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## The Relationship between Social Support, Self-Esteem and Stress among UPM Undergraduate Students

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### Abstract

The main goal of this study was to discover the relationship between social support, self-esteem, and stress among students. There was a total of 389 participants (67.5% female) in this study who were randomly drawn by using convenience sampling. The data were collected through a set of self-administrated questionnaires. The finding demonstrated that most of the undergraduate students had moderate social support, low self-esteem, and high level of stress. Social support is negatively correlated with stress. In addition, self-esteem is negatively correlated with stress. This indicates that there is a significant relationship between both variables. Moreover, a significant gender difference was found in stress among undergraduate students. Lastly, this study concluded that social support and self-esteem were both predictors of stress where social support was the strongest. The current study's findings will be useful for governmental organizations in developing policies to alleviate stress among students.

**Keywords:** Social Support, Self-Esteem, Stress, Students, Malaysia, University

### Introduction

Academic tasks for university students are more difficult than those for school students (Altınmakas & Bayyurt, 2019). This contributes to the stress that students feel, especially as they transfer from high school to university. According to Islam et al (2020), this shift is especially stressful for first-year undergraduate students. The majority of first-year undergraduate students are experiencing living away from their parents for the first time (Riordan & Carey, 2019). Additionally, more advanced undergraduate students must choose challenging careers and deal with issues related to the job search on top of ongoing academic performance pressure. Alhalaiqa et al (2021) argue that due to the differences in the educational system's new teaching approaches, academic requirements, and even the types of relationships that exist between students and faculty as well as interactions among students, the transition that students make from the environment of their schools to the environment of their universities could result in psychological, academic, and social stress.

Due to these conditions, university students need care, hope, and empathy from important others to overcome difficulties in their academic lives (Abdolrezapour & Ghanbari, 2021). Thus, they require social support to cope with academic stress and other challenges in their everyday lives. Social support is a measure of how much assistance a person reports and feels they have received (Alsubaie et al., 2019). When a person engages in social contact, it is crucial for his health since social support is a phenomenon that involves relationships between individuals. As all humans, students need to have strong interactions with other people (van de Pol et al., 2019). Past studies have shown that one of the causes of stress for university students is a lack of social support and that the best kind of support is that which comes from family, friends, and lecturers (Cohen & McKay, 2020). Furthermore, multiple studies have found a link between higher levels of social support and lower levels of stress among college students (Pitt et al., 2018).

Furthermore, previous research reveals that there may be factors that act as protective factors for college students in identifying which individuals will acquire mental illnesses and which will not (Limone & Toto, 2022; Weisskirch, 2018). One of these individual factors is self-esteem, which relates to a person's assessment of oneself (Leary & Baumeister, 2000). Negative psychological effects including anxiety and sadness are linked to low self-esteem (Zhou et al., 2020). Because there is a positive association between self-esteem and academic accomplishment, treating self-esteem difficulties in college students is crucial for overall student success and higher mental well-being (Casino-García et al., 2021). Also, females receive greater social support from family, friends, and others, but males have higher levels of sadness, anxiety, and stress (Guo et al., 2021). However, male students reported considerably greater levels of self-esteem than female students (Malik & Saida, 2013).

### **The Present Study**

In the past years, there has been growth in this field of research in the setting of Malaysia. Nonetheless, the majority of research in Malaysia has only been carried out in public universities. Isha et al (2023) researched to determine the prevalence of depression, anxiety, and stress among university students. It is unavoidable that stress contributes significantly to human mortality and morbidity in affluent countries across the world, and Malaysia is no different. Stress has been a significant factor in the weight of suffering caused by a wide spectrum of human disorders (Chen et al., 2020). Prior research has found a link between stress and characteristics including self-esteem and social support (e.g., Lee, 2020). Studies that focus on these variables are rarely carried out, particularly studies that focus on undergraduate students at Malaysian institutions. As a result, the goal of this study was to look at the connection between social support, self-esteem, and stress among Malaysian students.

### **Literature Review and Hypothesis Development**

#### ***Social Support and Stress***

Having social support may be physically and mentally beneficial for people who are faced with challenging physical and psychosocial conditions, and this advantage is considered to reduce the chance of developing mental health difficulties when faced with stressful events (Nielsen et al., 2020). According to previous research, people tend to rely on their friends and family for both practical and emotional support throughout their lives (e.g., Wyn et al., 2012). For instance, the transition from late adolescence to early adulthood shows that individuals are more likely to have a deep relationship with an intimate partner than with family and friends.

This is because people in this period of life are more likely to be financially self-sufficient (Lee & Dik, 2017).

