



SECTION 4: EDUCATIONAL PSYCHOLOGY





18. THE RELATIONSHIP BETWEEN PSYCHOLOGICAL PROBLEMS AND ACADEMIC ACHIEVEMENT: SOCIAL SUPPORT AS MODERATOR

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Introduction

Since independence, Malaysia has gone through a lot of development in its social aspects. One of them is the education system. The education system has grown and developed rapidly to cater to the demands and needs of the developing nation. Although the education system has developed across the time, the aim of the national education remains the same that is to produce high quality and professionally well trained students. The students are equipped with a wholesome personality and strong leadership qualities so that they are capable of dealing with current and future challenges. To achieve this objective, various aspects of the students should be taken into consideration including their psychological conditions and social life.

Psychological condition of the students is very much crucial to be reviewed and studied. This is because students who are psychologically stable can perform well in academic life. In other words, those who are experiencing psychological problems such as depression, anxiety and stress may face problems in managing their academic performance. Psychological stability is indeed an important predictor that could contribute to high academic achievement. Depression, stress, and anxiety are among the psychological problems which are common among students. According to Porter (1990), up to 60% of university students left university without finishing their degrees; the majority of these students leave within the first two years due to inability to manage these psychological conditions, especially to cope with stress. Steinberg and Darling (1994) mentioned that 50% of university students who consulted mental health service complained of difficulties in study, anxiety, tension, and depression. They reported that these conditions contributed to poor grades in courses. Williamson, Birmaher, Ryan, and Dahl (2005) also reported that stressful life events are significantly elevated in anxious and depressed youths, thus could lead to low performance in academic.

In reviewing depression, anxiety, and stress, it is important to look at the roles played by the social support since it is described as both a buffer against life stressors as well as an agent promoting health and wellness (Dollete, Steese, Phillips, & Matthews, 2004). Social supports from family, peers, and teacher have been recognized as a protective factor for children and teens. Studies have shown the increased risk of adolescent problems in the absence of parental supports or decreased levels of parental support, and the buffering effects of parental support on student stress (Quomma & Greenberg, 1994). Another research on social support has shown that social support is an important factor in predicting several positive outcomes in children and adolescents. Steinberg and Darling (1994) found the relationship between social support and academic achievement



of the students. They explained that social support from both family and friends influence youngsters' educational achievement and long-term educational plan. A study by Wentzel (1998) on 167 middle school students in a predominantly middle class community, social support of parents, teachers, and peers were examined for their motivational influence on students' academic and prosocial goals. Support from parents had predictive value related to academic goals, especially in early adolescence, while peer-related support showed more of a significant role in later middle school years. According to Eskin (2003), at this age, the balance of influence on social development of adolescence shifts progressively from parents to peers.

In short, social support has been found to help decreasing psychological problems faced by the students which consequently would elevate student achievement. Thus, this study will be focusing on the relationship between students' achievement and psychological problems i.e. depression, anxiety, and stress, and how social support could moderate the relationship. More attention should be paid to how they are responding to the demand of their academic requirements, and how they cope with the environment in order to prevent any further psychological problems. By having this, it could benefit educator by giving ideas on the importance of providing necessary support to generate positive emotions and developing psychological well-being among students.

Depression, Anxiety, and Stress among Students

Depression

Many depressed individuals may be unable to perform well in academic because they do not have courage in what they are doing. Because of this, they start to have negative self-image of themselves and consider themselves as failure. This condition could lead to many serious problems in their academic life such as poor grade.

As far as depression and academic achievement are concerned, performance in school, college, or university was found to be affected by many symptoms of depression such as difficulties in concentration, lack of interest and motivation, preoccupations, fatigability, and poor attendance (Fine & Carlson, 1992). Surtees, Wainright, and Pharoah (2002) in their survey found that these conditions reduced the likelihood of achieving a first-class degree among first year students, although this relationship disappeared when adjustment was made for other factors such as homesickness.

Many clinical descriptive reports suggested that depression may be a contributing factor to poor academic performance (Fine & Carlson, 1994). Because of this, several approaches have been conducted to investigate the relationship between depression and academic achievement. According to Stark and Brookman (1994) for example, in two studies of academic achievement, teachers' and parents' global ratings of students' academic performance and ratings of severity of students' depressive symptoms were obtained. The teachers' and parents' global ratings were an instrument used to measure student's academic performance and study habit, while ratings of severity of students' depressive symptoms were used to measure depression level of the students. The result of the studies showed that there was an inverse relationship between academic achievement and depression.





