The Stress Level Due to the Impact of Covid-19 Pandemic amongst Secondary School Students during Online Teaching and Learning in Gombak District: Causes and Solutions

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ABSTRACT:

The spread of COVID-19 that happened gave some impacts to many parties, especially amongst students, who had to alternate their face-to-face teaching and learning to online learning. The objectives of the study are to identifying the stress level amongst students who attended online learning, identifying the causes of stress amongst students who attended online teaching and learning and elucidating suitable approaches to overcome stress problems amongst students who attended online teaching and learning. This quantitative survey gathered data based on the distributed questionnaire forms. The population of this study consisted of students from level one, two and four in every secondary school under Gombak DEO, with the total of 17 secondary schools. The average number of students were within 24 to 25 for every school whom were randomly selected with the total number of 410 population of students. The instrument used in this study is questionnaire. In general, the questionnaire consisted of several parts such as: A) Sample background information, B) Level of Stress and Sources of Stress, and C) Solutions to Deal with Stress. From a comparative point of view, the results for Part B showed that the level of academic stress recorded a high average mean of 3.39. However, things are different for the level of stress in terms of Personal which recorded a moderate average mean amount of 3.03. As for Section C, the causes of stress in terms of Academics and the causes of stress in terms of Personal have recorded a low average mean of 2.19 and 1.98. a different thing was recorded for Part D when solving the Stress problem recorded a high average mean of 4.14. The results of the study showed that Covid-19 pandemic had an impact on students who attended online teaching and learning sessions.

1. Introduction

The spread of COVID-19 that happened at the end of December 2019 at Wuhan City, China has resulted in a global threat (Chakraborty, I & Maity, P, 2020). The consequences of this disease have affected many parties especially students who had to alternate their face-to-face teaching and learning to online learning. The online learning medium has been widely introduced to ensure the continuity of existing learning sessions. Although this medium is common for some streams of education in developed countries, there are certain streams that are not familiar with online medium, hence, the issues to deal with the usage of existing technology. The spread of this disease has caused pressure, stress amongst the society who must encounter with fear and future bad impacts (Wang, Chen, Peter W. Horby, Frederick G. Hayden, and George F. Gao, 2020). Moreover, in the students'

context, the pressure experienced will cause stress on students since they usually are alonewithout any guidance when facing learning pressure in educational institutions (Thomas, E., 2020). Compared to face-to-face classes where lecturers and students were physically in a classroom, the online classes were conducted using the latest technology to conduct lessons and communication between students and lecturers whenever they are. The teaching and learning were conducted through variety of applications which are accessible online to facilitate the communication between students and lecturers. Most of the institutionals' learning materials are available online. Hence, all students managed to access the references needed for learning inside or outside the classroom. Because of the Covid-19 pandemic, students had to resume their learning online. The long-term effects of this situation were students lost resources to depend on, lack of love and attention from

parents and social support causing them to unable to resolve their problems due to Covid-19.

Hence, the stress experienced by students lead them to stress problems which caused them to unable to concentrate on their studies. Stress is burden, conflict, fatigue, tension, panic, nervousness, depression and powerlessness (Mohd. Fadhilah Kamsah & Muhammad Zakaria, 2007). According to H. Seyle (1956), stress is the body's physiological response that produces symptoms, responses in the form of anxiety, challenges and threats. Stress does not necessarily involve negative symptoms. If someone managed to successfully overcome their stress, they will be successful in the future. However, if they could not manage their stress well, it will cause interference to the students other than leaving an impact on their learning and behaviours. There are three concepts which are widely used to apprehend this study. The concepts are stress, stress factors, and stress management. According to Mohd Taib Dora & Hamdan Abd Kadir (2006), stress is emotional illness which is inseparable from our daily life. Problems with colleagues, workloads and unconducive working environment which is troublesome and sometimes causes depression. Stress is also the source to all mental health problems. Moderate stress gives positive impact as it assists the body and mind to work better. Yet, extreme stress will cause negative impact to someone's health and achievement in any field they ventured into (Abdul Rahman Yaacob, Ros Aini Ibrahim, Majdi Abdul Hadi Ishak & Rashdan Rashid, 2011). As an example, a student's academic achievement will be affected if he or she did not manage to handle stress well. Similar situation will happen to a worker who feels stressful with his or her job will fail to show good performance or good results in the job. Positive stress happens when someone receives pressure for example, students who will face the exam on the next day, then they will prepare and try to overcome the situation with great effort. Instead of the negative stress which causes someone to discontinue his or her effort to combat the pressure due to the symptoms of resistance caused by constant pressure. Therefore, such stress should be curbed if it exceeded someone's capability to face it (Hatta Sidi, 2012). According to Lahey, B.B. (2001), there are a few main factors that causing stress which are disappointments, conflicts, stress and life events. Selye's Stress Factors (1976) explains that stress factors can be attributed from internal and external factors built from excessive demand. The symptom of stress is also obvious not only on the physical but also through the emotions. Stress Management, according to (Hatta Sidi & Mohammed Hatta Shaharom (2002), is considering the individual aspect, ability to manage oneself, family and society.