Erikson's (1959) psychosocial theory contends that once people reach adulthood, they develop an insatiable desire for closeness and affection. However, social support from family members improves young people's academic performance, especially among college students aged 18 and over (Arnett, 2015). According to Alsubaie et al (2019), stress and social support have a negative connection. This association implies that low levels of social support among university students are associated with high levels of worry, stress, and depression. Shao et al (2020) also found that Chinese students who have a strong feeling of social support are less likely to suffer mental health issues. Also, female students in Ghana reported higher levels of sadness, whereas male students reported higher levels of academic stress (Glozah, 2013) Therefore, the current study excepting for a significant and negative effect of social support and stress among Malaysian undergraduates (Hypothesis 1).

### **Self-esteem and Stress**

Self-esteem is described as the ability to create a desirable environment, adjust to it well, be content with it, and experience success, efficiency, and happiness (Casino-García et al., 2021). An Individual with a high degree of self-esteem is more likely to have a stable mind and be able to express oneself (Jang & Jeon, 2015). Self-esteem is a basic feeling of self-acceptance. The degree of depression is significantly influenced by one's level of self-esteem. Poor self-esteem, for example, as a result of potentially stressful events such as the termination of a personal relationship, scholastic failure, being a victim of victimization, or losing one's work, may gradually give birth to depression's symptoms (Guo et al., 2022).

The many experiences one has might cause one's self-esteem to rise or fall, but ultimately, an individual's view of themselves decides whether their self-esteem is good or negative. One's self-esteem has the power to influence major depressive disorder in several different ways (van Tuijl et al., 2020). When faced with difficult life circumstances, people with low self-esteem are more likely to experience a downward spiral into depression and have fewer coping skills. They are more likely to attempt suicide as a result. In addition, even though females had faster growth between the ages of 16 and 32, males displayed much higher levels of self-esteem than females did (Kiviruusu et al., 2016). Therefore, this circumstance has the potential to be a significant influence in influencing the level of depression that persons, both males, and females, experience. As a result, the present study predicts a significant and negative influence on self-esteem and stress among Malaysian students, the current study is conclusive (Hypothesis 2). In addition, the study predicts a significant difference between gender and stress among undergraduate students (Hypothesis 3). Finally, the study expects for a regression coefficient for social support and self-esteem is greater than zero when regressed against stress among undergraduate students (Hypothesis 4).

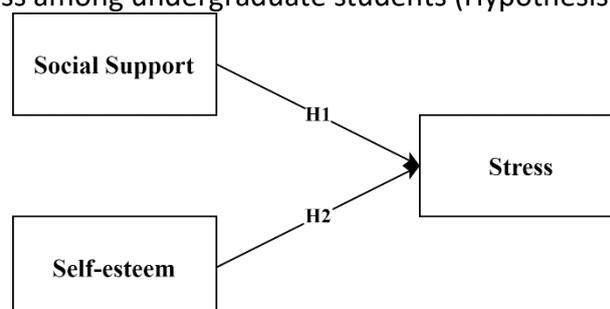


Figure 1. Conceptual framework of the study.

## Methodology

### *Participants and Procedures*

A quantitative research approach was utilized in this study to investigate the link between study variables, all of which play a role in the development of stress among undergraduates attending Universiti Putra Malaysia (UPM), Malaysia. The survey research design was utilized in this study, and questionnaires were distributed to respondents to gather their replies. The surveys were self-administered, and respondents were requested to provide information on their demographic characteristics, social support, self-esteem, and stress.

Students from any year, from first to fourth, make up the sample size. A convenience sample method was used to choose the respondents. According to UPM's official portal, there were 13,458 undergraduate students enrolled. A total of 400 respondents from the UPM's undergraduate Malaysian students made up the study's sample size. Cochran's (1977) Formula was used to calculate the data. The ultimate sample size was 389, with a response and return rate of 97.25%.

$$n = \frac{p(1-p)z^2}{e^2}$$

$n$  = sample size

$p$  = the population proportion ( $p=0.1$ )

$e$  = acceptable sampling error ( $e=0.05$ )

The survey was distributed at random using internet platforms such as WhatsApp, Telegram, and e-mail. Before distributing the surveys, the respondents were informed and their consent was acquired. After receiving their consent, respondents were given questionnaires to complete.

