents' involvement in numerous antisocial behaviors, such as promiscuity, gangsterism, bullying, stealing, vandalism, substance abuse, delinquency, and crime [2–7].

Mental health problems are increasingly becoming an issue within the adolescents' population in Malaysia. Past studies provided evidence on the prevalence of stress [8–10] and depression [10, 11] among this younger generation. School-related problems especially academic pressure were noted as the main contributor to adolescents' experience of stress [8, 9]. Most schools in Malaysia are regarded as environmentally stressful due to its high academic demands. Stress may be good to

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a certain extend for the adolescents as it can motivate them toward optimal learning and performance. Nonetheless, overexposure to stress could lead to mental health problem such as depression.

Put together, the aforementioned information reflects on the vulnerability and adjustment issues confronting Malaysian adolescents. Thus, it is deemed necessary to examine factors that influence behavioral adjustment of Malaysian adolescents. Few studies in Malaysia have examined the precursors of and pathways to behavioral adjustment, specifically school adjustment among adolescents. Nevertheless, the few studies have employed samples that either are disadvantaged, small in size, or restricted in age range. This study uses data from a national study [12] to describe patterns and precursor of school-related behavioral adjustment among a large and representative sample of Malaysian adolescents. Understanding the factors that shape adolescents into being well-adjusted and law-abiding citizens is important if Malaysia were to succeed in its human capital investment programs and achieving its developed status in the year 2020.

School Adjustments

Based on the developmental science framework, adolescents' behavioral adjustment is perceived as integrated whole rather than separate parts (i.e., cognitive, behavioral, and social). Using this perspective, the concept of school adjustments in previous studies was reviewed. A two-year longitudinal study measured school adjustment with grades, absenteeism, and self-reported scholastic self-concept [13]. In another longitudinal study [14], indications for school adjustments included academic, behavioral, and social factors as reported by teachers, parents, and peer. In Ueno and McWilliams' study [15], school adjustments were measured based on engagement and attachment. Hence, it seemed that school adjustment is not limited to measurement of adolescents' cognitive ability in school such as grade point average (GPA) but also includes other dimensions that tap into adolescents' behavioral and social competence in schools.

Adolescents' school adjustment could be predicted by a range of environmental support provided during early childhood and early adolescence [16]. Factors like teacher support, parental control, attachment to school, and peer support are possible predictors for school adjustments [17]. Besides, Carlson and colleagues [16] found that quality of parental guidance of child activity and quality of home environment during early childhood provided a platform for adolescents' school functioning. Moreover, favorable parenting behavior by close adults such as interest and encouragement in school activities has also been found to prevent school trouble. In a study where parenting in single mother household was investigated, it was found that maternal monitoring and school involvement promoted adolescent's school achievement [12]. Based on the literature on factors that lead to adolescents' school adjustment, it appears that quality of parenting behavior plays an important role to promote success of adolescents in the school context.

Adolescent-centered approach in gathering information could provide various benefits. One of the main benefits documented by Spera [18] was “children’s reports of parenting behaviors provide the theoretical linkage to their own thoughts, emotions, motivations, and behaviors as it occurs within the family context” (p. 464).” In fact, it was shown that adolescents’ perception of high maternal warmth would positively predict their grade point average (GPA) [19]. However, the contribution of parental control on adolescents’ school adjustment was less clear. Contradictory to this finding, Frey et al. [17] revealed that parental control accounted for a large variance in enhancing adolescents’ school motivation. Perhaps, parental control is helpful for adolescents in handling the developmental challenges during the transition from middle to high school. In the Western context, parental control manifested in consistent discipline and monitoring were found to foster decrement in adolescents’ conduct problem behaviors [20]. Whereas in the Asian context, high level of parental control is an instrumental parental measure that decrease adolescents’ externalizing behavior, enhance social behavior, and maintain academic competence [21, 22].

