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## Emotional Intelligence and Stress among University Students in The Situation of Covid-19

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### Abstract

Students' life at university is very chaotic and challenging in the situation of COVID-19. Thus, investigating the stress-protective factors can potentially benefit the students and their academic life. Hence, considering Emotional intelligence (EI) may play a vital role in understanding students' stress. The present study is very crucial as a lack of emotional intelligence in such an unstable situation of COVID-19 may lead to possible failure that can negatively impact students' well-being and future. The main objective of the present study was to examine the link between EI and perceived stress among university students. This was done through a quantitative study of the relationship between EI and stress. A cross-sectional research design to recruit a convenience sample of students from a few public university campuses in Malaysia, with a total respondent of 213 students was used. These students were invited to complete a voluntary and anonymous 38-item online questionnaire. Self-report questionnaires, consisting of the short 16-item measure of emotional intelligence (WLEIS), and the 10-item Perceived Stress Scale (PSS) were distributed to these students. Correlation analyses were performed to examine the link between EI and perceived stress (PS). Major findings have shown that there were significant correlations between EI constructs (Self-emotions appraisal, Use of emotion, and Others-emotion appraisal) and PS. Subsequently, independent-sample t-tests showed a not statistically significant difference in mean EI and PS scores between male and female students. In conclusion, the constructs of trait, EI could be of vital importance in understanding stress among university students. The present study suggests that universities may offer EI as among measurements in the selection of their

prospective students, and the management should offer a few interventions to enhance students' emotional intelligence. Future research may address controlling other personality traits associated with the Perceived Stress Scale such as anxiety and neuroticism which may be confounded with reports of perceived stress.

**Keywords:** Emotional Intelligence, Stress, Students, University Students, Gender

### Introduction

The student population has accumulated as a population vulnerable to stress. Pascoe et al. (2020) in their narrative reviews reported that the academic-related stress suffered by students in the education context is cross-cultural and widespread and is of international concern. Although college students are known to be a vulnerable population, there are limited studies conducted to access mental health issues including stress issues among college students, especially during this situation of COVID-19. According to Sahin et al (2022), there are limited studies conducted on university students who have been influenced by the COVID-19 pandemic either in both education and socialization contexts. Moreover, there is an urgent need to measure the effects of the current situation of COVID-19 on the mental health and well-being of college students (Holmes et al., 2020).

University students attend colleges in environments that are full of challenges and competitive in nature. The academic demands, often lead them to experience psychological problems and emotional exhaustion such as stress, anxiety, and depression. Reddy et al. (2018) claimed that stress has become a fragment of the student's academic life. It was reported that there are various external and internal expectations and demands placed on the students leading them to experience stress. A study by Tripathi et al (2022) among healthcare students found that stress was high among dental students. Furthermore, a study by Syed et al (2018) on 267 physiotherapy undergraduate students observed that the frequency of depression, anxiety, and stress among the students was high at 48.0%, 68.54%, and 53.2%, respectively. Moreover, the study by Oketch-Oboth and Odiemo (2018) found that 64.4% of university students experienced between moderate to high levels of stress while just over a third (35.6%) reported low-stress levels. In addition, Ramli et al (2018) in their study reported that most Malaysian students are suffering from excessive stress. At present, the ongoing occurrence of COVID-19 is believed to have an impact on the mental health including stress levels of the students. The findings from Cam et al. (2022) research suggest that evidence of PTSD, depression, anxiety, and stress is commonly apparent among university students during the period of this COVID-19 crisis.

Pascoe et al (2020) in their review demonstrated a range of negative effects of academic-related stress which needs serious attention. Previous research indicates that academic-related stress can limit students' learning capacity, decrease academic performance, reduce motivation, increase the risk of school dropout, sleep quality and quantity, physical health, mental health, and substance use outcomes. The longer-term impacts, which include reduced likelihood of sustainable employment, may cost Governments billions of dollars each year (Pascoe et al., 2020). Ribeiro et al (2018) in their systematic review draw attention to the negative link between stress and Quality of Life in university students. The review reported that the experience of stress may lead to the deterioration of various aspects related to physical and mental health. Hence, boosting students' stress-management skills and abilities is a crucial point for change.

Regarding this situation, studies have demonstrated emotional intelligence (EI) as a protective factor against stress. Salovey and Mayer (1990) reported that emotional intelligence involves an “ability to monitor one’s own and others’ moods and emotions, to distinguish among them and to utilize this information to direct one’s thinking and actions.” According to Karaoglan, Yilmaz, and Erdogdu (2022), the development of emotional intelligence can reduce the individual level of perceived stress. Doyle et al (2021) claimed that higher levels of EI may potentially lead to increased well-being and limited psychological distress. Moreover, many studies have shown that EI is an effective stress management. For instance, Toriello et al. (2022) in their study indicated that a higher EI contributes to more effective stress management. Gupta et al (2014) found that first-year medical students reporting higher levels of EI were able to manage stress more effectively.

