



UNIVERSITI PUTRA MALAYSIA

***FACTORS ASSOCIATED WITH COVID-19 SOP COMPLIANCE
AMONG SCHOOL MANAGEMENT IN NORTH SELANGOR
DISTRICTS (HULU SELANGOR, SABAK BERNAM, AND KUALA
SELANGOR) 2021: A CROSS-SECTIONAL ON KAP***

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CROSS-SECTIONAL ON KAP**



BY

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**Thesis submitted in fulfilment of the requirement for the degree of Bachelor of
Science in Environmental and Occupational Health with Honours from the
Faculty of Medicine and Health Sciences, Universiti Putra Malaysia**

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ABSTRACT

FACTORS ASSOCIATED WITH COVID-19 SOP COMPLIANCE AMONG SCHOOL MANAGEMENT IN NORTH SELANGOR DISTRICTS (HULU SELANGOR, SABAK BERNAM, AND KUALA SELANGOR) 2021: A CROSS-SECTIONAL ON KAP

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Introduction: Schools were reopened gradually nationwide with support from United Nations International Children's Emergency Funds (UNICEF) to provide the children's right to education despite the pandemic. Hence, compliance with the SOPs at school has become a priority to decrease the risk of infections. To promote high efficiency of disease management in school settings, a depth understanding of factors influencing preventive behaviour is needed. **Objectives:** Thus, this research will determine the association between socio-demographic characteristics, lifestyle, and occupational factors with the level of COVID-19 SOPs compliance among school management. **Methodology:** A cross-sectional study using an online-based questionnaire was conducted among school management in three districts located in North Selangor. The sample selection was through multistage sampling technique. The total sample size was 304 respondents. Respondents needed to complete all six sections in the questionnaire. Descriptive analysis, two independent sample t-test, one-way ANOVA, Pearson's correlation analysis, simple and multiple linear regression analysis were performed in this study. **Results and Discussion:** School management's overall knowledge, attitude, and practice were high with a scoring rate of 94.6%, 94.8%, and 89.2%, respectively. There was a significant positive correlation between knowledge with practice ($r = 0.329$), attitude with practice ($r = 0.266$), and knowledge with attitude ($r = 0.329$). Multiple linear regression revealed that high practice of COVID-19 SOPs compliance was significantly associated with knowledge, attitude, age, and physical activities. Those who aged 51 and above ($\beta = 0.168$, $SE = 0.045$, $p < 0.001$) and often performing physical activities ($\beta = 0.121$, $SE = 0.042$, $p < 0.05$), were more likely to practice strict compliance with SOPs. Knowledge ($\beta = 0.333$, $SE = 0.083$, $p < 0.001$) and attitude ($\beta = 0.160$, $SE = 0.069$, $p < 0.001$) were also significantly influenced their practice. **Conclusion:** The findings suggest that school management demonstrates high knowledge, attitude, and practice towards compliance with SOPs during the pandemic. Continuous in-house training to the school management is advised to be conducted by MOE to ensure the correct implementation of SOPs.

Keywords: Knowledge, Attitude, Practice, COVID-19 SOPs, School Management

ABSTRAK

FAKTOR HUBUNGKAIT DENGAN AMALAN PEMATUHAN SOP COVID-19 DALAM KALANGAN PENGURUSAN SEKOLAH DI DAERAH UTARA SELANGOR (HULU SELANGOR, SABAK BERNAM, DAN KUALA SELANGOR) 2021: KAJIAN RENTAS TERHADAP PENGETAHUAN, SIKAP, DAN AMALAN

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Pengenalan: Pembukaan sekolah secara berperingkat di seluruh negara telah dilaksanakan dengan sokongan daripada Tabung Kanak-Kanak Pertubuhan Bangsa-Bangsa Bersatu (UNICEF) untuk memenuhi hak asasi kanak-kanak dalam mendapatkan pendidikan yang cukup ketika pandemik COVID-19. Oleh itu, pematuhan terhadap SOP di sekolah telah menjadi keutamaan bagi mengurangkan risiko jangkitan. Untuk meningkatkan tahap efisien sesebuah sekolah dalam menguruskan penyakit COVID-19, pemahaman yang kuat terhadap faktor-faktor yang mempengaruhi tingkahlaku mereka dalam amalan pencegahan penyakit adalah diperlukan. **Objektif:** Kajian ini akan mengenalpasti hubungkait antara sosiodemografik, pekerjaan and gaya hidup dengan tahap amalan pematuhan terhadap SOP COVID-19 dalam kalangan pengurusan sekolah. **Metodologi:** Satu kajian keratan rentas menggunakan soal selidik secara atas talian telah dijalankan ke atas pengurusan sekolah di tiga daerah di kawasan utara Negeri Selangor. Pemilihan sampel kajian adalah melalui teknik pemilihan berperingkat. Jumlah saiz sampel dalam kajian ini adalah sebanyak 304 responden. Responden perlu melengkapkan enam bahagian di dalam borang kaji selidik. Kajian ini menggunakan analisis diskriptif, ujian-t dua sampel tidak bersandar, ujian-t ANOVA, ujian korelasi Pearson, dan ujian regresi linear. **Keputusan dan Perbincangan:** Tahap pengetahuan, sikap dan amalan bagi keseluruhan pengurusan sekolah adalah tinggi dengan purata markah masing-masing sebanyak 94.6%, 94.8% dan 89.2%. Terdapat signifikan korelasi positif antara pengetahuan dengan amalan ($r=0.329$), sikap dengan amalan ($r=0.266$), dan pengetahuan dengan sikap ($r=0.329$). Ujian regresi linear berganda menunjukkan amalan pematuhan SOP COVID-19 yang tinggi mempunyai perkaitan yang ketara dengan pengetahuan, sikap, umur, dan aktiviti fizikal. Pengurusan sekolah yang berumur 51 tahun dan ke atas ($\beta=0.168$, $SE=0.045$, $p<0.001$) dan mereka yang selalu melakukan aktiviti fizikal ($\beta=0.121$, $SE=0.042$, $p<0.05$) adalah lebih cenderung untuk mengamalkan pematuhan SOP COVID-19 dengan ketat. Pengetahuan ($\beta=0.333$, $SE=0.083$, $p<0.001$) dan sikap ($\beta=0.160$, $SE=0.069$, $p<0.001$) juga didapati mempengaruhi amalan pematuhan SOP mereka. **Kesimpulan:** Hasil kajian berpendapat bahawa pihak pengurusan sekolah telah mempamerkan tahap pengetahuan, sikap dan amalan yang baik terhadap pematuhan SOP COVID-19 ketika pandemik. Latihan amalan pematuhan SOP yang berterusan kepada pihak pengurusan sekolah adalah disarankan untuk dijalankan oleh KPM untuk memastikan amalan SOP yang betul di sekolah.

