

Emotional Intelligence and Perception of Stress among Undergraduate University Students

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Abstract

Purpose of the study: The aims of this study were to investigate the relationship between emotional intelligence (EI) and perception of stress (PS) among undergraduate university students in Malaysia and to examine the difference between genders on EI and PS scores.

Methods: A total sample of 460 undergraduate university students from comprehensive universities in Malaysia participated in the present study. A set of questionnaire consisting of the Assessing Emotional Scale (AES) and the Perceived Stress Scale (PSS) was used to measure the studied variables. Pearson correlations were utilized to examine the relationship between EI and PS. Independent Samples T-Test were used to study the difference between genders on EI and PS scores. **Results:** The findings showed significant positive relationship between perception of emotion (PE) and PS ($r=.146$), managing own emotion (MOE) and PS ($r=.296$), managing others' emotion (MOTE) and PS ($r=.197$) and utilization of emotion (UE) and PS ($r=.207$) among the undergraduate university students. Independent Sample T-Test used to examine the difference between genders shown no significant difference in both EI and PS scores **Conclusion:** This study helps in examining the relationship between EI and stress level among university students. Hence, it will help us in understanding and providing information on the university students' emotional intelligence and perceived stress during their undergraduate life.

Keywords: Emotional Intelligence, Perception of Stress, Undergraduate University Students.

Introduction

For the past two decades, there are growing numbers of research on the other dimension of intelligence, called the emotional intelligence (EI). EI is believed act as a vital contributing factors of 80% to academic performance as well as professional success rather than measured a single IQ test. EI refers to the ability to regulate emotions by motivating oneself to control the emotions rather than acting in aggressive responses (Goleman, 1995). EI is a strong predictor of mental health and well-being. Various activities such as education, training, leadership and guidance of others, personal life, mental health and well-being can be impacted by an individual's EI (Tabatabaei, Jashani, Mataji & Afsar, 2013). According to Schutte, Malouff and Bhullar (2009), there are four dimensions of EI which are perception of emotion (PE), managing own emotion (MOE), managing others' emotion (MOT) and utilization of emotion (UE).

Stress can be defined as the demands placed on the body's non-specific response which related to disturbing events in the environment (Radeef, Faisal, Ali & Ismail, 2014). Perception of stress (PE) is the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period (Phillips, 2013). Stress that is not treated well may lead to serious problems which can affect an individual's health. Therefore, Wang, and Saudino (2011) suggested that it is important for an individual to cope with stress by regulating emotions wisely can avoid any bad complications in life.

Low and Nelson (2006) suggested that having EI skills will allow an individual to cope with complex and demanding college experience. The very first study on EI was conducted by Mayer and Salovey in 1990. In 1995, Goleman wrote a book entitled *"Emotional Intelligence: Why It Can Matter More Than IQ"* which claimed that IQ contributed to only 20% of a person's success. Apart from that, this claims prompts many researchers and academicians to explore and identify other 80% factors contributes to a person's success (Mohzan, Hassan & Halil, 2013).

EI acts as a role in balancing students' mental state, personal and social relationship, academic performance as well as psychological well-being (Shaheen & Shaheen, 2016). EI enable individuals to use appropriate channels in order to understand, express and communicate emotions regardless of positive or negative effects (Koubova & Buchko, 2013). Low EI within a person might cause a number of negative consequences. University students with low EI will have adverse effects on health as they are having risky behaviours such as substance abuse, adjustment problems and aggressive behaviour (Rivers, Brackett, Omori, Sickler, Bertoli & Salovey, 2013). According to previous study by Fix and Fix (2015), students who have difficulties in understanding experienced emotion and managing stress were expressed on high trait psychopathy. EI plays an important role on stress management. High EI reported to have lower PS among students as the subjects were be able to cope with emotional problems (Ruiz-Aranda, Extremera & Pineda-Galán, 2014). However, a study of EI and PS conducted by Mumina, Wafa, and Teong (2016) suggested that UE was not related to stress, instead it was due to the lack of exposure to socialization.

Interestingly, although Saddki et al. (2017) found that female scored higher EI and PS levels than males, a local report in The Star Online (2009) stated that males scored higher suicidal rate. This revealed that those cases could happened due to poor emotion management as well as caused by pressures from study and work. Moreover, a number of suicide cases were reported on online news by reason of suffering from depression, experiencing stress, and high pressures of studies and works among individuals.

