

## **Impact of Commuter Families on Adolescent Development: An Evaluation of the Adolescent from Peninsular Malaysia**

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### **ABSTRACT**

This study attempted to address the question concerning the influence of commuter families on adolescent school performance using the proposed Model for Adolescent Development Among Commuter Families (MADCF). We investigated whether the adolescent problem mediates the relationship between parental readiness and adolescent school performance, and clarified the moderating effect of gender. The survey data were drawn from 434 respondents (adolescents-parents) in Malaysia. The results indicated that the adolescent externalising problem partially mediated the relationship between parental readiness and adolescent school performance. The model accounted for 21% of the variability in adolescent school performance. The moderator findings presented that gender moderates the causal effect of parental readiness and the adolescent externalising problem with respect to adolescent school performance. This study clearly shows the importance of parental readiness, and that the results are in line with the proposed mediation and moderation effects. The model proposed by this study was strongly supported.

*Keywords:* Parental readiness, commuter families, adolescent development

### **ARTICLE INFO**

#### *Article history:*

Received: 06 March 2017

Accepted: 27 November 2017

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### **INTRODUCTION**

The idea of 'commuter families' originated from the lifestyle of military families (Grestel & Gross, 1983). However, in recent years, an increasing number of married couples from other occupational sectors, such as professional, public service

and civilian populations who commit to a commuting lifestyle have become more common for various reasons, such as career opportunities and economic development. The term, 'commuter families', describes the phenomenon of a married couple who agree to have their own careers and maintain two residences in different geographical locations and are separated from each other for at least three nights per week.

In Malaysia, commuter families are defined as a weekend family by means of one of the married couple staying far away from the nuclear family and only meeting the family once a week, twice a month, once a month etc. (MWFC, 2010). The increasing trend for such a lifestyle in Malaysian society indicates that commuter families are becoming more common, especially among young couples. According to previous studies, among the most common reasons that married couples commit to a commuter lifestyle, either voluntarily or imposed, are the increasing number of households with dual-career couples, financial and societal demands, the desire to maintain or enhance career, deployment by employer, potentially higher income and better opportunities for career advancement (Ferk, 2005; Norlila, 2011).

This matter has become a concern in Malaysian society because the lifestyle of commuting families is entirely different from and contrary to the conventional model of family in Malaysia (Abd Rashid, Hussin, & Jubah, 2006). As reported by Rahim et al. (2006), most Malaysians have a traditional family consisting of the father as the primary

breadwinner and the mother, who plays the main role of caregiver. Even for dual-career families in Malaysia, gender ideology strongly affects parental role in the family function and child development.

Due to the above reasons, the first research into commuter families conducted in Malaysia was to investigate the challenges faced and the impact of such a lifestyle on the health, well-being and quality of life of families (Norlila, 2011). The study revealed that 86.6% of the respondents (commuters) had a negative perception of commuter lifestyle. Commuters with a negative perception of their lifestyle often manifest psychosocial problems, such as depression, stress or aggression. According to the findings, commuters have a negative perception and psychosocial problem because they were less prepared to commute. Nonetheless, there was a significant relationship between commuters' psychosocial outlook and child-rearing at home. The findings showed that commuters with a psychosocial problem response spent the least time in discussion with their children. Quality of discussion with children relating to issues, such as education, personal problems, ambition and friends was lacking.

The findings of this study have raised the concern of researchers in Malaysia. Parents are the first educators of their children and play an important role in their development, especially during their adolescence (Erikson Theory, 1959; Bronfenbrenner Model, 1979). Psychosocial factors affecting parents greatly influence a child's behaviour and academic performance (Schwab et al.,

1995; Finkel, Kelly, & Ashby, 2003; Kessler et al., 2005; Pugh & Farrell, 2012). Therefore, readiness to commute is important in ensuring a positive psychosocial outlook among commuters, which should lead to better child-rearing, family function and child outcome. Lack of family readiness and the degree of preparation prior to moving may affect family outcomes and the work performance of spouses (Palmer, 2008). Previous research suggested that parental stress and pathology from the separation of families are expected to negatively impact on a child's development including academic achievement and behavioural problems (Kelly et al., 2001; Barry et al., 2005). Preparation and degree of readiness are believed to smoothen the transition and family functions, and, indirectly influence the child's outcome (Yonezawa, 2000; Burrell, 2006; Dumka et al., 2009; Kiernan & Mensah, 2011).