Research Gap

While failure to adjust in the school context potentially jeopardizes adolescents’ opportunity for future university enrollment and job success, there is debate over whether a broad parenting behavior or a specific school-related parenting behavior would be more instrumental to ensure adolescents’ adjustment in school. As specified in the study by Baharudin and colleagues [12], father and mother’s academic-related parenting practices such as parental school involvement are keystones to adolescents’ academic performance. Other content-specific parenting such as taking part in school activities has also been found to contribute to adolescents’ cognitive development. Nevertheless, other studies have noted that broad parenting behavior is equally important in predicting adolescents’ school outcomes [23–25]. Past literature highlighted the orthogonal dimensions of responsiveness and demandingness in the parent-child socialization context, which provide insights to how elements of warmth and support, as well as monitoring and discipline, influence adolescent development. According to Darling and Steinberg [26], content-specific parenting is no doubt a strong parenting tool to enhance specific developmental outcomes in adolescents; yet, broad parenting dimensions such as responsiveness and demandingness are beyond and greater than the effects of content-specific parenting practices. They elucidate the function of broad parenting behavior as an emotional climate that influences all area of adolescents’ development. Hence, it is imperative for this study to investigate such behavior on adolescents’ school adjustment.

Malaysian studies tend to focus more on specific dimension of schooling, particularly academic performance. In Hanafi’s [27] study, academic achievement was assessed based on examination results pertaining to four main subjects, namely, Malay, English, Science, and Mathematics, taught in schools. Another study among technical secondary school students [28] measured academic performance based on

subject grades made available to the researcher. A multidimensional aspect of school adjustment is yet to be found in the Malaysian studies. Hence, this study adopted the developmental science framework to define school adjustments as the adolescents' cognitive abilities (academic achievement), feelings toward the school (school connectedness), and behavior in school (trouble at school).

A study by Shek [29] indicated that adolescents with positive perception of their family functioning (including paternal and maternal parenting styles) had better adjustment compared to those with poor perception of family functioning. In a later study, Shek [30] further noted that adolescents experiencing positive parenting demonstrate positive behavioral adjustment. Similarly, Liu [31] revealed the significant impact of parental warmth on early adolescents' school achievement. Despite the fact that high level of parenting quality would cultivate school adjustments among adolescents, parenting quality might differ among mothers and fathers [32]. In general, mothers are well informed of adolescent's daily activity as compared to fathers. Adolescents also tend to report higher attachment with their mothers than their fathers [33]. Hence, maternal parenting is expected to offer a better socialization background for adolescents' school-related adjustments. Compared to mothers, fathers are being constantly noted as being less involved in children's school activities [34]. Thus, focusing on adolescents' perception on maternal parenting behavior would provide practical implementation of school level support and intervention programs.

Gender has been shown to be a consistent factor to differentiate adjustment scores in terms of school liking and school avoidance [35]. Although the difference was small, girls generally had more positive feelings toward schools than boys. Moreover, in the mother-child dyad, females tend to be closer and receive discipline from their mothers compared to males [36]. Females were also found to achieve better grades when parenting dimensions were included in the analytical model relating parental support, monitoring, and harsh punishment to children's well-being [37]. In addition, when comparing between females and males on the link between parenting patterns and adjustment, males illustrated a higher and significant correlation between supportive guidance and GPA [38]. Hence, this study examined gender differences with regard to quality of maternal behavior and school adjustments.

Lastly, research investigating the links between parenting behavior and adolescents' school adjustment has utilized a less robust analysis. Kurdek et al. [39] recommended investigation to go beyond multivariate linear links between school adjustment and family variables in order to identify how the three aspects of school adjustments synergistically relate to the maternal warmth, hostility, consistent discipline, and monitoring. Hence, the study hopes to divulge more information on the relations between quality of parenting behavior and multiple dimensions of school adjustment simultaneously by using a structural equation modeling (SEM). The use of SEM would allow a more parsimonious model in explaining the linkages between all the study variables [40]. Thus, the purpose of this study was to validate the model of maternal parenting behavior (warmth, hostility, monitoring, and discipline) and adolescent's school adjustments (academic achievement, school connectedness, trouble at school).

Theoretical Framework

A synthesis of the literature reviewed indicates that the human ecological theory [41] provides a comprehensive framework to investigate social phenomena linking adolescents' school adjustment and parenting milieu. As has been put forth by the theory [41], the microsystems in adolescents' developmental context such as the family, school, and neighborhood have most direct influences on adolescents' ontogenic development. This is based on the central concept of the theory which focuses on an individual as an interactive entity that constantly transacts with the environment. Continuous interactions with significant others in the environment would have profound implications on adolescents. Hence, as adolescents have most contact with individuals in the family system, its overall functioning is critical to predict adolescents' ontogenic development. Along the line, human ecological theory postulates that parents who are competent in terms of their parenting behavior would produce adolescents with good developmental outcomes. In addition, the theory speculates the occurrence of interaction in the mesosystems when adolescents' perception of their parents' parenting competency affects their adjustment in school.

