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STRESS AND ITS ASSOCIATED FACTORS DURING COVID-19 PANDEMIC AMONG TEACHERS IN GOMBAK, SELANGOR.

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BY

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ABSTRACT

STRESS AND ITS ASSOCIATED FACTORS DURING COVID-19 PANDEMIC AMONG TEACHERS IN GOMBAK, SELANGOR.

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BACKGROUND: Covid-19 pandemic become the most serious issue in Malaysia due to the increase of confirmed cases and total death. Movement Control Order (MCO) has been announced in several states-including Selangor. From this order, education has been affected due to the closure of educational institutions. Thus, teaching-learning has been conducted via online medium. Several studies highlight several factors that may lead to stress among teachers such as workload, self-efficacy in conducting online teaching, and motivation in conducting online teaching.

OBJECTIVE: This study aims to determine the prevalence of stress and its associated factors among teachers during the Covid-19 pandemic in Gombak, Selangor.

METHODOLOGY: This cross-sectional study has been carried out among secondary school teachers in Gombak, Selangor. The participation of teachers in this survey is based on the permission obtained from the school administration. Online Google Form Questionnaire has been distributed to respondents to obtain the data, which consists of 5 sections namely: 1:-Socio-demographic; 2:-Perceived Stress Scale (PSS) [α=0.63]; 3:-Workload [α=0.64]; 4:-Teacher's efficacy in online learning [α=0.928] and 5:-

Motivation in conducting online teaching [α=0.680]. All data were statistically analyzed using SPSS version 26.

RESULT & CONCLUSION: A total of 368 secondary school teachers were recruited from 15 secondary schools in Gombak, Selangor. The results showed 66.3% of them experienced moderate and 2.4% experienced high levels of stress. The stress was associated with the involvement in general administrative activities workload (χ^2=9.330. p=0.009), self-efficacy (χ^2=8.358, p=0.015) and intrinsic motivation (χ^2=6.992, p= 0.030). The most significant factor associated with stress was low self-efficacy (OR=1.781, 95% CI=1.103, 2.875). This study concluded that the stress level among secondary school teachers is alarming. Those with low self-efficacy had 1.8 times the risk to get stress. In conclusion, school's management need to provide training in computer program to increase teacher's ability in conducting online teaching and adopt facilitative style of leadership that assists teachers to attain their personal and professional goals . Besides, Ministry of Education should institute regular programs such as in-service training and counseling service that continuously improve teachers professionally and their self-efficacy.

KEYWORD: Stress, Teacher, Covid-19 pandemic, online teaching and learning, stress factor.

ABSTRAK

STRES DAN FAKTOR BERKAITAN SEPANJANG PANDEMIK COVID-19 DALAM KALANGAN GURU DI GOMBAK, SELANGOR

NORSHEILA IZLYN BINTI KHAIRUL HADY

LATAR BELAKANG: Wabak pandemik Covid-19 menjadi isu paling serius yang berlaku di Malaysia disebabkan peningkatan kes jangkitan dan juga kadar kematian. Oleh itu, Perintah Kawalan Pergerakan (PKP) telah diumumkan di beberapa negeri di dalam Malaysia termasuk Selangor. Melalui perintah kawalan ini, sektor pendidikan turut terjejas berikutan penutupan beberapa institusi pendidikan. Justeru itu, medium dalam talian telah digunakan bagi memastikan sesi pengajaran dan pembelajaran dari rumah. Beberapa kajian yang telah dijalankan menekan faktor-faktor yang berkaitan stres dalam kalanan guru adalah bebanan kerja, keberkesanan dalam mengendalikan kelas dalam talian dan motivasi semasa mengendalikannya.

OBJEKTIF: Kajian ini dijalankan bagi mengenalpasti kelaziman kadar stres dan faktor berkaitan dalam kalangan guru semasa pandemik Covid-19 di Gombak, Selangor.

METODOLOGI: Kajian keratan rentas telah dijalankan dalam kalangan guru sekolah menengah di Gombak, Selangor. Penyertaan guru yang terlibat dalam tinjauan ini adalah berdasarkan kebenaran dari pihak sekolah. Tinjauan dalam talian menggunakan Google Form telah disebarkan kepada peserta untuk mendapatkan data. Tinjauan ini terdiri daripada 5 bahagian iaitu Bahagian 1: Maklumat sosio-demografi; Bahagian 2: Skala Stres Yang Dirasakan [α=0.63]; Bahagian 3: Bebanan kerja guru [α=0.64] ; Bahagian 4:

Keberkesanan semasa mengendalikan kelas dalam talian [α=0.928] dan Bahagian 5: Motivasi semasa mengendalikan kelas dalam talian [α=0.680]. Semua data yang diperoleh dianalisis menggunakan SPSS versi 26.

PERBINCANGAN DAN KESIMPULAN: Sebanyak 360 orang guru daripada 15 sekolah menengah yang berada di Gombak, Selangor. Hasil kajian mendapati 66.3% dalam kalangan guru mengalami stres yang sederhana manakala 2.4% daripada mereka mengalami stres teruk. Faktor-faktor yang berkaitan stres juga adalah disebabkan penglibatan guru dalam aktiviti pengurusan am (χ^2=9.330, p=0.009), keberkesanan diri (χ^2=8.358, p=0.015) dan motivasi dalaman (χ^2=6.992, p=0.030). Faktor berkaitan stres yang paling ketara adalah keberkesanan diri (OR=1.781, 95%CI=1.103, 2.875). Kajian ini menyimpulkan bahawa kadar stres dalam kalangan guru sekolah menengah adalah di tahap membimbangkan.Guru-guru yang memiliki keberkesanan diri yang rendah memiliki 1.8 kali risiko untuk berasa stress. Kesimpulannya, pihak pengurusan sekolah perlu memberikan latihan dalam program komputer untuk meningkatkan kemampuan guru dalam menjalankan pengajaran dalam talian dan menerapkan gaya kepemimpinan fasilitatif yang membantu guru mencapai tujuan peribadi dan profesional mereka. Selain itu, Kementerian Pendidikan juga harus mengadakan program berkala seperti latihan dalam perkhidmatan serta perkhidmatan kaunseling yang akan meningkatkan guru secara profesional dan keyakinan diri mereka.

KATA KUNCI: Stres, Guru, Pandemik Covid-19, Pengajaran dan pebelajaran dalam talian, faktor-faktor stress

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LIST OF ABBREVIATION

ANS	**Autonomic Nervous System**
ACTH	**Adrenocorticotropic Hormone**
MCO	**Movement Control Order**
COVID-19	**Coronavirus Disease**
CRF	**Chronic Renal Failure**
CRH	**Corticotrophin Releasing Hormone**
HPA	**Hypothalamic Pituitary Adrenal**
JKEUPM	**Jawatankuasa Etika Universiti Untuk Penyelidikan Melibatkan Manusia**
JPNS	**Jabatan Pendidikan Negeri Selangor**
KPM	**Kementerian Pelajaran Malaysia**
PSS	**Perceived Stress Scale**
SNS	**Sympathetic Nervous System**

CHAPTER 1

INTRODUCTION

1.1 Study Background

Coronavirus disease (COVID 19) is an infectious disease that can cause respiratory illness which originated from Wuhan City, China. It is spread primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneeze (WHO, 2020). In March 2020, WHO has described COVID-19 as a pandemic disease due to its rapid spread across the globe in the months since it was declared in China. (Mckeveer, March 2020). Based on data collected from WHO on 31st October 2020, outbreaks have been reported in more than 110 countries with more than 45 million confirmed cases and more than 1 million deaths worldwide.

In Malaysia, the outbreak has been reported with more than 700,000 confirmed cases and 4554 death across the country (MOH, 2020). On 22th June 2021, more than 60,000 active cases has been reported in Malaysia. This pandemic has deeply ruined the ecosystem of human life apart from the severe health disorder. In term of the education process, the learning process also disturbed due to the closing of school, colleges, and university which disclaimer student's social life and learning. Most of the instructional activities such as classroom teaching and assessment are moving online (Burgess & Sievertsen, 2020). Based on a survey conducted in May 2020, teachers seemed mostly

involved in administrative activities during a lockdown, expending on average 13 hours per week. The survey also concluded that 66% of teachers having little or no experience in online teaching. Besides, 54% of teachers oppose online teaching stressful while 44% felt adequately provided for teaching-learning. (See & Wardle, 2020).

Stress can be defined as the nonspecific response or reaction by the body to the order made on it or to interrupt events in the environment (Yusoff et.al, 2011). Our nervous system consists of two-part which is Autonomic Nervous System (ANS) and Sympathetic Nervous System (SNS) which have their own role in mechanisms of stress in the body. In the process of the stress response, the hypothalamus produces various hormones, among which are corticotrophin-releasing hormone (CRH) and cortisol that have the main role in stimulating the pituitary gland and initiate intensively-regulated pathway of the stress response (Shahsavarani et al.,2015).

There are several determinants that contribute to stress. Schneiderman (2005) highlighted two-level determinants that contribute to stress which are societal level and individual level. At the societal level, society encounter with the lack of institutional resources, pandemic (COVID-19), war and international terrorism while at an individual level, the individual need to face with the insecurities of daily existence such as job-stress, marital stress, personal issue, commitment, and unsafe school or neighborhood.

Chronic and persistent negative stress (distress) can develop more potential health problems such as physical illness, and mental, emotional, and social problems. Refer to Mentalhealth.net, stress hormone produced such as cortisol can disrupt the development and severity of many different diseases and bodily systems such as digestive, musculoskeletal, and cardiovascular systems. Cortisol is one of the hormones secreted by the endocrine system into the bloodstream that working together with the sympathetic nervous system to deal with stress. The production of cortisol also can lead to appetite suppression in the individual that faced with chronic stress. The major function of cortisol is to replace the energy that has been used to deal with stress by eating more food. Another function of cortisol is by converting the food directly to the fat. Thus, if cortisol is produced all the time by ongoing stress, so it will drive individual overeating. (Spencer, July 2019).

Besides, stress also can ruin the teacher's profession in terms of job performance and their own personality. Based on the study conducted by Ali et al. (2013), stress can reduce teacher's performance. There are several majors indicates of stress such as work overload, time pressure, and personal life.

This study aims to discover the stress level possibly experienced by the teachers who affected by the COVID-19 pandemic and its associated factors among teachers in Gombak, Selangor. The finding of this study is meant for a better understanding of the factors which potentially causes stress with the hope that this will help in suggesting

methods to reduce the stress experienced by the teachers and to increase the job performance among them.

1.2 Problem Statement

In October 2020, Movement Control Order has been announced in several states-include Selangor. Thus, the Education Ministry has announced all educational institutions such as schools, kindergartens, vocational colleges, and teacher's training institutes were closed include Selangor due to Movement Control Orders (MCO). Therefore, teachers needed to teaching and communicate with students, schools, and communities from home via online mediums. Based on a study conduct by Klapproth et. al (2020), teachers have experienced medium to high stress during work from home. This finding also shows that teachers who teach in secondary school more exposed to the highest level of stress compared to other levels of school.