According to Richard, P. (2002), an effective stress management involved the process of understanding stress, sources, causes, symptoms and impacts. Stress management can also be conducted by creating the working environment in terms of identifying the organisatioanl aspects and workspace. The effort to identify the interaction between life at work and outside of working hours, understanding stress and its causes are the subsequent steps in managing stress.

Problem statement
Stress is a non-specific body reaction or response to a request or desire or a non-specific response by any part of the body to the existence of an urge. This situation can further cause some changes in behaviours and body such as physical pain, emotional and psychological disorders besides the deterioration of a person's performance due to doing something out of their habit. The stress study in learning environment conducted by Deckro G.R., et al. (2002), showed that stress affects academic achievement, frustration, physical health and suicidal ideation. The negative effects of stress will prevent students from achieving their desired goals, especially weak students when they experience stress. This group of weak students tend to choose improper activities and usually will fail compared to other students (Brewster, L.R., 2001). Next, the reason why the researchers chose to select schools under Gombak District Education Office (DEO) were due to the statistics where Gombak district has the most Covid-19 patients in Selangor, based on the report made by the Ministry of Health on 11 July 2021. Gombak district were at the fifth rank with the highest number of Covid-19 patients out of nine districts in Selangor. Based on records, Gombak DEO regulates 30 seondary schools. This situation gives pressure to students as they had to stay at home and could not move freely to avoid Covid-19 and only stayed indoors and learning online and only moved in limited areas. Online learning refers to activities that involved lecturers and students to utilise any online platform to conduct teaching and learning (Awang, Hapini, Sheik Osman Wan Rozaini, and Mat Aji Zahurin, 2019). The online teaching and learning activities required lecturers and students to communicate via electronic system such as internet, television, radio and others. Lecturers can conduct teaching activities synchronously or asynchronously. Eventhough, some lecturers and students had initial experiences using all the online learning applications, there are still challenges to implement online learning (Kanuka, Heather, and Terry Anderson., 2007). The study conducted by Jung Insung, Masayuki Kudo, dan Sook Kyoung Choi (2012), explained that students who went through online learning experienced issues related to psychological aspects such

as anxiety and depression. This happened because students had strong desires towards learning, but the hindrances occurred during the online learning such as poor internet connection, problems with the devices used or the allocated learning time hindered their learning process. This situation causing stress within themselves. Hence, in this study, the researchers are studying students' stress level, the causes of stress during online learning and the suitable approaches to solve stress problems amongst students to ensure their readiness to resume their teaching and learning.

Research questions

The research questions are divided into three questions, which are:
i.   What are the stress levels amongst students who attended online teaching and learning under the observation of Gombak DEO?
ii.   What are the causes of stress amongst students who attended online teaching and learning under the observation of Gombak DEO?
iii. What are the suitable approaches to overcome stress amongst students who attended online teaching and learning under the observation of Gombak DEO?

Research objectives

i.   Identifying the stress level amongst students who attended online teaching and learning under the observation of Gombak DEO?
ii.   Identifying the sources of stress amongst students who attended online teaching and learning under the observation of Gombak DEO?
iii. Explaining the suitable approaches to overcome stress problems amongst students who attended online teaching and learning under the observation of Gombak DEO?

2.   Literature Review

There are considerable previous studies related to stress problems amongst students except for studies that discovering the impact of stress amongst secondary school students due to the Covid-19 pandemic on online teaching and learning. If there is any, it is only related to the stress amongst students but not directly related to the pandemic. There are several factors that stimulates stress amongst students at educational institutions. Studies showed that the workloads caused stress to students who involved in online learning as there were excessive workloads for each subject that overburdened the students and denied their rights to enjoy their youth. Excessive assignments given made the students stress when they did not have ample time to study. Besides, the study conducted by (Arwansyah Kirin, Ahmad

Sharifuddin, Mohd Hisyam Abdul Rahim, Shakila Ahmad, Sharifah Khadijah & Abdullah Sulaiman, 2021) showed that there are multiple learning styles hence the communication between students and teachers are really needed. What is the importance of communication? Only through communication between students and lecturers will inform the effectiveness of the lessons. According to the studies, the main weakness of the online learning was the lack of interaction between students and lecturers as it was difficult for the studnets to socialise amongst themselves. Most of the time, academic sress was rooted from the home environment and the family's acceptance towards the process of adapting online learning at home. Naturally in school, the physical space of the learning environment in school was more emphasized compared to home environment where students should be more independent and highly dependent on students' discipline to attend online class. However, there were some students who stayed in a noisy and cramped house. The family's acceptance of students who used to be 'absent' at home, are now seen to be 'stuck' in the room causing conflict between parents and students. Furthermore, some students had to miss online classes in order to ease the burden of the parents at home. This situation caused stress amongst the students during the Covid-19 pandemic. The study conducted by Manzoor, A (2020), explained the impacts of Covid-19 pandemic especially to students is the transition from face-to-face to online classes, the absence of resources to organise equipment online as the study showed that 50% of them are those coming from middle- and low-income families and their abilities to provide gadjets to their children were limited, especially families with several children. They were also unprepared to bear pressure or stress due to the impact of the pandemic for a long-term period and it impacted their families when they could not work or earn a living for the family. The lack of attentiveness causing certain parents to refuse allowing time and limit the responsibility to the children who stayed at home. Consequently, the students could not focus on their studies when they were torn between the responsible as a child and a student. Another study was related to the situation of the pandemic which showed that the pressure experienced by individuals causing them various symptoms of psychological disorders such as stress due to pressure to unable to participate in online learning. This was because of the issue with poor internet coverage in rural areas in Sabah and Sarawak that gave excessive pressure to the limited human resources which created a big obstacle to the students (Mohd Fairuz Jafar, Zetty Akmar Amran, Mohd Faiz Mohd Yaakob, Mat Rahimi Yusof & Hapini Awang, 2020; Pettinger, 2002).

