RELATIONSHIPS BETWEEN PARENTAL BEHAVIOR, PERCEIVED STRESS, LOCUS OF CONTROL AND DEPRESSION AMONG ADOLESCENTS

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Abstract

This study aims to determine the relationships between parental behavior, perceived stress, locus of control and depression among adolescents. Respondents of the study comprised 145 Form 4 students. Data were collected using a self-administered questionnaire. Parental Bonding Instrument (Parker, Tupling & Brown, 1979), Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983), Children's Nowicki-Strickland Internal-External Locus of Control (Nowicki & Strickland, 1973) and Beck Depression Inventory (Beck, Ward, Mendelson, Mock & Erbaugh, 1961) were used to measure parental behavior, perceived stress, locus of control and depression respectively. Results revealed that mother's care, father's care, father's overprotection, perceived stress and locus of control were significantly associated with adolescent depression. Multiple regression analysis revealed that perceived stress emerged as the only significant predictor of adolescent depression. The study concluded that at bivariate level, parental care, father's overprotection, perceived stress and locus of control are linked to depression among adolescents. However, multiple regression analysis revealed that only perceived stress significantly predicts depression. The finding of the study implies that adolescents who experienced less stress in their life will be less depressed. Therefore, adolescents need to be equipped with knowledge and skills concerning stress management.

Key words: depression, parental behavior, perceived stress, locus of control, adolescents.

Introduction

Adolescent depression is one of the major psychological disorders among many youngsters (Montague, 2002). According to statistics from Malaysia Ministry of Health, the total number of mental health patients who sought treatment in government hospitals increased 15.6% from 346,196 in 2007 to 400,227 in 2008. Adolescent depression is characterized by episodes that involved a period of more than two weeks during which the individual experienced depressed mood or loss of interest and enjoyment in all the activities (Draucker, 2005).

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Depression is found to be related to self blame, rumination, positive refocusing and positive reappraisal (Kraaij et al., 2003). Symptoms associated with adolescent depression include feelings of hopelessness and sadness, fear, anger, guilt, poor performance in school, changes in appetite, disrupted sleep patterns, withdrawal from family and friends, substance abuse, suicidal thoughts or actions, and confused thinking (Robles-Piña, Defrance & Cox, 2008). Depression in children and adolescents can lead to school failure, delinquency, weight loss, insomnia, fatigue, feelings of worthlessness, substance abuse or even suicide (Draucker, 2005).

Studying factor that contribute to depression in adolescents is particularly important. As adolescent depression cases are increasing in number, it has continually attracted the public concern regarding this issue as many news headlines highlighted mental health (Lee, 2010; Mental health problems, 2009). Many researchers, psychologists, theorists and professional groups offer abundance of reasons to explain this phenomenon such as the factors contributing to depression (Putter, 2003; Li & Zhang, 2008; Rubin, Gold & Primack, 2009).

According to psychosocial theory by Erik Erikson, teenagers tend to experience identity versus role confusion stage during adolescence (Erikson, 1968). Therefore, parents would be taken as role models for adolescents in facing with challenges during adolescence. Lack of attention and support from parents may cause adolescents to experience pressure and depression (Barber, Stolz & Olsen, 2005). Poor parental bonding was found to make adolescents more susceptible to depression than facing with adverse life events (Kraaij et al., 2003). Plunkett et al. (2007) found that adolescents' perceptions of mothers' care and support are indirectly related to depression. Adolescents with more depressive symptoms tend to rate their parents as highly protective (Putter, 2003). In a different study, Ham (2005) also noted strong relationship between overprotection and adolescent depression.

Another common element that is usually related to adolescent depression is perceived stress. Stressful life events experienced by adolescents can trigger depression. Major and minor stressful events have been found to be predictive of depression (Kraaij et al., 2003). This shows that adolescents that frequently encounter stressful events in their daily lives were more susceptible to depression. Study by Li and Zhang (2008) also showed that adolescents who reported higher levels of perceived stress have higher levels of depression. This is also consistent with another research by Southall and Roberts (2002) where adolescents with greater stress level tend to report higher levels of depressive symptoms as compared to those with less stress level.

Locus of control is also a very important factor that could contribute to adolescent depression. Locus of control is defined as the extent of the person's ability to perceive

contingencies between his efforts and the results of those efforts. Internal locus of control refers to the belief that the negative and positive occurrences in one's life are results of one's skills and behavior (Kaya, 2007). Those who have internal locus of control will have a more positive thinking towards the things that happen around them. They are willing to participate actively in any activities and they try to work hard for achievements because they believe that success is a result of their behavior and skills. According to Rubin, Gold and Primack (2009), high depressive symptoms were independently associated with increased numbers of external locus of control. This finding is in line with the research done by Cohen et al. (2008), which noted that an internal locus of control is a protective factor against depression.