In summary, the utility of human ecology theory is relevant in the context of this study. Two microsystems, namely, adolescents' family and school contexts, would be used to illustrate how adolescents' perception toward their mother's parenting behavior relates to their self-reported school adjustment. Although concepts portrayed in this study are not new, this study extends the examination of mother's parenting behavior into warmth, hostility, consistent discipline, and monitoring. Further, this study expands concept of school adjustment into three dimensions, namely, mean score of academic achievement, school connectedness, and trouble at school. In other words, this study aims to develop a model of maternal behavior and dimensions of school adjustments in a more comprehensive manner. In particular, the use of school connectedness and trouble at school allows representation of school adjustment in a more complete manner. Hence, the use of the human ecology theory is deemed appropriate in establishing the conceptual framework as shown in Fig. 4.1.

Methods

Participants and Procedures

Using probability proportional to size cluster sampling, 2,868 adolescents (44.2 % boys, 55.8 % girls) were recruited from urban and rural secondary schools in six selected states in Malaysia. Consents were obtained from the related parties before distributing a self-administered questionnaire to the respondents at their respective schools. Mean age of the adolescents was 14.35 years and their mothers, 43.01 years. Most of the adolescents were Malays (59 %), and the remainder were Chinese

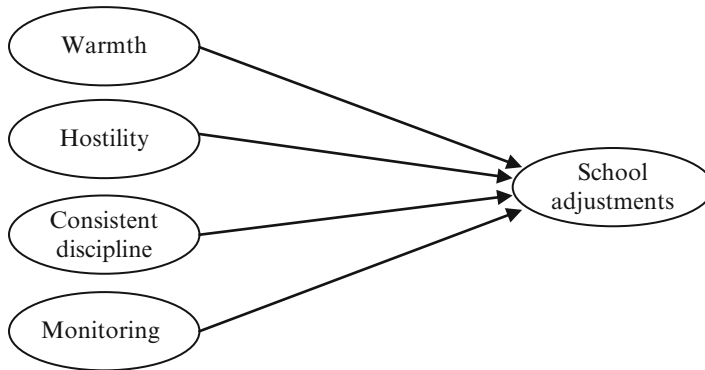


Fig. 4.1 Conceptual framework

(13.3 %), Indians (10.5 %), and others (17.2 %). A majority (87.4 %) of the adolescents lived in two-parent families, with moderate size (mean number of children was 4) and monthly income (RM3474 or USD1135.30).

Measures

Quality of Maternal Parenting Behavior

Parenting scale was used to assess the quality of parenting behavior in four parenting dimensions, i.e., warmth, hostility, consistent discipline, and monitoring (Simons and Conger [42]). All four subscales consist of four items, respectively. Adolescents indicated the frequency of certain parenting behavior displayed by their mothers toward them. Total score was generated based on the sum of items in each subscales. Warm and hostility scales were rated on a 7-point Likert scale, while consistent discipline and monitoring were rated on a 5-point Likert scale. Items were ranged from the lowest frequency, “*never*,” to the highest frequency, “*always*.” Higher scores indicated a greater level of the particular parental quality. Items asking the frequency of mothers caring, act lovingly, helping out, or appreciate the adolescents’ ideas were used to measure mothers’ warmth. While hostile parenting was assessed by the respondents’ response on how often their mothers got angry, shout, criticize, or argue with them.

In order to assess mothers’ consistent discipline, items such as “How often does your mother give up when she asks you to do something and you don’t do it” were asked. Mothers’ monitoring was rated on items which asked adolescents on how well their mothers know their whereabouts and talk about their life. Internal consistency was evident in past studies [42] with coefficient alpha ranging from .68 to .83 for four subscales. For this study, internal consistencies found were .77, .68, .50, and .69 for warmth, hostility, consistent discipline, and monitoring, respectively.