Kata kunci: Pengetahuan, Sikap, Amalan, SOP COVID-19, Pengurusan Sekolah

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LIST OF ABBREVIATIONS

SOP	Standard Operating Procedure
COVID-19	Coronavirus Disease 2019
WHO	World Health Organization
MCO	Movement Control Order
MOE	Ministry of Education
UNICEF	United Nations International Children's Emergency Funds
UNESCO	United Nations Educational, Scientific, and Cultural Organization
PdP	Teaching and Learning
MOH	Ministry of Health Malaysia
NSC	National Security Council Malaysia
CDC	Centers for Disease Control and Prevention
KAP	Knowledge, Attitude, and Practice
SARS	Severe Acute Respiratory Syndrome
CCOHS	Canadian Centre for Occupational Health and Safety
EMPL	Employment and Social Affairs Committee
MERS	Middle East Respiratory Syndrome
SDG	Sustainable Development Goal
SARS-CoV	Severe Acute Respiratory Syndrome Coronavirus
MERS-CoV	Middle East Respiratory Syndrom Coronavirus
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
ARDS	Acute Respiratory Distress Syndrome
IPG	Teacher's Training Institutes
SPM	Sijil Pelajaran Malaysia

SVM	Sijil Vokasional Malaysia
SKM	Sijil Kemahiran Malaysia
STPM	Sijil Tinggi Pelajaran Malaysia
STAM	Sijil Tinggi Agama Malaysia
DVM	Diploma Vokasional Malaysia
PdPR	Teaching and Learning at Home
CMCO	Conditioned Movement Control Order
RMCO	Restricted Movement Control Order
EMCO	Enhanced Movement Control Order
JPA	Public Service Department
HAT	Home Assessment Tool
MCMC	Ministry of Communication and Multimedia
TB	Tuberculosis
HFMD	Hand, Food, and Mouth Disease
NRP	National Recovery Plan
ICR	Institute of Clinical Research

CHAPTER 1

INTRODUCTION

1.1 Background

The outbreak of the new novel coronavirus SARS-CoV-2 was declared a pandemic by World Health Organization (WHO) on 11 March 2020, four months since its first emergence in December 2019. Coronavirus Disease (COVID-19) was first identified when a cluster of pneumonia cases with unknown causes appeared in Wuhan, Hubei Province, China (WHO, 2020c). It causes severe acute respiratory infection and manifestation of other symptoms such as fever, difficulty breathing, sore throat, and loss of sense of taste or smell. Transmission of COVID-19 virus happened between humans via respiratory droplets either transmitted directly or indirectly from an infected person (CDC, 2020).

In Malaysia, the COVID-19 situation was overwhelming when the number of positive cases increased abruptly in March 2020 due to a Tabligh religious gathering at Sri Petaling Mosque from 27 February to 1 March 2020 (BERNAMA, 2020). The cluster has contributed nearly half the total COVID-19 cases in this country, and 33 deaths were reported (Muhamad, 2020). Following the widespread of COVID-19 infection throughout the states, the Prime Minister of Malaysia has implemented Movement Control Order (MCO) starting on 18 March 2020 to curb the spread of the disease (N. A. Aziz et al., 2020). During the lockdown period, travelling across countries and states are banned and many economic sectors are forced to close,

including education. The closure of pre-school, primary, secondary and post-secondary schools are made by the Ministry of Education (MoE) (MoE, 2019).

Millions of students were hugely impacted by the disruption in the education process due to school closure. To ensure education continues, schools and higher institutions have shifted the learning method to virtual learning. Not only that, MOE has also postponed the National Public Examinations several times in 2020 as the COVID-19 situation is not favourable at that moment (Harun, 2020). However, in June, MOE has released the reschedule date of SPM to 22 February 2021 and planned for the reopening of schools for exam candidates. The decision of MOE to reopen schools nationwide are in line with United Nations International Children's Emergency Funds (UNICEF) recommendation to provide the children's right to education despite the pandemic. School reopening should be safe and protect students, teachers, staff and even communities from COVID-19 infection. Therefore, with collaboration from UNICEF and UNESCO, WHO has developed Framework for Reopening Schools and IASC Interim Guidance for COVID-19 Prevention and Control in Schools as guidance for the assessment of school readiness to reopen (WHO, 2020a).

Based on the Framework for Reopening Schools, to assess school readiness and inform planning, the government needs to apply six key dimensions: Safe School Operations, Learning, Including the most marginalised, Wellbeing and Protection, Policy and Financing. All these dimensions should be included in the three stages of planning; before school reopening, during the school reopening process, and with school reopening (United Nations Educational et al., 2020). Measures such as monitoring the health of students and staff, establishing health hygiene procedures,

and developing guidelines for cleaning and disinfecting schools should be included in the planning for a safe school operation.

With the support from the UNICEF, the Malaysia government has prepared to reopen schools and successfully developed the Guidelines of School Reopening in June 2020 to recover the national education system. The guidelines consist of a wide range of SOPs designated for schools to prevent the COVID-19 infection and ensure a safe learning environment. The SOPs include the SOPs on the management of classrooms, school facilities, boarding houses, teaching and learning (PdP), and the safety and health of students, teachers and staff. Some of the key prevention and control steps that schools should take are 1) always wearing face masks all the time, 2) ensure the physical distancing among students and teachers inside the class, outside the class, and during the dismiss, 3) always practice good hygiene by washing hands using water and soap frequently, use hand sanitiser, and keep the school environment clean, and 4) only enter schools when healthy and non-symptomatic (Ministry of Education Malaysia, 2020b).

Compliance with the SOPs at the school level has become a priority to decrease the risk of infections. The roles of school management, teachers and students are vital in maintaining the continuation of in-person classes and protecting their safety and health at school. After the school reopened, increased number of COVID-19 cases in schools were reported. Failure to follow the SOPs properly was the factor contributing to the wide spread of infections in schools (Abdullah, 2021). There were claims that teachers not complying with the SOPs while eating and chatting at the pantry during school hours (Abd Mutalib, 2021). Not only teachers, most students were also difficult

to maintain physical distancing with their friends, especially during recess (Ubaidah et al., 2021). The environment of living in boarding houses or hostels is unfavourable for students to comply with the SOPs as they tend to share their belongings and have close interaction with friends in the same room (Yatim, 2021). Despite the problems, school management's role is to remind teachers and students always to follow the SOPs and enforce strict compliance in the school. To effectively mitigate the COVID-19 infection and facilitate outbreak management in school, there is an urgent need to understand school management's beliefs, knowledge and practices to execute the school's preventive strategies.