This notion was then supported by Zaid, Chan, and Ho (2007). The study on emotional disorders among medical students in one of Malaysian private college found that students who experienced depression had a lower academic performance. Another study by Sherina, Lekhraj, and Nadarajan (2003) yielded that 41.9% students in one of Malaysian public institution were found to have depression. Some reported that their academic performance was affected by depression. This shows that depression affect the performance of the students, the higher the depression, the lower is the academic achievement of the students.

Based on the above findings, it was found that depression affect academic achievement of the students. This means the higher the depression level of the students, the lower is their academic performance.

Anxiety

The relationship between anxiety and performance has been studied in a variety of laboratory and natural setting. Individuals experiencing anxiety show apprehensions that often interfere with performance in everyday life as well as in academic situations. Anxiety in general is expected to have a negative effect on performance. One consistent finding is that individuals who have high level of anxiety perform less well than those who have low anxiety on evaluative or ego threatening tasks (Vogel & Collins, 2000). In one study conducted by Anson, Bernstein, & Hobfoll, (1984) on the relationship between anxiety and academic performance, it was found that anxiety was significantly and negatively correlated with grades obtained by the students.

Experience with academic related matters is also one factor that could affect the performance of the students. For instance, according to Vogel and Collins (2000), if an individual's experience of previous achievement is negative, then the anxiety level will be higher leading to lower performance. Consequently, if an individual's experience is positive, then the anxiety level will be lower leading to higher performance. Overall, it is important to consider motives, aptitudes, cognitive assessments of the task, and past experience when analyzing anxiety and how it relates to performance.

Andrews and Wilding (2004) found that 40% of a cohort of University College, London students had attended student health clinic for psychological problems, characterized by anxiety, tension and poor concentration. Compared with the norm, the cohort as a whole also had elevated neuroticism scores. Their distress levels were found to be associated with low academic performance.

Another study on anxiety was conducted by Seligmen and Wuyek (2007). They found that highly anxious students were significantly more likely to score lower on measures of *academic achievement* and peer acceptance. Longitudinal analyses revealed that high-anxious students, compared to their low-anxious peers, scored significantly lower on measures of *academic achievement*, aggression, and peer acceptance.

All the above studies on anxiety are directly related to the effect of anxiety on students' academic achievement. It was reported that anxiety could effect students' academic achievement in the sense that students with high anxiety level perform poorer



compared to those with low anxiety.

Stress

Stress is a mechanism of any internal or external demand made upon the body (Dusselier et al., 2005). Stress is considered as a state of individuals that result from their interaction with environment that is perceived as too demanding and a threat to their well-being. The stressors are not only physical, but may also involve emotions.

Stress was found to be a part of students' life and could give impact on how students cope with the demands of academic life. Students reported experiencing academic stress at predictable times each semester with the greatest sources of academic stress resulting from taking and studying for exams, grade competition, and the large amount of content to master in a small amount of time (Rawson, Bloomer, & Kendall, 1999).

One model that is useful to study in understanding stress among students is the person environment model (Misra & McKean, 2000). According to this model, individuals can appraise stressful events as challenging or threatening. When students perceived their education as a challenge, stress can bring them a sense of competence and an increase capacity to learn. However, when education is perceived as a threat, stress can elicit feeling of hopelessness and a forbidding sense of loss thus lead to lower academic achievement.

Research shows that there exists a relationship between stressful life events and poor academic performance among college students and there is a connection between health-related quality of life and stress (Dusselier, Dunn, Wang, Shelley, & Whalen, 2005; Misra & McKean, 2000). Because stress adversely affects psychological and physical health, undergraduate students reported that stress was the most common health factor impacting their academic performance (Dwyer & Cummings, 2001). Demakis and McAdams (1994) found that undergraduate students who reported heightened levels of stress had significantly more physical health problems and less satisfaction towards academic achievement compared to those reporting lower levels of stress.

The perception of the stress by the students could play significant roles on its seriousness. When stress is perceived negatively or becomes excessive, students experience physical and psychological impairment (Murphy & Archer, 1996). Excessive stress among students was found to reduce effectiveness of their study which contributes to bad habits, and results in negative long term consequences, including absenteeism, poor academic performance, and school dropout. Wintre and Yaffe (2000) found that increases in stress during the first year predicted decreased overall adjustment and made the students more vulnerable to many social and psychological problems, thus contributed towards lower grade point average (GPA) in final year.

The findings highlighted in the previous research found that stress gives influence on academic achievement. The presence of stress could affect on how students perform in their academic life. Thus, the higher the stress level, the lower is the academic achievement.

