Poor Peer Support as a Predictive Factor towards Depression among Adolescent

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ABSTRAK

Kebelakangan ini, tanda-tanda kemurungan dalam kalangan remaja semakin meningkat. Kajian ini dijalankan untuk menentukan prevalens kemurungan dan faktor-faktor ramalan. Satu kajian keratan rentas telah dijalankan 191 remaja yang terpilih secara rawak dan terdiri daripada pelajar tingkatan empat dari lima buah sekolah menengah di negeri Selangor, Malaysia. Satu soal selidik yang terdiri daripada enam bahagian (A) demografi, (B) tahap kemurungan, (C) hubungan keluarga, (D) tahap sokongan rakan sebaya, (E) harga diri, dan (F) pencapaian akademik telah diedarkan. Prevalen kemurungan adalah 50.3%. Analisis regresi logistik mendapati, remaja yang mempunyai masalah dengan rakan-rakan adalah lebih cenderung untuk mengalami kemurungan berbanding dengan mereka yang tidak mempunyai masalah dengan rakan-rakan mereka (aOR 2.84, 95% CI 1.50, 5.36). Kajian selanjutnya perlu meneliti faktor-faktor lain seperti tekanan daripada guru-guru untuk mengukuhkan pemahaman kita mengenai kemurungan di kalangan remaja. Diharapkan hasil kajian ini berguna kepada pelbagai pihak yang mengambil berat tentang masalah ini.

Kata kunci: kemurungan, remaja, sokongan rakan sebaya

ABSTRACT

Lately symptoms of depression among adolescents have been alarmingly increasing. This study was conducted to determine the prevalence of depression and its predictive factors. A cross-sectional study was conducted on randomly selected 191 adolescent consisting of 'Form Four' students from five selected secondary schools in the state of Selangor, Malaysia. A self-administrative questionnaire which consisted of six sections (A) demographics, (B) level of depression, (C) family relationships, (D) peer support, (E) level of self-esteem, and (F) academic achievement were handed out. The prevalence of depression was 50.3%. Multiple

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logistic regression analysis showed that adolescents who had problems with peers were more likely to suffer from depression compared to those without problems with their peers (aOR 2.84, 95% CI 1.50, 5.36). Future researches need to be planned in order to examine additional factors such as pressure from the teachers in order to strengthen our understanding about depression among adolescents. The results of the present study maybe useful to various parties who are concerned about this problem.

INTRODUCTION

Adolescent has long been defined as a transition stage, from early puberty to adult, occurring between the age of 13 to 19 years. In this stage, adolescent will go through some changes such as seeking for self-identification, and forming intimation in social relationship and preparing for career. Depression is a condition where someone feels despair and emotionally pressured. According to World Health Organization, depression is a feeling disorder where it can become worst and lead to suicide or severe mental illness (WHO 2010).

Adolescents should be able to adapt with these changes, and if they have difficulty adapting, they will face some conflict that may lead to stress, anxiety and depression as well. Almost half of adolescents have difficulty overcoming stressful situation such as problems with parents, competition with peers to achieve good scores or grades and financial problem. The aforementioned difficulties may lead to depression if they fail to deal with it properly (Jas Laile Suzana 1996). Depression comprises three stages which are mild, moderate and severe depression (Beck 1967).

According to World Health Organization, depression is one of the most debilitating disease of the world (WHO 2010). Depression has been reported to be high in prevalence among Malaysian population, especially among women (Malaysian Psychiatric Association 2010). This causes great concern to the healthcare practitioners and policy makers (Malaysian Psychiatric Association 2010). A large scale cross sectional study in Malaysia reported the prevalence of possible depression among secondary school students was 10.3% (Ramli et al. 2008). However, most of the depression cases were not diagnosed accurately, and the sufferer did not receive proper treatment from the doctors or psychiatrist.

