Stress Level among UiTM Puncak Alam Students during the Movement Control Order

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Abstract
Stress is a common mental issue among students during the COVID-19 outbreak. This study aimed to determine and to compare the stress level among health sciences and non-health sciences students during the Movement Control Order. Cross-sectional study design was used, and the Perceived Stress Scale questionnaire was distributed for this study. The majority of 145 students (81.4%) had a moderate stress level, and there was no significant difference in the mean of the stress level between the health sciences and non-health sciences students(p>0.05). This research provides preliminary insight into the stress level among students and the need for further actions.

Keywords: Stress; students; movement control order

1.0 Introduction
Stress is the top three human quandaries after death and taxes. Stress is a usual event for people, no matter how rich people are (Muhammad et al., 2019). Stress is an example of mental health issues that commonly increased among undergraduate students.

Universities throughout the world frequently expect their undergraduate students to mature very fast, able to become critical thinkers and elites upon graduation. So, various courses and training activities are given to the students to shape them to become future workers that can meet the expectations, and requirements of their employers which cause students' time to be often occupied, and their hard work is regularly extended to their highest level (Bakar et al., 2017). Studying in tertiary institutions appears to be one of the stressful periods of life that would change the students. It could be seen when the students are revealed to numerous stressful events, for example, staying away from home, family, and studying (Muhammad et al., 2019). In short, stress looks to be very common in university students' life since they must ensure their academic endurance by preparing themselves for a future profession.

Previous studies showed that undergraduate health sciences and accounting students experience moderate to a high level of stress (Bakar et al., 2017; Muhammad et al., 2019; Nasir & Abdul Mulud 2020; Othman et al., 2013). Academic related issues are the major cause to undergraduate student's high-stress level such as assistance factor, overburden subjects and time management (Al-Rawashdeh et al., 2020; Bakar et al., 2017; Waghachavare et al., 2013). Undergraduate students also experience a great deal of stress due to a sudden change in the learning system during the 2020 Malaysia Movement Control Order (MCO) restraint caused by the COVID-19 outbreak (Abd Fatah & Vasudevan, 2020). MCO causes all schools, colleges and universities to close and all students unable to attend the class through the face-to-face session as usual. Alternatively, online learning has taken place as their learning methods.

Besides, the social isolation, assignments and cancellation of events that have been prepared by them contributed to stress among undergraduate students during the MCO (Abd Fatah & Vasudevan, 2020; Yusuf, 2020). Also, Li et al. (2020) found that during the outbreak, the side effects of mental distress and acute stress reactions are common among health professional students. Findings from earlier studies showed the stress level was higher among health sciences students as compared to the non-health sciences students (Al-Rawashdeh et al., 2020; Tavolacci et al., 2013 & Waghachavate et al., 2013). Hence, the purpose of this study is to determine and compare the stress level among the health sciences and non-health sciences students during the MCO. The findings from this study are hoped to create awareness among the university management, parents, and students themselves to search for ways to cope with stress among students efficiently.

2.0 Literature Review

2.1 Definition of stress
Meanings of stress deliver only a snapshot of a dynamic process. In the Encyclopedic Dictionary of Psychology, this dynamic process is well-defined as "how persons recognize and detect their problems, how they respond to them and try to handle with them, and the 'cost' of doing so" (Harre and Lamb, 1983).

Cohen et al. (2016) delivered a short history of three backgrounds in the study of stress: the epidemiological, psychological, and biological. The emphases of these three backgrounds have stated elements of a stage model of the disease. In this model, events appraised as stressful are regarded as initiating affecting conditions that stimulate behaviourally, and biological reactions to which would cause negative consequences. However, generally, scientists defined stress as an experience that happens when persons concurrently consider events as intimating or else destructive and their handling resources as insufficient (Cohen et al., 2016).

2.2 Stress and student's performance
A study by Yf and Yt, (2018) has demonstrated that a moderate level of stress can increase performance and add to optimistic moods, proving that the experience of stress does not always prompt undesirable consequences. Although an optimum level of stress can boost ability, an excessive amount of stress can cause physical and mental health problems, decline confidence, and tend to influence the academic accomplishments of the students (Aafreen et al., 2018).

An excessive amount of stress among students reduce the effectiveness of their study which adds to bad habits and results in negative long-term outcomes, including absenteeism, poor academic performance, school dropout, loss of memory, poor relationship with peers and relatives, and a large disappointment with life (Hakami, 2018; Aafreen et al., 2018; Abebe et al., 2018). A high occurrence of stress among health and medical students is a reason for worry as it might hinder the behaviour of students, decrease learning, and in the end influence the patient care after their graduation (Madebo et al., 2016).