### *Measures*

*Social Support.* The Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zimet et al (1988) was used to assess the perceived sufficiency of social support from three different sources or subscales: family, friends, and significant others. This instrument has 12 items and has a reliability score ranging from Cronbach alpha level of 0.93 (Başol, 2008). The measure also employed a 7-point Likert scale (1 = Very Strongly Disagree to 7 = Very Strongly Agree) on three subscales with four items each: FA (family), FR (friends), and SO (significant other). A sample item is: *"I get the emotional help and support I need from my family"*. As a result, Cronbach's alpha ( $\alpha$ ) for this instrument was 0.92, 0.93, and 0.93 for scores on the support subscales of family, friends, and romantic partners, respectively (Lee & Dik, 2017).

*Self-Esteem.* The Rosenberg Self-Esteem Scale (RSE) was developed by Rosenberg (1965) to measure the level of self-esteem among students. The RSE has 10 items including both positive and negative statements about the self, using a 4-point Likert scale (1 = strongly disagree, 4 = strongly agree). A higher score indicates higher self-esteem. A sample item is: *"On the whole, I am satisfied with myself"*. The Cronbach's alpha ( $\alpha$ ) of the instruments was 0.82.

*Stress.* The Perceived Stress Scale (PSS), was developed by (Cohen et al., 1983). It is a self-reported questionnaire to determine the degree to which stressful conditions in one's life have been viewed over the preceding month. In addition, items were developed to convey how unforeseen, uncontrollable, and overwhelming the respondents' lives had become. The PSS includes 10 items using a 5-point Likert scale, ranging from (0= never to 4= very often). A sample item is: *"In the last month, how often have you felt difficulties were piling up so high*

that you could not overcome them?" Hence, Cronbach's alpha ( $\alpha$ ) of the instrument is 0.82 (Andreou et al., 2011).

### **Data Analysis**

The data collected was analyzed by using the Statistical Package for Social Science (SPSS). There were two types of analysis used in this study: descriptive and inferential analysis. The mean, percentage, frequency, standard deviation, minimum, and maximum values were obtained using descriptive statistics. The statistical analysis was only one variable. To fulfill the first and second objectives of the study, univariate analysis was utilized to characterize the patterns observed in the data.

There were two types of statistical analyses done for inferential statistics: a bivariate and multivariate analysis. The t-test and Pearson Correlation were employed in bivariate analysis to assess the association between the two variables. The t-test was employed to test the third hypothesis ( $H_3$ ), and Pearson Correlation was utilized to assess the fourth hypothesis ( $H_4$ ). Lastly, the final test involves Multiple Regression to reach the final goal of determining the major element that leads to stress.

### **Pilot Study**

Pilot study was conducted on 40 undergraduate students who were randomly selected. The pilot study was carried out during the first week of the first semester of the 2022/2023 session. In the pilot study, the values of Cronbach's Alpha for each scale ranged from 0.86 to 0.95. These values included social support, self-esteem, and stress. The results of the tests on all of the scales indicate that the scales have a relatively high Cronbach's alpha value, which suggests that the scales have a high level of internal consistency. The actual dependability of the study was tested on a sample size of 400 undergraduate students randomly recruited from UPM. According to the findings, the value of Cronbach's Alpha might range anywhere from 0.61 to 0.92 depending on the scale being used. Regarding the findings of the real study's reliability examination, it was determined that the coefficients of all four scales had satisfactory levels of alpha (Table 1).

Table 1

*Reliability test of the instruments.*

<b>Scales</b>	<b>Total Items</b>	<b>Pilot Study (n=40)</b>	<b>Actual Study (n=389)</b>
Social Support	12 items	0.95	0.93
Self-Esteem	10 items	0.78	0.76
Stress	10 items	0.63	0.62

## **Results**

### **Descriptive Statistics**

Based on the findings, most of the respondents (n = 290, 72.5%) with a percentage of scored moderately on social support. This indicated, most of the respondents had obtained enough social support from the people they were close to. Besides, only 2.5% of the respondents (n = 10) scored low on social support while the other 25.0% of the respondents (n=100) scored

high on social support. Overall, most of the respondents were reported to acquire a moderate level of social support.

In terms of social support from significant others, there were 9 respondents (2.3%) scored low, while 281 respondents (70.3%) scored moderately. Most of the respondents ( $n = 110$ , 25.0%) scored high on significant other. Overall, most of the respondents were reported to obtain a moderate level of social support from their significant other.

In terms of social support from a friend, there were 13 respondents (3.3%) scored low, while 100 respondents (25.0%) scored high social support from their friends. Most respondents ( $n = 287$ , 71.8%) scored moderately on a friend. Overall, the respondents were reported to attain a moderate level of social support from a friend.