According to the national health and morbidity survey, young Malaysian at the age group of 16-24 years old had the highest prevalence of suicidal ideation (10-26%) as compared to other age group (Mumina et al., 2016). Stress could lead to many problems such as depression, anxiety, burnout, even suicidal ideation. An outstanding survey from various countries by Pau, Rowland, Naidoo, Abdulkadir, Makrynika, Moraru, Huang and Croucher (2007) claimed that Malaysia and Romania students scored a significant and highest perceived stress around the world, while lowest was England and United States students. Inability to control emotion and cope with stress may increase the possibility mental problems such as depression. Mustaffa, Aziz, Mahmood, and Shuib (2014) stated that depression have a positive relationship to suicidal ideation.

The purpose of this study was to identify the relationship of EI and PS among undergraduate university students with range age of between 18 to 25 years old. To the extent of reserchers' knowledge, to this current date there was no study done on determining the relationship of EI and PS among comprehensive universities students in general. Previous study was done on single university in Malaysia (Awadh et al., 2013; Mumina et al., 2016; Saddki et al., 2017), Sri Lanka (Ranasinghe et al., 2017), in and Saudi Arabia (Albandar, Abdel Alim, Mohammed Albandar, Basulay, 2018).

Thus, investigating the levels of stress and observing the relationship to EI probably could assist to understand, detect and prevent any serious problems from taking places. Majority of previous studies was also conducted on medical, nursing or dental students (Awadh et al., 2013) whistle life as a university student is stressful in general. There is a need to conduct a study on other courses, consist of various (comprehensive) universities in Malaysia including Universiti Teknologi MARA (UiTM), Universiti Islam Antarabangsa (UIA). Universiti Malaysia Sarawak (UNIMAS), and Universiti Malaysia Sabah (UMS). As suggested by Mumina et al. (2016), more study should be conducted to identify the relationship between EI and PS: and perhaps peeling between each dimensions of EI with PS for better understanding.

Methodology

Research Design

The present study utilized a quantitative method using cross-sectional study. A cross-sectional design is use to collect the data on a population at one point of a time (Mahmud, 2011). The independent variable of the present study was the emotional intelligence (EI) and the perceived stress (PS) was the dependent variable.

The present study was aimed to measure the psychological elements of EI and PS, thus the researchers opt for a quantitative survey method (questionnaire) to measure those psychological elements (studied variables). Based on the present findings, the researchers may further opt for the qualitative approach in the future study.

Sampling

Comprehensive universities in Malaysia is categorized by the Malaysia Ministry of Higher Education by certain characteristics such as include various fields of study, competitive entries, having quality lecturers while the ratio of undergraduate to postgraduate of 70:30 (Kementerian Pendidikan Malaysia, 2019). All four comprehensive universities in Malaysia was included in the present study (UiTM, UIA, UNIMAS, and UMS).

This research focused on undergraduate university students of UiTM, UIA, UNIMAS, and UMS ($N=221,570$). The total undergraduate university students from each university was obtained from the from respective universities. The sample size of three hundred and eighty-

four ($n=384$) was derived based on Krejcie and Morgan (1970). A total of 460 ($n=460$) questionnaires were distributed comprising the twenty percent (20%) dropout rate. A proportionate sampling techniques was used in deriving the sample size for each university. The following Table 1 depicts the sample size of the present study.

Table 1

Calculation of sample size

University	Numbers of Population	Sample size
UiTM	161,274	335
UIA	30,669	64
UNIMAS	15,882	33
UMS	13,745	28

Instrumentations

The data was collected by using two self-administered questionnaires which are the Assessing Emotions Scale (AES) to measure EI (developed by Schutte, Malouff, Hall, Haggerty, Cooper, Golden, and Dornheim in 1998) and the Perceived Stress Scale (PSS) to measure PS (developed by Cohen, Kamarck, and Mermelstein in 1983). AES ($r=.70$) were using a 5-point Likert scale (1 = strongly disagree; 2 = somewhat disagree; 3 = neither agree nor disagree; 4 = somewhat agree; and 5 = strongly agree). While PSS ($r=.90$) were using a 5-point Likert scale that ranges from 0 to 4 (0 = never; 1 = almost never; 2 = sometimes; 3 = fairly often; 4 = very often).