The current pandemic gives more impact to the families and students when majority of the parents have financial issues as they are unable to resume with their main job due to the closure of the companies and other reasons. This situation causes certain students to find alternative ways to support their families which eventually increasing pressure in their learning aspcets. According to external studies by Nicholas Grubi, Shaylea Badovinac & Amer M Johri (2020), this pandemic greatly affects self-motivation which then leads to pressure towards teaching and learning amongst students. The pressure they experienced was due to the anxiety of dropping out from learning, the pressure of family poverty which brings to a lack of accessibility to internet facilities related to their learning that must be carried out online extensively. Besides, other interferences such as severe fatigue, fear and anxiety causing the students to be unable to go through an ideal life besides causing bad effects to the students and experiencing unmanageable stress (Nina Kadidiatou Fofana, Faiza Latif, Summaira Sarfraz Bilal, Muhammad Farhan Bashir & Bushra Komal, 2020), adverse effects on students' mental health that ultimately led to increased anxiety, depression and other related mental health disorders. The heighten of fear and uncertainty due to COVID-19 crisis is based on the transactional theory of stress by Richard S. Lazarus & Susan Folkman (1984). According to this theory, stress is the result of transactions between people and the environment which is aligned with Transactional Theory. The stress, according to Baidari, N.H. & Hassan, Z (2014) is the relationship between the perception of demand by the current situation and a person's ability to respond. An individual will experience pressure when combatting a situation that disturbs his or her thought or activities. In this matter, pressure refers to an individual's psychological disorder fostered by the emerging problems (Yaacob, A.R., Ibrahim, R.A., Ishak, A.H. & Rashid, R., 2013) or due to the intense problems from the surroundings (Hamizatun Akmal Md Yusof & Norzainii Azman, 2013). Thawabieh, A.M. & Qaisy, L.M. (2012) explains that students experienced academic pressure due to examination, assignments and other possible schooling needs that migh exceed their capability. Previous studies related to stress amongst students shows that it associates with learning. For example, stress amongst students because of the pressure faced by students to compete to accomplish certain academic achievement or fulfilling the required assignments, internet coverage problem and issues with lack of gadgets to further their online learning.

Impact

i. Society

Providing information related to the impact of the pandemic to the society other than the students and the plausible approaches that can be utilised to mitigate the problem mostly amongst students who are the succeeding generation of the country, as we do not wish to see them to be constrained with the problems related to Covid-19 pandemic which will give negative impacts to them. This problem may provide awareness to the society in supporting students by providing gadget facilities or internet facilities to assist them to be more competitive. Parents who are also affected can seek assistance from the school authorities or community leaders to overcome the issues associated with their children's online learning. Assisted with cooperation and intellectual in solving stress problem, the impact on online learning will be successfully resolved when Malaysian society is concerned and care to solve it. As we are unaware that this pandemic may destroy and disrupt our society. This development is paralled with the changes happened in the workplace suh as the technology, social, economy, labour laws and others. This is due to its invaluable contributions in producing more productive and competitive human resources.

ii. Economy

The impact of Covid-19 pandemic has affected the country's economy and at the same time has indirectly affected the income of certain students' main household providers which caused them to get sidetracked in their studies as usual. This situation has initiated awareness amongst the society from different socio-economic classes to cooperate in helping families and students to prepare the aids that migh ease their hardships such as learning gadgets for free, or loan completed with internet connection that can ease their stress. Other than that, economic aid can be implemented to their family such as providing jobs or living allowances during the pandemic. Indirectly, students will be more appreciative towards the reliefs and giving them inspiration besides helping the government to get rid of the pandemic. This anticipation has indirectly revealed the efforts made by the government in helping those affected with the similar role played by the society to help the students to continue their studies with more focus and assisted. Subsequently, it strengthens the country's economy.

iii. Country

Assisting the country to mitigate the stress problem amongst students with the cooperation from all parties. Subsequently, this issue is one of the government's priorities in helping those affected by the pandemic. This development is aligned with the changes that occur in

work environment such as technology, social, economy, labour laws and others. Studies related to stress at the workplace should be executed owing to the invaluable contributions in producing more productive and competitive human resources.