Raj (2021) has mentioned that teachers who work in school have experienced stressful stages where anxiety among teachers has elevated from 5% to 25%. There are several factors that may contribute to the highest level of stress among teachers. Based on a complaint by the respondent, teachers have less experience in managing e-learning classes include co-curriculum (Raj, 2021). Hence, it may induce low teacher self-efficacy.

Based on SYKES Survey Report (2021), it highlighted that teachers spent an extra 5 hours per day during virtual instruction where lesson planning (68%), managing a course of the management system (66.49%), sending work e-mail (64.20%), meeting with students (54.53%), and attending faculty meetings (52.87%). Besides, teachers more considerate in the classroom compare to stay in virtual instruction.

Pansiora et.al (2020) showed that motivation also has a significant contribution to stress. This finding highlight that intrinsic motivation may contribute to a low level of occupational stress while extrinsic motivation may contribute to the high level of stress among teachers.

1.3 Research Objective

1.3.1 General Objective

- To determine the prevalence of stress and its associated factors among secondary school teachers at Gombak, Selangor during Covid-19 pandemic.

1.3.2 Specific Objective

1. To determine the socio-demographic characteristic of respondents
2. To determine the prevalence of stress among secondary school teachers at Gombak, Selangor.
3. To determine the factors associated with stress among secondary teachers at Gombak Selangor.

1.4 Research Hypothesis

- Work related factors are significantly associated with stress among the respondent.

1.5 Definition of Terms

1.5.1 Conceptual definition:

i. Stress

Stress is non-specific response of the body to any demand (Selye,1936).

ii. Stress associated factors

An internal and external factor that unable to perceive by individuals (Kebede & Mengistu, 2018).

iii. Sociodemographic characteristics

Characteristic that have combination of social and demographic factor such as age, ethnicity, sex, socioeconomic status (three indices), marital status, and family size. (Hall & Darnon, 2014)

1.5.2 Operational definition:

i. Stress

Stress will be measured by using The Perceived Stress Scale (PSS).

ii. Stress associated factors

The stress associated factor will be identified through questionnaire which consist of workload, self-efficacy and motivation in online teaching during Covid-19 pandemic that lead to stress.

iii. Secondary school teachers

This study will involve secondary school teachers who are serving the governmental schools in the district of Gombak, Selangor.

iv. Sociodemographic characteristic.

Consist of gender, age, education level, teaching experience and marital status that will be identified through questionnaire.

1.6 Conceptual Framework

The conceptual framework (Figure 1) briefly describes about stress and its association factor among teacher during Covid-19 pandemic. Independent variable in this study are stress associated factor which are workload, self-efficacy and motivation in conducting online teaching and stress among teacher is the dependent variable in this study. Other factors that may contribute to stress among teacher are gender, age, marital status and teaching experience.

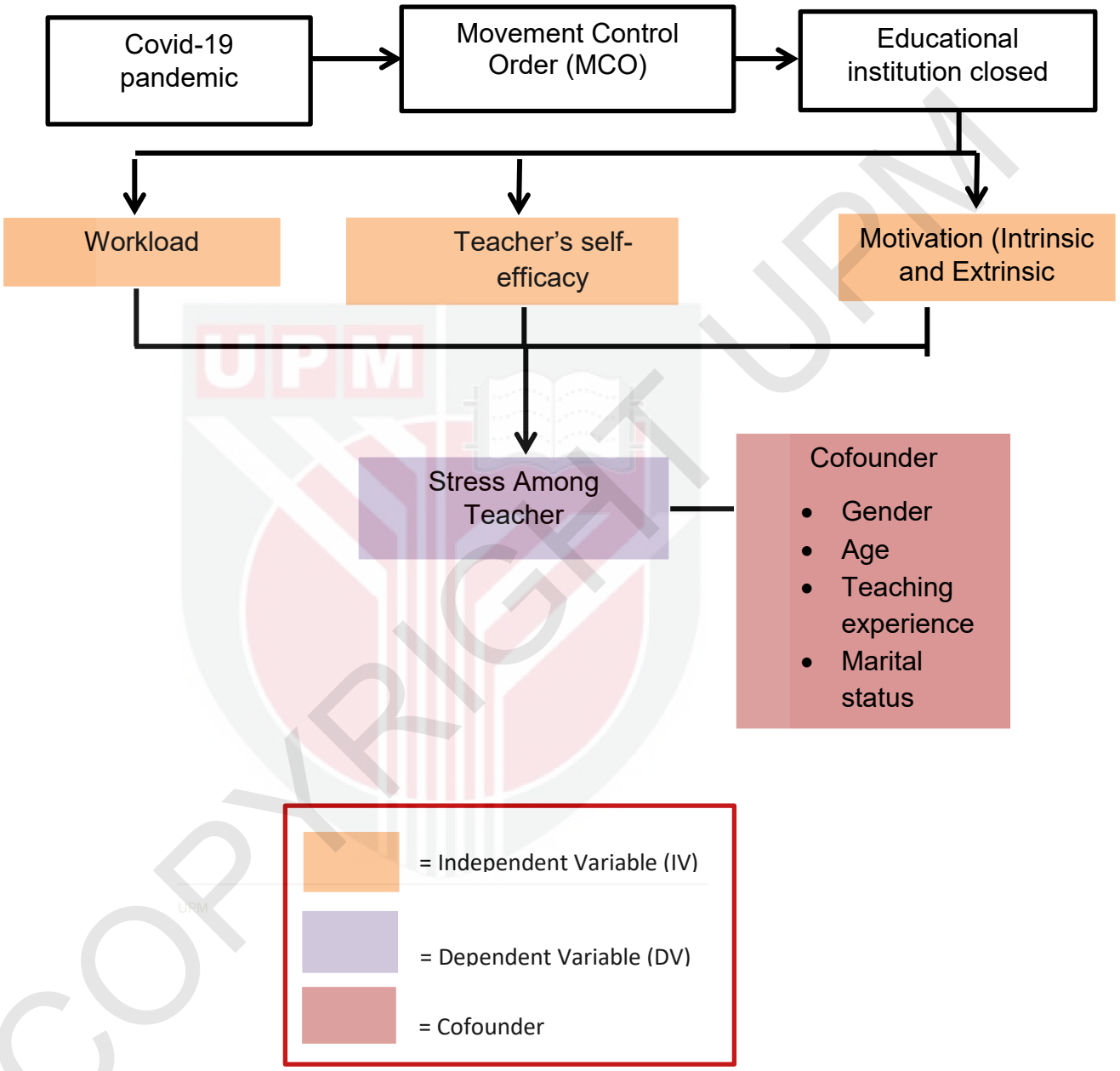

Figure 1: Conceptual Framework

CHAPTER 2

LITERITURE REVIEW

2.1 COVID-19 pandemic and Occupational stress

2.1.1 COVID-19 pandemic.

WHO has define Coronaviruses (COVID 19) is an infectious disease that makes the infected person experience mild and moderate respiratory illness. It is originated from Wuhan City, China in December 2019. The Coronaviruses (COVID-19) widen through droplets of saliva or excrete from the nose when an infected person has a cough or sneeze (WHO, 2020). The droplet emit can enter an individual's system through contact routes such as eye, nose, or mouth. Besides, the droplet also can enter directly through inhalation and affected the lungs (Carmosino, 2020).

CDC has listed the sign and symptoms of people who infected with the disease. The symptoms may appear between 2 to 14 after exposure to the virus. The symptom listed as fever, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, loss of taste and smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea. There are several groups that have high risk due to the development of dangerous symptoms of COVID-19 which are older age, individual with

background lung disease, heart disease, diabetes, obesity, cancer, weakened immune system, and chronic kidney and liver. (MayoClinic, August 2020).

On 11th March 2020, WHO has announced COVID-19 as pandemic disease. BBC News reported that coronavirus is sustained and has widened across the world with more than 45 million confirmed cases in 190 countries and about 1.2 million death

2.1.2 COVID-19 pandemic in Malaysia.

On the 25th January 2020, the first case of COVID-19 has been detected in Malaysia who previously has closed contact with an infected person in Singapore. The first Malaysian was confirmed infected with COVID-19 on the 4th February 2020. More than 70 000 confirmed cases with more than 60,000 active cases and about 4,554 death have been reported across country (MOH, 2020).

The Covid-19 cases reported throughout Malaysia in just three weeks this month with the total cases recorded in nearly 36 weeks previously since the first cases reported in Malaysia (CodeBlue, October 2020). Based on the data collected by MOH, Sabah has reported as the state with the highest confirmed cases of Covid-19 (23 882 cases) on 18th November 2020 followed by Selangor. Thus, Movement Control Orders (MCO) has been proceeded in several states include Sabah, Selangor, Kuala Lumpur, and Putrajaya in terms of 14 days. The purpose of this step is to curb the expanding number of Covid-19 cases across the state (Cheong, October 2020).

2.1.3. Movement Control Orders and Educational System in Malaysia.

The Education Ministry has announced all educational institutions such as schools, kindergartens, vocational colleges, and teacher's training institutes were closed include Selangor due to Movement Control Orders (MCO). The total of educational institution affected is "1,336" institution in Sabah, 1,088 institutions in Selangor, 344 institution in Kuala Lumpur and 29 institutions in Putrajaya (Harun, October 2020). Thus, online learning is the tools that use in education in term of communication between students and teachers during Covid-19 Pandemic in Malaysia. (Sani, April 2020).

2.2. Occupational stress among teachers.

2.2.1 Definition, Sign And Symptom.

In psychological science, stress is a feeling of mental press and agitation.(Shahsavarani et al., 2015) . Hans Selye in 1936 has defined stress as "the non-specific response of the body to any demand of changes". Other terms that defined stress is used by Cannon (1929) which is 'homeostasis'.

There are two type of stress symptom which are short-term and long-term. In short-term stress, individual will experienced anxiousness, nervousness, distraction, worry and pressure. In long-term stress, individual may experience emotional and physical effect such as fatigue, depression , chest pain, rapid heartbeat, dizziness, 11

difficulty breathing and menstrual cycle irregularities for women. These symptom may cause to loss of appetite, overeating, poor of sleep (McEwen & Sapolsky, 2006).

2.2.2 Stress Response In Human Body.

Allostasis is a main revision and replacement of the classical theory of homeostasis related to body response on stress (Ganzel et al., 2010). Allostasis can be divided into two term which are acute (short term response) and chronic (long term response).

Acute stress can be defined as "fight and flight" reaction that happen when the individual feel threaten. During this event, the stress responses cause the body to secrete several stress hormone such as cortisol and adrenaline into the bloodstream. This hormone will increase the heart rate and blood pressure beside elevated immune system.