Procedure

The respondents were asked to fill-in the individual information sheet and were informed that the participation is voluntarily and they can withdraw at any time. The respondents were assured that the information are confidential and only used for research purposes. The respondents answered the questionnaires which consists of demographics profile, AES and PSS questionnaires approximately in 15 minutes, and researchers collected all the the questionnaires upon the completion.

Data Analysis

The data collected was analysed by using the Statistical Package for Social Sciences (SPSS) version 22.0. Descriptive data was presented in mean (M) and standard deviation (SD), frequencies and percentages. Pearson correlation coefficient was also used to identify the relationship between EI and PS among public university students in Malaysia. While, the Independent Sample T-Test was used to examine the difference of EI and PS between different gender.

Results and Findings

The purpose of this study were to investigate the relationship between EI and PS among university students, and to examine the differences on EI and PS scores between male and

female university students. A total of 460 ($n=460$) undergraduate university students were involved in this study.

Descriptive Statistics

Table 2 shown the demographic data of respondents in the present study. The respondents were divided proportionately according to the number of students based on the universities. There were 335 respondents (72.8%) represented UiTM, 64 respondents (13.9%) from UIA, UNIMAS with a total of 33 respondents (7.2%), and 28 respondents (6.1%) from UMS.

Table 2

Respondents Based on Universities

Type of Institutions	<i>n</i>	(%)
UiTM	335	72.8
UIA	64	13.9
UNIMAS	33	7.2
UMS	28	6.1
Total	460	100.0

Table 3 showed the AES test scores of the respondents. There were 61 (13.3%) respondents scored below 111, 330 (71.7%) respondents were scored in range between 111 to 136 and 69 (15.0%) respondents were scored above 137.

Table 3

AES Test Scores

AES Test Scores	<i>n</i>	(%)
Below 111	61	13.3
111 to 136	330	71.7
Above 137	69	15.0
Total	460	100.0

Table 4 showed the PSS test scores of respondents. There were 26 (5.7%) respondents scored in range between 0 to 13, 387 (84.1%) respondents were scored in range between 14 to 26 and 47 (10.2%) were scored in range between 27 to 40.

Table 4

PSS Test Scores

PSS Test Scores	<i>n</i>	(%)
0 to 13	26	5.7
14 to 26	387	84.1
27 to 40	47	10.2
Total	460	100.0

Table 5 displayed the mean of EI and PS in the present study. Mean and standard deviation for EI was 3.79 ($SD=.40$) respectively. While for the dimensions of EI, mean score of PE was 3.60 ($SD=.44$), MOE with mean score 3.91 ($SD=.50$), MOTE with mean score 3.80

($SD=.49$) and UE with mean score 3.91 ($SD=.51$). While reported mean of PS was 2.05 ($SD=.39$) respectively.

Table 5

Mean and standard deviation for EI and PS

Variables	<i>M</i>	<i>SD</i>
Emotional Intelligence (EI)	3.79	.40
Perception of Emotion (PE)	3.60	.44
Managing Own Emotion (MOE)	3.91	.50
Managing Others' Emotion (MOTE)	3.80	.49
Utilization of Emotion (UE)	3.91	.51
Perception of Stress (PS)	2.05	.39

Dimensions of Emotional Intelligence and Perception of Stress

The relationship between each dimensions of EI and PS among university students was identified by using Pearson Correlation Test. In order to determine the relationship between EI and PS, Pallant (2013) specified that the weak correlation is ranged from $r = .10$ to $r = .29$; medium relationship is ranged from $r = .30$ to $r = .49$; while the strong relationship is ranged from $r = .50$ to $r = 1.0$. In general, there was a weak relationship between EI and PS as reflected in Table 5.

Table 6 showed that there was significant positive relationship between EI and PS among university students with value of $r=.21$, $n = 460$, $p<.05$. There was significant positive relationship between PE and PS among university students with value of $r=.146$, $n = 460$, $p<.05$. There was significant positive relationship between MOE and PS with value $r=.296$, $n = 460$, $p<.05$. A low ($r=.197$, $n = 460$, $p<.05$) and significant positive relationship also seen between MOTTE and PS. Last but not least, there was significant positive relationship between UE and PS among university students with value $r=.207$, $n = 460$, $p<.05$.