School Adjustments

Three aspects of school adjustments measured in the study were trouble at school, school connectedness, and academic achievement [43]. The first two dimensions employed scales adapted from Add Health Project [44]. Trouble at school was assessed with a 4-item scale related to trouble getting along with teachers, students, getting homework done, and paying attention. These items were measured on a 5-point Likert scale ranging from 0 (*never*) to 4 (*everyday*). Total raw score was generated using the four items as an indicator of trouble at school. Adolescents were also asked to answer five items that represented school connectedness, such as feeling close to people at this school and happy to be at this school. Items were measured on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Internal consistency was high for both scales, with .80 and .82, respectively. Academic achievement was measured based on score average. Students reported marks obtained for each subject (Malay, English, Mathematics, History, Islamic or Moral Education, Civic and Citizenship Education, and Science) taken in the previous school examination. In the case of Science stream upper secondary students, scores for Science subject were the average score of science subjects, namely, Biology, Chemistry, and Physics, whichever was taken.

Data Analytic Strategy

The study utilized structural equation modeling (SEM) to test the plausibility of the model illustrated in Fig. 4.1. The research objectives were examined by evaluating the overall model fit and the significance and direction of the regression estimates in the model. Additionally, the fit model was then tested for gender invariance in order to cross validate the structural model. Prior to testing the structural model fit, preliminary analyses were carried out to construct-validate the measurement scale used in this study. The analyses involved estimating a measurement model to ensure that the quality of maternal parenting behavior scale constructed by four dimensions was adequately measured. The fit of the measurement model was adequate, chi-square $\chi^2(98)=939.07$, $p=.00$, root mean squared error of approximation (RMSEA)=0.55, Tucker-Lewis Index (TLI)=.86, and comparative fit index (CFI)=.90. The significant model chi-square is expected as the sample size was large. Large sample size magnify the effects of small specification errors and more likely produce type II error [45]. Hence, multiple measures of fit were used. Collectively, the confirmatory factor analysis model indicated that parenting behavior formed by four constructs was measured well by remaining a minimal of four indicators in each dimension.

Subsequently, the hypothesized structural model was estimated using full information maximum estimation likelihood methods. This feasible method is preferred to the conventional pairwise or listwise deletion in improving the statistical power. Both absolute and relative goodness-of-fit indices were used to evaluate the model.

Model chi-square (χ^2) and RMSEA as the absolute fit indices measured the magnitude of discrepancy between sample and fitted covariances matrices [46]. Hu and Bentler [47] suggested a cutoff value close to .06 for RMSEA as indicator for a good model fit. Nonsignificant chi-square result at 0.05 threshold is an indicator of good fit [48] as well. However, the chi-square goodness-of-fit indices are sensitive to sample size; large sample size may result in rejection of the model. To overcome this problem, Bentler [49] recommended using other goodness-of-fit indices which include comparative fit index (CFI) and Tucker-Lewis Index (TLI). Tucker and Lewis [50] suggested that values near 1.00 are a sign of good fit, while Hoyle [51] introduced values greater than 0.90 as indicating good fit for both relative fit indices. In order to cross validate the model across gender, two steps of analysis were conducted. First, an unconstrained model was developed by testing the structural path across male and female samples simultaneously, which resulted in a baseline chi-square value. Next, the structural paths were constrained equally between the two groups, thus producing another chi-square value that is tested against the baseline value for any statistical significant differences. Based on past findings, it is expected that there will be differences in the chi-square value between the constrained and unconstrained models.

Results

The study led the way of investigating the impact of parental behavior of mothers on adolescents' school adjustments in Malaysia through a rigorous analyzing method. A model of maternal parenting quality on school adjustments among adolescent was hypothesized at the beginning of this study. Prior to conducting the structural analysis, this study performed bivariate analysis on all the variables understudied (see Table 4.1).

Results showed that maternal warmth was positively related to consistent maternal monitoring and three school adjustment variables (i.e., Trouble at school, Connectedness and Academic achievement) but it was negatively related to maternal hostility. Maternal hostility was found to positively relate to consistent maternal discipline and negatively relate to consistent monitoring, trouble at school, school connectedness, and academic achievement. Meanwhile, consistent discipline was found to negatively relate to consistent monitoring and the three school adjustment variables. As expected, consistent maternal monitoring was found to positively relate to the school adjustment variables. Correlational analyses further indicated that trouble at school, school connectedness, and academic achievement were all positively interrelated.