### **Present Study**

This study sought to investigate the impact of commuter lifestyle on adolescent outcome among commuter families in Malaysia. Four main objectives were addressed by this study: (1) To provide an overall description of parental readiness to commute (cognitive, emotional, behavioural); adolescent problems (internalising problem, externalising problem and other problems); and adolescent school performance (curriculum and co-curriculum) among commuter families in Malaysia; (2) To assess the relation and influence between

parental readiness, adolescent problems and adolescent school performance; (3) To determine if adolescent problems mediate the relation between parental readiness and adolescent school performance; and (4) To examine the effect of gender as a moderator in the individual paths of the model. Finally, a simple Model of Adolescent Development Among Commuter Families (MADCF) is proposed at the end of the study.

## **METHOD**

### **Research Design**

A quantitative research design, which included conducting a correlational study and path analysis, was used in this study. The study was based on data obtained from two sets of questionnaire to gather information from adolescents (Youth Self-Report, 1991) and parents (Parental Readiness Inventory). The Pearson correlation test (SPSS) and structural equation modelling (SEM) were applied in the data analysis. Data were randomly collected from public secondary schools in Selangor, Malaysia. Selangor has been identified as the state with a dramatic increase in the number of commuter families in Malaysia (MWFCF, 2010; Norlila, 2011). The participation of the subjects (adolescent and parents) was voluntary and all information was kept confidential and used only for the purpose of research.

### **Participants**

To be eligible for the study, participants had to be from commuter families. They were identified by school administrators.

In this study, commuter families were defined as families in which either the father or the mother or both the parents stayed separately from the nuclear family for at least three nights a week because of career commitment, and the particular family must have practised the defined commuter lifestyle for at least one year before the date of data collection. A total of 376 families were identified as commuter families, of which 239 families were willing and agreed to participate. After excluding incomplete data and potential outliers, 217 families (434 samples; parent-child dyads) were confirmed as reliable and were considered for further analyses. The summary of the participants' demographics is presented in Table 1.

Table 1  
*Descriptive statistics of demographics*

Item		Frequency	Percentage
Gender	Male	116	53.5
	(Adolescent) Female	101	46.5
Age (Adolescent)	13	39	18.0
	14	32	14.7
	15	61	28.1
	16	36	16.6
	17	49	22.6
Race	Malay	124	57.1
	Chinese	37	17.1
	Indian	56	25.8
Commuter	Father	141	65
	Mother	32	14.7
	Father & Mother	44	20.3

Table 1 (continue)

Item		Frequency	Percentage
Years of Commute	1-4	128	59
	5-8	59	27.2
	9-12	19	8.8
	13-16	7	3.2
	17-20	4	1.8
Monthly Income (Family)	Less than RM4000	81	37.3
	RM4000- RM6000	68	31.3
	RM6001- RM8000	30	13.8
	More than RM8000	38	17.5

N=217; RM=Ringgit Malaysia

### Instruments and Measurement

#### **Instrument: Parental readiness inventory.**

Three indicators of parental readiness were evaluated: (1) Parental cognitive readiness; (2) Parental emotional readiness; and (3) Parental behavioural readiness. The data were collected based on 32 items, which were instrument specific and developed to measure the level of parental readiness to commute among commuter families in Malaysia (Prochaska & Diclemente, 1983; Price & Horning, 1994; Van Breda, 1997; Dieryek, 2003; Norlila, 2011). Five stages of change were suggested by Prochaska and Diclement (1984) through the Transtheoretical Model. The model illustrates each stage as assessing an individual's readiness to act on a new and

healthier behaviour for a better lifestyle (Figure 1). The validity and reliability analyses were examined. Confirmatory Factor Analysis (CFA) was applied to determine the Average Variance Extracted (AVE) and the Construct Reliability (CR) of the study instrument, as shown in Table 2. The instrument for parental readiness showed a high AVE (more than 0.50), indicating high convergent validity (Fornell & Larcker, 1981); the instrument is reliable with a CR and Cronbach's Alpha of more than 0.70 (Hair et al., 2005).