The above literatures summarized that bonding between parents and adolescents had played an important role towards the development of adolescent depression. Adolescents who received sufficient love and care from their parents are less likely to suffer from depression compared to adolescents who are highly controlled by their family. Besides, there are many forms of stress identified by past researches that had a significant relationship with adolescent depression. The same condition goes to external locus of control and depression where adolescents need to have a sense of control over events in their lives to reduce the tendency for depression.

Searches using online database such as Scopus, Ebscohost and SAGE from 1995 to 2010 revealed that published studies on depression among adolescents in Malaysia are very limited. Local studies mainly focused on clinical patients (Khai, 2010; Khan et al., 2009; Jaafar et al., 2007), elderly (Imran et al., 2009; Salimah, Rahmah & Rosdinom, 2008; Low et al., 2006) and postnatal mothers (Azidah et al., 2006; Kadir et al., 2005). There are studies focused on students but not specifically adolescents. For examples, Swami and colleagues (2007) conducted a study among medical students whereas Khan and colleagues (2010) studied on mental health literacy towards depression among non-medical students at a Malaysian university.

Based on the brief overview above, parental behavior, perceived stress and locus of control were found to be highly related to depression. As there are limited researches done in Malaysia to determine the relationships between parental behavior, perceived stress, locus of control and adolescent depression, this research was conducted to determine the relationships between parental behavior, perceived stress, locus of control and adolescent depression. The specific objectives of this study are to:

1. To describe adolescents' characteristics, parental behavior, perceived stress, locus of control and depression.
2. To determine the relationship between parental behavior (mother's care and overprotection, father's care and overprotection), perceived stress, locus of control and depression among respondents.

3. To determine significant predictors of depression among respondents.

The conceptual framework of the study is presented in Figure I. This study hypothesized that poor parental behavior, high perceived stress, and external locus of control will lead to depression among adolescents.

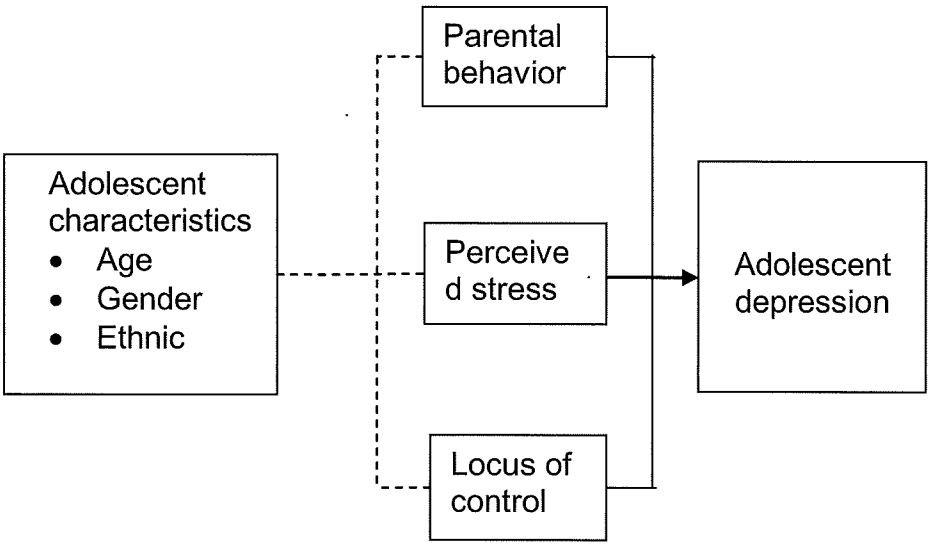

Figure I: Conceptual framework for a study on "Relationships between parental behavior, perceived stress, locus of control and depression among adolescents"

Methodology

Location, Sample and Data Collection

A total of 145 Form 4 students from the only cluster secondary school in Johor were selected through simple random sampling technique. The reason to choose cluster school students is because those students were believed to be more prone to suffer from depression due to high expectation and pressure to excel in their academic performance which crucial for a cluster school. They were randomly chosen among all the Form 4 classes in the school. Almost equal number of male (n=71) and female (n=74) adolescents were involved as respondents of the study. Data were collected using a structured self-administered questionnaire distributed by researcher. Respective respondents were asked to answer the questions.