The hypothesized study model of maternal parenting behavior and adolescents' school adjustment was tested using SEM. Upon inspection, the study model revealed inadequate fit statistics. In order to improve the study model, modification indices were reviewed. It was suggested that three pairs of error terms to covary: item 1

Table 4.1 Correlation matrix

	WM	HS	DS	MN	TROSCH	SCHCONN	ACAAC
WM	–	-.077***	-.028	.426***	.235***	.288***	.119***
HS		–	.322***	-.059**	-.065**	-.082***	-.124***
DS			–	-.038*	-.067**	-.085***	-.059**
MN				–	.185***	.188***	.242***
TROSCH					–	.440***	.112***
SCHCONN						–	.088***
ACAAC							–

WM warmth, HS hostility, DS discipline, MN monitoring, TROSCH trouble at school, SCHCONN school connectedness, ACAAC academic achievement

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 4.2 Summary of model fit

Model	χ^2	Df	p	CFI	TLI	RMSEA
Hypothesized	1,187.996	142	0.00	0.89	0.86	0.05
Revised	854.659	139	0.00	0.93	0.90	0.04

CFI comparative fit index, TLI Tucker-Lewis Index, RMSEA root mean squared error of approximation

and item 2 of warmth scale, item 7 and item 8 of hostility scale, and item 1 and item 2 of monitoring scale. Given that the covariance suggested had common cause and compromise the theoretical integrity of the model, the paths were freed. The revised study model yielded a good fit to the data. The comparison of fit indices for both hypothesized and revised model is displayed in Table 4.2.

The resultant model as illustrated in Fig. 4.2 was estimated and found to fit the data well. The factor loadings on all constructs were reasonably adequate and in logical directions for the sample. Factor loadings were commonly required to be greater than 0.3 and statistically significant ($p < 0.05$) in social science research to be accepted as part of the construct [40, 52]. Although all factor loadings were found to be significant, academic achievement surprisingly appeared to load relatively poor on school adjustment. The variance in mean score accounted for was only 4 % when all predictors were considered. It was possible that the testing of academic achievement using average marks may have caused biasness in the data. The utilization of this constant criterion failed to take into account the significance of discrepant performance at various points in the continuum of school life [53]. Thus, a more complete achievement battery should be employed in future studies to fully depict a broader domain of cognitive aspect in school adjustments. Nevertheless, interpretation of the data was continued with great caution.

The structural regression weights of the structural model were somewhat consistent with the past literature. As hypothesized, mother’s warmth significantly associated with less trouble at school, greater school connectedness, and better achievement ($\beta = 0.37, p < 0.001$). Inconsistent with past findings, mother’s hostility was not a significant factor of adolescents’ school adjustment. Although mother’s

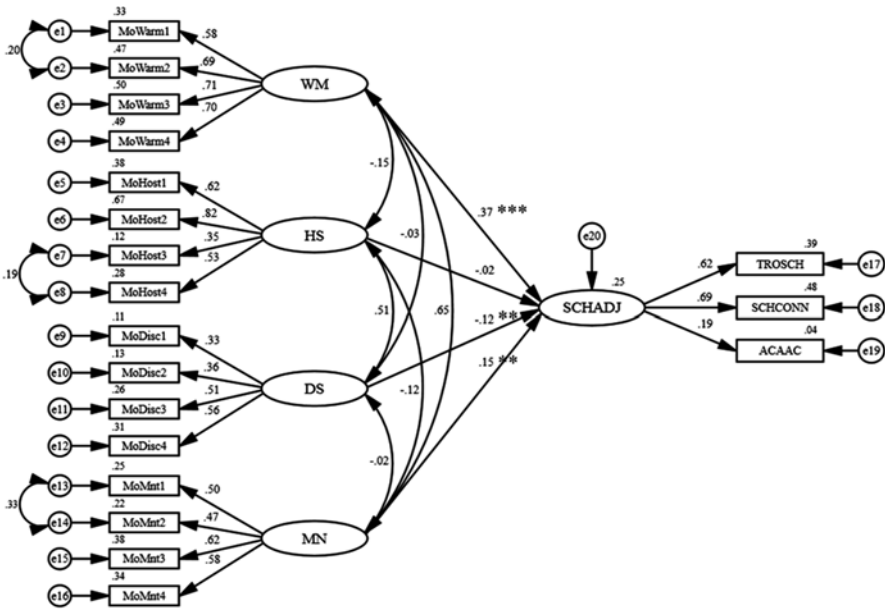


Fig. 4.2 Revised structural model with standardized estimates (*Note: WM* warmth, *HS* hostility, *DS* discipline, *MN* monitoring, *SCHADJ* school adjustment, *ACAAC* academic achievement, *TROSCH*=trouble in school, *SCHCONN*=school connectedness)