Chronic stress or known as distress can cause adverse effect in term of emotional health. If the individual faces with the repeated stress, it will stimulate higher level of hormones, it does not have time to recover. The continuously stimulation of stress hormone can cause serious health problem (McEwen & Sapolsky, 2006). The illnes by chronic stress are in term of medical illness (heart disease and gastrointestinal disease) and psychiatric illness (depression and anxiety) (Salleh, 2008).

2.2.3 Occupational Stress Among Teachers In Malaysia.

WHO describe occupational is the response that may faced by individual when presented with job demands and pressure that are not accompany to their knowledge and opposite their ability to cope.

Based on Malaysia Competitive Corporation 2018, the data indicate that Malaysia nowadays has about 32 million people and around 1,7 million are in public service which made them the largest public service in South East Asia. Although Malaysia's Competitiveness Ranking is getting underneath, the total of teachers in Malaysia's educational sector is expanding every year which is in 2018 (423 566 teacher) compared to 2014 (420 854 teacher). According to Kongcharoen et.al. (2019), the study indicates that teacher of secondary school have more expose to stress compare to teachers of primary school.

Hadi et. al. (2009) indicates that working environment, socio-demographic factor (gender, marital status), psychological job demand and personal factor are the determinant factors contributing to stress among teachers.

2.2.4 Contributing Factor Related To Occupational Stress Among Teacher During Covid-19 Pandemic.

In Malaysia, confirmed cases of COVID-19 are increasing every day. Movement Control Order (MCO) has been announced in several states-including Selangor. The educational institution also affected during MCO where more than 2,000 institutions

have been closed (Sani, April 2020). Thus e-learning through Zoom, Google meeting, and others have been introduced as an interaction medium between teacher and student.

E-learning as a medium of communication between the student and teacher has certain weaknesses where the users can experience many technical difficulties that curb the teaching-learning process (Favale et.al., 2020). In the online education context, the main focus has been allow to continued usage behavior (Bhattacherjee A. et al, 2008). Hence, the long-term continuous usage was anticipated and explored through various methods, in different settings (Daghan & Akkoyunlu, 2016). Panisoara et.al (2020) indicate that many variables influencing the adoption and long-term use of online learning can lead to healthcare problem if the teachers are not able to control the educational environment in which they do their work.

2.2.4.1 Workload

Refer to the database of the Ministry's Education Management Information System (EMIS), teachers just spend between 2.4 to 2.9 hours a day on average teaching in the classroom which is relatively low compare to other countries such as Singapore (3.8 hours per day) and Indonesia (4.5 to 5.0 hours per day). This does not include time spent on lesson preparation, homework grading, or one-on-one student contact time. In Malaysia, however, teacher's activities do not limit to teaching only but they encompass many activities. Based on the result by Ministry Survey (2011), 7853 teachers engage working in between 40 to 80 hour per week, with an average of 57 hour per week while

the survey conduct by UPSI, 2011 figure out, teacher imply the working day of 15 hours. (MOE, 2013).

Based on a study conducted by See & Wardle (2020), teachers seemed mostly involved in administrative activities during the lockdown, expending on average 13 hours per week compared to teaching online. Some teachers claimed that they were being busier than before the school institution closed (Strauss, 2020). Based on Miao et.al (2020) study, shows that teachers play various roles as educational home-based during the lockdown. The roles do not limit to a teacher but widely as a facilitator, peers, family member, and connection agent between parent and school for a student.

The workload in terms of task demands and long working hours may affect health negatively. It can attribute to many health problems in terms of disease and mental health. Employers who spend long hours working may not have much time to exercise and get proper medical treatment when they sick (Seok et al, 2016). Furthermore, working long hours may induce more diseases such as hypertension and is closely direct to ischemic heart disease, stroke, and mortality (Park et al, 2020).

Besides, individuals who exposed to workload may demonstrate mental health such as stress, suicidal thought depression (Park et al, 2020).

2.2.4.2 Self-efficacy

Self-efficacy is defined as perceived capability to carry out a target behavior. Inversely to self-regulatory efficacy, task self-efficacy involves one's belief in their ability to carry out a single instance of a regulated behavior at different levels of performance (Bandura, 1977). Teacher efficacy is defined as ''the teacher's belief in his or her capability to organize and accomplish courses of action needed to successfully finish a specific teaching task in a particular context" (Tschannen-Moran et al., 1998).

Klassen and Tze (2014) illustrated teacher's self-efficacy as a significant factor that may contribute to the effectiveness of teaching activity. Bandura (1977) suggested improvement on mental health, job satisfaction and students' academic performance among teacher required improvement of teacher self-efficacy. All things considering, teachers' personal values were shown to be the main predictors of teachers' self-efficacy. Specifically, preservation positively contributed to teachers' self-efficacy, both for those teachers directly by controlled motivations in their work and for those teachers controlled by autonomous motivations.

Numerous studies placed teacher beliefs and self-efficacy as the main barrier to using technology in education. Due to COVID-19 pandemic restrictions, teachers in Malaysia are required to use technology in teaching to teach online from home. The skills are required for teaching in the virtual environment are different than face-to-face instruction (Dolligan & Owen 2021). Fontan et al (2019) presumed that teachers who lack digitally efficient and well-supported from an institutional point of view experience will more towards on negative emotions when teaching online less motivated.

2.2.4.3 Motivation.

Guay et. al (2010) interpret motivation as the "the reasons underlying behavior" while Gredler, Broussard, and Garrison (2004) widely refer to motivation as "the attribute that moves us to do or not to do something". Motivation requires a combination of beliefs, perceptions, values, interests, and actions where there are all closely related. Pansiora et. al, (2020) defines motivation as the psychological mechanism of activation for the way in which a teacher acts. This is an external or internal determinant of their behaviors, along with other regulating mechanisms. Internal motivation has defined as doing an activity based on self-satisfaction and not depending on some separable consequence while external motivation refers to "a construct that pertains whenever an activity is done in order to gain separable result". Extrinsic motivation is in contrast with intrinsic motivation, where an individual simply enjoys doing an activity based on its value compare to an instrumental value such as money. (Ryan & Deci, 2000). Hence, motivation specifies the reason for individuals decide to do something, the individual's willingness to sustain the activity, and how hard they are going to pursue the activity. Dornyei and Ushioda (2011) postulated the two dimensions of teacher motivation which are motivation to teach and the motivation to keep in the profession.

2.3 Screening and measurement methods of stress.

There are several type of screening method to be used on the measurement of stress of individual assessment; by biological monitoring method and self-assessment method (questionnaire).

2.3.1 Biological Monitoring Method In Qualitative Study.

Herman et al (2016) states that the stressful situation will lead to the activation of the hypothalamic-pituitary-adrenal (HPA) axis, and to the ultimate secretion of cortisol and catecholamines in humans. HPA activation (cortisol and catecholamines) production are easily measurable in the blood (ACTH marker), urine (CRF markers) and saliva. Both blood and urine can measure catecholamines while saliva cannot assess to measure it.

Keil (2013) outline that current studies reveal a technique to sampled cortisol in saliva for its non-invasive advantage. In addition, saliva collection does not need the collaboration of skilled personnel for the storage of a catheter, permitting for an uncomplicated and trouble-free sample collection.

2.3.2 Self-Assessment Method In Quantitative Study

A questionnaire is a more favorable research instrument because it provides a relatively cheap, quick, and efficient way to gathering information from a large sample size. It is consisting of a series of questions for the purpose of obtaining information from respondents. Questionnaires can be an effective means of evaluating the behavior,

attitudes, opinions and, intentions of relatively huge numbers of subjects in terms of cheap and quick methods in data collection (McLeod, 2018).

The Perceived Stress Scale is a classic stress assessment instrument used to determine personal stress and help measure a person's stress levels. The questions in this scale ask about an individual's feelings and thoughts during the last month before attending the survey. The tools developed in 1983 (Cohen et al, 1983). A study conducted by Doss (2016) has used this instrument to determine the stress level among public school music educators. There are 10 items were designed to choose on how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress by individuals.

Due to the Covid-19 pandemic, the face-to-face interview is not preferable and unsafe for respondents and researchers. Thus, the self-assessment method will be selected for data collection in this study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methods that have been used in the collection and analysis of data to answer the research questions of the study. It explains the research design, sampling techniques and data collection methods used; and describes how data collected from the research has been analyzed. Quantitative research methods have been used in carrying out this research. The evaluation has been carried out using one systems of data collection techniques which is by online questionnaires (Google form).

3.2 Research Design

This study uses an observational cross sectional study design which has been carried out from October 2020 until July 2021.

3.3 Study location.

Selangor is one of the states in Malaysia. It is located in the western part of Banjaran Titiwangsa. Selangor consist of nine districts namely Sabak Bernam, Hulu Selangor, Kuala Selangor, Gombak, Klang, Petaling, Hulu Langat, Kuala Langat and

Sepang. Gombak is one of the districts in Selangor that originate on 1st February 1974. The width area of Gombak is approximately around 65 008 hectares. Based on the data by the Department of Statistics Malaysia (2010), the total population in Gombak is 629 971. Meanwhile, most of Gombak's population consisted of Bumiputera (62.9%), Chinese (23.4%), Indian (12.2%) and others (1.5%).

Currently, there are 30 secondary schools (Sekolah Menengah Kebangsaan) operated under Ministry of Education, Malaysia in Gombak (Appendix 1). The total number of teachers working in these schools are 3081 (PPDG, 2018).

3.4 Study Population and Sampling

3.4.1 Population of study

The target population is secondary school teachers in Gombak district in Selangor. The total number of secondary school teachers is 3341 teachers (PPDG, 2018).

3.4.2 Sampling frame

The list of all secondary school teachers in Gombak district.

3.4.3 Sampling unit

A teacher who is working in secondary schools at Gombak, Selangor.

3.4.4 Determination of sample size

The sample size calculation formula of two group proportion.

Based on survey conducted by See and Wardle (2020) ,its conclude that 54% teacher oppose online teaching is stressful while 44 % teacher felt adequately provided for teaching online, d= 0.05, the minimum sample size estimated:

$$n = \frac{Z^2_{1-(a/2)} [P_1 (1-P_1) + P_2 (1-P_2)]}{d^2}$$

Where,

n : Sample size

$Z^2_{1-(a/2)}$: Standard deviation of teachers

P_1 : Estimated proportion (larger)

P_2 : Estimated proportion (smaller)

d : Desired precision

$$n = \frac{(1.96)2\,[(0.54)(1-0.54)+(0.45)(1-0.45)]}{(0.05)2}$$

= 762 respondent

Therefore, at least 762 respondents which is about 23% from the study population will be recruited for this study.