1.2 Problem Statement

Following the reopening of schools, MoE has constantly reminding teachers, students and parents to comply with the SOPs outlined in the guidelines of school reopening to reduce the risk of COVID-19 transmission at school. Since the onset of COVID-19, SOPs have become an essential reference for public and health care workers to face the unpredictable changes of COVID-19 situation in Malaysia (N. A. Aziz et al., 2020). With the SOPs being put into place, everyone should do their job to implement and comply all the time. According to the Director-General of Health Malaysia, maximum adherence of all Malaysians with the SOPs is the key solution to contain the COVID-19 transmission in this country (BERNAMA, 2021a).

Based on CDC (2021b), persons with COVID-19 are commonly symptomatic, but most children show very mild symptoms or no symptoms at all. Despite being asymptomatic, they are still able to transmit the virus to others. Screening for body

temperature at the entrance every morning and keeping anyone with symptoms from entering which supposedly able to prevent transmission of the virus within the school, will be ineffective. In its guidelines of operational strategies for K-12 schools, CDC recommends schools to implement a layered preventive approach at the same time for a higher level of protection from COVID-19 infection (CDC, 2021d). This means schools should comply with other mitigation strategies proposed in the SOPs such as physical distancing, use of masks and frequent handwashing while still maintaining ongoing symptom screening.

Nearly 97.5% teachers have been vaccinated as of October 2021 (Ibrahim, 2021b) and 88.2% adolescent aged between 12 to 17 have completed two doses as of January 2022 (Cheah, 2021). However, 5.9 million population of children under 12 years old are yet eligible for vaccination in Malaysia (BERNAMA, 2021b). In Malaysia, the three major vaccines used: AstraZeneca, Pfizer, and Sinovac are proven to be effective against SARS-CORV-2 with a low rate of death among vaccinated people by the Institute of Clinical Research (ICR) under MOH (Kaos & Rahim, 2021). Even after being vaccinated, compliance with SOPs such as wearing face masks and practicing physical distancing is still compulsory (CDC, 2021d). Universal indoor masking is critical for teachers, students, staff, and visitors, regardless of their vaccination status and at all degrees of community transmission (CDC, 2021e). It highlights the importance to determine their level of compliance to the preventive measures at schools although teachers and students are vaccinated.

The number of COVID-19 cases in Malaysia has begun to rise after the reopening of schools in the whole Malaysia. There were 83 education clusters reported

and the majority of them were linked to schools and institutions under the MoE (Kaos, 2021b). In Selangor, 79 schools involving eight districts were forced to close after positive COVID-19 cases were reported in the schools (Menon, 2021). As of September 2021, a total 8269 students have been infected with COVID-19 at school (Ibrahim, 2021a). According to experts, the outbreak in schools may come from the transmission outside the school compound due to the lack of temperature screening at the school entrance (Selan, 2021). Not only that, the behaviour of some teachers disobeying the SOPs outside the school by attending mass gatherings at wedding events was found to contribute to the spread of COVID-19 in schools and lead to school closure (Mohd Nawi, 2021). This raises questions on what is their level of compliance towards the SOPs and the factors influencing it.

With the existing guidelines, MoE fully believes it will effectively prevent the risk of COVID-19 infection at school. Schools are forced to implement unprecedented guidelines without any practical training. They merely depend on the documented SOPs to work on it at the site. Based on the UNICEF Framework for Reopening Schools, teachers, school administrators, and staff should be trained in conducting physical distancing and proper hygiene practices as a part of the reopening process for safe school operations (United Nations Educational et al., 2020). Moreover, the establishment of SOPs should be followed with sufficient training for an individual to be acquainted with the application of SOPs (Hollmann et al., 2020).

To ensure the school remains open during the pandemic, school management's adherence to the SOPs is critical, ultimately depending on their knowledge, attitude, and practice towards COVID-19 as proposed by KAP theory (Ajilore et al., 2017).

Therefore, KAP study is a reliable method to be used in order to measure school management's adherence to SOPs during COVID-19 pandemic, which has been used by previous study during health crisis (Ajilore et al., 2017).

Knowledge plays an important role in influencing an individual's attitude and is a significant predictor of adherence to preventive measures (Ajilore et al., 2017). In this pandemic situation, improving knowledge through health education will result in safer personal practices among the public (Qutob & Awartani, 2021). Previous study shows that those with higher knowledge of COVID-19 perceived a lower likelihood of negative attitudes and risky behaviours related to the pandemic (Zhong et al., 2020). This implies that when people have a strong understanding of something, they are more likely to react positively and act on it. Therefore, COVID-19 will be more successfully combated if school management masters the information and put it into practice.

According to studies, optimistic attitudes toward combating COVID-19 attributed to good practices because they are more confident in their approach (Qutob & Awartani, 2021), whereas negative attitudes can have a direct impact on practice, resulting in poor infection control and viral transmission (Wake, 2020). In other research, the act of being compliant is suggested to be linked with their attitudes: a sense of duty and fulfilment (Chua et al., 2021). Hence, the level of attitude might be related to an individual's compliance with SOPs during this pandemic. Because Malaysians' attitudes have such a significant influence on their COVID-19 preventive practices (Abu Hasan et al., 2020), having a good attitude among school management is critical for a better rate of successful school compliance.

Multiple KAP studies regarding COVID-19 shows that practice is strongly impacted by knowledge and attitude as those with good knowledge and attitude performed good practice (Gao et al., 2020; Mehmet et al., 2020). However, it should be noted that acquiring a good understanding and attitude without actively practicing it is incapable of defeating COVID-19 viral transmission in the community, including in school settings. This is because lack of practice in essential infection control is believed to be the leading cause that promotes infectious disease spread (M. H. Lee et al., 2020). This highlights the significance of good practice and adherence with SOPs among school management for a lower risk of COVID-19 in the schools.