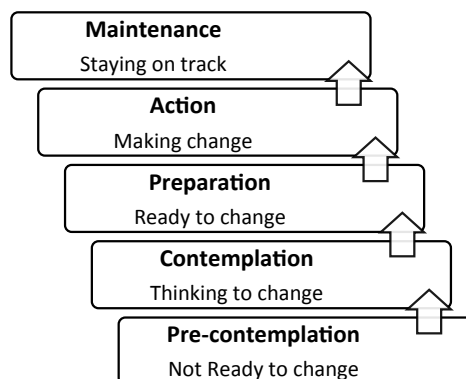


Figure 1. Stages of change (Prochaska & Diclement, 1984)

Table 2  
Number of items, Cronbach's Alpha, Average Variance Extracted (AVE) and Construct Reliability (CR) of study instrument

Instrument	Indicator	No Items	Confirmatory Factor Analysis (CFA)- SPSS			
			Factor Loading	AVE	CR	Cronbach's Alpha
Parental Readiness	Cognitive	12	0.61	0.564	0.792	0.734
	Emotional	11	0.87			
	Behavioural	9	0.75			
Youth Self-Report	Internalising	31	0.91	0.747	0.894	0.951
	Externalising	30	0.76			
	Other Problems	30	0.76			

AVE=Average Variance Extracted; CR=Construct Reliability; N=217

**Instrument: Youth self-report.** The instrument for youth self-report, as developed by Achenbach (1991), was used to measure adolescents' problems, including 10 symptoms related to three major types of problem: (1) Internalising problem (anxious, withdrawn, somatic complaint); (2) Externalising problem (rule-

breaking and aggressive behaviour); and (3) Other problems (social problem, thought problem and attention problem). The Youth Self-Report is a self-administered survey intentionally designed for adolescents aged from 11 to 18 for the purpose of measuring the emotional and behavioural problems among adolescents in a standardised format.

The Youth Self-Report is an established questionnaire and has been used in more than 23 countries represented by different cultural and socioeconomic conditions, such as Hong Kong, Australia, Iran, Japan, and Poland (Ivavova et al., 2007). There are a total of 112 items in the instrument of the Youth Self-Report, with 31 items assessing the internalising problem, 30 items assessing the externalising problem and 30 items assessing other problems. The confirmatory factor analysis (CFA) was applied to determine the average variance extracted (AVE) and the construct reliability (CR) of the study instrument, as shown in Table 2. The value of the validity and reliability of the construct was more than 0.70 and the factor loading for all the indicators was more than 0.50.

**Instrument: School performance.** School performance was measured based on the adolescent curriculum and co-curriculum achievement in school. The final examination marks (year 2012) and yearly average scores in the co-curriculum were kindly provided by the school administrator. The Malaysian Secondary School Grading System was used to measure adolescent school performance from Grade A to Grade E.

### **Confirmatory Factor Analysis**

Validity and reliability analyses were used to determine the validity and reliability of the instruments. The confirmatory

factor analysis (CFA) was applied for each individual construct to determine the average variance extracted (AVE) and the construct reliability (CR) of the study instruments. Table 2 shows that both instruments had a high AVE (more than 0.50), indicating high convergent validity, and the instruments were reliable, with a CR of more than 0.70 (Fornell & Larcker, 1981; Hair et al., 2008).

### **Analytic Strategy**

Analyses were conducted using the Statistical Package for the Social Sciences (SPSS) and AMOS (Analysis of Moment Structures). SPSS was first used for the reliability test, descriptive analysis and Pearson correlation test. The purpose of the correlation analysis was to confirm the significance of the relationship between each construct: parental readiness, adolescent problems and adolescent school performance. According to Baron and Kenny (1986), all the variables must be correlated with each other to establish a complete mediation effect among the variables. Therefore, the Pearson correlation test was used before the path analysis was employed to test the mediation effect.

Next, structural equation modelling (SEM-AMOS) was used for the second and third step of the path analysis. In SEM, the measurement model was developed based on the outcomes of the Pearson correlation test. The initial variable, mediator and outcome variable have to significantly

correlate with each other (Baron & Kenny, 1986). The discriminant validity and model fit were stated based on the measurement model. The purpose for testing the model fit was to confirm that the model proposed is acceptable with good fit and suitable for the hypothesis test. Lastly, the structural model was formed to examine the influence of parental readiness and the adolescent externalising problem on adolescent school performance and also to test the mediation (adolescent problem) and moderation (gender) effect on the Model of Adolescent School Performance Among Commuter Families (MASPCF).