3.4.5 Sampling Technique

The sampling of the respondents will involve purposive, stratified and simple random sampling. A Gombak district is purposively selected which will be involving all 30 secondary schools operated under the Pejabat Pendidikan Daerah Gombak. The total number of teachers from these schools is 3341. The calculated sample size for this study is 762, which is about 23% from the study population. For each school, 23% of teachers will be recruited as study respondents by simple random sampling based on inclusion and exclusion criteria. The sampling technique is displayed in Appendix 4. The calculated number of respondents in each school is shown in Table 1-

Table 1: Calculated number of sample from each school.

A Cluster (Based on list in Appendix 1)	B Population	C Sample (23% from the population)
1	85	20
2	167	38
3	104	24
4	92	21
5	142	33
6	113	26
7	56	13
8	120	28
9	112	26
10	116	27
11	139	30
12	106	32
13	76	17
14	72	17
15	148	34
16	127	29
17	113	26
18	155	30
19	133	30
20	83	19
21	140	30
22	76	17
23	77	18
24	131	30
25	141	32
26	145	33
27	41	9
28	133	31
29	148	30
30	50	12
Total	3341	762

3.4.6 Inclusion and Exclusion Criteria

1. Inclusion criteria:

a. Fulltime Teachers who working in secondary school under KPM

b. Age above 20 years old

2. Exclusion criteria:

a. Retired teacher

b. Teacher who on leave (maternity leave, study leave, etc) during the duration of data collection.

c. Teacher who working in primary school, tertiary school (Colleague and University) and tuition institution in Gombak, district.

3.4.7 Sampling Plan

The sampling plan is showed in Flow Chart of Research (Appendix 3)

3.5 Data Collection methods

3.5.1 Questionnaire

A questionnaire (Appendix 6) was developed by using Google Form in Malay version which consist of 5 section. All section were multi-choice answer. The multi-choice questions allowed a wide coverage of topics, and saved time for the respondents

since each questionnaire was estimated to take less than 15 minutes of their time. To increase ease of answering the multi-choice questions, the questionnaire was designed in a form format. To avoid missing data, respondents losing interest, and low response rate, the questions were short, clear and unambiguous. A brief explanation of the aims and objectives of the research was provided and preceded the questions. A questionnaire had been adopted from previous study which were from Cohen (1983) and See and Wardle (2020)

The research protocol and questionnaire had been approved by Ethic Committee For Researcher Involving Human (JKEUPM) of the Universiti Putra Malaysia (UPM) (Appendix 8.3) in March 2021. Once the approval was obtained from Kementerian Pelajaran Malaysia (KPM) (Appendix 8.1) , Jabatan Pendidikan Negeri Selangor (JPNS) (Appendix 8.2) and schools administrative (Appendix 1), the questionnaire as well as the survey consent form was distributed through Whatsapp to each respondent. Subsequent reminders were sent each week on April and May perspectively for the respondents to complete and return the questionnaires to researcher.

3.6 Issue Relating Data Quality

As introduced by Taole (2008), reliability and validity are two main criteria to establish data quality where validity related to reliability, that is, if a measure is not reliable, it cannot be valid.

3.6.1 Reliability

The questionnaire was previously validated with the reliability test. The Cronbach's alpha α is represent as a measure of internal consistency reliability of the study performed (Cruz, 2014). If the values of this coefficient surpass the value of 0.90. then reliability is excellent; reliability is high between 0.70 to 0.90; reliability is moderate between 0.5 to 0.7 (Pansiora et.al, 2020). Thus, the reliability of all questionnaire is moderate (PSS-10, workload and motivation) and excellent (self-efficacy). The questionnaire was prepared based on the original version and used to collect data from the respondents.

3.7 Data Analysis and Interpretation

The analysis were based on the specific objective measured in this study. Firstly, the analysis principal used descriptive analysis such as frequency, percentage, mean and standard deviation to determine the socio-demographic characteristic (age, gender, working experience and marital status), work-related factor (workload, self-efficacy, motivation) and the stress level among secondary school teachers in Gombak, Selangor. Frequency and percentage have used to determine the measure of frequency of each variable.

Furthermore, chi-square, simple logistic regression analysis and multiple logistic regression analysis has been used to determine the association between stress and its factor among respondent. The independent variable are work-associated factor, dependent variable is stress level among respondent while socio-demographic factor will

be measured as cofounder. The data was analyzed by using IBM Statistical Package for the Social Sciences (SPSS), version 26.0. Table 2 showed the statistical analyses used for objective.

Table 2: Statistical analysis plan

NO	OBJECTIVE	VARIABLE	STATISTICAL ANALYSIS
1	To determine the socio-demographic characteristic of respondent	Age, Gender, Working Experience ,Marital Status	Descriptive analysis -Frequency and percentage.
2	To determine the prevalence of stress among teachers at Gombak, Selangor.	**Dependent Variable:** Stress	Descriptive analysis -Frequency and percentage
3	To determine the factors associated with stress among teacher during Covid-19 pandemic in Gombak Selangor.	**Independent Variable**: Workload, self-efficacy, motivation in conducting online teaching. Cofounder: Age, Gender, Teaching Experience, Marital Status	Chi-square analysis Single Logistic Regression Multiple Logistic Regression

CHAPTER 4

RESULTS

The data collection has been successfully carried out from 1st April 2021 until 20th May 2021. Out of 30 secondary schools in Gombak, only 15 permitted the survey to be conducted among the teachers. The list of schools and number of teachers involved in the data collection is shown in Appendix 1. The obtained data had been collected into two ways which are conventional survey and online survey. The conventional survey had been conducted at 2 schools. Online survey had been conducted from 1st April until 20th May 2020. The total number of respondents who successfully returned the completed questionnaire was 368 teachers.

4.1 Socio-demographic characteristic

The socio-demographic characteristics of the respondents are shown in Table 1. Among the 368 respondents, 86.7% are females and 35.6% are in the age group of 30–39 years. Most (89.1%) of the teachers in this study are married and majority (89.1%) have more than 5 years in teaching experience.

Table 3: Socio-demographic characteristics of respondent.

Variable	Frequency	Percentage
Gender		
Female	319	86.7
Male	49	13.3
Age		
20-29	31	8.4
30-39	131	35.6
40-49	117	31.8
Above 50	89	24.2
Marital Status		
Single	29	7.9
Married	328	89.1
Divorce	11	3.0
Teaching Experience		
Less than 5 years	40	10.9
More than 5 years	328	89.1

4.2 Level of stress

Based on Individual Score's on PSS range, out of the 368 respondents in the sample, 244 (66.3%), 115 (31.3%), and 9 (2.4%) experienced low to moderate and high perceived levels of stress, respectively (Table 4).

Table 4: Stress Level based on PSS category

Variable	Frequency	Percentage
Level of Stress		
Low	115	31.3
Moderate	244	66.3
High/Perceived	9	2.4

4.3 Work-associated factor characteristic

Workload has 5 variables to be measured. Table 5.1 shows the descriptive analysis of workload. It shows that teachers spent less than 7 hours on all activities such as teaching/ learning, planning and preparation of teaching, participant in management activities, general administrative work and communication with parents and career. On the other hand, teachers spend more time on participating in management activities (22%) and general administrative work (22%) compare to other activities.

Table 5.1: Workload among secondary school teachers in Gombak, Selangor. (N=368)

Variable	Frequency	Percentage, %
Teaching/ Learning in a day		
Less than 7 hour	334	90.8
More than 7 hour	34	9.2
Planning and preparation of teaching in a day		
Less than 7 hour	338	91.8
More than 7 hour	30	8.2
Participant in management activities in a day		
Less than 7 hour	324	88
More than 7 hour	44	22
General administrative work in a day		
Less than 7 hour	324	88
More than 7 hour	44	22
Communication with parents/ career in a day		
Less than 7 hour	355	96.7
More than 7 hour	12	3.3

Based on study conducted by Pansiora et.al (2020), teachers who scored 8 to 24 will be categorized as individual with low self-efficacy while teachers who scored 25 to

40 will categorized as individual with high self-efficacy. Out of 368 respondents, 233 (63.3%) teachers has high self-efficacy while 135 (36.7%) teacher has low self-efficacy respectively (Table 5.2).

Table 5.2: Self-Efficacy among secondary school teacher in Gombak, Selangor. (N=368)

Variable	Frequency	Percentage
Self efficacy		
Low	135	36.7
High	233	63.3

In term of motivation, it has been divided into 2 variables which are Intrinsic Motivation and Extrinsic Motivation. Teachers who scored between 7 to 21 are more towards to low intrinsic motivation while teachers who scored between 22 to 35 are more towards to high intrinsic motivation. Similarly applied to Extrinsic Motivation. Individuals who scored between 2 to 6 are more towards to low extrinsic motivation while individuals who scored between 7 to 10 are more towards to extrinsic motivation. Out of 368 respondents, 222 (60.3%) teachers have high intrinsic motivation while the other146 (39.7%) have low intrinsic motivation. On the other hand, majority of the respondents have low extrinsic motivation (85.1%) while minority has high extrinsic motivation (14.9%). The result is shown in Table 5.3

Table 5.3: Motivation among secondary school teacher in Gombak, Selangor. (N=368)

Variable	Frequency	Percentage
Intrinsic Motivation		
Low	146	39.7
High	222	60.3
Extrinsic Motivation		
Low	313	85.1
High	55	14.9

4.4 Factors associated with stress level among the Secondary school's teachers'

4.4.1 Association Stress Level and Workload

The result from the chi-square analyses for the tests of association between stress and its associated factor (workload, self-efficacy and motivation) has been showed in Table 4.1, Table 4.2 and Table 4.3 respectively. In term of workload, there are five variables that have been measured. The chi-square analyses showed a significant association between stress level and hours spent on general administrative work in a day. Meanwhile, no association has been observed between stress level and another four variables (learning, planning and preparation of teaching, participant in management activities and communication with parent/carers). This result showed that teachers who spent more than 7 hours on general administrative work has high percentage of them experienced moderate and high stress (73%) as compared to those who experienced low stress (27%). Similarly with teachers who spent less than 7 hour on general administrative work experienced with moderate and high stress (68% respectively) but has low percentage of low stress (1%). However, among those who spent more than 7

hours on general administrative activities, the percentage who experienced high stress was higher (9%) as compared to those who spent less than 7 hours (1%).