When assessing the KAP, sociodemographic characteristics and geographical regions must be taken into account to control the infection rate during a highly communicable illness outbreak (Ali et al., 2020). People's practice against COVID-19 can differ at all sociodemographic factors and varies across countries (Ali et al., 2020). Other than sociodemographic factors, individuals' health history and lifestyle are also found to be impactful towards their preventive practice (Gebretsadik et al., 2021). Although government continuously raises awareness on the importance of SOPs compliance at school, it is unsure whether there is a relation between sociodemographic characteristics, lifestyle and occupational factors with the KAP among school management. Yet, it remains unclear what factors will influence their practice to comply with SOPs at school due to limited studies.

Recent studies show the level of KAP towards COVID-19 among general populations in Malaysia are good (Abu Samah et al., 2020; Mehmet et al., 2020); however, the KAP level in the school population is still unsure. Despite outbreaks at

schools, no research has been conducted to quantify KAP levels among school management in Malaysia, although their compliance to SOPs is significant to keep the spread of COVID-19 in schools under control. School management must have a high KAP because of their responsibility to deliver health education and promote strict adherence to SOPs among students for a safe school operation (UNICEF, 2020). Therefore, this research aims to determine the level of knowledge, attitude and practice towards COVID-19 SOPs compliance among school management and at the same time identify the factors associated with their compliance with SOPs practice. School management will receive beneficial information regarding COVID-19 that can help to promote their compliance with SOPs.

1.3 Study Justification

The information about COVID-19 is considered general information and can be accessed by students through various platforms such as website or television; however, schools should also be one of the sources for students to receive such information. According to Souli et al. (2020), secondary school students in Italy obtained COVID-19 information mostly from social media and less from school. Schools should be equipped with updated information on COVID-19 situation in the country, including preventing and controlling the disease at the school. Therefore, through this study, school management can receive crucial information about COVID-19 and share the information with students to improve their knowledge and practice during this pandemic.

Education about COVID-19 at school level is crucial to ensure the students reached the highest level of understanding about the virus transmission, basic prevention and control of COVID-19, and can protect themselves with the available knowledge. However, for students to achieve that, school management should have excellent knowledge and good compliance with the school's SOPs. According to WHO (2020a), it is essential for school administration, teachers, and staff to ensure safe school operations by demonstrating positive hygiene practices, disinfecting school buildings, and sharing updated information about the pandemic situation with students. Therefore, this study is important to identify the level of SOP compliance among teachers and staff in Malaysia. The results from this study may help school administrators to evaluate the level of knowledge and practice of the teachers and staff in their respective schools and plan for strict enforcement on the SOP compliance to ensure the safety of students, teachers and school staff.

Although many studies have emphasised sociodemographic characteristics as factors associated with the level of KAP, there is less research study on the association between lifestyle, and occupational factors with the level of KAP towards COVID-19. To promote high efficiency of disease management, a depth understanding on factors influencing the prevention and control practice towards COVID-19 is needed. Thus, this research will determine the association between factors including sociodemographic characteristics, lifestyle, and occupational factors with the level of COVID-19 SOP compliance among school management. The evidence from this study can be used by health authorities and any policymakers in planning and improving the existing SOPs and guidelines towards preventing future COVID-19 infection in schools and other educational sectors.

1.4 Research Questions

- i. What are the levels of knowledge, attitude, and practice towards COVID-19 SOP compliance among the school management?
- ii. Are there any significant differences between the level of COVID-19 SOP compliance (KAP) and sociodemographic characteristics, lifestyle, and occupational factors among the school management?
- iii. Is there any significant relationship of knowledge, attitude, and practice towards COVID-19 SOP compliance by the school management?
- iv. What are the significant factors associated with practice towards COVID-19 SOP compliance by the school management?

1.5 Research Objectives

1.5.1 General Objectives

To identify the determinant factors of the knowledge, attitude, and practice towards COVID-19 SOP compliance among school managements in North Selangor districts (Hulu Selangor, Sabak Bernam, Kuala Selangor)

1.5.2 Specific Objectives

- i. To determine the sociodemographic characteristics, lifestyle and occupational factors of the respondents.

- ii. To identify the level of knowledge, attitude and practice towards COVID-19 SOP compliance by the school management.
- iii. To compare the level of COVID-19 SOP compliance (KAP) by sociodemographic characteristics, lifestyle, and occupational factors among the school management.
- iv. To examine the relationship of knowledge, attitude, and practice towards COVID-19 SOP compliance by the school management.
- v. To determine the factors associated with practice towards COVID-19 SOP compliance by the school management.

1.6 Research Hypothesis

- i. There is a significant difference between the level of COVID-19 SOP compliance (KAP) and sociodemographic characteristics, lifestyle, and occupational factors among the school management.
- ii. There is a significant relationship between knowledge and practice towards COVID-19 SOP compliance by the school management.
- iii. There is a significant relationship between attitude and practice towards COVID-19 SOP compliance by the school management.
- iv. There is a significant association between the factors associated with practice towards COVID-19 SOP compliance by the school management.

1.7 Research Variables

1.7.1 Independent Variables

Knowledge and attitude

1.7.2 Dependent Variable

Practice

1.8 Definition of Terms

1.8.1 Conceptual Definition

- i. Knowledge: Knowledge means "the fact of or condition of knowing something with familiarity gained from experience or association" (Merriam-Webster, 2021)
- ii. Attitude: Attitude means "a feeling or way of thinking that affects a person's behaviour" (Merriam-Webster, 2021)
- iii. Practice: Practice means "the activity of doing something, again and again, to become better at it" (Merriam-Webster, 2021)
- iv. COVID-19: COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for the virus, and 'D' for disease. Formerly, the disease was referred to as '2019 novel coronavirus' or '2019-nCoV'. The COVID-19 virus is a new virus linked to the same family of viruses as Severe Acute Respiratory Syndrome (SARS) and some types of a common cold (CDC, 2021a)

- v. SOP: "A standard Operating Procedure is a document that describes the regularly recurring operations relevant to the investigation's quality. The purpose of an SOP is to carry out the operations correctly and always in the same manner. An SOP should be available at the place where the work is done" (European Parliament, 2001).
- vi. Compliance: Compliance is "an act or process of complying with a demand or recommendation" (Merriam-Webster, 2021)
- vii. School management: School is defined as "a place where people are educated" (Cambridge Dictionary, 2021) while management is defined as "the group of people responsible for controlling and organising a company" (Cambridge Dictionary, 2021). Therefore, the school management is a group people that responsible for controlling and organising a school.