## RESULTS

### Descriptions Analysis

We first present the results of the description analysis to provide descriptions of parental readiness, adolescent problems and adolescent school performance among commuter families in Malaysia. As noted in Table 3, 62.6% of the respondents' parents were in the preparation and ready-to-change stage; 33.2% were in the stage of making a change. Only a minority of the respondents' parents (4.1%) were still in the stage of contemplation and 0.5% of the respondents had adapted to the commuter lifestyle.

The descriptive table reveals that female adolescents scored higher for the internalising problem and attention

problem than the male respondents; this was expected for symptoms of somatic complaints, as illustrated by the mean and standard deviation value in Table 4. However, the male adolescents reported higher mean scores for the symptoms of the externalising problem, social problems and thought problems compared with the female adolescents. According to the results, only 28.6% of the respondents reported Grade A in the curriculum achievement and 31.8% reported Grade B (Table 5). For co-curriculum performance, Table 6 shows 50% of the respondents having achieved Grade B.

Table 3  
*Descriptive statistics for parental readiness*

Descriptive Statistic	Score
Mean	84.99
Median	84.00
Standard Deviation	9.381
Minimum	60.00
Maximum	113.00
Percentile	
25th	79.00
50th	84.00
75th	91.00
Stages of Change	Frequency (Percentage)
Pre-contemplation	0 (0 %)
Contemplation	9 (4.1%)
Preparation	135 (62.6%)
Action	72 (33.2%)
Maintenance	1 (0.5%)
N=217	



Table 4  
*Descriptive statistics for adolescent problem (Youth Self-Report)*

Variables	Symptom	Male		Female	
		Mean	SD	Mean	SD
Adolescent Problem	Internalising Problem	17.3103	9.2890	17.7921	7.4998
	Anxious	8.0776	4.2038	8.8020	3.8653
	Withdrawn	4.8621	2.9632	5.1386	2.6155
	Somatic Complaints	4.3707	3.3765	3.8515	2.4265
	Externalising Problem	13.8190	9.7559	11.1782	5.7955
	Rule-Breaking Behaviour	4.9397	4.3862	2.9505	2.4429
	Aggressive Behaviour	8.8798	5.9112	8.2277	4.2588
	Other Problems	18.3276	8.7950	17.3960	7.7538
	Social Problems	6.5690	3.5928	5.7723	3.4231
	Thought Problems	6.8966	4.1439	6.4851	3.2973
	Attention Problems	4.8621	2.3844	5.1386	2.4901

N=217

Table 5  
*Descriptive statistics for adolescent school performance: Curriculum*

Grade	Frequency	Percentage (%)
A (100 to 80)	62	28.6
B (79 to 60)	69	31.8
C (59 to 40)	64	29.5
D (39 to 20)	22	10.1
E (less than 19)	-	-
Total	217	100

N=217

Table 6  
*Descriptive Statistics for adolescent school performance: Co-curriculum*

Descriptive Statistic	Score
Mean	70.29
Medium	70.00
Standard Deviation	5.157
Minimum	59.00
Maximum	83.00
Percentile	
25th	67.00
50th	70.00
75th	74.00

N=217

### Correlational Analysis

A second series of analyses was conducted to evaluate the relationship between parental readiness, adolescent problem and adolescent academic performance. The Pearson correlation test was used to examine the relation between each

indicator of the variables. A total of eight indicators were used to measure three variables in the study. The Pearson correlation test reported that two of the three indicators of parental readiness (emotional and behavioural) were not significantly related to the adolescent internalising problem (Table 7). In addition, the findings



revealed no significant relationship between adolescent other problems (social problem, thought problem, attention problem) with parental readiness and adolescent school performance. However, the adolescent

externalising problem was significantly related to parental readiness and adolescent school performance and adolescent school performance was significantly correlated with parental readiness, as shown in Table 7.