Instrumentation

Parental Behavior. Parenting Bonding Instrument (PBI) (Parker, Tupling & Brown, 1979) was used to measure the perception of adolescents towards parental behavior. PBI is a 25-item instrument used to measure the individual perception towards their parents' parenting style. Two aspects which are parental care and parental overprotection were assessed by this instrument. Respondents were required to respond to the items based on how they perceived their parents behavior for the first 16 years in their life. Assessment was done separately for father and mother. Twelve items in the scale measure the aspect of 'care' and another 13-item measure the aspect of 'overprotection'. PBI used a 4-point Likert scale where score 0 represents "very like", score 1 represents "moderately like", score 2 represents "moderately unlike" and score 3 represents "very unlike". Positive items related to 'care' were reverse-coded so that higher score represents higher parental behavior and care. Higher score for 'overprotection' represents parental behavior that limits freedom and controlling. Examples of items for 'care' subscale are "Did not help me as much as I needed" and "Appeared to understand my problems and worries" whereas the examples of items in the 'overprotection' subscale include "Gave me as much freedom as I wanted" and "Was overprotective of me". "High" or "low" categories are assigned based on the following cut-off scores: For mothers, a *care* score of 27.0 and a *protection* score of 13.5. For fathers, a *care* score of 24.0 and a *protection* score of 12.5. The reliability of mothers' care and fathers' care in parental behavior scale were 0.81 and 0.84 whereas the reliability for mothers' overprotection and fathers' overprotection in parental behavior scale were 0.61 and 0.63.

Perceived Stress. Perceived Stress Scale (PSS) (Cohen, Kamarck & Mermelstein, 1983) was used to measure perceived stress of adolescents. PSS consists of 14-item and was designed to measure the degree of stressful situations in one's life. PSS used a 5-point Likert scale where score 0 represents "never", score 1 represents "almost never", score 2 represents "sometimes", score 3 represents "fairly often" and score 4 represents "very often". Respondents were required to answer each of the questions based on the feelings and thoughts during the last month and avoid counting up the number of times they felt in a particular way. The higher the score for the scale, the more perceived stress the individual experienced. Three equal groups are used to determine low, moderate and high level of stress. The reliability for perceived stress scale was 0.67.

Locus of Control. Adolescent locus of control was assessed by Children's Nowicki-Strickland Internal-External Locus of Control (Nowicki & Strickland, 1973). This scale assesses the perception level of the internal and external locus of control of the reinforcements that control the behavior. The items of the measuring instrument are about academic proficiency, social maturation, independence, coping with events and self-motivation. It consists of 40-item and was used to measure the locus of control for children from ages

9 through 18. Respondents were required to answer by marking either yes or no placed next to the questions. The score was the total number of items answered in an externally controlled direction. The yes or no statement within each item that was in the direction of external locus of control was assigned one point (Yes=1, No=0). Higher score indicates external locus of control while lower score was an indication of internal locus of control. Cut-off points for this instrument for low is 0 to 8, average is 9 to 16 and high is 17 to 40. The reliability for locus of control scale was 0.61.

Depression. Adolescent depression was measured by Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock & Erbaugh, 1961). BDI consists of 21-item on symptoms of depression and was designed for individuals aged 13 and above. Each item in BDI reflects one specific behavior manifestation in depression. Respond in each item is from 0 (no symptom), 1 (mild symptom), 2 (moderate symptom) to 3 (severe symptom). Respondents were required to choose answer that best explains their true feeling at that time. Total score was 0 to 63 and higher score shows more serious depressive symptoms for the respondents. The standard cut-off point is 0–9 = minimal depression, 10–18 = mild depression, 19–29 = moderate depression and 30–63 = severe depression. This study reported that the alpha coefficient of the scale was 0.85.

Data analysis

Descriptive statistics were used to describe variables in the study. Pearson Correlation was used to determine the magnitude and the direction of the relationships between independent variables and dependent variable. Multiple regression analysis was carried out to determine factors that uniquely predict depression.

Results

Descriptive Analysis

Table 1 shows the demographic background of respondents. There are altogether 145 respondents in this study which made up of 71 (49.0%) males and 74 (51.0%) females. All of them (100.0%) are 16 years old. More than half of respondents (59.3%) are Malays followed by Chinese (31.0%), and Indians (9.7%).

Table 1: Demographic background of respondents (N=145)

Variables	n	%
Age		
16 Years Old	145	100.00
Gender		
Male	71	49.0
Female	74	51.0
Ethnic		
Malay	86	59.3
Chinese	45	31.0
Indians	14	9.7

Table 2 shows the mean and standard deviation for all variables (parental behavior, perceived stress, locus of control and adolescent depression) in this study. Results showed that respondents have low parental care, high parental overprotection, moderate perceived stress and external locus of control. Respondents were also found to have mild depression with mean score of 13.41 out of 63.