1.8.2 Operational Definition

- i. Knowledge:

The knowledge towards COVID-19 will be measured by using a self-developed questionnaire modified from another research's questionnaire. The answer options given are based on 5-Likert scale (5=Strongly Agree, 4=Agree, 3=Neither agree nor disagree, 2=Disagree, 1=Strongly disagree). The results scoring will be categorised into three different levels (good, moderate, low).

- ii. Attitude:

The attitudes towards COVID-19 will be measured by using a self-developed questionnaire modifies from another research's questionnaire. The answer options given are based on 5-point Likert scale (5=Strongly Agree, 4=Agree,

3=Neither agree nor disagree, 2=Disagree, 1=Strongly Disagree). Then, the results scoring will be categorised into three different levels (good, moderate, low).

iii. Practice:

The practice towards COVID-19 will be measured by using a self-developed questionnaire modified from another research's questionnaire. The answer options given is based on 5-point Likert scale (5=Strongly agree, 4=Agree, 3=Neither agree nor disagree, 2=Disagree, 1=Strongly disagree). Then, the results scoring will be categorised into three different levels (good, moderate, low).

iv. School management:

School management is identified as a group of people consists of school administrators, teachers and school staffs who are responsible for controlling and organising the school operation.

1.9 Conceptual Framework

Figure 1.1 shows the conceptual framework of this study. Students, teachers, and school staff are exposed to various hazards at school including physical, chemical, biological, psychosocial, and ergonomics hazards. According to Canadian Centre for Occupational Health and Safety [CCOHS] (2021), hazards can be divided into physical, biological, chemical, ergonomic, psychosocial, and safety. Biological hazards which are bacteria, viruses, bacteria, plants, birds, livestock, and humans can be the reservoir. Exposure of humans to biological hazards can cause many side effects such as chronic and acute effects. Members of the Employment and Social Affairs Committee (EMPL)

addressed the classification of the SARS-CoV-2 virus into risk category 3, the second most dangerous category of biological agents. A risk group 3 classification means that the biological agent may "cause severe human disease and pose a serious risk to workers and risk of spreading to the community, but effective prophylaxis or treatment is usually available." Examples of Risk Category 3 viruses are the SARS and MERS viruses (European Parliament, 2021).

As those biological hazards exist around us and cause an effect, this study determined the level of knowledge, attitude, and practice towards COVID-19 SOPs compliance among school managements to ensure a good future of the management of COVID-19. Appropriate knowledge and awareness on COVID-19 transmission, infection, and symptoms can lead to good behaviour in preventing the disease.

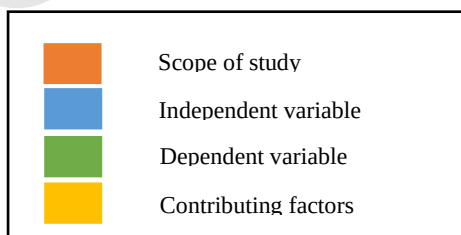
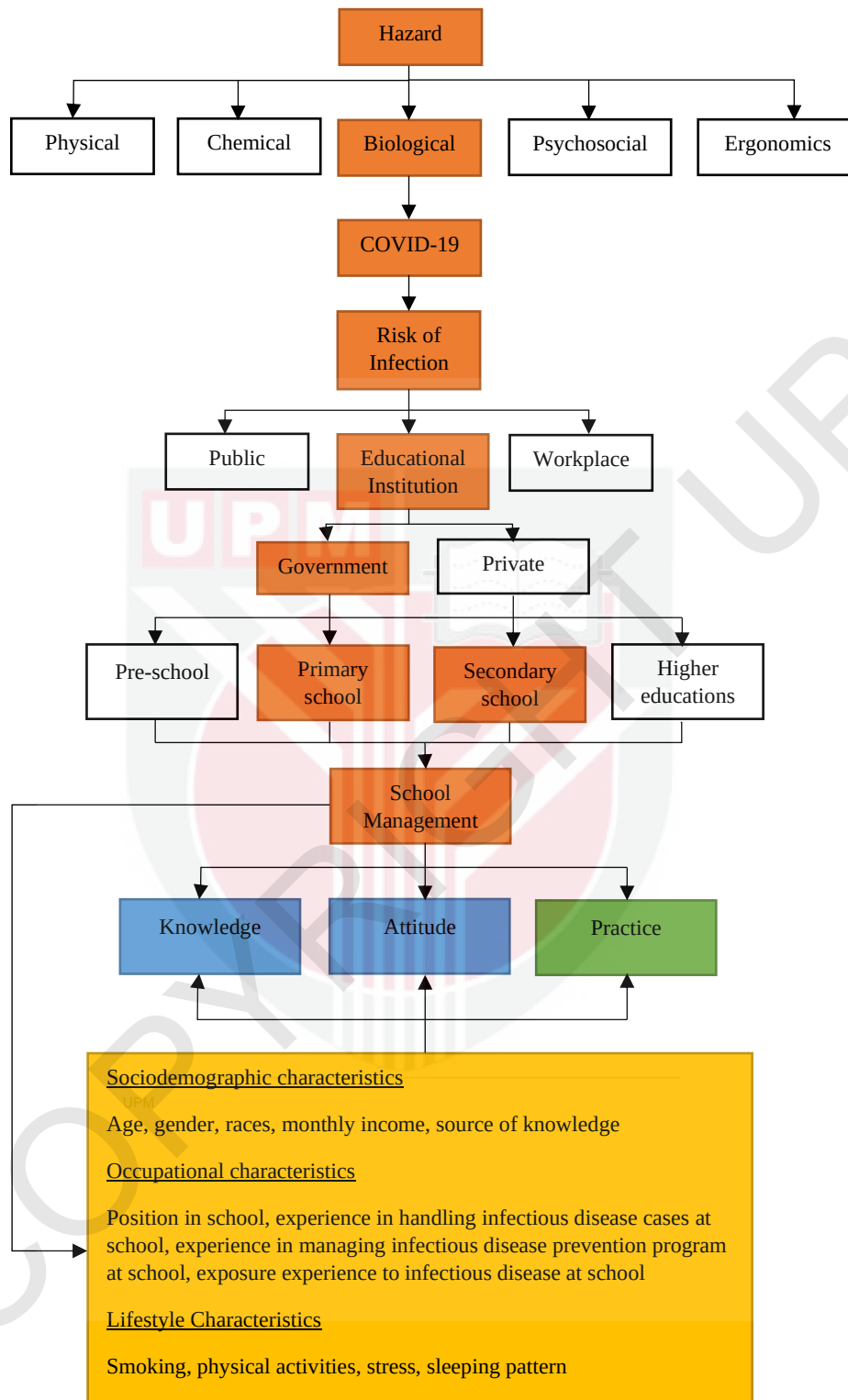


Figure 1.1: Conceptual Framework

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter will review and analyse several literatures from previous studies that are within the field of KAP studies during the COVID-19 outbreak. Other general information related to the topic such as COVID-19, overview on school operation during pandemic, the SOPs and legislation will also be included in details for in-depth understanding. The aims of literature review are to identify the existing knowledge, the previous findings and the limitation. It is also to address the conflicts unsolved and the knowledge gap existed within the relevant studies. The chapter is organised according to the topics, starting from general to specific order. This literature review will help the current study to achieve the objective which is to identify the level of knowledge, attitude and practice towards COVID-19 SOP compliance among school management and its determinant factors.