Table 7

*Correlation between parental readiness, adolescent behavior problem and adolescent school performance*

Indicators	1	2	3	4	5	6	7	8
1. Cognitive (readiness)								
2. Emotional (readiness)	0.505**							
3. Behavioural (readiness)	0.451**	0.671**						
4. Internalizing Problem	-0.192**	-0.069	-0.062					
5. Externalizing Problem	-0.473**	-0.527**	-0.398**	0.479**				
6. Other Problems	-0.089	-0.063	-0.003	0.677**	0.411**			
7. Curriculum	0.298**	0.384**	0.299**	-0.191**	-0.364**	-0.059		
8. Co-curriculum	0.256**	0.362**	0.301**	-0.164*	-0.328**	-0.019	0.972**	

\*\*correlation is significant at the 0.01 level (2-tailed)

\*correlation is significant at the 0.05 level (2-tailed)

Correlation across sources was generally low (less than 0.49), except for the correlation between the adolescent externalising problem and parental emotional readiness ( $r=0.527$ ), which was defined as moderate correlation according to Guilford's Rule of Thumb (Guilford, 1956). Although the adolescent internalising problem was significantly related to parental cognitive readiness and adolescent school performance, there was relatively low correlation (less than 0.20). In conclusion, based on the findings, it appeared that there was no appropriate relationship between parental readiness and adolescent school performance and two indicators of the adolescent problem (adolescent internalising problem and other problems). Therefore, the step to establish

the model for path analysis using SEM only focused on the relationship between three constructs: (1) Parental readiness; (2) Adolescent externalising problem; and (3) Adolescent school performance. Finally, the step to establish mediation was met since the initial variable (parental readiness) was correlated with the outcome (adolescent school performance) and mediator (adolescent externalising problem).

### Measurement Model

**Discriminant Validity.** In the third step of the analysis, the measurement model was created by combining the three constructs (parental readiness, adolescent externalising problem, adolescent school

performance) with a total of six indicators (cognitive readiness, emotional readiness, behaviour readiness, aggressive behaviour, delinquency behaviour, co-curriculum achievement, curriculum achievement) in reference to the results of the correlational analysis. The measurement model is important for examining discriminant validity through the average variance extracted (AVE) and squared correlation coefficient. Discriminant validity refers to the extent to which a construct is truly distinct from other constructs and involves the relationship between a particular latent construct and other constructs of a similar nature (Brown, 2006). Table 8 presents the discriminant validity of the study instruments. The table shows that all the instruments had a higher average variance extracted (AVE) compared with the squared correlation coefficient (Hair et al., 2010). The correlation coefficient between the constructs was not more than 0.90 and the AVE for each construct was more than 0.50 (Fornell & Larcker, 1981; Hair et al., 2010).

Table 8  
*Average variance extracted and squared correlation coefficients*

Construct	(1)	(2)	(3)
1. Externalising problem	0.700		
2. Parental Readiness	0.423	0.563	
3. School Performance	0.160	0.185	0.923

Average Variance Extracted (on the Diagonal); Squared Correlation Coefficients (on the off-diagonal)

**Model Fit.** A number of fit indices were used to test for the model fit (Byrne, 2001; 2010; Hair et al., 2010). The goal of examining the fit indices of a model is to determine how well it models the data. According to Hair (2010), a minimum of three to four fit indices are suggested for a model fit. Table 9 shows that all the values in the research model were reported to fit the recommended value. Therefore, the model suggested in this study is statistically accepted and indicates a well-fitting model.

Table 9  
*Fit indices*

Fit Indices	Recommended Value	Model Value
Relative Chi-square	$\leq 5.00$	1.335
AGFI	$\geq 0.90$	0.951
GFI	$\geq 0.90$	0.981
CFI	$\geq 0.90$	0.996
IFI	$\geq 0.90$	0.996
RMSEA	$\leq 0.80$	0.039

### Path Analysis

**Structural Model.** A similar analysis was conducted to examine the effect of parental readiness and the adolescent externalising problem with respect to adolescent school performance (Figure 2). Based on the analysis, parental readiness had a significant effect on the adolescent externalising problem ( $\beta=-0.65$ ;  $p<0.01$ ), and adolescent school performance ( $\beta=0.31$ ;  $p<0.01$ ),

whereas the adolescent externalising problem had a significant effect on the adolescent's school performance ( $\beta=-0.20$ ;  $p<0.01$ ). The findings indicated that the contribution of the adolescent externalising problem was slightly weaker compared with

parental readiness. The model accounted for 21% of the variability in adolescent school performance explained by the model with the total effect being 0.44. The direct effect of the model was 0.31, while the indirect effect was 0.13.