2.3 Stress among undergraduate health sciences and non-health sciences students
Most of the previous studies stated that stress was high among science, medicines, and pharmacy students. Hakami (2018) expressed that mental distress was most high in students of Sciences 36% followed by students of business Administration 31.2%, Computer Sciences 30.7%, Pharmacy 29.2%, and Applied Medical Sciences 24.7% concerning the college type. Another study result also showed a high proportion of the stress of a greater degree among understudies of the College of Medicine and College of Pharmacy as compared to the College of Applied Sciences (Alqomaizi et al., 2018). Besides, a previous study showed that most of the final year Health Sciences (nursing) students in Malaysia have a moderate level of stress (Nasir and Abdul Mulud, 2020).

In general, most of the previous studies found that stress level among health sciences students was significantly higher compared with non-health health sciences students (Al-Rawashdeh et al., 2020; Tavolacci et al., 2013; Waghachavare et al., 2013). Aafreen et al. (2018) expressed that educationally science stream students face stress and pressure mainly due to a greater class workload and examinations which eventually would cause them to have less time to study and put sufficient effort into studies. On the other hand, the Business stream students would encounter pressure when it comes to examinations and the absence of a few classes.

2.4 Causes to high-stress level among undergraduate students
Academic, environmental, social, and health problems altogether have a significant influence on the progress of stress (Alqomaizi et al., 2018). Academic stressor appears to be the main stressor due to the quality of the educational process, the presence of study-related challenges, an overburden syllabus, and frequent examinations (Alqomaizi et al., 2018; Muhammad et al., 2019). As indicated by Essel & Owusu (2017), there are a few sources that can occur in the academic curriculum that causes such a great amount of stress to understudies through the increased class workload.

Regarding academic-related issues, most of the students noticed that choice selection, number of subjects, number of activities by the faculty, and irrelevant subjects are among the causes that add to their high-stress level. Similarly, meeting the closing date for submitting assignments and projects drove them to stress (Bakar et al., 2017). One more factor in the academic curriculum that causes stress among the understudies is the extra hours of study they need to allocate by sacrificing their private free time for their study (Essel & Owusu, 2017). This eventually results in the students not having the time for themselves. They would get bored and lose enthusiasm in studies and in the long run, this circumstance stresses them up making them lose focus on academic work (Essel & Owusu, 2017).

2.5 Stress among students during the Movement Control Order (MCO)

The coronavirus disease 2019 (COVID-19) pandemic is an ongoing global rating crisis which first reported in Wuhan, Hubei Province, China, in December 2019 and has affected people regardless of nationality, gender, age, income, and level of education (Zu et al., 2020). COVID-19 is a deadly infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Emerging from the exponential day-to-day elevated in the quantity of Covid-19 infected cases, Malaysian Prime Minister, Tan Sri Muhyiddin Yassin had declared a phase-to-phase restricted movement order for Malaysians, which required all public and private institutions of higher learning to suspend all classes and lectures for an initial period of fourteen days (Yusuf, 2020). As an alternative, these institutions were required to continue the classes and learning by utilizing whichever appropriate online platforms beginning in April 2020 (Yusuf, 2020).

As explained by Abdulghani et al. (2020) and Yusuf (2020), one of the difficulties of online distance learning is that the students become less attentive on learning online as the medium of learning has not been pleasing them when they leave learning tools such as books and laptops in their residential colleges. Besides, the students' internet access is less convenient to the degree that the lectures need to be prolonged from the real lecture period (Yusuf, 2020). Similar findings were also reported by Mahdy (2020), who added that the most widely recognized issue related to online learning was the deficiency of communication between understudies and lecturers.

Most of the studies about stress focused on law, medical, and psychology students. There was very little information on stress levels and the reasons for stress among accounting students (Bakar et al., 2017). It appears that there were also limited studies that compare the level of stress between different academic streams. Hence, it is crucial to implement this study to determine and compare the level of stress among health sciences and non-health sciences students during the current pandemic.

3.0 Methodology

3.1 Study design and setting

This study was conducted using a cross-sectional design. The research is intended to determine and compare the stress level among health sciences and non-health sciences students.