3. Methodology

i. Research Design, Population and Sample

This research is a quantitative study which collected data based on the distributed questionnaire responded by the research participants. All the data collected was analysed using, Statistical Package for Social Sciences for Windows Version 22 (SPSS) software using descriptive and inference such as mean score, percentage and mean. The population of the study consisted of students from level one, two and four from every secondary school under Gombak DEO, with the total of 17 secondary schools. In average, there were around 24 until 25 students for each group randomly selected with the total number of 410 students for the population. Based on Mokhtar Ismail's (2011) opinion, there is no specific

concept to determine the minimum sample size in social studies. Similar opinion is also highlighted by Bailey who stated that the actual sample size is influenced by the condition of the population and research needs.

ii. Research Instrument

The instrument used in this study is questionnaire. In general, the questionnaire consisted of several parts such as: A) Sample background information, B) Level of Stress and Sources of Stress, and C) Solutions to Deal with Stress. The research instrument for this study is using a set of questionnaire which was adapted and modified from previous research such as Ummi Kalsom Zakaria (2014), and then the questionnaire was distributed to all respondents to be answered. Prior the distribution, the questionnaire was validated by two field experts who validated the content and the technicality of the questionnaire. All items in the questionnaire required the respondents to respond to the given statement based on the likert scale which consisted of scale 1 = strongly disagree until scale 5 = strongly agree

Data analysis

i. Part A: Respondents' demographic data

Table 1 shows the students' data analysis according to their level.

Level	Frequency (n=410)	Percentage (%)
One	136	33.2
Two	138	33.7
Four	136	33.2
Total	**410**	**100**

Field study sources, 2023

According to the level, there are 136 students (33.2%) from Level One, 138 students (33.7%) from Level Two and 136 students from Level Four. This shows that students from Level Two from the overall numbers of students in National Secondary Schools under Gombak District Education Office (DEO) responded to the questionnaire.

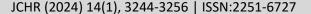Table 2 shows the data analysis on students' gender

Gender	Frequency (n =410)	Percentage (%)
Male	174	42.4
Female	236	57.6
Total	**410**	**100**

Table 2 shows the frequency and percentage of students based on gender. There were 174 male students (42.4%) while 236 were female students (57.6%). This demonstrates that there were more female students responded to the questionnaire compared to male students.

Table 3 shows students' data analysis based on race.

Race	Frequency (n=410)	Percentage (%)
Malay	230	56.1
Chinese	69	16.8
Indian	80	19.5

Others	31	7.6
Total	**410**	**100**

Table 3 displays the students' frequency and percentage based on race. The participants of the study were 230 Malay students (56.1%), 69 Chinese students (16.8%) another 80 students (19.5%) were Indians, while another 31 students (7.6%) were from other races. This shows that majority of students who participated in the study were Malay students.

ii. Part B: Students' Stress Level
This part discusses the findings of the first research objective for the stress level which were divided into two categories, which were stress level in terms of academic and stress level in terms of personal amongst students in National Secondary Schools in Gombak District. There were 10 items in each category for this part. Every item was evaluated using the Likert Scale; scale 1 (Strongly disagree), scale 2 (Disagree), scale 3 (Unsure), scale 4 (Agree) and scale 5 (Strongly agree). The data analysis for this study were conducted based on the mean score taken from the scale of the questionnaire. The score indication mean average index developed by Uma (2018) was used. The score range consisted of five score levels which are the lowest level means core (1.00-1.80), low level mean score (1.81-2.60), average mean score (2.61-3.20), high mean score (3.21-4.20) and the highest mean score (4.21-5.00). The findings for this part is displayed in the following table:

Mean Score	Level
1.00 - 1.80	Very low
1.81 - 2.60	Low
2.61 - 3.20	Average
3.21 - 4.20	High
4.21 - 5.00	Very high

Level of Stress in terms of Academic

Item	Frequency scale and Percentage (%)					Mean
	1	2	3	4	5	
1. Total hours of daily teaching that exceeds 5 hours.	21 (5.1)	40 (9.8)	82 (20.0)	175 (42.7)	92 (22.4)	3.68
2. The time given to complete homework is limited.	15 (3.7)	64 (15.6)	61 (14.9)	192 (46.8)	78 (19.0)	3.62
4. The homework given is excessive and troublesome to the students.	13 (3.2)	77 (18.8)	69 (16.8)	167 (40.7)	84 (20.5)	3.57
5. The teachers' teaching approach is incomprehensible.	23 (5.6)	81 (19.8)	83 (20.2)	160 (39.0)	63 (15.4)	3.39
6. The time for the students to do lesson revision is insufficient.	26 (6.3)	79 (19.3)	88 (21.5)	166 (40.5)	51 (12.4)	3.33
7. Completing assignments and revisions at the last minute.	35 (8.5)	63 (15.4)	75 (18.3)	176 (42.9)	61 (14.9)	3.40
7. The final exam schedule is too packed.	14 (3.4)	85 (20.7)	103 (25.1)	155 (37.8)	53 (12.9)	3.36
8. The teaching approach used by the teacher is incomprehensible.	28 (6.8)	106 (25.9)	76 (18.5)	142 (34.6)	58 (14.1)	3.23
9. The internet connection is too slow.	37 (9.0)	98 (23.9)	76 (18.5)	138 (33.7)	61 (14.9)	3.21
9. No discussion amongst classmates to solve homework problems.	50 (12.2)	94 (22.9)	78 (19.0)	142 (34.6)	46 (11.2)	3.10
Average mean						**3.39**