Table 6.1 Association between workload (5 items) and stress level among respondent. (N=368)

Variables	Stress Level Among Respondent				X^2	P
	Low	Moderate	High	Total		
Learning/ Teaching in a day						
Less than 7 hours	108 (32%)	219 (66%)	7 (2%)	334 (100%)	3.467	0.177
More than 7 hours	7 (20%)	25 (74%)	2 (6%)	34 (100%)		
Planning and preparation of teaching in a day						
Less than 7 hours	107 (32%)	223 (66%)	8 (2%)	338 (100%)	0.392	0.822
More than 7 hours	8 (27%)	21 (70%)	1 (3%)	30 (100%)		
Participant in management activities in a day						
Less than 7 hours	99 (31%)	218 (67%)	7 (2%)	324 (100%)	1.711	0.425
More than 7 hours	16 (36%)	26 (59%)	2 (5%)	44 (100%)		
General administrative work in a day						
Less than 7 hours	103 (32%)	216 (67%)	5 (1%)	324 (100%)	9.330	0.009*
More than 7 hours	12 (27%)	28 (64%)	4 (9%)	44 (100%)		
Communication with parents/ carer in a day						
Less than 7 hour	113 (32%)	233 (66%)	9 (2%)	355 (100%)	1.705	0.426
More than 7 hour	2 (17%)	10 (83%)	0 (0%)	12 (100%)		

***Significant at p-value <0.05**

4.4.2 Association of Stress Level and Self-Efficacy

On the other hand, the chi-square analysis showed a significant association between stress level and self-efficacy of the respondents. Among those with high self-efficacy, 64% of them experienced moderate and high stress as compared to those with low self-efficacy which showed higher percentage of them experienced moderated and high stress (76%).

Table 6.2 Association between self-efficacy and stress level among secondary school teachers in Gombak Selangor. (N=368)

Variables	**Stress Level among respondent**				**X^2**	**P**
	Low	Moderate	High	Total		
Self efficacy						
Low	32 (24%)	97 (72%)	6 (4%)	135 (100%)	8.358	0.015*
High	83 (36%)	147 (63%)	3 (1%)	233 (100%)		

***Significant at p-value <0.05**

4.4.3 Association between Stress Level and Motivation

In term of motivation, there are two variables that have been measured which are intrinsic motivation and extrinsic motivation. The chi-square analysis showed a significant association between stress level and intrinsic motivation while no association between stress level and extrinsic motivation among respondent. Among the teacher with low intrinsic motivation, more of them experienced moderate and high stress (75%) as compared to those with high intrinsic motivation (64%). Thus, it shows that teachers with low intrinsic motivation has higher tendency to be stressed.

Table 6.3 Association between motivation and stress level among secondary school teachers in Gombak, Selangor. (N=368)

Variables	**Stress Level among respondent**				**X^2**	**P**
	Low	Moderate	High	Total		
Intrinsic Motivation						
Low	36 (25%)	104 (71%)	6 (4%)	146 (100%)	6.992	0.030*
High	79 (36%)	140 (63%)	3 (1%)	222 (100%)		
Extrinsic Motivation						
Low	102 (33%)	203 (65%)	8 (2%)	313 (100%)	1.966	0.374
High	13 (24%)	41 (75%)	1 (1%)	55 (100%)		

***Significant at p-value<0.05**

4.4.4 Association of stress level and Socio-demographic characteristic

The chi-square analysis has been performed to test the association between stress level and the socio-demographic analysis. The finding showed that no significant association was observed –between socio-demographic characteristic and stress level as shown in Table 6.4.

Table 6.4: Association between socio-demographic and stress level characteristic. (N=368)

Variables	Stress Level among respondent				X^2	P
	Low	Moderate	High	Total		
Gender						
Male	18 (37%)	29 (59%)	2 (4%)	49 (100%)	1.595	0.450
Female	97 (30%)	215 (67%)	7 (2%)	319 (100%)		
Age						
20-30	7 (21%)	26 (76%)	1 (3%)	34 (100%)	1.984	0.371
31 and above	108 (32%)	218 (65%)	8 (2%)	334 (100%)		
Marital Status						
Single	8 (28%)	21 (72%)	0 (0%)	29 (100%)	3.556	0.469
Married	105 (32%)	214 (65%)	9 (3%)	328 (100%)		
Divorced	2 (18%)	9 (82%)	0 (0%)	11 (100%)		
Teaching Experience						
Less than 5 year	10 (25%)	29 (73%)	1 (2%)	40 (100%)	0.821	0.663
More than 5 year	105 (32%)	215 (66%)	8 (2%)	328 (100%)		

4.4.5 Multiple Regression Analysis

General administrative activities, self-efficacy and intrinsic motivation were tested in simple logistic regression analysis followed by multiple logistic regression. From the result of simple logistic regression, self-efficacy (p-value=0.018) and intrinsic motivation (p-value=0.028) that have p-value<0.25 can be included in the multiple logistic regression analysis. In the analysis, the model reasonably fit well with standard error (SE) < 2.00 that indicate with no multicollinearity problem. As shown in Table 6, the multiple logistic regression test showed those with low self-efficacy have 1.8 times risk to get stress (OR=1.781, 95% CI=1.103,2.875 , p-value=0.018) than those who have high self-efficacy.

Table 6.5: Association between general administrative activities, self-efficacy and intrinsic motivation and stress among teachers in Gombak, Selangor.

Variable	Crude OR (95% CI)	Adjusted OR (95% CI)	Wald test (df)	p-value
Teaching/ Learning in a day				
Less than 7 hours	0.495 (0.207, 1.181)	-	-	-
More than 7 hours	*Ref*			
General administrative activities in a day				
Less than 7 hours	0.805 (0.398, 1.626)	-	-	-
More than 7 hours	*Ref*			
Self-efficacy				
Low	1.781 (1.103, 2.875)	1.781 (1.103, 2.875)	5.583	0.018*
High	*Ref*			
Intrinsic Motivation				
Low	1.688 (1.059, 2.690)	-	-	-
High	*Ref*			

***Significant p-value<0.05**

CHAPTER 5

DISCUSSION

5.1 Discussion

This study explored the stress level among secondary school teachers in Gombak, Selangor and its factors during the pandemic Covid-19 that happened today. There are two major factors that have been measured in this study which are socio-demographic characteristic factor and work-associated factor. Based on the finding, 66.3%, 31.3% and 2.4% of the respondent experienced moderate, low, and high stress respectively. This result is in line with the result obtained from Shkembi et. al (2015) who conducted a study on the association between stress level and socio-demographic characteristic (Gender, Age, Marital Status, and Working Experience) among teachers in Kosovo. The finding showed teachers experienced high in moderate to a high level of stress among teachers in Kosovo. This result also corresponding with the result obtained from Sulaiman et.al (2020) where teachers experienced moderate stress in online teaching in Malaysia. This may due to the preparedness of teachers in conducting online teaching where there are not ready teaching methods from conventional teaching to online teaching. Besides, several teachers may have the least experience in conducting online teaching and low confidence in this profession.

In term of socio-demographic factor, there is no significant association between stress level and gender, age, marital status, or teaching experience among teachers. This finding is in contrast with several previous findings. A study conducted by Antoniou et al (2006), showed a significant association between gender and age. By using Maslach Burnout Inventory, this study found that female teachers more confronts with stress as compared to male teachers. This may due to their gender-specific stressor that may lead to their difficulties in confronting problems related to their work environment. Besides, this study also found that the younger teachers experienced a higher level of stress compared to older teachers. Antoniou et. al (2016) highlighted the reason is due to difficulties of younger teachers to adapt in the profession and adapting inactivation of appropriate coping strategies. However, this finding is in contrast with Shkembi et al (2015). Their study found out that older teachers has a significant correlation with stress level. In terms of working experience, it is related to the wages. Teachers who have more experience but a little amount in wages experienced a high level of stress due to the outcome is not in lined with the work that they have done. Perhaps, for further study, the researcher might include education level and wages to see the relation of this factor with stress level among teachers.

The majority of teachers in this study spent less than 7 hours per day teaching, planning, management activities, general administrative activities, and communicating with student's parents during work from home. Furthermore, the result analysis also found that no significant relation between workload in terms of teaching/learning, planning and preparation of teaching, a participant in management activities, and communication with student's parent, and stress level during a pandemic. This result

differs from Klapport et. al (2020). Their result shows teachers who spend more hours on online teaching tend to feel stress compare to teachers who spent fewer hours in online teaching. However, there is a significant relation between workload in terms of general administrative activities and stress. It shows that teachers who spent more than 7 hours per day on general administrative activities have a high tendency to feel stress compared to teachers who spent less than 7 hours per day on these activities. This finding is in lined with Klapproth et al (2020). Their finding showed teachers who spend more than four hours in online teaching were more likely to feel stress compared to teachers who spend less than four hours. Based on the survey conducted by National Foundation For Educational Research, NFER (2020), teachers who work from home during the Covid-19 pandemic do not play a role as teachers only but also need to parent their child and also do another task such as cleaning. Besides, Apperibai et.al (2020) highlighted that teachers who spent more time on physical activities and spent more on working become more optimistic.

The result also showed a significant association between an individual's self-efficacy and stress level among teachers during Pandemic Covid-19. Teachers who have low self-efficacy have a higher chance to admit more stress compared to teachers who have a high level of self-efficacy. This result showed that teachers with low self-efficacy have 1.78 times the odd to get stress than the teachers who are high self-efficacy. This result corresponds to the result achieved by Batool et. al (2020) where their study relied on the impact of self-efficacy on job stress among female teachers. Klassen & Chiu (2010) also showed teachers with low self-efficacy tend to have higher stress and a higher likelihood of burnout. Kay (2008) found teachers who have 8-month training in

computer programming have low computer anxiety. Thus, it shows that teacher's knowledge in conducting online teaching also important.to increase teacher's self-efficacy in conducting online teaching. Devica (2015) has outlined that administrative school supported also plays the main role in influencing teacher's self-efficacy. It shows poor administrative support such as a lack of regulation's student behavior leads to a low level of teacher's self-efficacy.

Other than self-efficacy, this study found that intrinsic motivation is significantly associated with stress levels among teachers. It shows that teachers who have low intrinsic motivation tend to feel stress compare to teachers who have high extrinsic motivation. This finding is in corresponding with Panisoara et.al (2020). It showed that intrinsic motivation has a significant relation with occupational stress among teachers during Pandemic Covid-19. They highlighted teachers who do not perceived digitally efficiency and lack of support from school management tend to feel negative emotions when conducting online teaching. Thus, they feel less motivated on their job. Nyarko et. al (2014) has highlighted motivation and job satisfaction among high school teachers in Ghana. Their finding showed teachers who have high intrinsic motivation more likely to be satisfied compared to those who have high extrinsic motivation. Shultz and Shultz (1998) stated that job satisfaction is relatable with the negative and positive feelings and attitudes towards their job. However, there is no significant association between extrinsic motivation with stress level among teachers. This result is in contrast with Panisoara et al (2020). The study reveals a significant association between extrinsic motivation and occupational stress among teachers in Romania. Intrinsic motivation play role in reduction of occupational stress while extrinsic motivation represented by

external regulation such as wages directly rise occupational stress. Teachers with more experience but have low wages tend to expose with stress due to low extrinsic motivation (Shkembi et. al, 2015). However, extrinsic motivation has a lower quality compared as intrinsic motivation as a motivator for teachers.