Table 6

Relationship between EI and PS

EI	PS (<i>r</i>)	<i>p</i> -value
EI	.21	.001
PE	.146	.002
MOE	.296	.000
MOTE	.197	.000
UE	.207	.000

Emotional Intelligence and Perception of Stress between Genders

An Independent Sample T-Test was used to examine the difference of EI between genders as measured by AES and PSS test scores. Table 7 showed that there was no significant difference ($p=.18$) in EI between male ($M=3.77$, $SD=.41$) and female ($M=3.82$, $SD=.3$) students. Table 8 whereas showed that there was also no significant difference ($p=.33$) in PSS between male ($M=2.07$, $SD=.38$) and female ($M=2.03$, $SD=.41$) students.

Table 7

EI between genders

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Sig. (2-tailed)</i>
Male	229	3.77	.41	.18
Female	231	3.82	.39	

*Significant level set at $p < .05$

Table 8

PS between genders

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Sig. (2-tailed)</i>
Male	229	2.07	.38	.33
Female	231	2.03	.41	

*Significant level $p < .05$

Discussion

The aims of the present study were to investigate the relationship between EI and PS among university students, and to examine the differences on EI and PS scores between male and female undergraduate university students. The study revealed that there was positive relationship between EI and PS. The present study shown that all the dimensions of EI were positively correlated with PS. Nevertheless, there was no significant difference on both EI and PS scores between genders.

The present study found that there was significant positive relationship between PE and PS among the undergraduate university students. This reflects that the higher the PE reported by the students, the higher their level of stress. This indicated that even though the students have the ability to perceived emotions in oneself and others still they are having high level of stress. This finding was in contrast with the previous study by Mumina et al. (2016) which revealed a significant negative relationship between the ability to perceive emotion and stress, which showed that PE in EI dimensions was the most prominent in reducing stress. Mumina et al. (2016) also claimed that PE and PS had the highest correlation ($r = -0.464$) as compared to other dimensions of EI.

Furthermore, the present study reported that there was significant positive relationship between MOE and PS among university students. This indicated that although the students have the ability to be open and control feelings in oneself still they are suffering from the high level of stress. This finding is in contrary to the study of Mumina et al. (2016) that stated the relationship between MOE on PS was significant ($r = -0.216$) among university students. University students who are able to recognise, identify and understand their own emotions are better in terms of controlling their level of stress and solving problems. A previous study by Ebrahimi (2013) identified that MOE was a significant ($p = .001$, $r = -0.321$) contributor in perceiving stress among university students.

Moreover, the present study found that there was significant positive relationship between MOTE and PS among the university students. This finding indicated that even though the students has the ability to understand other's emotion, concern and show empathy to others but still they experience high stress. This finding is not consistent with the study of Mumina et al. (2016) which stated that there was significant relationship ($r = -0.302$) of MOTE and PS among university students.

The present study found that there was significant positive relationship between UE and PS among university students. This finding discovered although students who have the ability to manage their emotion and better in dealing with personal and environmental challenges but still they are suffering from the high level of stress. The finding of this study was in contrast to Mumina et al. (2016) study, which stated that there was a weak correlation ($r = -0.02$) between UE on PS among university students.

The present findings found significant positive relationship between EI (i.e. PE, MOE, MOTE and UE) and PS among university students. Gohm, Corser and Dalsky (2005) suggest that EI may help some individuals, but not others. Gohm et al. (2005) found out the lack of relation between EI and stress among the overwhelmed. The potential usefulness of EI would seem to be high for this type of person: intense, confused, and stressed. The more emotionally intelligent among them did not report lower stress because they do not have confidence in their EI ability. They do not trust that their knowledge is accurate or that their emotional reactions tend to be appropriate. This is in contradict with a study by Saklofske, Austin, Mastoras, Beaton and Osborne (2012), which found that the individuals with high EI have greater abilities to understand the emotional involvement of others and able to reduce stress effectively such as seeking social support, share emotions and talk about personal problems to others. Furthermore, study by Forushani and Besharat (2011) stated that the individual with decent level of EI were more aware of their emotions and aware on how to use an effective coping strategies. The findings of the present study may due to the reason that the undergraduate university students are having and using other alternative coping strategies or mechanisms available such as cognitive strategy instead of relying on their EI to deal with their stress levels. Apart from that, questionnaires were distributed at the last two weeks of the semester may explained the positive correlation between EI and PS. This is supported by Birks, McKendree and Watt (2009) which claimed that upcoming exams may have contributed to increased stress. Another contributing factors of the positive correlation probably due to the factor of daily life stress in which Wong (2019) stated that Kuala Lumpur/Malaysia was the lowest among 40 cities in work-life balance, thus this factor may explain the stress perceived by the undergraduate students. Pau et al. (2007) studied which study in EI and PS among 7 countries also found that Malaysia and Romania students scored a significant and highest perceived stress around the world, while lowest was England and United States students. More studies need to be conducted to reconfirm the phenomenon among undergraduate students in Malaysia.