Social Support

It has long been recognized that the characteristics and quality of social support are central to the individual's adjustment. The quality of social support perceived and received has been reported by several studies to correlate more positively with mental health than the quantity of support received (e.g. Nahid & Sarkis, 1994; Holahan, Valentiner, Moos, 1995). To understand the role of perceived and received social support in dealing with mental health, we have to look into the research on the stress-buffering effect which focuses on both types of social support. The former refers to the belief that helps are available if needed whereas the latter refers to the actual helps obtained. Both of these are thought to protect against stress by decreasing the extent to which situations are perceived as a threat to well-being and increasing the belief that necessary resources are available. Investigation of mechanisms underlying the stress-buffering effect of social support has focused on how social support influences stress-related appraisals and coping (Lakey & Cohen, 2000).

Social support was found to be one of the most important protective factors for students (Tao, Dong, Pratt, Hunsberger, & Pancer, 2000). This is because social support includes social resources that individuals perceive to be available or that are actually offered to them which could help protect against psychological problems. According to Teoh and Rose (2001), lower levels of social support is one of the predictors of psychological problems. It is associated with higher level of depression, anxiety, attention problems, thought problems, social problems, somatic complaints, and lower self esteem. These notions are supported by the study of Friedlander, Reid, Shupak, and Cribbie (2007) on 128 first year undergraduate students. It was found that students who perceived that their social resources increased had lower level of psychological problems. This shows that the impact of a stressful situation for example can be decreased when students have good social support. Advice and encouragement from sources of support may also increase the likelihood that an individual will rely on active problem solving and information seeking. These may assist students in dealing with various stressors in the environment and facilitate a positive adjustment process.

The supportive actions provided by the social support are thought to buffer the impact of stress by increasing the effectiveness of coping efforts, which in turn decrease distress among students (e.g., Holahan, et al., 1995; Lakey & Cohen, 2000). For example, receiving emotional support and companionship may encourage effective adaptation among students in facing and coping with uncontrollable events. A study by Rawson, Bloomer and Kendall (1994) on 184 undergraduate students for example, found that students with good social supports tend to have lower scores on stress compared to the students with low social support. This study has found that coping behaviour and social support structures moderate the effects of stress among students in their academic life.

Since social support was found to buffering effect of stress, it could decrease the use of harmful disengagement coping strategies such as avoidance, withdrawal, and denial among students. Consequently, it can increase the use of beneficial engagement coping strategies because individuals believe their social network includes someone who



is willing to listen (Fleishman, Sherbourne, Crystal, Collins, Marshall, Kelly 2000; Tao, Dong, Pratt, Hunsberger, & Pancer, 2000). It also influences response to social stressors by providing a basis for positive thinking and cognitive restructuring or by encouraging people to believe they have resources to call on if they wish to distract themselves from a painful situation (Calvete, & Connor-Smith, 2006).

Support from family and friends can also influence student achievement and can be regarded as one of the indicators of academic competence and psychological well-being (Steinberg & Darling, 1994). Support from family and friend are known to positively affect student achievement. There are three dimensions of support provided by family and friend and they are warmth, behavioural control, and psychological autonomy-granting. These three dimensions facilitate the development of positive self-conceptions and social skills, responsibility and competence, and impulse control and deterrence of deviance which in turn lead to low level of psychological problems and high level of academic achievement of the students. This support has also been found necessary for healthy level of development (Oswald & Suss, 1994). For example these two sources of social support, i.e. family and friends are the predictor of individual's psychological well-being. The combination of family and friend support with acceptance and emotional warmth has been associated with higher grades in school and college, less misconduct, less psychological distress, and less delinquency among students of all social classes which would produce significant effects on adolescence academic achievement (Silbereisen & Todt, 1994).

There are few other studies that indicate the importance of social support from family and friend. In a study conducted by Steinberg and Darling (1994), students were asked directly about the extent to which their friends and parents encouraged them to perform well in school. For parents, the questions concerned their involvement in school activities, their performance standards, and their expectations for child's achievement. For friends, the questions concerned the degree of importance they placed on academic success and the extent to which they supported achievement among their friends. It was found that both parents and friends influence youngsters' educational achievement and long-term educational plan. In a cross-sectional study, Holahan et al. (1995) found first-year students with higher levels of perceived parental support were better adjusted (i.e., higher well-being and happiness) and less distressed (i.e., less depression and anxiety) than those with lower levels of perceived parental support. Cutrona and colleagues (1994) examined perceived social support from parents and peers at the beginning of the first semester and GPA at the end of the following semester. Perceived parental and peer social support predicted academic adjustment after controlling for academic aptitude (i.e., college admissions test). Consistent with previous research, social support was an important protective factor that assisted students in making the transition to university. These studies support the general argument that family support contributes to high academic achievement.

From the previous research, it could be concluded that social support from family and friends plays an important role in dealing with psychological problems and at the same time, the presence of social support could affect the relationship between psychological problems and academic achievement. Supports provided by family and friend could



lower down the effects of psychological problems on students' academic achievement. This means that the higher the social support, the lower are the psychological problems, thus leads to higher students' academic achievement. Otherwise, the lower is the social support, the higher are the psychological problems, thus leads to lower or poorer students' academic achievement.