This research involved the final year undergraduate health sciences and non-health sciences full-time students Universiti Teknologi MARA (UiTM) Puncak Alam campus under the purposive sampling method. The participants were the final year undergraduate health sciences, Faculty of Health Sciences (Optometry, Nutrition and Dietetics, Occupational Therapy, Medical Laboratory Technology, Environmental Health and Safety, Medical Imaging, Physiotherapy, and Nursing programmes) while the non-health sciences students were among the accountancy students in UiTM Puncak Alam. The sample size was calculated by using the Raosoft sample size calculator. Total of 260 and 202 final year undergraduate students from non-health sciences and health sciences were selected as the subjects with a 95% confidence level, 5% error margin, and 50% response distribution. By considering the 5% dropout rate of the participants, the total number of participants recruited in this study is 462. This study was conducted in March and April 2020 during the MCO period. The data was collected through a questionnaire which is a self-administered questionnaire using Google form. Completed responses and consent were returned via form.

3.2 Instruments for data collection

The bilingual questionnaire consisted of two sections which were sections A and B. In Section A, the socio-demographic profiles of the participants were obtained including information about their programs, age, marital status, gender, and the semester of their study. Section B consisted of the Perceived Stress Scale (PSS). The stress level among health sciences and non-health sciences students in UiTM Puncak Alam campus were assessed by using Cohen's perceived stress scale (PSS-10). The questionnaire included 10 items using a 5-point Likert-type scale with response options of 0 (never) to 4 (very often). Responses were summed over the 10 items after reversing the scores on four positive items to produce a PSS-10 total score, which ranged from 0 to 40, with higher scores indicating higher perceived stress. The higher score on the Perceived Stress Scale was caused by a higher level of stress (Mustapha et al., 2014). A pilot study was conducted on ten undergraduates to determine the reliability of the tool. Cronbach's alpha coefficient for the questionnaire was 0.65.

Five points of the Likert Scale was used to measure the level of stress of the students. Scores 0-13 were considered low stress level (1 stage), scores 14-26 were considered moderate stress level (2 stage), and the scores ranging from 27-40 were considered high stress level (3 stage). Data entry and statistical analysis were carried out using Statistical Package for Social Sciences (SPSS) software Version 20.0 (SPSS Inc. Chicago, IL, USA). Descriptive analysis and inferential statistics of independent t-test were used to compare the level of stress among health sciences and non-health sciences students.

4.0 Findings

4.1 Demographic data

A total of 462 students were proposed to participate in this study, but only 145 students completed the questionnaire which gives a response rate of 32%. Of the 145 students who participated in this study, 131 (90.3%) are female, and 14 (9.7%) are male. Regarding the faculty, 88 (60.7%) are health sciences, and 57 (39.3%) are non-health sciences students. The majority of the participants of this study are the students in semester 8. All the students are single (99.3%) except for only one student (0.7%) who is married. Most

students (97.2%) are in the age group of 20 until 25 years old. The socio-demographic characteristics of the students are summarized in Table 1.

Table 1. Socio-demographic of the students

Variables		Frequency (N)	Percentage (%)
Gender			
	Male	14	9.70
	Female	131	90.3
Age			
	20-25 years old	141	97.20
	More than 25 years old	4	2.80
Marital Status			
	Single	144	99.30
	Married	1	0.70
Faculty			
	Health Sciences	88	60.70
	Non-Health Sciences	57	39.30
Programme			
	Optometry	35	24.10
	Nutrition & Dietetics	5	3.40
	Occupational Therapy	10	6.90
	Medical Laboratory Technology	7	4.80
	Environmental Health & Safety	4	2.80
	Medical Imaging	15	10.30
	Physiotherapy	2	1.40
	Nursing	10	6.80
	Accountancy	57	39.30
Semester			
	7	31	21.40
	8	114	78.60

4.2 Level of stress among health sciences and non-health sciences students

From 145 students, 14 (9.7%) have a low level of stress (score 0-13 = 1 stage), 118 (81.4%) have a moderate level of stress (score 14-26 = 2 stage) and 13 (9.0%) have a high level of stress (score 27-40 = 3 stage). Figure 1 shows the level of stress among all the participants.
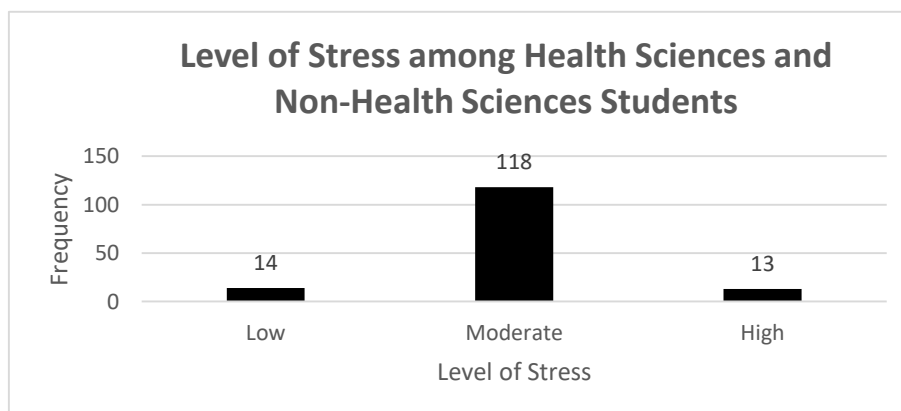