Depression among adolescents is one of controversial issues for the few past decades (Kauffman 2001). Normally, depression is related to few factors such as inherited genetic and sex. There are conflicting findings regarding association of sex with depression but studies showed females tend to be more depressed compared to males (Bachanas & Kaslow 2001; Nolen-Hoeksema 2001; NIMH 2011). Adolescents from low socio-economic status may have depression throughout

their transition period from adolescents to adults stage (Melchior et al. 2010). Conflict with parents are also related to depression with increasing age during adolescence stage (Lohman & Jarvis 2000) and adolescents with parents' divorce were perceived to be aggresive and possess risky behaviour (Plunkett et al. 2000). This leads to stress towards the whole family which can interupt the equilibrium of the family system (Jaycox et al. 2009).

Studies revealed that high depression in adolescence was also associated with poor peer relationships (Matos et al. 2003), having low self esteem (Rice 2000) and having low academic achievement (Lazarus 2000). The present research was carried out to determine the prevalence of depression and its predictive factors so that the early intervention could be implemented in order to reduce another mental health problem. In addition, the results of the present research may assist the parents who have adolescents with depression.

MATERIALS AND METHODS

SAMPLE

A cross sectional study was conducted to identify predictive factors associated with depression among adolescent from five secondary schools in the state of Selangor, Malaysia from January to Mac 2011. They were selected through simple random sampling of the name list provided by the teachers. Ethical approval was obtained from Research and Ethics Committee of Faculty of Medicine UKM (FF-009-2012), Ministry of Education, Director of Selangor Education Department and written consent from parents/guardians. In reference to a local study (Ramli et al. 2008) and using a formula (Kish 1965), a total of 160 Form Four students were required for this study. After considering missing data or non response, 20% were added giving total sample size of 191 respondents with 95% confidence and 80% statistical power.

STUDY TOOLS

A set questionnaires consisting of five sections was pre-tested then distributed to selected adolescents. The questionnaire included the following sections: (A) respondent's demographic (i.e. gender and family income), (B) a 19 items questionnaire about the level of depression, (C) a 12 items questionnaire about family relationship, (D) a 10 items questionnaire about peer support, (E) a 10 items questionnaire about the level of self-esteem, and (F) academic achievement.

The questionnaire regarding the level of depression was constructed based from literature reviews such as Beck Depression Inventory (BDI)-Malay and Child Depression Inventory (CDI)-Malay and it was designed to meet the approval of the Ministry of Education Malaysia (Mukhtar & Oei 2008; Rosliwati et al. 2008). It consisted of 9 positive items and 10 negative items. This questionnaire was used to assess the severity of depression among adolescents. Students were required to rate how often they experienced with such a situation on each statement. Each item was scored as 0 (never), 1 (seldom), 2 (sometimes) and 3 (all the times). The cut-off point was 30. A score

of higher than 30 indicates the presence of depression and a score of 30 and less indicates otherwise. The questionnaire was pretested giving Cronbach's alpha of 0.85.

A family relationship questionnaire which consisted of 12 items required the students to rate each item as 0 (not at all), 1 (not much), 2 (moderate) and 3 (most of the times) was designed to suit the target population. The total score was calculated to determine the relationship between adolescents and their family. A total score of more than 10 indicated that they had a poor relationship with their family and vice versa. This questionnaire was pretested giving Cronbach's alpha of 0.79.

A questionnaire about peer support consisting of 10 items, and coefficient of 0.83 was administered. This questionnaire required respondents to rate how often they have problems with their peers. Each item was scored as 0 (no), 1 (seldom), 2 (sometimes), 3 (often) and 4 (all the times). Total score was calculated to determine the problem between adolescents with their peers. Total score of over 10 indicated that they had a relationship problem with their peers and a total score of 10 and less, indicated otherwise.

Self-esteem was assessed using Rosenberg Self-Esteem Scale (Mohd Jamil 2006). This scale consisted of 5 positive items and 5 negative items. It require respondents to rate how much they strongly agree and strongly disagree with each statement. Each item was scored as follows: 0 (strongly disagree), 1 (disagree), 2 (agree) and 3 (strongly agree). The minimum possible score is 0 and the maximum score is 30.

Score of more than 20 indicated that an adolescent had a high self-esteem. This questionnaire was pretested giving Cronbach's alpha of 0.73.