Several studies conducted investigating EI and stress have shown a significant association between these variables. For instance, a study by K k am et al (2022) found that students with a lower level of stress than the average reported higher levels of emotional intelligence (well-being, self-control, and emotionality) and resilience than others. Furthermore, the study stated that students with the highest level of stress reported lower levels of emotional intelligence (specific self-control) than others. Basheer et al (2022) in their analysis of 291 dental undergraduate students from six different colleges showed that students who were not able to regulate their own emotions were more likely to have a higher level of perceived stress. In addition, Basheer et al (2022) study found that there were significant differences in the perceived stress levels between males and females despite minor differences in emotional intelligence levels.

The purpose of this study was to examine the potential relationships between EI and stress in a sample of university students in Malaysia. We hypothesized that EI would serve as a protective factor in the existence of stress, such that higher levels of EI would inversely relate to lower levels of stress. The aim of the present study was to gain an understanding and evaluation of the role that emotional intelligence (EI) plays in the experience of perceived stress (PS). Also, the present study aims to examine the difference in mean EI and PS scores between male and female students.

## **Methodology**

### *Study design, sampling, and procedure*

We used a cross-sectional research design to recruit a convenience sample of students from three public university campuses, with a total respondent of 213 students. These students were invited to complete a voluntary and anonymous 38-item online questionnaire that included demographic items as well as validated and reliable scales measuring EI and perceived stress. All participants presented voluntary informed consent electronically prior to disclosing any information used for study purposes.

### *Survey Instrument*

The survey instrument’s first few questions assessed demographic factors such as gender, age, race, location, and income status. To measure perceived stress, the 10-item Perceived Stress Scale (PSS) was utilized. The 16-item Wong and Law Emotional Intelligence Scale (WLEIS) consist of the following dimensions namely self-emotions appraisal, regulation of emotions, use of emotion, and an others-emotional appraisal are used by the researchers to

measure EI. Reliability analysis was conducted to validate and operationalize the studied variables. The results of Cronbach's alpha for the PSS in the current study were 0.70 and 0.94 for the EI scale. Overall, the measurement that used in the current study has achieved adequate reliability as shown by the reliability test findings.

#### *Data Analyses*

All analyses were performed using IBM's Statistical Package for the Social Sciences (SPSS) version 25 (IBM Corp.). Univariate statistics were calculated to describe the respondent characteristics and the study variables of interest. To investigate the relationships between EI and stress variables, Pearson's product-moment correlations were calculated. Subsequently, independent-sample t-tests were used to determine the presence of a statistically significant difference between males and females in EI and stress scores. An alpha level of 0.05 was set a priori to indicate statistical significance.

### **Results**

#### *Characteristics of Respondents*

In the present study, a total of 213 responses were obtained and analyzed to reach the findings. Table 1 shows the demographic characteristics of the respondents. Among the 213 respondents, 65.3% were females, the high percentage was aged 19 years old (42.3%) and the majority were Malay (86.4%). Proportions of respondents from rural and urban living were 52.6% and 47.4%. In terms of the program of study, about 54.9% were enrolled in diploma study and 45.1% of the respondents were pursuing their degree study. Most (56.8%) of the respondents in the present study fall in the category of B40 families.

Table 1  
*Demographics Characteristics of the Respondents*

Characteristics	Category	Frequency	Percentage
Gender	Male	74	34.7
	Female	139	65.3
Age	18	1	0.5
	19	90	42.3
	20	21	9.9
	21	39	18.3
	22	46	21.6
	23	9	4.2
	24	2	0.9
	25	2	0.9
	31	1	0.5
	40	1	0.5
Location	50	1	0.5
	Rural	112	52.6
	Urban	101	47.4
Race	Malay	184	86.4
	Chinese	2	0.9
	Indian	2	0.9
	Others	25	11.7
Education	Diploma	117	54.9
	Degree	96	45.1
Income Status	B40	121	56.8
	M40	80	37.6
	T20	12	5.6

*Correlation between EI (SEA, RE, UE, and OEA) and Stress:*

Based on Table 2 below, it is shown that there was a significant negative correlation between Emotional Intelligence and Perceive Stress,  $r = -.148$ ,  $n = 213$ ,  $p < 0.05$ , with high levels of Emotional Intelligence associated with lower levels of perceived stress. Table 2 also showed that the Self-emotional appraisal (SEA) component and perceived stress have a significant value correlation coefficient which is  $-.169$ , the Use of Emotions (UE) and perceived stress

have a significant value of correlation coefficient which is  $-.259$ , and Other Emotions Appraisal (OEA) and perceived stress have a significant value of correlation coefficient which is  $-.140$ . However, there was no significant correlation between the Regulation of Emotions (RE) and stress,  $r = .101$

Table 2

*Correlations Between Measures of Emotional Intelligence components and Perceive Stress*