Method

Sample

The sample of this study consisted of 120 undergraduate students of the International Islamic University Malaysia (IIUM). They were selected using purposive sampling technique. For the purpose of the study, the participants were divided into two groups, low and high achieving groups. Low achieving group refers to students who obtained CGPA of 2.0 and below, and high achieving group refers to students who obtained CGPA of 3.5 and above. The student list (comprising of 60 males 60 females, age ranged from 20 to 25) were obtained from the Admissions and Records Division (A&R) of IIUM. For this purpose, a letter of request was sent to the Dean of the A&R.

Measures

A set of questionnaire was administered to the participants. The questionnaires included questions on demographic variables and measures of depression, anxiety, stress and social supports.

The Depression Anxiety Stress Scale (DASS) was used to measure depression, anxiety, and stress. The DASS is designed to assess aspects of depression, anxiety and stress using a multidimensional approach in adolescents and adults (Lovibond & Lovibond, 1995). It is a 42-item self-report measure. Items fall into three scales; Depression (D), Anxiety (A), and Stress (S) with 14 items per scale. Each item is scored from 0 ("did not apply to me at all") to 3 ("applied to me very much, or most of the time") in terms of how much the item applied within the past week. In this study, the alpha reliability for depression and anxiety was 0.92, respectively, and stress 0.93.

The Social Support Behaviours Scale (SSB) was used to measure social support. The SSB is a 45-item instrument designed to measure social support; emotional, socializing, financial assistance, practical assistance, and advice/guidance. The SSB is designed to assess available supportive behaviours and to do so separately for family and friends. The scale applies 5-point likert scale. The scale options are: 1 = no one would do this, 2 = someone might do this, 3 = some family member/friend would probably do this, 4 = some family member/friend would certainly do this and 5 = most family members/friends would certainly do this. The higher scores indicate higher social support. Coefficient alpha values were .98 for family and .97 for friends.

Data Analyses

Independent sample t-tests were used to measure differences between low and high achieving groups in psychological problems (depression, anxiety, and stress) and social

support. Person product moment correlations were used to determine the strength and direction of relationship among the variables; psychological problems, social support, and academic achievement. Partial correlation was used to measure the moderating effect of social support.

Results

Differences in Psychological Problems and Social Support between Low and High Achieving Students

Descriptive analysis showed that the mean score for depression of low achieving students was 1.48 (SD = 0.49) and the mean score for high achieving students was 0.49 (SD = 0.26). Independent sample t-test yielded a significant difference in depression between low and high achieving group, $t(118) = 13.91, p < 0.01$. This result indicates that low and high achieving students differed in their level of depression.

Descriptive analysis also showed that the mean score for anxiety of low achieving students was 1.68 (SD = 0.47) and the mean score for high achieving students was 0.64 (SD = 0.32). Independent sample t-test revealed a significant difference in anxiety between low and high achieving group, $t(118) = 14.14, p < 0.01$. This result suggests that low and high achieving students also differed in their level of anxiety.

As for stress, descriptive analysis indicated that the mean score for stress of low achieving students was 1.66 (SD = 0.46) and the mean score for high achieving students was 0.60 (SD = 0.36). Independent sample t-test yielded a significant difference in depression between low and high achieving group, $t(118) = 13.33, p < 0.01$. This result shows that low and high achieving students differed in their level of stress.

The above analyses on the differences in psychological problems revealed that the two groups differed in their level of psychological problems. It was found that students in low achieving group reported a higher level of depression, anxiety, and stress compared to those in high achieving group.

As for the social support, the mean score for social support from family for low achieving students was 3.43 (SD = 0.34), and the mean score for high achieving students was 4.52 (SD = 0.29). Independent sample t-test analysis showed that this difference was significant, $t(118) = 18.90, p < 0.01$. The result indicates that low and high achieving students differed in the level of social support from family.

Lastly, descriptive analysis showed that the mean score for social support from friends for low achieving students is 3.37 (SD = 0.43) and the mean score for high achieving students was 4.23 (SD = 0.51). Independent sample t-test yielded a significant difference in social support from friends between low and high achieving students, $t(118) = 10.04, p < 0.01$. This result suggests that low and high achieving students differed in their level of social support from friends, in that low achieving students received less support from friends compared to high achieving students.

The above analyses on social support from family and friends showed that the low and high achieving groups differed in the level of social support given to them. The level of social support from family and friends in low achieving group is lower compared to

those in high achieving group.