2.2 Epidemiology of COVID-19

Coronavirus Disease 2019 (COVID-19) is a newly emerging disease outbreak that has spread all around the globe with its first reported case in December 2019. This infectious disease is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is a type of coronavirus and in the same family as severe acute respiratory syndrome coronavirus (SARS-CoV) in 2002 and Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012. The discovery of this COVID-19

disease started when many pneumonia cases with unknown causes were reported in the city of Wuhan, China. The disease is a zoonotic disease and the source of infection is strongly associated with the Wuhan Huanan Seafood Wholesale Market, but no solid conclusion is drawn yet. Although previous studies show evidence of bats and pangolins as the main reservoir of coronaviruses, no samples reported as positive of SARS-CoV-2 in the sampling and testing of animal products sold in Huanan Market and wildlife across China. However, studies suggested that the introduction pathway of SARS-CoV-2 may be due to contamination of surfaces in the supply chain based on the environmental sampling in the Huanan Market (WHO Guidance Note, 2021).

According to CDC (2021), the principal route of exposure to SARS-CoV-2 is exposure to the respiratory fluids containing the virus from an infected person. The infectious respiratory fluids are released in the form of air droplets when an infected person exhaled air out from nose or mouth, including when they are breathing quietly, speaking, singing, coughing, or sneezing. The air droplets vary in size and the aerosol particles formed can be suspended in the air, causing airborne transmission. It leads to the main exposure route which is through inhalation of the droplets containing the virus. The risk of infection is higher when the person has close contact with the infected person less than six feet. However, the updated epidemiological data found that infection through inhalation can still happen with distance further than six feet if the virus concentration in the air space is very high and sufficient to cause infection. The situation primarily occurs in indoors or enclosed area with poor ventilation, or when a person is exposed in such place for an extended period. Apart from that, another method of SARS-CoV-2 transmission is through the deposition of virus onto an exposed mucous membrane. It occurred when a person got coughed on by an infected

person or from touching the mucous membrane such as eyes with hands contaminated with the virus.

The incubation period of COVID-19 is 14 days with a median period of 4-5 days until the symptoms appeared. The most common symptoms of COVID-19 infection are fever, cough, breathing difficulty, muscle ache, fatigue, loss of smell or taste, Diarrhea, and vomiting. Skin symptoms such as maculopapular rash, discoloration of lesions on fingers and toes, and hives are also associated with COVID-19 symptoms. Children may have developed different symptoms. However, people infected with COVID-19 may also delay in displaying symptoms (pre-symptomatic) or no symptoms at all (asymptomatic). These people can transmit the virus despite the unavailable signs of infection, as previous studies observed the viral growth in their specimens.

The severity of COVID-19 disease can be classified into mild/ moderate, severe, and critical. People with mild/moderate disease commonly have mild symptoms throughout the period of infection or develop acute pneumonia. For severe cases, the patients can experience dyspnea (shortness of breath) and hypoxia (low oxygen in the tissue) involving more than 50% of the lungs. In some cases, patients may have health deterioration within one week of hospitalisation. It can also lead to serious complications which require ICU admissions, such as acute respiratory distress syndrome (ARDS), arrhythmia (abnormal heartbeat), septic shock, and multi-organ dysfunctions (CDC, 2021c).

2.3 School Management During COVID-19 Pandemic

Pandemic of COVID-19 has pressured the government to shut down many sectors to reduce the consistent rising of COVID-19 cases. Education institutions are not an exclusion. Schools and universities are closed during the MCO for a few months as instructed by MoE with the National Security Council (MKN) and Ministry of Health (MoH) advice. For example, in Selangor, Putrajaya, and Kuala Lumpur, 1,088 educational institutions including kindergartens, schools, boarding schools, private schools, vocational colleges, matriculation colleges and Teacher's Training Institutes (IPG) were closed starting on 14 October 2020 during the MCO (Loheswar, 2021). The decision was finalised after critically reviewing the probability of education institutions as a potential place for COVID-19 transmission.

After a few months, the government has reopened the schools to conduct the National Public Examinations. As statement released by MoE (2021), educational institutions under the ministry has operated as usual only for public examinations candidates such as Sijil Pelajaran Malaysia (SPM), Sijil Vokasional Malaysia (SVM), Sijil Kemahiran Malaysia (SKM), Sijil Tinggi Persekolahan Malaysia (STPM), Sijil Tinggi Agama Malaysia (STAM), and Diploma Vokasional Malaysia (DVM) for year 2020. Students from boarding schools in the MCO area returned to hostels on 16 January and started their first week of physical class at schools after a long break due to school closure. Meanwhile, all primary schools and students Form 1 to Form 4 in all secondary schools continued Teaching and Learning at Home (PdPR). Matriculation institutes conducted the same method where students have hybrid learning from their colleges.

However, in 19 February 2021, Senior Minister (Education) Dr Mohd Radzi Md Jidin announced in the press conference that institutions under MoE are reopened gradually nationwide to provide students with effective learning in the classroom. Following the announcement, the phase has begun on 1 March 2021 with pre-schools children, and Standard 1 and Standard 2 students of all primary schools as the first group to return to school, followed by Standard 3 to Standard 6 a week after. Meanwhile, secondary schools are reopened after a mid-semester break, where students from Johor, Terengganu, Kedah and Kelantan belong to Group A while the remaining states in Group B (Perimbanayagam & Yunus, 2021). The reopening of schools has raised various unfavourable feedbacks from multiple agencies, parents, and guardians who are concerned with the safety of their children.