Based on the table above, the overall mean score for the level of stress in terms of academic amongst secondary school students in Gombak district was 3.39 which falls under high level. The analysis results showed that 175

students (42.7%) chose to agree for item 1 and 21 students (5.1%) chose to strongly disagree for item 1 with the mean score of 3.68. For item 2, 192 students (46.8%) chose to agree, and 15 (3.7%) students chose to strongly disagree with the mean score of 3.62. For item 3, 167 students (40.7%) chose to agree while 13 students (3.2%) chose to strongly disagree with the mean score of 3.57. For item 4, 160 students (39.0%) chose to agree while 23 students (5.6%) chose to strongly disagree with the mean score of 3.39. Item 5, 166 students (40.5%) chose an agree scale, while 26 students (6.3%) chose very disagree with a mean score of 3.33. Item 6, 176 students (42.9%) agree while 35 students (8.5%) strongly disagree with the mean value of 3.40. For item 7, 155

students (37.8%) voted in favour while 14 students chose very disagree with a mean value of 3.36. For item 8, 142 students (34.6%) agree, while 28 students (6.8%) strongly disagree with the mean value of 3.23. For item 9, 138 students (33.7%) agree and 37 students (9.0%) strongly disagree, mean value of 3.21. Lastly, for item 10, 142 students (34.6%) agree and 50 students (12.2%) strongly disgree, mean value of 3.10.

Through this analysis it can be concluded that the students' stress level in terms of academics is related to item 1 (Total daily hours of study that exceeds 5 hours) resulting in agreeing the main cause of their stress with a mean scale of 3.68 which is considered high.

Personal Stress Level

Items	Frequency and Percent (%)					Mean
	1	2	3	4	5	
1. No family support.	102 (24.9)	87 (21.2)	37 (9.0)	101 (24.6)	83 (20.2)	2.94
2. There are problems with siblings and family.	91 (22.2)	79 (19.3)	36 (8.8)	121 (29.5)	83 (20.2)	3.06
3. Uncomfortable home environment.	95 (23.2)	102 (24.9)	35 (8.5)	102 (24.9)	76 (18.5)	2.91
4. Family financial factors due to MCO affect students.	74 (18.0)	83 (20.2)	60 (14.6)	125 (30.5)	68 (16.6)	3.07
5. Not having a computer/not enough and sharing it with other siblings.	98 (23.9)	83 (20.2)	35 (8.5)	131 (32.0)	63 (15.4)	2.94
6. Cannot go out for social activities.	58 (14.1)	79 (19.3)	73 (17.8)	122 (29.8)	78 (19.0)	3.20
7. Parents face chronic disease problems and need attention.	128 (31.2)	72 (17.6)	69 (16.8)	86 (21.0)	55 (13.4)	2.68
8. Need to help the family to get financial resources.	57 (13.9)	46 (11.2)	76 (18.5)	161 (39.3)	70 (17.1)	3.34
9. No self-motivation for online lessons.	53 (12.9)	65 (15.9)	73 (17.8)	137 (33.4)	82 (20.0)	3.32
10. There is a conflict with the teacher.	108 (26.3)	70 (17.1)	73 (17.8)	104 (25.4)	55 (13.4)	2.82
Mean Average Score						**3.03**

Based on the table above, the overall mean score for personal stress level among Gombak district high school students is 3.03, a moderate level. The results of the analysis found that 102 students (24.9%) strongly disagree with item 1 and 37 students (9.0%) are unsure with item 1, a mean score of 2.94. For item 2, 121 students (29.5%) agree and 36 students (8.8%) are unsure with a mean score of 3.06. In addition, for item 3, 102 students (24.9%) agree and disagree while 35 students (8.5%) are unsure with a mean value of 2.90. For item 4, 125 students (30.5%) agree while 60 students (14.6%) are unsure with a mean value of 3.07. Item 5 of 131 students (32.0%) agree, while 35 students (8.5%) are

unsure with a mean score of 2.95. Item 6, 122 students (29.8%) agree while 58 students (14.1%) strongly disagree with the mean value of 3.20. Item 7 of 128 students (31.2%) strongly disagree while 55 students (13.4%) agree with the mean value of 2.68. For item 8, 161 students (39.3%) agree, while 46 students (6.8%) disagree with a mean value of 3.34. For item 9, 137 students (33.4%) chose to agree and 53 students (12.9%) chose strongly disagree with the mean value of 3.32. Lastly for item 10 of 108 students (26.3%) strongly disagree and 55 students (13.4%) chose strongly agree with the mean value of 2.82.