hostility was related to the three indicators of school adjustments at the bivariate level, the effect of mother’s hostility was not uniquely associated with the adjustments of adolescents in the presence of other parental constructs. This finding calls for closer inspection. As predicted, both consistent discipline and monitoring of mothers significantly and positively predicted better school adjustments ($\beta_{discipline}=0.12$, $\beta_{monitoring}=0.12$, $p<0.001$). These results correspond to prior research [12, 19, 22] that examined impacts of mother’s parenting quality on children performance and behavior at school. It is noteworthy that mother’s warmth was found to have the strongest prediction on the endogenous variable based on standardized estimates. Parents with warm parenting, generally express interests and involve in their adolescents’ activities, and praise their accomplishments [54]. Hence, adolescents who perceived their mother as being supportive would develop a positive emotional climate and be able to perform and adjust well at school.

In order to cross validate the quality of parenting behavior on school adjustment model, multigroup analysis was conducted. The invariance test across male and female groups did not demonstrate deterioration in the model fit based on the nonsignificant change in chi-square values ($\chi^2(df=4)=10.864$, $p>.05$) (see Table 4.3). In other words, gender does not influence the relationship between parenting behavior and adolescent’s school adjustments. This finding is in contrast to past studies [37, 38] where gender was found to affect the impact of parenting on adolescents’ school adjustments.

Table 4.3 Multigroup modeling across gender

Model	χ^2	df	Critical value	χ^2 change
Unconstrained	1,025.693	278	14.86	10.864
Constrained	1,036.557	282		

Discussion and Conclusion

Results from this study tend to suggest that the way adolescents adjust their behavior in school is related to the quality of their interaction with their parents, particularly with their mothers. Thus, consistent with other studies [e.g., [29, 30]], this study emphasized the vital roles of parents in promoting well-adjusted adolescents. Findings from the study provide evidence of the validity of the full-fledged model which indicates that maternal warmth, consistent discipline, and monitoring promote better school adjustment in adolescents. On the other hand, adolescents with hostile mothers are more vulnerable to experience poor school adjustments. Consistent with the human ecological theory, the study emphasized the impact of interaction within the family ecosystem on adolescents' adjustments in the school ecosystem. In other words, how adolescents perceived themselves in their school environment, including their behavior at school and academic attainment, is closely related to the quality of parenting that they received from their mothers.

Contrary to expectations, the study found that the model linking quality of maternal parenting behavior and adolescents' school adjustment was stable across gender. The study found that the quality of maternal parenting behavior accounted for a very low variance in academic achievement, whereas it explained moderate variance for school connectedness and trouble at school. Thus, future researchers may wish to reexamine these relationships, perhaps using a more complete achievement battery to fully depict a broader domain of cognitive aspect in school adjustments.

Several limitations were identified in this study. Firstly, the study obtained information from a single source, which is self-reported data. Information obtained from other sources such as mothers, school report cards, and teachers' report for school adjustments would probably provide a more comprehensive explanation on the influence of parenting behavior and adolescents' school adjustment. Secondly, this study only focused on the role of maternal parenting behavior among mothers. It is plausible that adolescents' school adjustment may be affected by a paternal figure, which may account for the low variability in the model. Thirdly, using cross-sectional design may limit the study's ability to determine causality. In view of these limitations, results from this study must be treated with caution and may not be generalized to the adolescent population in Malaysia.

As a conclusion, findings from this study were in line with the theoretical framework with regard to the speculation of the interaction in the mesosystem. As expected, adolescents who regard their mothers to be competent in their parenting behavior are well adjusted at school. A competent mother would interact and promote adolescents' school adjustment, hence cultivating good academic achievement, school connectedness, and decreasing trouble at school. Thus, as the theory emphasized on

the family system in predicting the functioning of the adolescents' ontogenic development, this study recommends mothers to continue parenting adolescents by providing them with warmth, consistent discipline, and monitoring in order for adolescents to adjust well at school.

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