In terms of social support from family, there were 11 respondents (2.7%) scored low, while 97 respondents (24.3%) scored high support from family. The number of respondents ( $n = 292$ , 73.0%) who scored moderately on social support is the most which this support has come from family. Overall, the respondents were reported to obtain a moderate level of social support from their families.

Most of the respondents (63.3%) scored in the lower range were around 253 respondents. This indicated that most of the respondents had low levels of self-esteem. While only 5 respondents (1.2%) had a high level of self-esteem and the remaining respondents ( $n=142$ , 35.5%) had moderate levels of self-esteem. This indicated that most of the respondents were having difficulties having good self-esteem among themselves.

Most of the respondents (93.3%) scored in the moderate range of stress which was around 373 respondents. This indicated that most of the respondents had a moderate level of stress. While only 15 respondents (3.7%) had a high level of stress and the remaining respondents ( $n=12$ , 3.0%) had a low level of stress. This indicated that most of the respondents were having difficulties in their life which leads to stress.

### **Correlational Results**

The analysis result reported that total social support had a significant negative association with stress ( $r = -0.35^{**}$ ,  $p < 0.01$ ). This result indicated that the lower the social support, the greater risk of the stress for the respondents. Not engaging in social relationships, can result in a risk to develop stress. This finding is consistent with previous which state a low level of social support is one of the factors that cause stress (Abbas et al., 2019). Hence,  $H_1$  was accepted.

Furthermore, social support was divided into three subscales which are family, friend, and significant other. All subscales reported having a significant negative relationship with stress. The finding indicated that the lower the support from family, friends, and significant other, the greater the level of depression. For the family subscale, the  $r$ -value was  $-0.22^{**}$  with  $p < 0.001$ , while the  $r$ -value of the friend subscale was  $-0.51^{**}$  with  $p < 0.001$  and the  $r$ -value of the significant other subscale was  $-0.14^{**}$  with  $p < 0.001$ . Based on the result, support from family, friends, and significant other was significantly correlated with the level of stress but the significant other subscale had the highest association with the level of stress, followed by the family subscale and friend subscale. The result was not in line with a past study in the literature that revealed that social support from family plays the highest role in social support (Roos & Cohen, 1987).

Findings show that the correlation between self-esteem and stress is  $r=-0.313^{**}$  ( $p<0.01$ ). This indicates that there is a significant negative relationship between self-esteem and stress. Hence,  $H_2$  was accepted. The result was in line with previous studies which found that there

is a significant relationship between self-esteem and stress. According to Fasciano et al (2019), self-esteem plays a crucial influence on stress. Low self-esteem is related to negative psychological consequences such as stress (Pyszczynski et al., 2004) and depression (Saha et al., 2019). Nevertheless, the result of the current study is showing that the relationship between self-esteem and stress is positively correlated. In other words, a person with high self-esteem also can be affected by the risk of stress. This finding is in line with the previous study on self-esteem which indicated that there are various varieties of high self-esteem and that high self-esteem can sometimes result in stress symptoms (Table 2)(Piekarska, 2020).

Table 2

*Correlation of study variables.*

Construct	Stress		
	r	p	Decision
Social Support	-0.355**	0.000	Supported
Significant Other	-0.144**	0.003	
Friend	-0.510**	0.000	
Family	-0.222**	0.000	
Self-Esteem	0.313**	0.000	Supported

Notes: \*\*p<0.001.

### ***Bivariate Analysis***

The result shows the mean of stress among female students was 19.99 while the mean of depression among male students was 18.92. This showed that female students exhibited a higher level of stress than male students. There was a significant difference between male and female undergraduate students in stress with  $p < 0.01$  and  $t = -2.521$ . This finding was consistent with previous studies which found that female students scored significantly higher than male students on depression, anxiety, and stress (Debowska et al., 2022). In addition, Nguyen-Michel et al. (2006) study of stress among medical students reported similar findings that there are gender-related differences that influence stress which female is more vulnerable to stress compared to male (Table 3). Hence,  $H_3$  was accepted.

Table 3

*Differences between gender and stress.*

Construct	Stress		
	Mean	t	p
Gender		-2.521	0.012
Male	18.92		
Female	19.99		

### ***Multiple Linear Regression***

In this particular research study, Multiple Regression was utilized to identify the main factor that contributes to stress. The existence of social support and self-esteem were all predictors of stress. The testing of  $H_4$  was done using the force-entry approach. Findings show that all variables were included in the multiple regression analysis (Table 4). A value of 0.18 showed that the variables explain 18% of the variance in stress ( $F = 43.840$ ,  $p < .001$ ). The results showed that self-esteem and social support were found to be significant predictors of stress for undergraduates student but social support ( $\beta = 0.293$ ,  $p < 0.001$ ) was the strongest

predictor of stress compared to self-esteem ( $\beta = 0.235$ ,  $p < 0.001$ ). Therefore,  $H_4$  was accepted.