Through this analysis, it can be concluded that the students' personal stress level is related to item 8 (want to help the family get financial resources) with the highest mean value of 3.34 compared to other items. The impact of the Covid-19 pandemic has left students more likely to spend extra money to help their families.

iii. Part C: Causes of Student Stress

This section discusses the findings of the second objective study for the causes of stress which is divided into two categories, namely the causes of academic stress and the causes of personal stress among students of Sekolah Menengah Daerah Gombak. Each category has 10 items in this section. Each item is evaluated on three scales such as scale 1 (Low), scale 2 (Medium) and scale 3 (High). The analysis of the data for this study was conducted based on the mean score based on the questionnaire. The mean average index score indicator built by Uma (2018) is used. The score range consists of five score levels i.e. at very low mean score (1.00-1.80), low level mean score (1.81-2.60), medium mean score (2.61-3.20), high mean score (3.21-4.20) and very high level mean score (4.21-5.00). The findings for this section are shown in the following table.
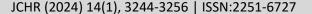
Causes of Stress from Academic Aspects

Items	Frequency and Percent (%)			Mean
	1	2	3	
1. Total daily study hours exceeding 5 hours.	55 (13.4)	208 (50.7)	147 (35.9)	2.22
2. Limited time to complete homework.	71 (17.3)	202 (49.3)	137 (33.4)	2.16
3. Too much and burdensome homework were given to the student.	75 (18.3)	203 (49.5)	132 (32.2)	2.14
4. The teacher's teaching method is difficult to understand.	85 (20.7)	181 (44.1)	144 (35.1)	2.14
5. There is not enough time for students to review the lesson.	75 (18.3)	153 (37.3)	182 (44.4)	2.26
6. Students finishing homework at the last minute.	69 (18.8)	133 (32.4)	208 (50.7)	2.34
7. The final exam schedule is too compact.	80 (19.5)	161 (39.3)	169 (41.2)	2.22
8. The way the teacher teach is difficult to understand and boring.	86 (21.0)	179 (43.7)	145 (35.4)	2.14
9. Slow internet connection.	117 (28.5)	130 (31.7)	163 (39.8)	2.11
10. There is no discussion between classmates in solving homework problems and being alone.	106 (25.9)	141 (34.4)	163 (39.8)1	2.14
Mean Average Amount				**2.19**

Based on the table above, the overall mean score for academic stress among Gombak district secondary school students is 2.19 at the low level. The analysis found that 208 students (50.7%) chose the medium scale and 55 students (13.4%) chose the low scale with a mean score of 2.22. For item 2, 202 students (49.3%) chose the medium scale and 71 students (17.3%) chose the low scale with a mean score of 2.16. In addition, for item 3, 203 students (49.5%) chose medium scale while 75 students (18.3%) chose the low scale with a mean value of 2.14. For item 4, 181 students (44.1%) chose the medium scale while 85 students (20.7%) chose the low scale with a mean value of 2.14. Item 5 of 182 students (44.4%) chose the high scale, while 75 students (8.5%) chose the low scale with a mean score of 2.26. Item 6, 208 students (50.7%) chose the high scale while 69

students (16.8%) chose the low scale with a mean value of 2.34. Item 7 of 169 students (41.2%) chose the high scale while 80 students (19.5%) chose the low scale with a mean value of 2.22. For item 8, 179 students (43.7%) chose the medium scale, while 86 students (21.0%) chose the disapproval scale with a mean value of 2.14. For item 9, 163 students (39.8%) chose the high scale and 117 students (28.5%) chose the low scale with a mean value of 2.11. Lastly for item 10 of 163 students (39.8%) chose high scale and 106 students (25.9%) chose the low scale with a mean value of 2.14.

Through this analysis it can be concluded that the cause of student stress in terms of academics is in item 6 (students finishing homework at the last minute) with the highest mean value, which is 2.34 compared to other

items. The majority of students are very prone to stress if they complete the assignment at the last minute.