The result of present study also found that there was no significant difference of EI between genders. Both male and female students exposed to the same challenges in university that may contribute to no significant difference in terms of their EI. However, based on the mean of the results, female students were found to attain higher EI mean scores as compared to male students. This finding was parallel to previous study conducted by Nasir and Masrur (2010) which claimed that there was no significant difference on EI between male and female university students. Although there was no significant difference on EI between both genders, the study identified that female students scored higher EI mean scores as compared to male students. Chaudhry, Jan, Sajjad and Ali (2013) stated that EI scores of the female students was significantly higher as compared to male students due to the ability of female students in managing their impressions and displays desirable behaviours. This is probably because female students were more sensitive to the emotions and express emotions more frequently. Naghavi and Redzuan (2011) also stated that parents talk to their daughter about emotion, giving them more information about feelings, as well as the female learn

more quickly than male. In addition, Gross and John (1998) also revealed that male tend to show less emotion than female.

The result of present study also found that there was no significant difference on PS between male and female university students. However, male students were found to have higher mean scores of PS than female students. This finding was consistent with past study by Ranasinghe et al. (2017) which also found that there was no difference in PS between genders, and indicated that both genders could enhance their EI in reducing the stress levels to achieve academic performance. Mumina et al. (2016) also claimed that there was no significant difference on PS between males and females. Both genders are able to control and manage own and others' emotions in order to deal with stress. Both males and females have same perception towards stress because they expose to the same amount of workloads and studying in the similar university's environment. Male students recorded higher levels of stress probably because male tend to show less emotion as well as not good at expressing their own emotions. Brody, Hall and Stokes (2016) also claimed that males more frequently express negative emotions such as hostility, anger and frustration. While females preferred to use social support and help seeking behaviour from others to handle stress (Anbumalar, Dorathy Agines, Jaswanti, Priya and Reniangelin, 2017).

Conclusions

In conclusion, the major findings of the present study showed a significant positive relationship between EI and PS among the undergraduate university students. In addition, no significant difference on both EI and PS scores were found between the genders (male and female undergraduate university students). These findings may help us in understanding on how emotional intelligence were associated with the perceived stress of the male and female undergraduate students. Therefore, more studies need to be done in the future in examining this relationship between EI and PS among the university students.

Based on the main findings, we may suggest that the undergraduate students might consider other coping strategies instead of relying on the emotional intelligence in dealing with their stress. For instance, the students may use physical activity, religious intervention, music and arts as their coping strategies in dealing with stress. This is supported by Shaikh et al. (2018) who found that people use different type of coping strategies to deal with stress such as exercising, mediating and listening to music. Moreover, students who consider using other coping strategies may benefit from their coping strategies in terms of it helps in controlling their negative emotions, thoughts and behaviours. Hence, this in turn may help to reduce their stress.

Contribution

The present research suggests a weak positive relationship between EI and stress among the undergraduate students. Hence, this result showed that undergraduate students in Malaysia experience stress regardless of their level of emotional intelligence. The present findings shown to be in conflicting with most of the previous findings, which found a negative relationship between EI and stress. Thus due to these conflicting issues, it may infer that we might need to do further research on this EI and stress areas especially in the context of university students.

Moreover, there is lack of research studying EI and stress among comprehensive university in Malaysia. Hence, the present study, which considered the comprehensive universities in a

single study, may indicate to us new findings in the context of Malaysia's comprehensive university.

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