Stress may lead several implications among the teachers. Panisoara et al (2020) found significant association between occupational stress and continuance intentions toward online teaching. Teachers who felt stress intense to feel less motivated and committed on their job. Anandasayanan and Subramaniam (2013) highlighted that stress has a contribution to the job performance quality among teachers. Besides, students' satisfaction has also been affected when teachers cannot present quality of instruction to their students. Several studies also showed that job performance and student satisfaction may be affected when teachers facing severe levels of stress. Asaloei et al (2020) stated that negative emotion may assist to several effect such as poor performance, dissatisfaction and also desire to leave the teaching profession. On the other hand, continuous stress may lead long term diseases such as heart attack and diabetes (Pietrangelo, 2020).

Thus, this issue should not be taken lightly. Teachers should be positive in facing their challenges. Thus, it is better to obtain the necessary awareness in order to handle the personal stressor especially by providing knowledge, training and supports on how to cope with work stress. This will help them in minimizing and handling their stress in a good way to assure a better and quality of life as teachers.

5.2 Strength of the study

There are several strengths subjected to this study. One of it is the design of this research where cross-sectional study designed are relatively quick and inexpensive to conduct. Besides, it is easy to determine the association between multiple exposures (socio-demographic factor and work-related factor) and outcome (stress level). The second strength of this study is collecting data by the online survey where face-to-face meeting does not need and can be distributed via Whatsapp. Furthermore, the Likert-scale that has been used in the questionnaire, just allow respondent to respond with degree of agreement.

5.3 Limitation of the study

There are several limitations subjected to this study. The first limitation was the inability to find out a causal relationship between the variables as this is a cross-sectional study. The second limitation was the researcher did not randomly assign participants to Whatsapp groups due to privacy issues. Other limitations were the sample size and the self-reporting of data via a survey model. The sample size was restricted due to the researcher's access to only one districts' secondary school teacher population which is in Gombak, Selangor.

Furthermore, the lack of source from previous study is one of the limitations in this study. Moreover, the research depends on self-reporting measures via surveys requiring responses given a Likert-scale. The next limitation was the response rate of the

respondent to answering the surveys given. Specifically, out of 30 schools that targeted to involve in this study, only 15 gave permission to the researcher to approach the teachers. This is due to the survey was carried out on the first week of school operating after 5 months closed. As the result, 368 completed data was obtained from the targeted 762 samples.

CHAPTER 6

CONCLUSION

This study reveals majority of the respondent perceived stress as medium (66.3%) and high (2.4%). This is quite alarming as generally, 68.7% of the teachers are stress. The factors which significantly associated with stress are self-efficacy, general administrative work, and intrinsic motivation. It turns out that self-efficacy is the most important factor associated with the stress level among the teachers. Low self-efficacy is associated with a 1.78 times risk to get stress among secondary school teachers in Gombak, Selangor.

These findings such as general administrative activities (workload), self-efficacy, and intrinsic motivation have an effect on stress levels among teachers. There are several strategy suggested to improve mental health among teachers during conducting online teaching. The first strategy is by improving teacher's working conditions. This strategy need to be done by administration's school by providing programs in conducting online teaching to improve teacher's welfare and their confident while conducting online teaching. This strategy may lead to better outcome because students' performance is influenced by teachers' self-efficacy.

The second strategy was provision of professional development programs, such as in-service training and counseling services to increase the capacity of the teachers. Therefore, the present study concluded that the Ministry of Education should institute regular programs that continuously improve teachers professionally because this would increase the educational standards in Malaysia since teachers' self-efficacy influences educational standards in schools. In addition, an explorative study might be carried out to determine the capacity building needs of teachers.

The third strategy was school administrators should adopt facilitative style of leadership that assists teachers to attain their personal and professional goals because this would improve the school's mean score, which is influenced by teachers‟ self-efficacy. Further study, however, should be carried out to compare the influence of different leadership styles on teachers" self-efficacy.

Besides, teachers need to try learn new things to enhance skills and technique in computer program. This strategies may improve teacher's performance in conducting online teaching and lead to high level self-efficacy among teachers. Moreover, teacher can enhance their self-efficacy by guide the students through the task or motivate them to make their best effort. One of it is by guide their emotional state because a positive mood can boost one's beliefs in self-efficacy, while anxiety can undermine it.

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APPENDICES

Appendix 1: List of Secondary School in Gombak, Selangor

No.	Name of School	Total respondent (Needed)	Total Respondent (Collected)	Remarks
1	SMK Bukit Indah	20	-	Rejected
2	SMK Gombak Setia	38	-	Rejected
3	SMK Taman Selayang	24	44	Online
4	SMK Lembah Keramat	21	-	Rejected
5	SMK Taman Ehsan	33	13	Online
6	SMK Rawang	26	38	Online
7	SMK Taman Keramat	13	12	Online
8	SMK Seri Gombak	28	2	Online
9	SMK HillCrest	26	-	Rejected
10	SMK Ideal Heights	27	19	Conventional
11	SMK Taman Melawati	32	-	Rejected
12	SMK Seri Selayang	32	33	Online
13	SMK Sungai Kertas	17	-	Rejected
14	SMK Seri Keramat	17	44	Online
15	SMK Darul Ehsan	34	-	Rejected
16	SMK Sungai Pusu	29	-	Rejected
17	SMK Taman Desa	26	-	Rejected
18	SMK Bandar Tasik Puteri	36	36	Online
19	SMK Bukit Rahman Putra	31	15	Online
20	SMK Seri Kundang	19	26	Online
21	SMK Taman Desa 2	32	23	Conventional
22	SMK Sierramas	17	20	Online
23	SMK Tun Perak	18	-	Rejected
24	SMK Bukit Gading	30	-	Rejected
25	SMK Bandar Baru Sg Buloh	32	2	Online
26	SMK Kepong	33	-	Rejected
27	SMK Hulu Kelang	9	-	Rejected
28	SMK Selayang Bharu	31	41	Online
29	SMK Seri Garing	34	-	Rejected
30	SMK Tuanku Abdul Rahman	12	-	Rejected
	Total	762	368 (48% from sample)	

Appendix 2: Grantt Chart

PROJECT SCHEDULE													
YEAR	**1**								**2**				
PROJECT ACTIVITIES	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**
Preparation for fieldwork	-	-	-	/	/	/							
Selection of the respondent					/	/	/	/					
Data Collection-Survey									/	/			
Data analysis											/		
Thesis writing												/	
Prepare manuscript for publication												/	
Thesis submission												/	
Viva presentation													/
YEAR	**1**								**2**				
PROJECT MILESTONE	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**
Preparation for fieldwork						/							
Selection of the respondent								/					
Data Collection-Survey										/			
Data analysis											/		
Thesis writing												/	
Prepare manuscript for publication												/	
Thesis submission												/	
Viva presentation													/