Causes of Stress from Personal Aspects

Items	Frequency and Percent (%)			Men
	1	2	3	
1. No family support.	131 (32.0)	145 (35.4)	134 (32.7)	2.01
2. There are problems with siblings and family.	136 (33.2)	129 (31.5)	145 (35.4)	2.02
3. Uncomfortable home environment conditions.	153 (37.3)	130 (31.7)	127 (31.0)	1.94
4. Family financial factors due to MCO affect students.	141 (34.4)	145 (35.4)	124 (30.2)	1.96
5. Not having a computer/not enough and sharing it with other siblings.	147 (35.9)	141 (34.4)	122 (29.8)	1.94
6. Cannot go out for social activities.	119 (29.0)	145 (35.4)	146 (35.6)	2.07
7. Parents face chronic disease problems and need attention.	180 (43.9)	123 (30.0)	107 (26.1)	1.82
8. Want to help the family get financial resources.	119 (29.0)	155 (37.8)	136 (33.2)	2.04
9. No self-motivation for online lessons.	90 (22.0)	166 (40.5)	154 (37.6)	2.16
10. There is a conflict with the teacher.	178 (43.4)	115 (28.0)	117 (28.5)	1.85
Mean Average Amount				**1.98**

Based on the table above, the overall mean score for personal stess among Gombak district high school students is 1.98 at the low level. The results of the analysis found that item 1 of 145 students (35.4%) chose the medium scale and 131 students (32.0%) chose the low scale with a mean score of 2.00. For item 2, 145 students (35.4%) chose high scale and 129 students (31.5%) chose a medium scale with a mean score of 2.02. In addition, for item 3, 153 students (37.3%) chose the low scale while 127 students (31.0%) chose the low scale with a mean value of 1.94. For item 4, 145 students (35.4%) chose the medium scale while 124 students (30.4%) chose the high scale with a mean value of 1.96. Item 5 of 147 students (35.9%) chose the low scale, while 122 students (29.8%) chose the high scale with a mean score of 1.94. Item 6, 146 students (35.6%) chose the high scale while 119 students (29.0%) chose the low scale with a mean value of 2.07. Item 7 of 180 students (43.9%) chose the low scale while 107 students (26.1%) chose the high scale with a mean value of 1.82. For item 8, 155 students (37.8%) chose the medium scale, while 119 students (29.0%) chose the low scale with a mean value of 2.04. For item 9, 166 students (40.5%) chose the medium scale and 90 students (22.0%) chose the low scale with a mean value of 2.16. Lastly for item 10 of 178 students (43.4%) chose the low scale and 115 students (28.0%) chose a medium scale with a mean value of 1.85. Through this analysis, it can be concluded that the cause of student stress in terms of personal is related to item 6 (cannot go out for social activities) with the highest mean value, which is 2.07 compared to other items. The impact of the Covid-19 pandemic has resulted in students being discouraged from seeing and doing leisure activities with school friends and this is a cause of stress among students in Gombak District secondary schools.

iv. Part D: Solving Stress Problem
This section discusses the findings of the third research objective in solving stress problems among students of Sekolah Menengah Daerah Gombak. There are 10 items in this section. Each item is evaluated through likert scales such as scale 1 (Strongly Disagree), scale 2 (Disagree), scale 3 (Not Sure), scale 4 (Agree) and scale 5 (Strongly Agree). The analysis of the data for this study was conducted based on the mean score based on the questionnaire. The mean index score indicator built by Uma (2018) is used. The score range consists of three score ranges which are at the low of the mean score (1.00-2.33), the medium mean score (2.34-3.66) and the high mean score (3.67-5.00). The findings for this section are shown in the following table.

Solving Stress Problem

Items	Frequency and Percent (%)					Mean
	1	2	3	4	5	
1. Make sure enough and comfortable sleep.	10 (2.4)	7 (1.7)	34 (8.3)	104 (25.4)	255 (62.2)	4.43
2. Eat nutritious food.	3 (0.7)	10 (2.4)	40 (9.8)	127 (31.0)	230 (56.1)	4.39
3. Get close to God.	3 (0.7)	6 (1.5)	20 (4.9)	106 (25.9)	275 (67.1)	4.57
4. Help parents with chores according to our time.	3 (0.7)	10 (2.4)	35 (8.5)	171 (41.7)	191 (46.6)	4.31
5. Performing leisure activities within the residential area.	7 (1.7)	17 (4.1)	57 (13.9)	153 (37.3)	176 (42.9)	4.16
6. Think positively.	5 (1.2)	11 (2.7)	41 (10.0)	144 (35.1)	209 (51.0)	4.32
7. Let go of feelings by screaming, crying or singing.	21 (5.1)	35 (8.5)	42 (10.2)	151 (36.8)	161 (39.3)	3.97
8. Share problems with the family so that they understand.	36 (8.8)	50 (12.2)	63 (15.4)	147 (35.9)	114 (27.8)	3.62
9. Get advice from teachers and counsellors.	16 (3.9)	38 (9.3)	73 (17.8)	157 (38.3)	126 (30.7)	3.83
10. Share problems with peers.	23 (5.6)	45 (11.0)	66 (16.1)	142 (34.6)	134 (32.7)	3.78
Mean Average Amount						4.14