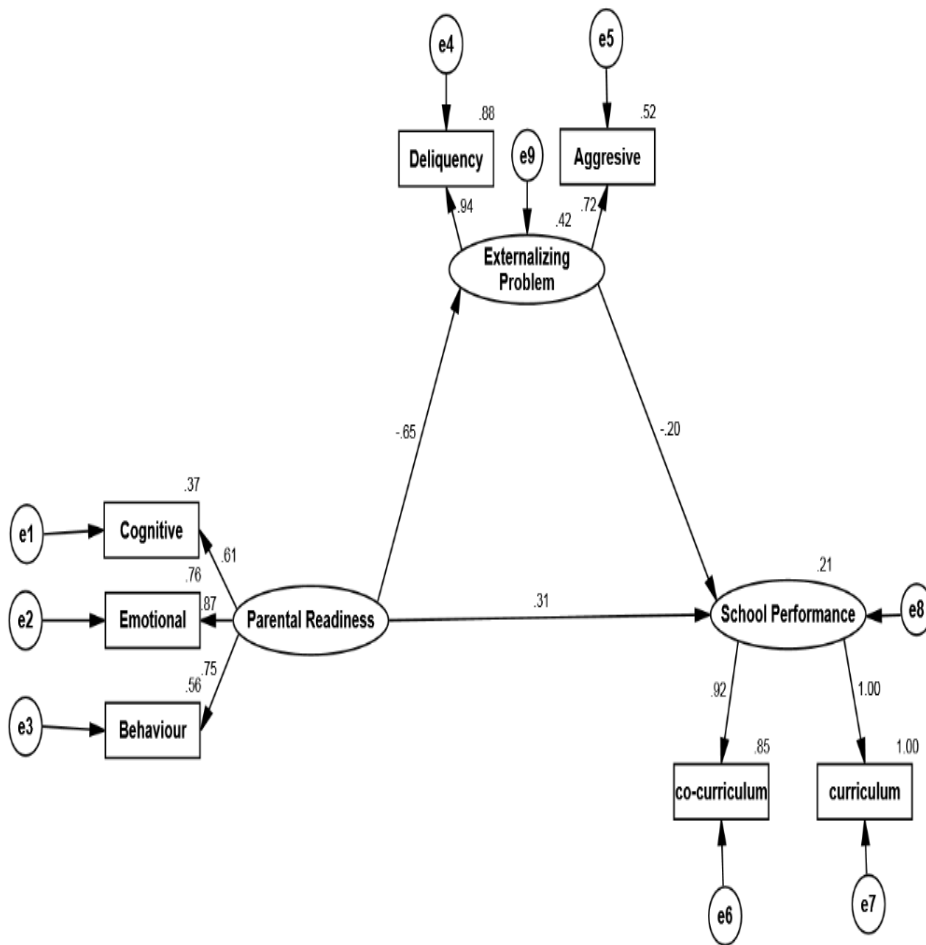


Figure 2. Structural model: Mediation model of adolescent development among commuter families (MADCF)

**Mediation Model of Adolescent's School Performance.** The objective of establishing the Mediation Model of Adolescent School Performance (MMASF) was to explore the role of the adolescent externalising

problem as a mediator between parental readiness to commute and adolescent school performance (Figure 2). Table 10 shows that the standardised direct effect of parental readiness on adolescent school performance

in the direct model and mediation model were statistically significant ( $\beta=0.44$  and  $0.31$ , respectively). However, the effect of parental readiness on adolescent school performance in the mediation model was slightly less compared with the direct model. Therefore, we reasoned that the adolescent externalising problem partially mediates the relationship between parental readiness and adolescent school performance. Additional bootstrapping (AMOS) revealed that our results were in line with the research outcomes. The bootstrapping analyses

showed that the adolescent externalising problem had a partial mediation effect on the relationship between parental readiness and school performance, strongly supporting the research outcomes. As shown in Table 11, bootstrapping for the mediation test indicated that the standardised direct effect of parental readiness on school performance in the direct model was significant and that the effect was significantly reduced in the mediation model with a significant standard indirect effect (SIE). Therefore, the partial mediation effect was accepted.