To summarize, analyses on the differences in psychological problems and social support between low and high achieving groups indicate that low achieving students and high achieving students were significantly different in terms of their levels of psychological problems and social support; low achieving students reported higher psychological problems and lower social support compared to high achieving students. Table 4.4 presents the results of the differences between low and high achieving groups in their psychological problems and social supports.

Table 1: Differences in Psychological Problems and Social Support between Low and High Achieving Students

| <i>Measures</i> | Low Achieving Students | | High Achieving Students | | <i>df</i> | <i>t</i> | <i>p</i> |
|-------------------------------|-------------------------------|-----------|--------------------------------|-----------|-----------|----------|----------|
| | <i>Mean</i> | <i>SD</i> | <i>Mean</i> | <i>SD</i> | | | |
| Psychological Problems | | | | | | | |
| Depression | 1.48 | 0.49 | 0.49 | 0.26 | 118 | 13.91 | 0.001 |
| Anxiety | 1.68 | 0.47 | 0.64 | 0.32 | 118 | 14.14 | 0.001 |
| Stress | 1.66 | 0.46 | 0.60 | 0.36 | 118 | 13.33 | 0.001 |
| Social Support | | | | | | | |
| Family | 3.43 | 0.52 | 4.52 | 0.29 | 118 | 18.90 | 0.001 |
| Friends | 3.37 | 0.43 | 4.23 | 0.51 | 118 | 10.04 | 0.001 |

Psychological Problems and Social Support

Correlation coefficients were computed between each of the psychological problems (depression, anxiety, and stress) and social support. These three psychological problems were found to significantly and negatively correlate with social support; depression and social support ($r = -0.66, p < 0.01$), anxiety and social support ($r = -0.70, p < 0.01$), and stress and social support ($r = -0.71, p < 0.01$), suggesting that the higher the psychological problems, the lower is the social support.

Correlation coefficients were then computed between psychological problems and social support for each low and high achieving group. For the group of low achieving students, depression, anxiety, and stress were found to significantly and negatively correlate with social support ($r = -0.80, p < 0.05$, $r = -0.44, p < 0.01$, and $r = -0.62, p < 0.01$, respectively) suggesting that the higher is the psychological problem the lower is the social support.

For the group of high achieving students, depression, anxiety, and stress were also found to significantly and negatively correlate with social support ($r = -0.46, p < 0.01$, $r = -0.27, p < 0.05$, and $r = -0.28, p < 0.05$, respectively). This means in this group, the lower the psychological problems, the higher is the social support.

The above findings on the relationship between psychological problems and social support indicate that there exists a significant negative correlation between these two variables in each of the groups. In the group of low achieving students, it was found that the higher the psychological problems, the lower is the social support, while in the high achieving group, the lower the psychological problems, the higher is the social support.



Psychological Problems and Academic Achievement

Correlation coefficients were computed between each of the psychological problems and students' achievement. It was found that psychological problems were significantly and negatively correlate with students' achievement; depression and students' achievement ($r = -0.77, p < 0.05$), anxiety and students' achievement ($r = -0.70, p < 0.01$), and stress and students' achievement ($r = -0.71, p < 0.01$).

Correlation coefficients were then computed between the mean score of depression, anxiety, and stress and academic achievement for each low and high achieving group. For low achieving group, the analyses yielded negative significant relationships between these three psychological problems and academic achievement (depression: $r = -0.33, p < 0.05$, anxiety: $r = -0.61, p < 0.05$, and stress: $r = -0.66, p < 0.05$, respectively). This suggests in the low achieving group, the higher the psychological problems the lower is the academic achievement.

For the high achieving group, the analyses also yielded negative significant relationships between these three psychological problems and academic achievement (depression: $r = -0.45, p < 0.05$, anxiety: $r = -0.71, p < 0.05$, and stress: $r = -0.53, p < 0.05$, respectively) suggesting that in the group of high achieving students the lower the psychological problems the higher is the achievement.

In short, the above results indicate that there exist negative correlation between psychological problems and achievement. In each of the group, psychological problems were found to significantly and negatively correlate with achievement. In the low achieving group, the finding can be interpreted to show that the higher the psychological problems, the lower is the academic achievement. On the hand, in the group of high achievers, the lower the psychological problems, the higher is the academic achievement.

Social Support and Academic Achievement

Correlation coefficient showed that social support was found to significantly and positively correlate with academic achievement ($r = 0.85, p < 0.01$), suggesting that the higher the social support, the higher is the achievement.

Correlation coefficients were then computed between social support and academic achievement for each low and high achieving group. For low achieving group, social support was found to significantly and positively correlated with academic ($r = 0.57, p < 0.05$) suggesting that the lower the social support, the lower is the academic achievement. For the high achieving group, social support was also found to significantly and positively correlated with academic ($r = 0.69, p < 0.05$) suggesting that the higher the social support, the higher is the academic achievement.