Scale	1	2	3	4	5	6
1.Total Emotional Intelligence (EI)	1	.854**	.734**	.856**	.864**	-
2.Self-Emotional Appraisal (SEA)	.148*	1				
3.Regulation of Emotions (RE)	.169*		.485**	.669**	.646**	-
4.Use of Emotions (UE)				.502**	.508**	
5.Other Emotions Appraisal (OEA)		.101				
6. Perceive Stress (PS)		.259**			.670**	-
						-.140*
						1

\*Significant at  $p < 0.05$

\*\*Significant at  $p < 0.01$

#### *Differences Between Mean Values for Gender in The Emotional Intelligence*

An independent-samples t-test was conducted to compare the Emotional Intelligence scores of males and females. There was no significant difference in scores for males ( $M=82.70$ ,  $SD=17.61$ ) and females ( $M=82.81$ ,  $SD=14.66$ );  $t(211) = -.045$ ,  $p=.96$ , two-tailed. Hence, the study concludes that there was not a statistically significant difference in the mean Emotional Intelligence scores for males and females.

#### *Differences Between Mean Values for Gender in The Perceived Stress*

In the present study, an independent-samples t-test was performed to compare the perceived stress scores for males and females. There was no significant difference in scores for males ( $M=19.96$ ,  $SD=4.20$ ) and females ( $M=20.67$ ,  $SD=4.31$ );  $t(211) = -1.154$ ,  $p=.25$ , two-tailed. Thus, the present study reported that there was not a statistically significant difference in the mean perceived stress scores for males and females.

#### **Discussion**

This study forms a conceptual framework based on the literature on emotional intelligence, and stress. Also, these findings indicate that the ability of students to apply emotional intelligence in dealing with their stress during this current situation of COVID-19 can drive

their emotional effectiveness. As a result, this condition can increase the development of their healthy life and psychological well-being to go about their daily lives. Furthermore, our results demonstrated that the level of stress was significantly lower among students who had higher EI scores. In parallel with the previous studies, the association between emotional intelligence and stress was found to be negative (Enns et al., 2018; Trigueros et al., 2020; Mérida-López & Extremera, 2021; Pandiyan et al., 2021). A significant negative correlation was found between EI and PS among the university students in the present study. This finding may be due to the emotionality factor used in this study which enables the students to recognize and express their own emotions, and it is possible for them to make the appropriate choices for their thinking and action. Students who were able to appraise and control their own emotions were more likely to have a lower level of perceived stress. Hence, this ability to express and be aware of one's own emotions will enable one to effectively cope with their stress level. As a result, if sufficient measures are developed to enhance EI among students, it will decrease stress levels and cultivate better coping among students, especially during this COVID-19 situation, as well as support them in their future daily life.

Our findings revealed that there was no gender difference was found in levels of stress among the university students, with female and male students' stress scores showing no significant mean differences. This indicates that the males and female students were not different in the way they perceive, worried about, and fear this COVID-19 situation. This finding is consistence with a study by Lawal et al (2022); Pandiyan et al (2021) which found similar results of no gender difference in the level of stress among students. However, this finding does not correspond with existing studies which found a gender difference in stress levels (Basheer et al., 2022; Saddki et al., 2017; Al-Sowygh, 2013). Nevertheless, the current finding can be attributed to the fact that both genders were facing a similar kind of COVID-19 context with similar COVID-19 standards of procedure and that most of the respondents were not well-educated, and well-informed on the challenges and difficulties related to the COVID-19 situation as well as ways to deal and cope with them. Although statistically insignificant, the female students demonstrated higher stress levels ( $M=20.67$ ,  $SD=4.31$ ), in comparison to male students ( $M=19.96$ ,  $SD=4.20$ ).

Our findings also demonstrated that there was no gender difference in overall EI scores, with female and male students' EI scores showing no significant mean differences. This finding is in line with the findings of Pandiyan et al (2021), which found no significant difference in overall EI scores between female and male students. Also, the obtained results are like the results obtained by other researchers (Chhabra & Dabwali, 2021; Kaur et al., 2022). These findings may indicate to us that both females and male students tend to give similar attention and concentration to activities that need to be done for them to come out of those emotions. Nevertheless, a study by Basheer et al (2022) found minor differences in the emotional intelligence levels of the respondents. In addition, other researchers such as Saddki et al (2017); Stankovska et al (2018); Beka (2022) found that female students have a higher level of emotional intelligence than male students. This may be due to the biological and psychological differences between males and females. In a nutshell, the effect of gender on EI has been widely debated in recent decades, with several studies supporting both sides (Ranasinghe et al., 2017).



## Conclusion

The present study aimed at exploring emotional intelligence and perceived stress level. From the findings of this study, it can be derived that the findings support the notion that higher levels of EI may potentially lead to lower levels of stress. Hence, the present findings suggest that universities may offer EI as among the effective tools and measurements in the selection of their potential students, and the respective management should offer a few measurements and interventions to enhance students' emotional intelligence in dealing with their level of stress and to control this growing problem.

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