Table 10  
*Results of Mediation Test*

Construct	Beta	p
Direct Model		
Parental Readiness → School Performance	0.44	0.00
Mediation Model		
Parental Readiness → School Performance	0.31	0.00
Parental Readiness → Externalising Problem	-0.65	0.00
Externalising Problem → School Performance	-0.20	0.04

Table 11  
*Bootstrapping for Mediation Test*

Model	Beta
Direct Model	
Parental Readiness → School Performance	0.44**
Mediation Model	
Parental Readiness → School Performance	0.31**
Std. Indirect Effect (SIE)	0.13*

\*\*significant at the 0.01 level (2-tailed)

\*significant at the 0.05 level (2-tailed)

95% CI Bootstrap BC: LB=0.02; UP=0.27

Table 11  
Moderation Test

Model	Beta
Parental Readiness → School Performance	
Male	0.36**
Female	0.19
Parental Readiness → Externalising Problem	
Male	-0.66**
Female	-0.38**
Externalising Problem → School Performance	
Male	-0.12
Female	-0.35**

\*\* significant at the 0.01 level (2-tailed)

**Moderation Test.** The moderation test was used to examine the effect of gender as a moderator in the individual paths of the model. The results indicated that gender moderates the causal effect of parental readiness on school performance and the causal effect of the externalising problem on school performance, as shown in Table 12. According to the decision criteria recommended by Hair (2010), the findings showed that gender did not moderate the causal effect of parental readiness on the adolescent externalising problem.

## DISCUSSION

The purpose of the study was to investigate the impact of the commuter lifestyle on the adolescent outcome among commuter families in Malaysia. To understand the impact of commuter families on adolescents, we first provided a description about the level of parental readiness to commute, adolescent development from the perspective of the adolescent behaviour problem and

school performance. The findings suggested that the majority of the adolescents in this study scored B in their school curriculum and co-curriculum tasks. This was in line with the first study done in Malaysia, which reported that children in commuting families had been experiencing difficulties in co-curricular achievement since the family adopted the commuting lifestyle (Norlila, 2011). This clearly indicated that the lifestyle of commuter families directly and indirectly influenced adolescent educational achievement (Dumka, 2009). School performance and achievement are important in the development of youth to determine their future, especially their future career (Masten & Coatsworth, 1998; Elder & Conger, 2000). The study also argued that adolescents potentially experienced the externalising problem, internalising problem and other problems including social, attention and thought problems. The overall findings indicated that the mean scores of the adolescent

problem in this study were higher than in the referred samples provided by Achenbach (1991). A preview of the research showed that the lifestyle of commuter families had a negative impact on the adolescent problem (Kelly et al., 2011; Finkel et al., 2003). According to Norlila (2011), 80% of the commuters in Malaysia claimed that their children had been experiencing discipline problems in school since their commuter lifestyle started. Therefore, further investigation is warranted to ensure that the growing number of commuter families would not affect the development of adolescents and their school performance. In respect to the level of parental readiness to commute, our findings showed that the majority of the respondents (62.6%) were in the stage of preparation to change. Although they were prepared and willing to make changes for a better life, practical actions had yet to be taken; this is the stage defined as 'thinking but action not started' (Prochaska & DiClement, 1984). However, one should remember that family readiness to commute is important, especially parental readiness, for the management, development and well-being of the family (Palmer, 2008). Hofmeisfer (2006) emphasised that individuals, especially parents, have to adapt to changes in the lifestyle of the commuter family for success, not only in their career but also to improve the quality of family life.

Second, to examine the relation between parental readiness, adolescent problem and adolescent school performance, support was found for the notion that there were significant relations between parental

readiness, adolescent externalising problem and adolescent school performance. However, the findings revealed that the symptoms of internalising problem and other problems were not significantly related to parental readiness and adolescent school performance. This is in line with previous studies that indicated that maternal separation was significantly correlated with the child's externalising problem but not with the child's internalising problem (Hewage, 2011). In addition, the Social Learning Theory (Bandura, 1976) states that people learn by observing others. The modelling processes introduced by Bandura (1984) described modelling as a general term that refers to behavioural, cognitive and attitude changes derived from observing one or more models. Children are responsive to parental psychosocial outlook and may easily mirror how parents respond (Fletcher, 1996; Pfefferbaum, 1997). Parental readiness is believed to be an important factor in adolescent academic performance. Palmer (2008) indicated that parents with low readiness would always express negative psychosocial behaviour, such as stress, aggression and depression, and that the psychosocial problem negatively affects the child's development and academic performance (Martin, 1999). Good adjustment and preparation to change among parental beliefs indirectly increases parental involvement and supervision of children's daily activities (Hardaway, 2004; Webb, 2004). A substantial body of research has documented the importance of parental practice in respect of a child's behaviour

and academic performance (Keith, 1994; Rodriquez, 2002; Ishak, 2004; Gershoff et al., 2007; Han et al., 2012).