The above results revealed that in each of the group, the social support and academic achievement were positively correlated. In the low achieving group, the lower the social support, the lower the academic achievement, whereas in the group of high achieving students, the higher the social support, the higher is the academic achievement. Tables 4.5 to 4.7 summarize the correlations among the variables for both low and high achieving groups.



Table 2: Correlations among variables

| Variables | 1 | 2 | 3 | 4 | 5 |
|-------------------------|---------|---------|---------|--------|---|
| 1. Depression | 1 | | | | |
| 2. Anxiety | 0.90** | 1 | | | |
| 3. Stress | 0.89** | 0.94** | 1 | | |
| 4. Social Support | -0.66** | -0.70** | -0.71** | 1 | |
| 5. Academic Achievement | -0.77** | -0.78** | -0.80** | 0.85** | 1 |

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

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

Table 3: Correlations among variables in low achievement group

| Variables | 1 | 2 | 3 | 4 | 5 |
|-------------------------|---------|---------|---------|-------|---|
| 1. Depression | 1 | | | | |
| 2. Anxiety | 0.83** | 1 | | | |
| 3. Stress | 0.81** | 0.90** | 1 | | |
| 4. Social Support | -0.80** | -0.44** | -0.62** | 1 | |
| 5. Academic Achievement | -0.33* | -0.61* | -0.66* | 0.57* | 1 |

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

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

Table 4: Correlations among variables in high achieving group

| Variables | 1 | 2 | 3 | 4 | 5 |
|-------------------------|---------|---------|---------|--------|---|
| 1. Depression | 1 | | | | |
| 2. Anxiety | 0.46** | 1 | | | |
| 3. Stress | 0.53** | 0.71** | 1 | | |
| 4. Social Support | -0.46** | -0.27** | -0.28** | 1 | |
| 5. Academic Achievement | -0.77** | -0.78** | -0.80** | 0.85** | 1 |

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

Partial Correlation on the Relationship between Psychological Problems, Academic Achievement, and Social Support

Partial Correlation was used to explore the relationship between psychological problems and academic achievement, while controlling for scores on social support. There was a strong, negative, partial correlation between psychological problems and academic achievement ($r = -0.52$, $p < 0.01$). This means higher level of psychological problems was associated with lower academic achievement. An inspection of zero-order correlation ($r = 0.80$) suggested that controlling for social support moderates the relationship between these two variables.

Partial Correlations were then used to explore the relationship between each of the psychological problems (depression, anxiety and stress) with academic achievement

while controlling for scores on social support. There was also a strong, negative, partial correlation between depression and academic achievement ($r = -0.54, p < 0.01$), anxiety and academic achievement ($r = -0.50, p < 0.01$), and stress and academic achievement ($r = -0.44, p < 0.01$). This suggests higher level of depression, anxiety, and stress was associated with lower academic achievement. An inspection of zero-order correlations suggested that controlling for social support moderate the relationship between depression and academic achievement ($r = -0.78$), anxiety and academic achievement ($r = -0.78$), and stress and academic achievement ($r = -0.77$). Table 4.8 summarizes the result of partial correlation of the relationship between psychological problems and academic achievement while controlling for social support.

Table 5: Partial correlation for the relationship between psychological problems and academic achievement while controlling social support

| Control Variable | Variables | 1 | 2 | 3 | 4 | 5 |
|------------------|---------------------------|---------|---------|---------|--------|---|
| Social Support | 1. Psychological Problems | 1 | | | | |
| | 2. Depression | 0.93** | 1 | | | |
| | 2. Anxiety | 0.95** | 0.81** | 1 | | |
| | 3. Stress | 0.94** | 0.80** | 0.87** | 1 | |
| | 4. Academic Achievement | -0.52** | -0.54** | -0.50** | 0.44** | 1 |

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

Discussion

Differences in Psychological Problems and Social Support between Low and High Achieving Students

A significant difference was found in the level of psychological problems experienced by students in the low and high achieving groups. Low achieving students reported higher level of psychological problems compared to high achieving students.

The result supports the previous study on the level of psychological problems of the students in relation to their academic achievement. According to previous literature, students who have high depression tend to perform poorly in academic performance (e.g. Fine & Carlson, 1994, Stark & Brookman, 1994). Similarly, students with high anxiety level (e.g. Vogel & Collins, 2000), and high stress level (e.g. Demakins & McAdams, 1994) also do not do well in their academic performance. These studies support the idea that the level of psychological problems of the students does affect their academic performance.