Appendix 3: Research FlowChart

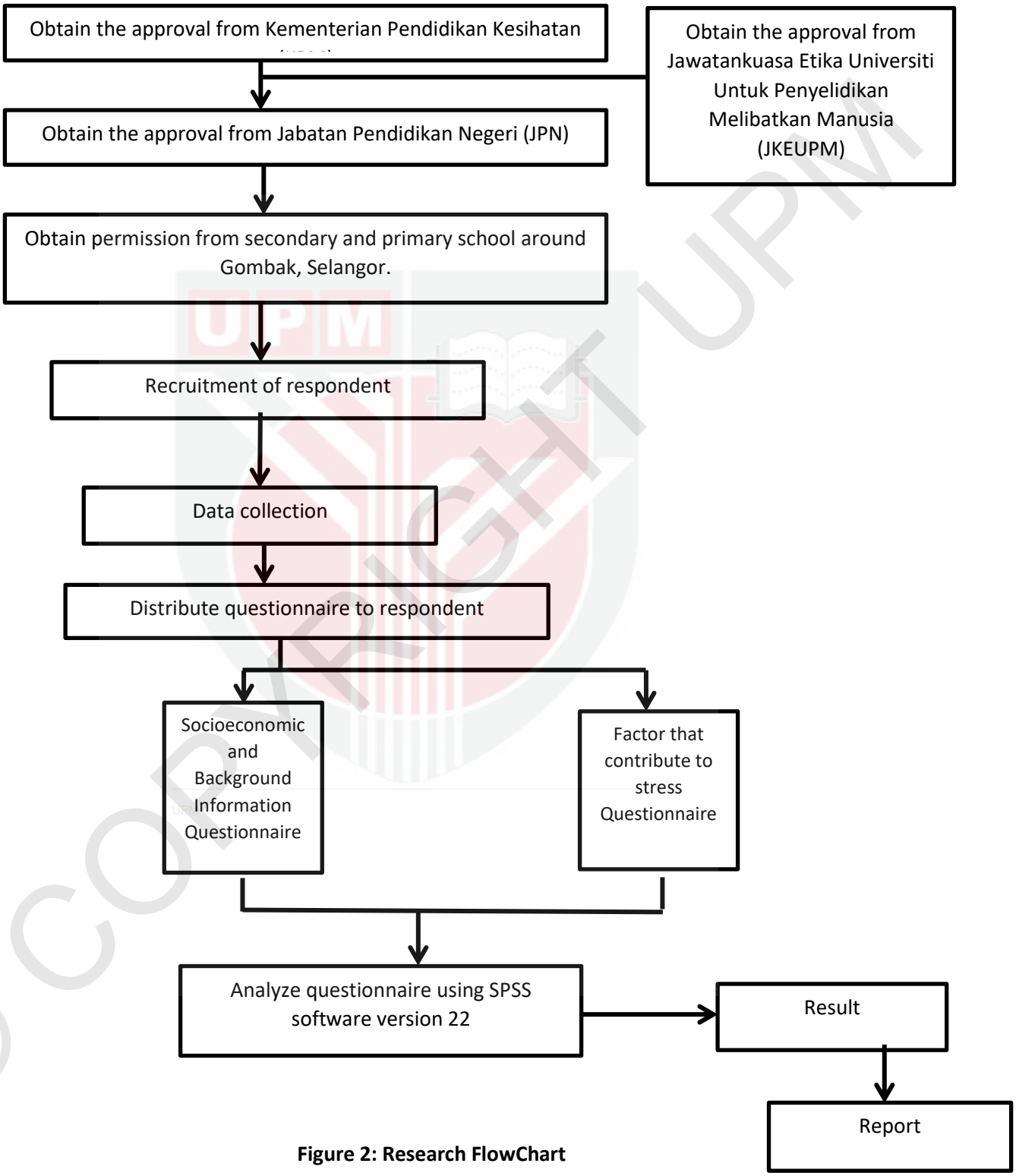

Figure 2: Research FlowChart

Appendix 4: Sampling Flow Chart

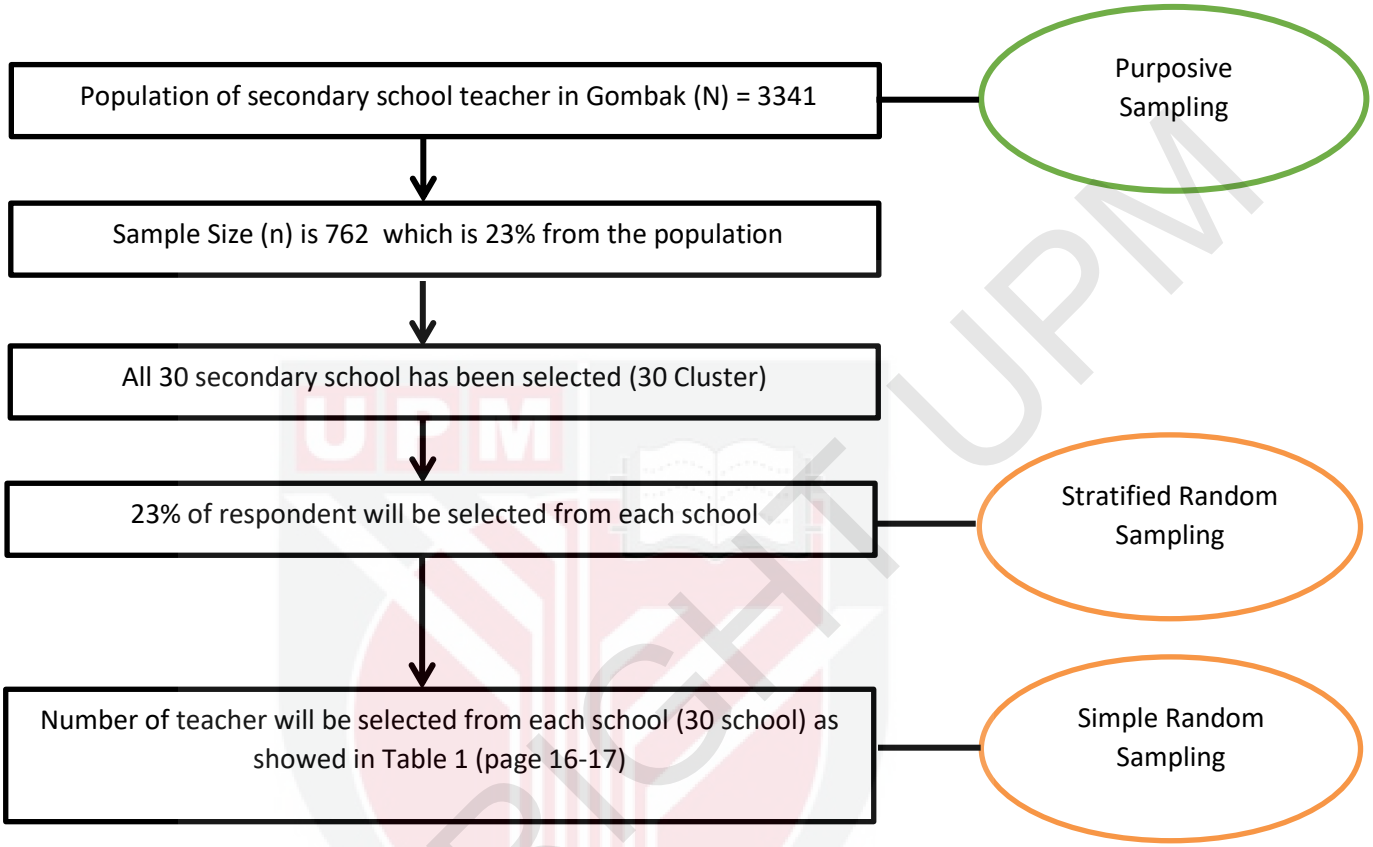

Figure 3: Sampling Flow Chart

Appendix 5: Consent Form- (Conventional Survey purpose)

5.1 Malay Version

Saya…… No Kad Pengenalan. ……

beralamat…… ……

……..dengan ini bersetuju untuk mengambil bahagian secara sukarela dalam penyelidikan yang tersebut di atas *(kajian klinikal/percubaan ubat-ubatan/rakaman video/kumpulan sasaran/temuduga/ soal selidik).

Saya telah diberi penjelasan secara menyeluruh mengenai penyelidikan ini dari segi metodologi, risiko dan komplikasi (seperti tertulis pada Helaian Penerangan Responden). Saya memahami bahawa saya berhak menarik diri dari penyelidikan ini pada bila-bila masa tanpa memberi sebarang alasan.Saya juga memahami bahawa sebarang maklumat yang berkaitan identiti saya akan dirahsiakan.

Saya* berminat / tidak berminat untuk mengetahui keputusan kajian yang melibatkan saya.

I setuju/tidak bersetuju untuk imei/gambar/rakaman video/ rakaman suara digunakan dalam apa juabentuk penerbitan atau pembentangan. (sekiranya berkaitan).

*potong yang tidak berkenaan

Tandatangan …….…… (*Responden*)

Tarikh :……..…..

Tandatangan ……..……. (*Saksi*)

Nama :……..…..

No. K/P: ……..…..

Saya mengesahkan bahawa saya telah menerangkan kepada responden ini sifat dan tujuanpenyelidikan yang tersebut di atas.

Tarikh ……..……

Tandatangan ……..……. (*Penyelidik*)

Appendix 6: Questionnaire- English Version

Study information:

Due to Covid-19 pandemic in Malaysia, there are many sectors that affected. One of it is educational sector. Selangor is one of the early states that announced Conditional Movement Control Order (CMCO) on 14th October 2020. There are many educational sector such as school, colleagues, university and other educational institution directed to closed. Thus, educator has conducting online teaching-learning with student as a communication.

This is Final Year Project which is conducted to fulfill the requirement to obtain a Bachelor Science (Environmental and Occupational Health) from- Universiti Putra with the title:

'STRESS AND ITS ASSOCIATED FACTORS DURING COVID-19 PANDEMIC AMONG TEACHERS IN GOMBAK SELANGOR.'

Hence, it is highly appreciated if this survey is fulfilled. Thank you for your cooperation.

Section 1: Socio-demographic characteristic & psychological.

1. Sex:
   - Male
   - Female

2. Age:

   ……

3. Marital Status:
   - Single
   - Married
   - Divorce

4. Working Experience (years):
   - Less than 5 year
   - More than 5 year

Section 2: The Perceived Stress Scale (PSS)

Please read each statement and mark it on a scale that shows how often it relates to you over the past 4 weeks. There are no right or wrong answers. You do not have to set aside too much time for each statement.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

2. In the last month, how often have you felt that you were unable to control the important things in your life?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

3. In the last month, how often have you felt nervous and "stressed"?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

5. In the last month, how often have you felt that things were going your way?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

7. In the last month, how often have you been able to control irritations in your life?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

8. In the last month, how often have you felt that you were on top of things?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

9. In the last month, how often have you been angered because of things that were outside of your control?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

1. None	2. Almost Never	3. Sometimes	4. Often	5. Very Often

Section 3: Teacher's workload.

Please read each statement and mark it on a scale that shows how often it relates to you over the past 4 weeks. There are no right or wrong answers. You do not have to set aside too much time for each statement.

The rating scales is as follows:

0 = Less than 1 hour
1 = 2 to 3 hour
2 = 4 to 5 hour
3 = 6 to 7 hour
4 = More than 7 hour

Teachers' Workload during pandemic	1	2	3	4	5
i. Learning/ Teaching					
ii. Planning and preparation of teaching or learning activities.					
iii. Participant in management activities.					
iv. General administrative work (including paperwork, work email and other clerical duties.)					
v. Communication with parents/ carers (including email, letter and phone calls)					

Section 4: Teachers' efficacy in managing online class

Please read each statement and mark it on a scale that shows how often it relates to you over the past 4 weeks. There are no right or wrong answers. You do not have to set aside too much time for each statement.

The rating scales is as follows:

1 = Very Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Very Agree

Teachers' efficacy in managing online class	1	2	3	4	5
i. I can help my students to use online learning environments effectively.					
ii. I can use information and communication technologies (ex: Zoom, Google Meet, etc.), which allow me to communicate with student					
iii. I can design lessons so that they can be used in virtual learning environment					
iv. I am able to recommend to students' study materials enriched with open educational resources.					
v. I can use online tools to assess student knowledge.					
vi. I can use appropriate digital technologies that allow me to express my opinions and interact with student					
vii. I adapt quickly to student's requests when teaching remotely					
viii. I constructively address the challenge of remote teaching.					

Section 5: Motivation in Online Teaching.

Please read each statement and mark it on a scale that shows how often it relates to you over the past 4 weeks. There are no right or wrong answers. You do not have to set aside too much time for each statement.

The rating scales is as follows:

1 = Very Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Very Agree

Instrinsic Motivation	**1**	**2**	**3**	**4**	**5**
i. I teach online because online teaching is real success to me.					
ii. I teach online because it is a positive challenge for my personal development					
iii. I teach online because I like to do this					
iv. I teach online because I appreciate this task as interesting					
v. I teach online because I can easily manage intellectual effort					
vi. I teach online because I manage to identify new aspects of online teaching					
vii. I teach online due to curiosity					
Extrinsic Motivation	**1**	**2**	**3**	**4**	**5**
i. I teach online because I am paid to do this					
ii. I teach online because the school forces me to do this					

Appendix 7: Questionnaire (In Malay Version Only)

Stres dan Faktor Berkaitan sepanjang Pandemik Covid-19 dalam kalangan guru di Gombak Selangor.

Para Responden yang dihormati,

Terima kasih kerana sudi meluangkan masa anda untuk mengambil bahagian dalam soal selidik ini. Berikutan wabak COVID-19 yang melanda Malaysia, banyak sektor di negara ini mulai terjejas. Salah satunya adalah sektor pendidikan. Selangor adalah salah satu negeri yang terawal mengumumkan Perintah Kawalan Pergerakan Bersyarat (PKPB) pada 14 Oktober 2020. Terdapat banyak sektor pendidikan seperti sekolah, kolej, universiti dan institusi pendidikan lain yang diarahkan tutup. Oleh itu, kebanyakan pendidik telah menjalankan pengajaran dan pembelajaran dalam talian dengan pelajar sebagai media komunikasi. Justeru itu, tujuan kajian ini adalah untuk mengetahui tahap stres yang mungkin dialami oleh guru yang terkesan dengan wabak COVID-19 dan faktor-faktor yang berkaitan degannya dalam kalangan guru di Gombak, Selangor. Dalam kajian ini, guru sekolah menengah telah dipilih sebagai peserta.

Kajian ini telahpun mendapat kelulusan daripada Jawatankuasa Etika Universiti Untuk Penyelidikan Melibatkan Manusia (JKEUPM-2021-) Universiti Putra Malaysia dan Kementerian Pelajaran Malaysia (KPM-2021).

1. SIAPA YANG BOLEH MENYERTAI SOAL SELIDIK INI

   Guru sepenuh masa yang berkhidmat di sekolah menengah di kawasan Gombak merupakan orang yang paling sesuai menyertai kajian ini.