Table 4

*The main factor of stress.*

Constructs	Stress			
	B	SE B	$\beta$	p
Social Support	-0.115	0.018	-0.293	0.000
Self-Esteem	0.232	0.046	0.235	0.000

### Discussion and Implications

The results showed that social support had an impact on student stress. This finding supports prior findings that social support is an effective coping method for dealing with stresses (e.g., Yildirim et al., 2020). In research including a variety of student cohorts, levels of perceived social support were shown to be a substantial predictor of students' stress levels (Kirby et al., 2011; Poots & Cassidy, 2020). The current findings also confirm the important role of friends and peers support in reducing stress. As explained by Lee and Goldstein (2016), particularly for younger pupils, it has been discovered that social support from peers can act as a buffer against the negative effects of stress. According to Charalambous, (2020), these findings might be partially explained by the way in which students perceive the social support that is available to them from the interactions they have with their peers. According to Day and Livingstone (2003), the perception that an individual has of the social support network that they have may have a more significant impact on their ability to cope with adversity than whether or not they actually receive the support, as well as a more significant impact on their mental health (Schotanus-Dijkstra et al., 2016). The study findings showed a significant connection among self-esteem and stress of undergraduates. These findings supported by previous studies that self-esteem seems to be related with stressors that have to do with emotion (Galanakis et al., 2016). In addition, one more study conducted by Nima et al (2013) found that successfully coping with anxiety, depression, and stressful events may be one factor that contributes to high levels of self-esteem and self-confidence. Furthermore, the current study found a higher level of stress among female students than males. This findings is in line with other studies that female students usually suffer from stress than males. Rubach et al (2022) found that relationship between academic stress and mental health impairment showed gender disparities. Comparatively to male students, academic stress was a better predictor of mental health impairment in female students. Moreover, academic stress alone among female students indicated changes in mental health impairment.

Our study has implications for managerial practices. Mental health professionals can use the recent discoveries to guide their intervention strategies, as the findings suggest that social support plays a significant role in reducing stress. This information can help experts prioritize their efforts effectively. This would be conceivable because the findings indicated that one of the main causes of stress among students was a lack of social support. This is crucial since the stress that these youngsters experience can negatively impact their mental health and may cause tension as well as other unfavorable results. This strategy aims to prevent students from experiencing stress by having practitioners and other involved parties develop suitable and effective intervention programs for the students on the subject of lowering stress while they are learning. Moreover, The Ministry of Higher Education must be watchful and collaborative in creating a strategy to boost students' self-esteem. To maximize the pupils'

self-esteem, experts must collaborate to establish an effective approach. Also, it's critical for kids who lack self-esteem to have supported since the effects of stress on self-esteem often compound. For instance, since self-esteem is more changeable in a person's early childhood, intervening in classes like public speaking might aid in raising pupils' self-esteem. This is a result of kids' greater impressionability. So, the intervening programs will help people in every manner they can to improve their feeling of value.

To conclude, the convergence of findings provides researchers, professionals, and educators with some assistance as well as a stronger sense of direction to motivate them to do future studies within the context of Malaysia. This study's findings contribute to a larger understanding of student stress by concentrating on three crucial components: social support, self-esteem, and anxiety. It is conceivable and desirable to add new data on the same or related aspects for future study to gain a deeper comprehension of the subject matter.

This research, like other studies, has its own set of limitations in terms of scope and methodology. First, this study was conducted just at a Malaysian public university with undergraduate students. As a result, the findings could not be applied or generalized to other settings or students in different contexts. Thus, the study needs to be replicated in different contexts and among other students in different stages. Moreover, the goal of this study was to look at the links between specific aspects, such as students' characteristics (i.e. gender), self-esteem levels, the degree of social support they get, and stress among students. Several other factors should be investigated as potential stressors in future studies. It could be possible to examine how other variables might affect stress among university students in prospective future research by including specific variables, such as the biological and sociocultural environment of the student's family. Last but not least, the respondents' desire, cooperation, and honesty in responding to the provided questionnaire may have an impact on how accurately the findings are determined, which may have an impact due to the quantitative method. This will affect how accurate the outcomes are. Future research needs to employ various tactics, such as larger sample size or qualitative open-ended questions rather than surveys.

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