A significant difference was also found in the level of social support between these two groups. Low achieving students reported lower level of social support compared to high achieving students. This finding provides evidence consistent with literature related to social support. For instance, high achieving students received more social support as compared to low achieving students (e.g. Selbereisen & Todt, 1994; Stainberg & Darling, 1994). This means that students with higher social support from family and friends can perform well in academic. This is because the existence of social support was found



to increase the belief among the students that necessary resources, such as advice and encouragement are there to assist them in their academic life. Another explanation is that students with high social support were better adjusted compared to those with lower level of social support, thus lead to high academic achievement (Holahan et al., 1995). Based on these, social support can be regarded as one for the indicators of academic achievement in which high level of social support indicates higher level of achievement.

Therefore, the findings of the present study provided evidence for the difference between low and high achieving students on their psychological problems and social support. The differences between these two variables were expected as the two constructs were found significantly different in the previous studies.

Relationship between Psychological Problems and Social Support

The correlation analyses on the relationship between psychological problems and social support yielded anticipated results. As predicted, there was a significant negative relationship between three psychological problems (depression, anxiety, and stress) and social support. This correlation suggested that the higher the psychological problem, the lower is the social support.

These findings certainly support the previous research findings. Several studies revealed that psychological problems such as stress, depression and other psychiatric disorders correlate negatively with social support (e.g. Friedlander et al., 2007; Holahan et al., 1995; Nahid & Sarkis, 1994). The impact of psychological problems could be reduced when the students when the students have good and sufficient social support. This is because the existence of social support may assist students in dealing with various stressors in their academic life and facilitate a positive adjustment process (Rawson et al., 1994). Another studies suggested that students with high psychological problems would perceive their social support decreased (Lakey & Cohen, 2000). Thus, the existence of good social support can reduce the extent to which situations are perceived as a threat to well being.

Therefore, the findings of the present study provided evidence for the relationship between psychological problems and social support between low and high achieving students. The relationship between these two variables was anticipated as the two constructs were found significantly correlated in the previous studies.

Relationship between Psychological Problems and Academic Achievement

Correlation coefficient was conducted to find out the relationship between psychological problems and academic achievement. It was found that there was a significant relationship between psychological problems and academic achievement. This relationship suggested that the higher are the psychological problems, the lower is the achievement.

This was consistent with many previous studies supporting the proportion that psychological problems i.e. depression, anxiety, and stress, are negatively correlated with academic achievement (e.g. Andrews and Wilding, 2004; Dusselier et al., 2005; Seligmen





& Wuyek, 2007). These studies indicated that many symptoms of psychological problems, such as difficulties in concentration, lack of interest, poor attendance, and fatigability could reduce students' performance thus lead to low academic achievement. Surtees et al. (2002) found that these conditions reduced the likelihood of achieving a good grade among students.

For depression, a study by Stark and Brookman (1994) on academic achievement found the negative relationship between depression and academic achievement. The result of the study showed that those who had high level of depression would have lower academic achievement, and those who scored low on depression would have high academic achievement. Similarly, Fine & Carlson (1994) found that many clinical reports suggested that depression may contribute to poor academic achievement. The result of the current study showed the negative correlation between depression and academic achievement, in which students with high depression had perform less well compared to those with low depression level.

As for anxiety, many studies were found to focus on the relationship between anxiety and academic achievement. A study by Anson et al. (1984) on the relationship between anxiety and academic performance found that there was a significant negative relationship between these two variables. Another study by Seligmen and Wuyek (2007) also yielded the same result. They found that students with high anxiety level scored lower on measures of academic achievement compared to those with lower level of anxiety.

As far as the relationship between stress and academic achievement is concerned, many studies were also found to support the current study. It was found that there was a relationship between stress and poor academic achievement among college students (Dusselier et al.; Misra & Mckean, 2000). Dawyer and Cummings (2001) reported that stress was the common factor that affect students performance in academic life. Murphy and Archer (1996) further explained the negative relationship between stress and academic achievement. They found that excessive stress among students was found to reduce effectiveness of their study which results in poor academic achievement. Similarly, Wintre and Yaffe (2000) found that the increase in stress level among students contributed to lower grade point average (GPA).

The results of the previous studies indicate that there exist negative relationships between depression, anxiety, and stress. Therefore, the findings of the present study provided more evidence for the relationship between psychological problems i.e. depression, anxiety, and stress, and social support in low and high achieving group of students. The relationship between these two variables was expected as the two constructs were significantly correlated in the previous studies.

Social Support as the Moderator

The correlation analysis revealed a significant positive relationship between social support and students' achievement, suggesting that the lower the social support, the lower is the achievement of the students. A strong significant correlation was also obtained on the partial correlation analysis between these two variables, while controlling for social





support, suggesting that social support moderate the relationship between psychological problems and academic achievement.