Third, we explored a model to examine the contributions of parental readiness and the adolescent externalising problem towards adolescent school performance. The model suggested that parental readiness contributed more to the adolescent externalising problem compared with adolescent school performance. The overall model contributed 21% to adolescent school performance among commuter families in Malaysia. This finding supports the earlier studies that indicated that although parental role was important in adolescent development, adolescent academic performance required the cooperation of both the school management and parental practice (Epstein & Sander, 2002; Hill & Taylor, 2004). The relationship between school and parents' involvement positively affects a child's psychosocial development and academic achievement (Yonezawa, 2000). Our findings were consistent with previous research showing that a higher level of parental readiness was related to a lower level of the adolescent externalising problem (Qi & Kaiser, 2003; Barry et al., 2005) and a lower level of the externalising problem was related to a higher level of adolescent school performance (Windle & Wiesner, 2004; Bradshaw et al., 2010). According to the study conducted by Norlila (2011), in Malaysia, commuters with less preparation and a negative perception of commuting may experience psychosocial problems, such as stress, anxiety, emotional

behaviour and aggression. Parents showing negative psychosocial behaviour have less communication and involvement with their children; this is significantly correlated with a child's academic achievement. The results are in line with our findings showing that parental readiness may have a negative impact on adolescent school performance (Malecki & Elliott, 2002; Ronald, 2003).

Fourth, this study also contributes to the literature in its proposal of a simple mediation model to explore mediation effect on adolescent academic performance. The model suggested that the relation between parental readiness and adolescent school performance in this study was partially mediated by the adolescent externalising problem. Surprisingly, this finding indicated that the total effect of the mediation model was equivalent to the total effect of the direct model. This is inconsistent with the previous studies that indicated that the degree of preparation to move partly accounted for the family and child outcome (Martin, 1999; Palmer, 2008). One possible explanation is that the above research was carried out among commuter families from military parents. Although military families are also categorised as commuter families, the 'military family syndrome' (LaGrone, 1978; Jensen, Martin, & Watanabe, 1991) should be considered. The risk and resilience factors i.e. relocation, pre-deployment and deployment every two to three years may affect the development of military families and their child's outcome (Palmer, 2008). Our finding in the mediation model strongly suggested that parental readiness was an



important component in the adolescents' development. Finally, the moderation test carried out summarised that gender moderates the causal effect of parental readiness and the adolescent externalising problem on adolescent school performance. This result was in line with previous research, which reported that boys scored significantly higher than girls in the externalising problem (Rescorla et al., 2007), and that academic achievement among girls was higher in non-delinquent groups (Malinauskiene, Vosylis, & Zukauskiene, 2011). Most studies have shown that girls performed better in school than boys, and that girls graduated from high school with a higher grade than their male peers (Perkin et al., 2004). Gender as a predictor of academic achievement has been a controversial topic in the literature.

## CONCLUSION

Generally, our study supported the mediation model proposed by this study. For the results of moderation, we would say that gender moderates the causal effect of parental readiness and the adolescent externalising problem on school performance. However, the importance of parental readiness should be highlighted in the children's outcome among commuter families, especially families with youth. The literature shows that the majority of previous studies were carried out in either Western countries or focused on military parents, but none of the reports according to the cultural and socioeconomic status (SES) were among

commuter families in Asian countries, especially Malaysia. Therefore, the research is important for contributing new knowledge for future research in social sciences to ensure that the growth of commuter families in Malaysia is in line with positive family development and children's outcome.

## ACKNOWLEDGEMENT

The authors would like to thank Professor Dr. Rahil Mahyuddin and Dr. Maznah Baba for their assistance in verifying the research instruments. Acknowledgement also goes to Dr. Thomas M. Achenbach, the President of the Research Center for Children, Youth and Families Inc (The University of Vermont, ASEBA), for his permission to use the instrument (Youth Self-Report). This research was supported in part by University Putra Malaysia under the Grant ERGS 5527065 headed by Associate Professor Dr Samsilah Roslan.

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