Fig. 1: Level of stress among the participants

Figure 2 shows the level of stress among the health sciences students. 76% of the health sciences students have a moderate level of stress, while 13% and 11% of them have respectively a high and low level of stress.
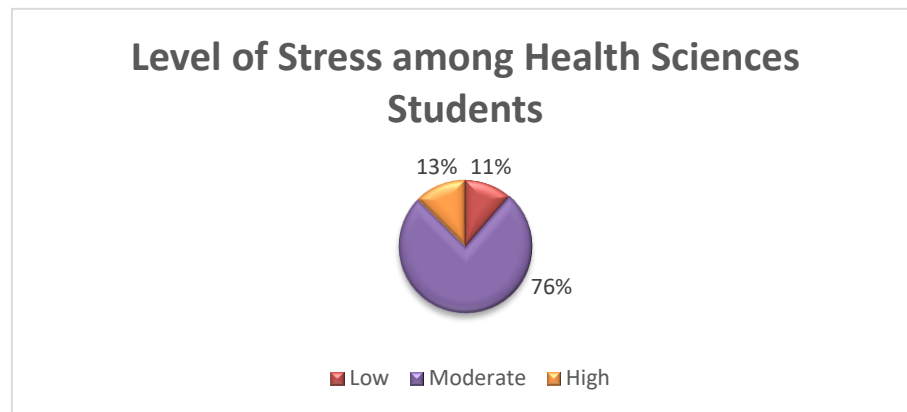

Fig. 2: Level of stress among the health sciences students

Figure 3 shows the level of stress among the non-health sciences students. The majority of the students (89%) have a moderate level of stress. Meanwhile, 7% and 4% of the non-health sciences students have a low and high level of stress, respectively.
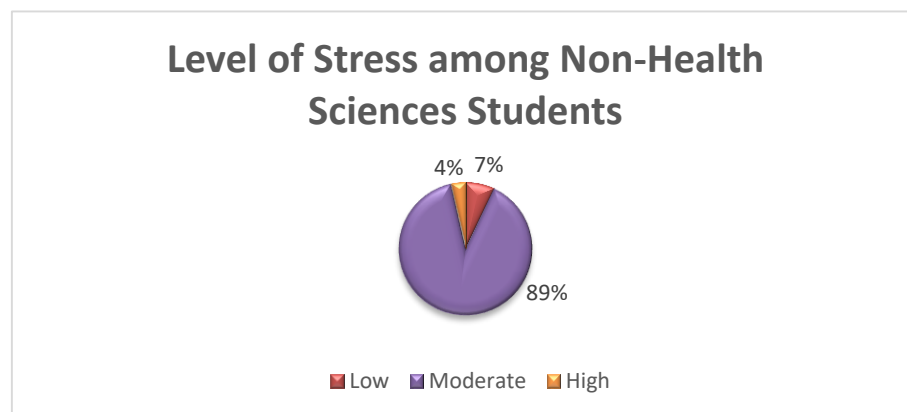

Fig. 3: Level of stress among the non-health sciences students

In Table 2, the result of an independent t-test shows the level of stress between health sciences (M = 2.01, SD = 0.49) and non-health sciences students (M = 1.96, SD = 0.33) having statistically no significant different ($p > 0.05$).

Table 2. Independent t-test differential analysis in the level of stress between health sciences and non-health sciences students

Variables	Faculty	Mean	SD	t	p-value
Level of stress (Stage)	Health Sciences	2.01	0.49		
	Non-Health Sciences	1.96	0.33	0.63	0.53

5.0 Discussion

The study revealed that the majority of the health sciences and non-health sciences students in UiTM Puncak Alam had a moderate level of stress. The result of the current study was corresponding to the previous studies which discovered that the majority of the undergraduate students in Malaysia fell under a moderate level of stress (Nasir & Abdul Mulud, 2020; Ramachandiran & Dhanapal, 2018). The most stressors contributed to a moderate and high level of stress among health sciences students were the academic, teaching and learning while the major stress experienced by them was contributed by the academic requirements (Othman et al., 2013). The academic-related issues like overload assignments and projects, last-minute study, and the number of subjects taken per semester as well as the non-academic related issues (environment, political, economic or future related issues) are the reasons to the high-stress level among the undergraduate accounting students in Malaysia (Bakar et al., 2017). Undergraduate students struggle to pass their

exams and become graduate students. It is therefore not surprising, that majority of undergraduate students had a moderate level of stress and the academic-related stress is the major source of stress among them (Bakar et al., 2017; Muhammad et al., 2019 & Othman et al., 2013).