The present research shows significant moderating effect of social support in the relationship between psychological problems and academic achievement. Previous studies on the moderating effect of social support in the relationship between psychological problems and academic achievement support the findings of the current study. As noted earlier, social support was found to be one of the protective factors for students that could reduce the amount of psychological problems (Toa, et al., 2000). This notion was supported by Nahid & Sarkis (1994) that social support could protect people from psychological problems and moderate the effect of stressors on psychological well being. A study by Steinberg and Darling (1994) also indicated that social support from family and friends influence students' achievement in which these supports were found to positively affect the achievement. A study by Wentzel (1998) found that support from family and friends had predictive value related to students' academic and pro-social goal.

In another study, social support was considered to buffer the effect of psychological problems (e.g. Flieshman et al., 2000; Tao et al., 2000). Dollete et al. (2004) found that the roles of social support are very important because it is considered as a mechanism to buffer against life stressors and promote health and wellness. This finding support the theoretical and conceptual framework in which the presence of social support could moderate the effect of psychological problems of individuals thus lead to psychological well being. In this study, the presence of social support could moderate the effect of psychological problems i.e. depression, anxiety, and stress, on students' academic achievement.

Implications of the Study

The present study provides significant information pertaining to the relationships of psychological problems, students' achievement, and social support. The finding of the study clearly indicated that psychological problems correlate negatively with students' achievement. This finding further supports the importance of recognizing and managing psychological problems, so as not to let the problems affect academic performance. Students and educators should be aware of the existence of psychological problems so that these problems might be under control.

In addition, there is a significant negative relationship between psychological problems and social support. The implication of this finding is that, the social support is one of the mechanisms that could control the seriousness of psychological problems. The roles of parents and friends must be highlighted to help the students so that they can perform well in their academic life. Thus, it is essential to ensure that psychological problems be minimized and the level of social support given to students be increased.

Another important finding is that the significant moderating effects of social support. Social support was found to influence the relationship between psychological problems and academic achievement. The existence of social support could reduce psychological problems and increase students' achievement. Student should be exposed to the importance of social support in their academic life since social support could help them to reduce their





level of psychological problems so that they can enhance their academic performance. The awareness of the importance of the impact of social support on psychological problems and academic achievement will also assist the educators, counselors, and psychologist to understand to what extent the role played by the social support could help them to manage students' psychological problems and at the same time to increase the performance of the students in academic life.

In terms of measures used, although they were developed by western researcher, the use of these measures revealed more or less similar result to the research conducted in the west. The Cronbach alpha values for these scales indicated high reliability of the scale, suggesting that the measures can be adopted by Malaysian population.

In conclusion, this study provides empirical evidence with regards to negative effects of psychological problems on students' achievement and social support as the moderator. Specifically the findings suggested that an increase in psychological problems may lead to a decrease in academic achievement among students. Negative association between psychological problems and academic achievement implies that effort must be made to decrease the psychological problems and maintain or increase the amount of social support available to the students. By having knowledge and understanding on this area, it could help many parties, such as educators, counselors, and psychologist to design and develop proper intervention program to reduce psychological problems and enhancing social support among students. The students themselves could benefit from the study. Information and ideas gained from this research could help them to face, manage, and handle the psychological problems. Therefore, enhancing knowledge and strategies in controlling psychological problems and promoting the role of family and friends as agents of social support among students may help to increase their academic achievement.

Limitations and Recommendations

There are several limitations and recommendations of the present study. First, in terms of sample, this study involved IIUM students from Gombak campus only. It did not include the students from Kuantan and Matriculation campuses. There was also no representative for international students. Thus the sample of the study did not represent the real population of IIUM. For future research, the study should include students from other campuses and international students as well.

Second, since the number of sample is small and restricted to IIUM students, the result cannot be generalized to the university student population. In the future, the research should involve more samples, and samples from other university should also be included.

Third, the study involved only low and high achieving students. Due to this, no data were obtained from students with moderate academic performance (i.e. those with CGPA between 2.00 and 3.49) and comparison could not be made for this group. It is suggested that the moderate group of students should be included so that it will be comparable.

Fourth, sampling technique used in this study was time consuming. The participants were selected from the list provided. It took time to find the students according to the list.



It is suggested, the convenience sample should be used together with the sample in the list. This will reduce the time taken to find the sample.

It is hoped that the future research will take into consideration the recommendations to overcome the limitations identified in this research.

Conclusion

The present study examined the relationship between psychological problems and academic achievements, and the role of social support as the moderator. The results of the study were consistent with previous studies. The findings of the present study indicated that students with low achievement reported higher psychological problems and lower social support compared to students with high achievement. It was found that psychological problems were directly correlated with students' achievement. The role of social support of the moderator was also supported, indicating that social support has significant function in moderating the negative effect of psychological problems on students' achievement.

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