For academic achievement, it was assessed using the Lower Secondary Assessment results. Lower Secondary Assessment is a Malaysian public examination taken by all 'Form Three' students in both government and private schools, throughout the country. Grades form each 8 subjects [*Bahasa Melayu* (Malay Language), English, Science, Mathematics, History, Geography, Islamic Education and Living Skills] were rated from 0 to 4 (A= 4, B= 3, C= 2, D= 1 and E= 0). The rates were then transformed to the level of academic achievement as in Table 1.

STATISTICAL ANALYSIS

Median and interquartile range (IQR) was used to describe the characteristics of the study population for continuous data, whereas frequency and percentage were used for categorical data. Simple logistic and backward stepwise multiple logistic regression were used to determine the predictors towards depression. The data was analysed by using Statistical Package for Social Science (SPSS) version 13.0 with the significant level was at $p < 0.05$.

RESULTS

A total of 174 questionnaires were returned to the researchers, out of the 191 questionnaires that were sent out. All questionnaires returned were from Malay and Muslim adolescents only.

Table 1: Level of academic achievement

Level	Points
Level 1 (weak)	0.00 – 1.99
Level 2 (moderate)	2.00 – 2.74
Level 3 (good)	2.75 – 3.49
Level 4 (excellent)	3.50 – 4.00

Table 2: Characteristics of the adolescents (n=174)

Factors	n(%)
Sex	
Male	51(29.3)
Female	123(70.7)
Family income (MYR) median (IQR): 2,500(1,300-3,500)	
Family relationship[1]	
Good	59(33.9)
Poor	115(66.1)
Peer support[2]	
Good	67(38.5)
Poor	107(61.5)
Self esteem[3]	
High	159(91.4)
Low	15(8.6)
Academic achievement[4]	
Level 1 (weak)	35(20.1)
Level 2 (moderate)	21(12.1)
Level 3 (good)	47(27.0)
Level 4 (excellent)	69(39.7)

Family relationship: Good ≤ 10, Poor > 10

[2]Peer support: Good ≤ 10, Poor >10

[3]Self esteem: High >20, Poor ≤ 20 [4] n=172

Table 2 showed that majority of the adolescents were females from family with median income of MYR2,000 (1,300-3,500). The majority of them reported having poor family relationship and peer support. However, most of the adolescents had high self-esteem which maybe be reflected by their school achievement. The prevalence of depression was 50.3%.

Table 3 indicated there are more female adolescent, adolescents with poor family support, poor peer support and low self esteem experienced depression. Majority of the adolescents with low to moderate academic achievements encountered depression. Further analysis indicated that poor peer support as a predictive factor towards depression among adolescents

Table 3: Depression among adolescents

	Depression	
	Yes	No
Factors	n(%)	n(%)
Sex		
Male	23(45.1)	28(54.9)
Female	65(52.8)	58(47.2)
Family relationship		
Good	28(47.5)	31(52.5)
Poor	60(52.2)	55(47.8)
Peer support		
Good	24(35.8)	43(64.2)
Poor	64(59.8)	43(40.2)
Self esteem		
High	79(49.7)	80(50.3)
Low	9(60.0)	6(40.0)
Academic achievement		
Level 1 (weak)	22(62.9)	13(37.1)
Level 2 (moderate)	14(66.7)	7(33.3)
Level 3 (good)	22(46.8)	25(53.2)
Level 4 (excellent)	88(51.2)	39(56.5)

in which slightly attenuated with multivariable analysis (Table 4).

DISCUSSION

The aim of the present study was to investigate the effect of common factors to prevalence of depression specifically among adolescents in the urban area. The schools where the students were selected, were located in urban areas where the environment could influence the level of depression among adolescents. The present study indicated that half of students were depressed and this figure was higher compared to a study conducted in Malaysia that showed a prevalence of 24.2% (Yaacob et al. 2009). This is probably was due to the larger sample size and involved students aged 13-17 years compared to the present study which focused on subgroup of 'Form Four' students.