In order to make sure the educational system is at the highest effectiveness despite the pandemic of COVID-19, MoE has released several guidelines and manuals for school managements to follow. The first Education Ministry's Guidelines of Reopening of Schools was released on 4 June 2020 right before the reopening of schools. The objectives are to guide all institutions under MoE on safe Teaching and Learning (PdP), assist in efficient management of schools and hostels, and ensure school administrators, teachers, staff, and students' safety and health. The guidelines was produced in collaboration with MOH and MKN (MoE, 2020). In relation to the announcement on National Public Examinations dates, the government has issued other guidelines on School Management and Operation Under New Norm on 8 October 2020. It consists of detailed information on the preparation of examination halls and safe operation of examination during the COVID-19 pandemic (MoE, 2020a). However, the guidelines are again updated after analysing the current situation

of COVID-19 in Malaysia, and the School Management and Operations Under the New Norm 2.0 Guideline was issued on 9 February 2021. The improvements made in the new guidelines are including the SOPs for students before, during and after schools, and management of students infected with COVID-19, close contacts, and symptomatic students (Ministry of Education Malaysia, 2021b).

As Malaysia recorded daily COVID-19 cases exceeded 8000 cases, government has again announced the implementation of full lockdown nationwide on 28 May 2021 which was started from 1 June 2021 until 14 June 2021 (Lai, 2021). According to National Recovery Plan presented by Prime Minister Tan Sri Dato' Muhyiddin Yassin, social activities including education are allowed to operate when the states moved from Phase 2 to Phase 3 (Sinar Harian, 2021). Hence, MOE has taken proactive steps by establishing a new updated guideline that in line with the SOPs for every phases as listed in the National Recovery Plan (NRP). Currently, the reopening of schools is according to their NRP phases either their schools located in the regions classified in Phase 1, Phase 2, Phase 3, and Phase 4 of NRP. The description of each phase and the explanation for school operation were mentioned in detail in the guidelines. The briefing of the Guidelines of School Management and Operation 3.0 was presented by Senior Minister of Education in the press conference for school operation on 12 September 2021. To be summarized, the improvised guidelines has highlighted the new preventive and control measures of COVID-19 at schools including enforcement of vaccination program, arrangement of class with rotation, SOPs for COVID-19 self-test and SOPs during recess time (Ministry of Education Malaysia, 2021a).

2.4 Legislations Related to COVID-19

2.4.1 Prevention and Control of Infectious Disease Act 1988 (Act 342)

Since the outbreak of COVID-19 disease in Malaysia, the government has use Prevention and Control of Infectious Disease Act 1988 (Act 342) to take the spread of disease under control.

According to the Section 11 (1), "if the Minister is satisfied that there is an outbreak of an infectious disease in any area in Malaysia, or that any area is threatened with an epidemic of any infectious disease, he may, by order in the Gazette, declare such area to be an infected local area". Followed with Section 11 (2), "the Minister may, by regulations made under this Act, prescribe the measures to be taken to control or prevent the spread of any infectious disease within or from an infected local area". It other meaning, all districts or areas that undergoes the MCO, CMCO, RMCO, and EMCO falls under the definition of declared infected areas. Thus, as per stated in the Section 11 (3), "it shall be lawful for any authorised officer to direct any person or class or category of persons living in an infected local area or in any part thereof to subject himself of themselves a) to treatment or immunisation, b) to isolation, observation or surveillance, the period of which being specified according to circumstances, c) to any other measures as the authorised officer considers necessary to control the disease." Not only that, Section 11 (4) also mentions the power of authorised officer such that "it shall be lawful for an authorised officer to use such force, with or without assistance, as may be necessary and to employ such methods as may be sufficient to ensure compliance with any direction issued under subsection (3)." (The Commissioner Of Law Revision Malaysia, 2006)

2.4.2 Emergency (Prevention and Control of Infectious Disease) (Amendment) Ordinance 2021

Following the spike of COVID-19 cases, the Act 342 that is enforced since last year is no longer able to reduce the number of cases. Therefore, after the Proclamation of Emergency, the new Emergency (Prevention and Control of Infectious Disease) (Amendment) Ordinance 2021 was gazetted on 25 February 2021 and enforced starting on 11 March 2021.

There are five new provisions included in the ordinance. They are Part IVA Enforcement; Section 22A – Offences by body corporate; Section 24 – General penalty; Section 25 – Compounding of offences; and Section 31 – Power to construct guidelines.

The amendments of Act 342 are also included in the Emergency Ordinance 2021. The amendments were related to Section 2 (1) – Interpretation of authorised officer; Section 2 (1) – Interpretation of environmental health officer; Section 10 – Requirement to notify infectious disease; Section 15A – Order for wearing a tracking device, and Section 21A – Directions of Director General (Mohd Noor, 2021; Wei Liang & Kean Lynn, 2021).

2.4.3 Standard Operating Procedure (SOP) of COVID-19 in Schools

Currently, all schools and institutions under the MOE need to comply with the new Guidelines of School Management and Operations 3.0. The details of the

guidelines are as in Appendix I. The SOPs listed in the guidelines require the actions from school management and have been mentioned in various sections.

School administrators are responsible to manage the schools with compliance to the SOPs as below:

- 1) Attendance of teachers and students to school are as follows:
 - i. Attendance of teachers are according to the instruction of Public Service Department (JPA) and MOE from time to time.
 - ii. Attendance of students are according to the model of school operation provided.
- 2) Inspection of travel record:
 - i. If there are students, teachers or members of executive team (AKP) that have history of travel outside country, they have to show their health record such as letter of quarantine from MOH; and
 - ii. Students, teachers or members of executive team that do not fulfilled the requirements mentioned in (i) need to be isolated and managed their process to send them back to their house as soon as possible.
- 3) All types of assembly in school are not allowed.
- 4) Group activities for teaching and learning are allowed. The number of students and teachers involved are based on the capacity of the place or space inside the school, with consideration of physical distancing and safety.

For facilities management, the guidelines mentioned that school administrators have to:

- 1) Ensure the school are safe for operation.