2. SIAPA YANG TIDAK BOLEH MENYERTAI SOAL SELIDIK INI?

   Mereka yang dikategorikan sebagai:

   a) Guru yang sudah bersara

   b) Guru kontrak

c) Guru yang bekerja di sekolah rendah, kolej, universiti dan institusi tuisyen di daerah Gombak.

3.ADAKAH SOAL SELIDIK INI BERISIKO?

Tidak ada risiko yang mungkin timbul kerana menyertai kajian ini. Penyelidik hanya menggunakan soal selidik dalam talian dengan kebenaran daripada responden dan tidak melibatkan temuramah secara bersemuka.

4.ADAKAH MAKLUMAT DAN IDENTITI SAYA KEKAL RAHSIA?

Ya, data yang dikumpulkan daripada responden akan dirahsiakan dan hanya dapat diakses oleh penyelidik untuk tujuan kajian ini sahaja. Tidak ada data individu yang akan didedahkan.

5. SIAPA YANG SAYA PERLU HUBUNGI SEKIRANYA SAYA MEMPUNYAI SOALAN TAMBAHAN SEMASA MENJAWAB SOAL SELIDIK INI

   Jika terdapat sebarang soalan, responden boleh menghubungi:

   NorSheila Izlyn Binti Khairul Hady (Penyelidik)
   Tel: 011-39039491 / e-mel: izlyns98@gmail.com

   Dr. Saliza Binti Mohd Elias (Penyelia)
   Tel: 016-2213574 / e-mel: saliza_me@upm.edu.my

   Jabatan Kesihatan Persekitaran dan Pekerjaan
   Fakulti Perubatan dan Sains Kesihatan,
   Universiti Putra Malaysia

1. Nombor telefon:_____ (Ruangan wajib diisi)
2. E-mail: _____ (Ruangan tidak wajib diisi)
3. Sekolah Mengajar yang terkini:_____ (Ruangan wajib diisi)

Bahagian 1: Maklumat Sosiodemografi dan psikologi.

1. Jantina

   o Lelaki o Perempuan

2. Umur:_____

3. Status Perkahwinan

   o Bujang o Berkahwin o Bercerai

4. Pengalaman Mengajar

   o Kurang daripada 5 tahun
   o Lebih daripada 5 tahun

Bahagian 2: Skala Stres yang Dirasakan

Sila baca setiap pernyataan dan tandakan pada skala yang menunjukkan seberapa kerap anda alami selama 4 minggu yang lalu. Tidak ada jawapan yang betul atau salah. Anda tidak perlu mengambil masa yang banyak untuk menjawabsetiap pernyataan.

1. Pada 4 minggu lepas, berapa kerap anda kecewa kerana sesuatu yang tidakdijangka?

1. Tidak pernah	Hampirtiada	Kadangkala	4. Kerap	5. Sangat Kerap

2. Pada 4 minggu lepas, berapa kerap anda berasa tidak dapat mengawal perkara-perkara penting dalam hidup anda?

1. Tidak pernah	2. Hampir tiada	3. Kadang Kala	4. Kerap	5. Sangat Kerap

3. Pada 4 minggu lepas, berapa kerap anda berasa gugup dan 'tertekan'?

1. Tidak pernah	2. Hampir tiada	3. Kadang Kala	4. Kerap	5. Sangat Kerap

4. Pada 4 minggu lepas, berapa kerap anda berasa yakin dengan kemampuananda dalam menangani masalah?

1. Tidak pernah	Hampirtiada	Kadangkala	4. Kerap	5. Sangat Kerap

5. Pada 4 minggu lepas, berapa kerap anda berasa perkara-perkara mengikut keinginan anda?

1. Tidak pernah	Hampirtiada	Kadangkala	4. Kerap	5. Sangat Kerap

6. Pada 4 minggu lepas, berapa kerap anda mendapati diri anda tidak dapat mengatasi semua perkara yang anda lakukan?

1. Tidak pernah	Hampirtiada	Kadangkala	4. Kerap	5. Sangat Kerap

7. Pada 4 minggu lepas, berapa kerap anda dapat mengawal masalah dalam hidup anda?

Tidak pernah	2. Hampir tiada	3. Kadangkala	4. Kerap	5. Sangat Kerap

8. Pada 4 minggu lepas, berapa kerap anda berasa anda berada dalam keadaan teratas?

1. Tidak pernah	2. Hampir tiada	3. Kadang Kala	4. Kerap	5. Sangat Kerap

9. Pada 4 minggu lepas, berapa kerap anda berasa marah pada perkara yang berada di luar kawalan anda?

1. Tidak pernah	Hampirtiada	Kadangkala	4. Kerap	5. Sangat Kerap

10. Pada 4 minggu lepas, berapa kerap menangguhkan kerja anda sehingga berasa sukar untuk menyelesaikannya?

1. Tidak pernah	Hampirtiada	Kadangkala	4. Kerap	5. Sangat Kerap

Bahagian 3: Bebanan Kerja Guru.

Sila baca setiap pernyataan dan tandakan pada skala yang menunjukkan seberapa kerap anda alami selama 4 minggu yang lalu. Tidak ada jawapan yang betul atau salah. Anda tidak perlu mengambil masa yang banyak untuk menjawabsetiap pernyataan.

0 - Kurang dari sejam.
1 - 2 hingga 3 jam
2 - 4 hingga 5 jam
3 - 6 hingga 7 jam
4 - Lebih dari 7 jam

Bebanan Kerja Guru	**0**	**1**	**2**	**3**	**4**
i. Mengajar					
ii. Perancangan dan penyediaan aktiviti untuk pengajaran dan pembelajaran.					
iii. Terlibat dalam aktiviti pengurusan.					
iv. Kerja pentadbiran Am (termasuk dokumen,e-mel kerja dan tugas perkeranian yang lain)					
v. Komunikasi dengan ibubapa pelajar atau waris (melalui telefon dan email)					

Bahagian 4: Keberkesanan dalam mengajar kelas atas talian.

Sila baca setiap pernyataan dan tandakan pada skala yang menunjukkan seberapa kerap anda alami selama 4 minggu yang lalu. Tidak ada jawapan yang betul atau salah. Anda tidak perlu mengambil masa yang banyak untuk menjawabsetiap pernyataan.

1- **Sangat Tidak Setuju**
2- **Tidak Setuju**
3- **Neutral**
4- **Setuju**
5- **Sangat Setuju**

Keberkesanan dalam mengajar kelas atas talian	**1**	**2**	**3**	**4**	**5**
Sayadapat menolong pelajar saya untuk menggunakan suasana kelas maya denganberkesan.					
Saya dapat menggunakan teknologi maklumatdan komunikasi (seperti Google Meet, Zoom) untuk berkomunikasi dengan para pelajar.					
iii. Saya dapat merancang pelajaran supaya dapat digunakan di dalam kelas maya.					
. Saya dapat memberikan pendapat kepada pelajar untuk mendapatkan lebih maklumat daripada pelbagai sumber.					
v. Saya dapat menggunakan alat-alat atas talian untuk menilai prestasi pelajar					
. Saya dapat menggunakan alat teknologi dengan betul untuk menyatakan pendapat dan berkomunikasi dengan pelajar.					
vii. Saya dapat cepat menyesuaikan diri dengan keinginan pelajar dalam kelas maya.					

viii. Saya dapati sangat sukar untuk menyesuaikan diri dengan kelas maya.						

Bahagian 5: Motivasi Semasa Mengendalikan Kelas Maya

Sila baca setiap pernyataan dan tandakan pada skala yang menunjukkan seberapa kerap anda alami selama 4 minggu yang lalu. Tidak ada jawapan yang betul atau salah. Anda tidak perlu mengambil masa yang banyak untuk menjawabsetiap pernyataan.

1- **Sangat Tidak Setuju**
2- **Tidak Setuju**
3- **Neutral**
4- **Setuju**
5- **Sangat Setuju**

Motivasi Dalaman	**1**	**2**	**3**	**4**	**5**
i. Saya mengajar dalam talian kerana pengajaran dalam talian adalah kerjaya sebenar saya.					
ii. Saya mengajar dalam talian kerana iamerupakan cabaran positif untuk perkembangan peribadi saya.					
iii. Saya mengajar kelas dalam talian kerana saya suka melakukannya.					
iv. Saya mengajar dalam talian kerana saya menghargai tugas ini sebagai sesuatu yang menarik.					
v. Saya mengajar dalam talian kerana saya dapat menguruskan usaha intelektual dengan mudah.					
vi. Saya mengajar dalam talian kerana saya dapat mengenalpasti aspek baru dalam pengajaran dalam talian.					
vii. Saya mengajar dalam talian kerana rasa ingin tahu					
Motivasi Luaran	**1**	**2**	**3**	**4**	**5**
1. Saya mengajar dalam talian kerana saya dibayar melakukan itu.					
2. Saya mengajar dalam talian kerana sekolah memaksa saya melakukan itu.					

ETHICS COMMITTEE FOR RESEARCH INVOLVING HUMAN SUBJECTS (JKEUPM)
UNIVERSITI PUTRA MALAYSIA

Research title	:	**Stress and Associated Factors During COVID-19 Pandemic among Teacher in Gombak, Selangor.**
Study Site	:	**Secondary school, Gombak District, Selangor**
JKEUPM Ref No.	:	**JKEUPM-2020-488**
Researcher	:	**Nor Sheila Izlyn Khairul Hady.**
Supervisor	:	**Dr. Saliza Mohd Elias**

Documents received and reviewed with reference to the above study:

1. Ethics Application Form, Version 1 dated 18/12/2020
2. Respondent Information Sheet & Consent (English), Version 2 dated 15/2/2021
3. Respondent Information Sheet & Consent (Malay), Version 2 dated 15/2/2021
4. Proposal (English), Version 3 dated 11/3/2021
5. Questionnaire/Interviews (English), Version 1 dated 18/12/2020
6. Curriculum Vitae of:
    a. Dr. Saliza Mohd Elias

The University Research Ethics Committee, Universiti Putra Malaysia (JKEUPM) operates in accordance to the ICH-GCP Guidelines.

Decision by JKEUPM:

[X] Approved

[X] **Permission MUST BE OBTAINED from the respective hospitals/ institutions before conducting the research**

[ ] Disapproved

Please note that the approval is **VALID UNTIL 22 MARCH 2022**

Researchers should comply with the following:

I. Complete a Study Final Report upon study completion (Form 3.2).

II. Ethical approval is required in the case of amendments/ changes to the study documents/ study sites/ study team.

III. Applicable for Clinical Trial Studies and Clinical interventional Studies only: Progress Report has to be submitted to JKEUPM at every 6 months from the date of approval (Form 3.1). Report occurrences of all Serious Adverse Events (SAEs), Suspected Unexpected Serious Adverse Reaction (SUSARs) and Protocol Deviation/ Violation at all JKEUPM approved sites to JKEUPM. SAEs are to be reported within 15 calendar days from awareness of event by