In spite of the fact that most students enjoyed the distance learning, and would like to have a blended learning system, it was exposed that the pandemic has had a psychologic adverse effect on their learning as a lot of them are not used to efficiently learning without anyone else, staying constantly at home due to the curfew, as they were used to study in the class with their friends (Almuraqab, 2020). Students considered online learning during the MCO as a burden (Abdulghani et al., 2020). Online learning and teaching that time-consuming could increase the stress level among the teachers and students due to the sudden shift of the learning system during the MCO climate in Malaysia (Abd Fatah & Vasudevan, 2020). Mahdy (2020) also stated that the leading challenge online education face in veterinary medical science is to provide practical classes. The transition from pre-clinical to clinical year (final year undergraduate students) leading to significant exchange in terms of students learning requirements and teaching methods (Abdulghani et al., 2020). As the majority of the subjects are hands-on, it is difficult to learn it online. Students feel that it is difficult to accomplish the tasks or assignments merely through the online education framework due to the limited access to the internet and the lack of technical technological devices (Almuraqab, 2020; Mahdy, 2020). Loneliness and the lack of activities during MCO in Malaysia is likely to increase the level of stress among students (Abd Fatah & Vasudevan, 2020).

However, this study found that the mean stress level has no statistically significant difference between health sciences and non-health sciences students of UiTM Puncak Alam, $p>0.05$. The current study finding was inconsistent with a study that was done among the undergraduate students in South of Jordan that showed significant differences in the mean stress level between the programmes (nursing and health sciences, science, engineering, education, information technology, business administration and economics, and law), $p>0.05$ (Al-Rawashdeh et al., 2020). The new programme established in university, awareness of difficulty, and fulfilment of the programme might affect the level of stress among non-health sciences students (Al-Rawashdeh et al., 2020). However, another previous study which stated that higher stress was seen in health sciences students when contrasted with the non-health sciences students such as engineering and applied science students (Alqomaizi et al., 2018 & Waghachavare et al., 2013). It might be due to the academic requirements and clinical placement among final year undergraduate health sciences students, leading to exchange of students learning needs and teaching methods (Abdulghani et al., 2020; Nasir & Abdul Mulud, 2020 & Othman et al., 2013).

This study had some limitations. One of the limitations was that this study had a lower response rate. Thus, future research may be directed to reproduce a study using higher response rate to enhance the external validity of the present findings. Furthermore, this study was limited to quantitatively describe the existing stress condition of the students without establishing a causal relationship between variables such as the factors of stress and the effect of the stress on the students. Future research should include study on the stressors or factors that lead to undergraduate students feeling stressed during the MCO which subsequently affect their life.

6.0 Conclusion& Recommendations

This study determines and compares the stress level among the health sciences and non-health sciences students during the MCO. A quantitative approach in the form of the online survey using PSS-10 scores was conducted among students. Both undergraduate health sciences and non-health sciences students in UiTM Puncak Alam experienced a moderate level of stress during MCO; however, there were no significant differences in their mean stress level. If stress persists, it may negatively affect students' education performance and health. Further study, with a triangulation methodology, should be conducted to identify the stressor, strategies to cope, and the effectiveness of stress reduction strategies among undergraduate students.

This gave useful information to the university management about the identification of people who are more susceptible to stress, so, they could create an environment and implement several activities such as a stress intervention, online stress management, and the awareness campaign programs to prevent the increased stress among the students. Besides, this study suggests that undergraduate students need to be more active in physical activity lifestyle and taking healthy diet, especially during the pandemic to reduce the stress level. Besides, students should enjoy using online learning and gain to build support in their relationship with friends and family members, to prevent from getting any mental health issues such as depression and anxiety. Undergraduate students are the future of the country as they become better professionals, hence finding ways to care for their mental health is important.

Acknowledgements

Paper Contribution to Related Field of Study

This paper contributes to the field of education and learning environment. This study sheds some light to the university and students on the student's stress level and subsequently, provides some strategies to help the students in reducing their stress level and improving their performances.

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