Results from the present study showed that majority of adolescents had poor peer relationship. This finding is supported by many studies conducted in other countries (Anda et al. 2000; Zgambo et al. 2012). This is probably because, during adolescence, sources of attachment may come through non familial relationships at school such as with peers and friends (Kubik et al. 2003). Furthermore, as adolescents grow, they express a clear preference for spending time with peers and school or campus is a major living

Table 4: Factor associated with depression among the adolescents

Factors	Crude OR	95% CI	χ² (df)	p value	Adj OR	95% CI	χ²(df)	p value
Sex								
Male	1							
Female	1.36	0.71, 2.63	0.49(1)	0.353	-	-	-	-
Family relationship								
Good	1							
Poor	1.21	0.64, 2.26	0.15(1)	0.696	-	-	-	-
Peer support								
Good	1							
Poor	2.98	1.59, 5.62	11.47(1)	0.001	2.84	1.50, 5.36	10.32(1)	0.001
Self esteem								
High	1							
Low	0.99	0.52, 4, 47	0.01(1)	0.937	-		-	-
Academic achievement								
Weak	2.52	1.07, 5.94	4.49(1)	0.034	-	-	-	-
Moderate	2.31	0.83, 6.43	2.58(1)	0.108	-	-	-	-
Good	1.43	0.68, 3.01	0.89(1)	0.345	-	-	-	-
Excellent	1							

environment for adolescents which may influence adolescents' mental health (Garnefski 2009). Moreover, adolescents normally discuss their romantic and sexual relations with their peer group (Wisnieki et al. 2013). Nevertheless, if adolescent has a strong peer relationship, it may be a protective factor against depression (National Research Council and Institute of Medicine 2009).

Although, it did not reach any statistical significance, majority of adolescents in the present study also reported having a poor family relationship. Many adolescents consider their inter-family communication to be poor, especially with their father and feel that their parents do not understand them or listen to their feelings (ENJ, 2000). The small sample size of the present study as compared to previous study probably lead to this insignificant finding (Adelusi & Coker 2013)

Results from the present study also showed that gender was not significantly associated with depression. This result was consistent with many previous studies among adolescents (Masten et al. 2003; Sancakoglu & Sayar 2012). In contrast, few past studies found that there were sex differences in depression among adolescent especially among female adolescents. The differences between sex and depression may be caused by sex role differentiation between male and female adolescents (Feldman 2007). The changes in

biological, cognitive functioning and social role secondary to puberty may explain the sex differences in the prevalence of depression (Hankin 2006). The lack of sex differences in depression in the present study may also be due to the fewer number of males compared to the females.

Both self esteem and academic achievement did not show any significant association for this present study. However, a study showed that high self esteem can prevent depression among adolescent as it can help them to sustain good mental health and psychological state (Solberg et al. 1998). According to scar model, self-esteem is a consequence rather than a cause of depression where depression is assumed to persistently deteriorate self-esteem (Orth & Robins 2013) and may leave permanent scars in the self-concept of the individual (Shahar & Davidson 2003). Academic achievement is not the criterion that might influence adolescents' self-evaluation of their own competence (Pederson et al. 2005). However, a study among Egyptian secondary school female students showed that depression was associated with poor academic performance (El-Missiry et al. 2012) as this could be due to the inability of some adolescents to cope with such situation (Da Costa & Mash 2008).

This study was primarily limited by sampling of the study population, which rendered the non-generalization of the results to the general population. The study population only focused on Form 4 students who represented only 13% of adolescents in Gombak. It would be better if all students from secondary schools in that district took part in this study. Furthermore, due to the cross-sectional nature of the study design, causal inference cannot be made. Despite the limitations, this study was also with some strength whereby the questionnaire designed maybe further used as an indicator for severity of depression and not as a diagnostics tool. Future researches should look into other factors that may contribute to increase severity of depression such as the relationship between students and school environment and pressure from teachers. In addition, the division in terms of ethnic and religious factors also needs to be balanced because it will affect the result.

CONCLUSION

Results indicated that half of the adolescents in this study population experienced depression. Beside the adolescents with depression, special attention should also be given to the adolescents without depression. It is because adolescence is a stage for them to struggle with the transition process from childhood to adulthood that is accompanied by biological and psychological transformations. This is also the time for them to define their place in the family, peer groups and larger community. Therefore, prevention programs that utilizing cognitive behavioral and/or interpersonal approaches, peer support and family-based prevention strategies are possibly helpful.

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