Table 2: Mean and Standard Deviation of Study Variables

Variables	N (%)	Mean	S.D.	Min.	Max.
Mothers' care		26.10	6.07	7	36
Low (0-27)	78(53.8)				
High (28-36)	67(46.2)				
Mothers' overprotection		15.14	5.15	4	30
Low (0-13.5)	58(40.0)				
High (14-39)	87(60.0)				
Fathers' care		24.19	6.96	2	36
Low (0-24)	67(46.2)				
High (25-36)	78(53.8)				
Fathers' overprotection		15.29	5.38	2	31
Low (0-12.5)	52(35.9)				
High (13-39)	93(64.1)				
Perceived stress		27.03	5.40	11	44
Low (0-18)	8(5.5)				
Moderate (19-37)	132(91.0)				
High (38-56)	5(3.5)				
Locus of control		17.58	4.65	6	29
Low (0-8)	2(1.4)				

Average (9-16)	57(39.3)				
High (17-40)	86(59.3)				
Depression		13.41	8.70	0	45
Minimal (≤9)	53(36.6)				
Mild (10-18)	52(35.8)				
Moderate (19-29)	36(24.8)				
Severe (30-63)	4(2.8)				

Relationships Between Variables

Table 3 shows the results of correlation analysis between parental behavior, perceived stress, locus of control and depression among adolescents. Adolescent depression was significantly correlated with all the independent variables except for mother's overprotection. Mother's care ($r=-.35$, $p<.01$) and father's care ($r=-.26$, $p<.01$) were negatively correlated with adolescent depression The higher care an adolescent received from parents, the less likely for the adolescent to experience depression. When they feel that they are being cared by parents, the tendencies to think negatively and feeling down decreased. Father's overprotection was positively correlated with adolescent depression ($r=.20$, $p<.05$). This finding indicates that higher level of father's protectiveness tends to lead to more reported depressive symptoms among adolescent. In other words, fathers who tend to over control their child freedom would more likely to have their child suffering from depression. This is because adolescents are at the stage of exploring themselves and do not like being over controlled by parents. When they perceived fathers are over controlling, they feel depressed.

Perceived stress was positively related with adolescent depression ($r=.44$, $p<.01$). There was a significant relationship between perceived stress and adolescent depression with the significance level lower than .01. Finding indicates that higher perceived stress experienced by an adolescent have higher tendencies to suffer from depression. Stress gives the negative feelings such as excessive worrying, moodiness, inability to relax that made them feel depressed.

Locus of control was positively related with adolescent depression ($r=.35$, $p<.01$). There was a significant relationship between locus of control and adolescent depression. Finding shows that adolescent who is lack of a sense of control or external locus of control is more likely to develop depression. This is because they think that they have no ability to control their own life and always have negative thoughts.

Table 3: Pearson Correlation between Parental Behavior, Perceived Stress, Locus of Control and Adolescent Depression

Independent Variables	r	p
Parental behavior		
Mothers' care	-.35	<.01
Mothers' overprotection	.15	>.05
Fathers' care	-.26	<.01
Fathers' overprotection	.20	<.05
Perceived stress	.44	<.01
Locus of control	.35	<.01

Predictors of Depression

Multiple regression analysis was used to determine the unique predictors of depression among adolescents. Table 4 shows that perceived stress emerged as the only significant predictor of adolescent depression (β= .32, p< .01). This finding indicates that perceived stress has the greatest impact on adolescent depression than other variables included in the study. The higher the stress, the higher the depression level were reported by adolescents. Overall, this model has accounted for 27% (R^2 = .27) of the variance in adolescent depression.

Table 4: Multiple Regression Analysis for Depression

Independent Variables	β	t	p
Parental behavior			
Mothers' care	-.19	-1.89	> .05
Mothers' overprotection	-.02		
Fathers' care	-.01	- .02	> .05
Fathers' overprotection	.08	.82	> .05
Perceived stress	.32	3.95	< .01
Locus of control	.14	1.63	> .05
R^2 = .27			
F = 8.439, p< 0.01			

Conclusion

Based on the findings from the present study it can be concluded that parental behavior, perceived stress and locus of control are among critical factors in explaining adolescent depression. However, out of the three main variables examined, perceived stress was the only significant predictor of depression among adolescents.

This indicated that stress is a potential risk factor for depression among adolescents. The stress that adolescents experience may be rooted in school or home environments such as family stress, studying stress, environmental stress and social stress. Consistent with the research of Li and Zhang (2008), stress experienced appeared to be a significant predictor of depression among adolescents. Li and Zhang (2008) concluded that adolescents who reported higher academic achievement and popularity level generally reported lower levels of stress. These findings imply that adolescents who were unable to perform well in school tend to develop studying stress and social stress which consequently contribute to the development of depression. In line with Li and Zhang, the present finding concluded that stress experienced by an adolescent possess a great risk to their mental health.

These findings also serve as an important message to adolescents that although stress seems to be unavoidable in their daily lives but it needs to be managed well to avoid suffering from depression. Therefore, adolescent must develop appropriate skills in handling life stressors. Since adolescents spend significant amount of time in family and school environment, parents and school authority can help increase adolescents' competencies through implementation of activities. Adolescents with competencies to solve problems might respond more positively to life challenges. These adolescents will experience less stress and thus minimized the risk for depression.

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