Based on the table above, the overall mean score of stress problem solving among Gombak district high school students is 4.14 at a high level. The results of the analysis found that item 1 had 255 students (62. 2s %) strongly agree and 7 students (1.7%) disagree with the mean score of 4.43. For item 2, 230 students (56.1%) strongly agree, and 3 students (0.7%) chose strongly disagree with a mean score of 4.39. For item 3, 275 students (67.1%) chose strongly agree while 3 students (0.7%) stongly disagree with the mean value of 4.57. For item 4, 191 students (46.6%) strognly agree while 3 students (0.7%) chose strongly disagree with the mean value of 4.31. Item 5 of 176 students (42.9%) strongliy agree, while 7 students (1.7%) chose strongly disagree with a mean score of 4.16. Item 6, 209 students (51.0%) strognly agree while 5 students (1.2%) chose strongly diasgree with the mean value of 4.32. Item 7 of 161 students (39.3%) strongly agree while 21 students chose strongly disagree with the mean value of 3.97. For item 8, 147 students (35.9%) chose agree, while 36 students (8.8%) chose strongly disagree with the mean value of 3.62. For item 9, 157 students (38.3%) agree and 16 students (3.9%) strongly disagree with the mean value of 3.83. Lastly, for item 10 of 142 students (34.6%) agree and 23 students (5.6%) chose strognly disagree with the mean value of 3.78.

Through this analysis, it can be concluded that the solution to overcome stress among students is item 3 (close to God) with the highest mean score of 4.57 compared to other items. This is because students spend a lot of time at home and have time to learn religious values with their parents at home. In this way, the students will be calmer and easier to do their daily activities well.

Study Findings
In general, there are four main sections that need to be answered by the respondent in the questionnaire. These sections include Part A on Respondent Demographics, Part B on Academic and Personal Stress Levels, Part C on the Causes of Stress In terms Academic and Personal, and Part D on Solving Stress Problem. In comparison, the findings for Part B showed that the Academic Stress Level recorded anaverage mean of 3.39. However, things were different for the Personal Stress Level which recorded a modest average mean amount of 3.03. As for Part C, the Academic Causes of Stress and the Causes ofPersonal Stress recorded low mean averages of 2.19 and 1.98. A different point was noted for Part D when Solving Stress Problem recorded a high average mean score of 4.14. The findings showed that the Covid-19 pandemic has had an impact on students attending online teaching and learning sessions. However, the data showed that the sections in the questionnaire recorded high, moderate, and low levels of stress. Therefore, it can be concluded that the Covid-19 pandemic is not the main cause of the stress levels experienced by students.

In this regard, the stress experienced by the students also exists in relation to several factors. For example, the burden and stress factors of learning that they had. This can be seen in Yaacob et al. (2018)'s study of 222 respondents who experienced symptoms of depression, anxiety, and stress based on the respondents' field of studies, for example, dentistry. This shows that the study programme enrolled by an individual can also be the cause of stress. However, there was a little difference obtained in the Manap et al. (2019)'s study on stress. The

study found that the current situation that an individual is going through affected the presence of stress. The survey was conducted on91 respondents from different ackgrounds showing that the current situation has been the reason for the stress. Thus, matters related to stress, depression and axiety (2019) which have strong correlation between them. However, significant differences do not exist for these things in terms of demographics such as gender, marital status and age. Thus, the matters discussed are matters related to stress that are not caused by Covid-19.

On the other hand, the Covid-19 that has hit the world since the end of 2019 has fueled stress-related matters. Not onlyon students, but also parents are affected with the stress-related matters caused by Covid-19. Omar et al. (2021) found that there is a significant association between parental psychological stress and other stressors. The pressures include food for children, children's future and mental health. On the other hand, Zin et al. (2021)'s study found that Covid-19 has become one of the contributors to the emotional conflict over education in Malaysia. This refers to the movement restrictions or Movement Control Order (MCO) implemented by the government to curb social relations among the community. If it is not conducted, the Covid-19 pandemic will continue to spread and cause more deaths. Consequently, when social relationships are controlled among the community, they will contribute to emotional conflict. Furthermore, Covid-19 also has a negative impact on students' mental health. Mental health issues and psychological disorders such as anxiety, depression, stress, sleep disturbances, loneliness, sadness and interpersonal conflicts have increased among students. This has proven that the importance of improving mental and emotional health among students needs to be given awareness and reinforcement (Soon & Surat, 2021).

4. Conclusion

In conclusion, the covid-19 that hit the world at the end of 2019 has contributed to the stress among school students. Online teaching and learning sessions have created a non-face-to-face socialization among students, thus indirectly increasing the stress level. In summary, the overall result in this study shows that academically related stress levels showed a high mean score. This is because students find it difficult to move and meet other friends due to the Covid-19 pandemic which has resultes in stress among them. However, it is different from the point of view of the cause of stress. The study found that the causes of stress both academically and personally recorded a low mean score. In addition, this study also found that there are many things that indirectly contribute to stress levels among students during the Covid-19 pandemic. Among them are movement obstacles. This causes limited social interactions among students. In addition, the Covid-19 pandemic has caused the unemployment rate to rise due to layoffs. Thus, the students who stayed at home had to help out the family. These things have contributed indirectly to stress levels during the Covid-19 pandemic. However, based on previous studies, it has been found that when stress is the subject of discussion, Covid-19 is not the only cause of the problem. Studies have found that there are many otherthings that contribute to stress, especially among students.

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