- 2) Ensure the areas and facilities of schools including all classrooms are cleaned before the school session starts and after the school session ended every day.
- 3) Ensure the main focus of cleaning are on the surfaces that frequently touched and surfaces that can reach at certain height such as doorknob, lamp switch, sink, water tap, lift button, flush handle, and reel handle at school.
- 4) Establish plan for classroom arrangement and optimizing the use of special classroom and other facilities that appropriate for teaching and learning.
- 5) Ensure the arrangement inside the classroom are suitable for physical distancing practice.
- 6) Ensure the ventilation and lighting are adequate for every classrooms, teachers' office, and school office. Things listed below should be given more attention:
 - i. Keep windows and doors open always.
 - ii. Remove curtains for better air flow.
 - iii. Use of fans for ventilation are recommended.
 - iv. Frequency of use of special rooms that require air-conditioner for teaching and learning are allowed at minimum usage.
 - v. Air-conditioner are allowed to be use at minimum usage.
 - vi. Maintain the temperature of air-conditioner in the range 23° C – 26°C
 - vii. Ensure the regular maintenance of air-conditioner.
 - viii. Use of portable air filter are recommended.
- 7) Provide separate rooms for teachers and member of executive teams that did not receive vaccines or not completed their vaccines.
- 8) Ensure the carpets or skirting for tables are not used inside the classrooms.
- 9) Prepare isolation rooms for students that have symptoms/ close contacts/ positive COVID-19 before they receive treatments.

10) Provide marks for physical distancing at the suitable location as below:

- i. Classrooms: the marks of the distance are placed at the leg of the table at the front row and the first side row for reference.
- ii. Canteen: the marks of the distance are placed at the dining area, queuing area for buying and taking food, and route to the sinks.
- iii. Teachers' office/ school office: the marks of the distance are placed at the chairs, tables, counters, and the punch card area.
- iv. Lift: the marks of the distance are placed in accordance to the lift capacity.

11) Established a plan for one-way route in schools. The marks of the distance are placed for guide the direction of movement of students inside schools area including hostels.

12) Provide rubbish bin with lids and ensure it is always closed.

13) Provide soap at the suitable location such as canteen, toilets and prayer rooms; meanwhile hand sanitizers can be provided at locations such as classrooms, school office, and teachers' office.

14) Advertise the printed materials about steps for hygiene and safety practice at strategic locations such as students' routes, canteen, classrooms, school office, teachers' office, waiting area and hostels before the school session starts. School administrators must be downloaded the printed materials produced by MOH from their official website.

15) Advertise notices/posters to remind steps of COVID-19 prevention at school entrance.

16) Ensure the premise and school facilities such as school hall, prayer rooms, and other facilities are only for students, teachers, and school staff.

In another sections of guidelines also mentioned the responsibilities of school administrators to ensure the safety of students, teachers and school staff, in which school administrators need to:

- 1) always refer to the SOPs updated by MOH, MOE, and NSC from time to time.
- 2) Provide explanation and education continuously to students, teachers, school staff and parents/guardians about the spread of COVID-19 infection, focusing on the importance of vaccination, personal hygiene practice such as washing hands with water and soap or sanitizing solutions, wearing face masks and practicing physical distancing.
- 3) Ensure students, teachers and staffs are healthy to come to schools.
- 4) Ensure students, teachers, and staffs always wearing face masks at school all the time.
- 5) Encourage students, teachers, and school staff to wear double face masks and face shield at school all the time.
- 6) Ensure the screening for symptoms such as fever, cough, flu, sore throat and difficulty breathing are conducted among students, teachers, and staffs at the entrance gates every day before the school session starts. If the body temperature exceeds 37.5°C or symptomatic, they are not allowed to enter the school.
- 7) Ensure a sufficient time to measure body temperature of students who walk/cycle to school
- 8) Acquire teacher-on-duty to:

- i. Monitor the students' movement at the entrance gate during the period of arrival and dismissal;
 - ii. Measure the students' body temperature;
 - iii. Monitor the students' movement during recess time.
- 9) Ensure students, teachers, and staffs always practicing physical distancing at all times.
- 10) Ensure the announcement to comply with good hygiene and safety practices is made in the morning, recess, and before the end of school session every day. The continuous announcement should be conducted during PdP.
- 11) Ensure students, teachers, and staffs frequently washing their hands with water and soap, or hand sanitizer.
- 12) Ensure teachers or Student Management Assistant (PPM) help Special Care Students (MBK) to use education materials such as figures or special equipment for washing hands with water and soap or hand sanitizer.
- 13) Remind students always to use the correct lane provided during movement in the school.
- 14) Supply face masks to students who are symptomatic and isolate them in isolation rooms while waiting for their parents or guardian to be taken home.
- 15) Ensure school counsellors conduct 'Saringan Minda Sihat' regularly during the new norm at school and take actions as follows:
 - i. Prepare profile of the students who are identified through 'Saringan Minda Sihat' to support the improvement of students' emotions continuously.

- ii. Conducted mental health intervention and counselling sessions continuously towards identified students with a focus to improve their ability to take actions.
 - iii. Conduct consultation with parents/guardians to support the improvement of students' emotions.
 - iv. Refer to Health District Office for clinical diagnosis and health care facilities for early treatment/intervention for critical cases such as students injuring or harming themselves.
- 16) Ensure outsiders who are not under MoE including VIPs are not allowed to enter the school compounds except for school operation purposes.
- 17) Ensure parents/guardians and persons related to schools always wearing face masks.
- 18) Provide a safety briefing to cleaning contractors, canteen operators, and food suppliers for boarding school, and warn them to constantly remind their workers to:
- i. Scan body temperature every day before starting their work;
 - ii. Comply with the instructions on physical distancing, wearing face masks, and other SOPs;
 - iii. Practice hand hygiene.
- 19) Make decisions to solve the school management issues based on guidelines released by MOE with consideration of other related agencies such as Education District Office and Health District Office.
- 20) Maintain confidentiality of school staff who are classified as COVID-19 patients.

The guidelines of COVID-19 prevention have been improved by taking into consideration the possibility of COVID-19 transmission at the canteen during the recess time. Therefore, the SOPs during recess are established in which:

- 1) Canteen operator are only allowed to prepare and sold food in packaging.
- 2) Students need to eat inside their classroom with teacher's supervision during recess.
- 3) For air-conditioned classroom, students need to eat in an open space with teacher's supervision.
- 4) Students that will eat at hostel dining hall during recess will be supervised by teachers.
- 5) Teachers need to eat inside the teachers' office individually.
- 6) School staff need to eat at their designated places.

In situations where there are positive COVID-19 cases reported in the school, school management needs to conduct the required procedure to prevent further disease transmission properly. The SOPs that need to be followed are as listed below (Ministry of Education Malaysia, 2021b):

- 1) Inform the nearest District Health Office (PKD) for advice and further instructions.
- 2) Ensure all patients wearing face masks all the time.
- 3) Isolate the patients in different rooms, if possible, rooms that are near to the toilet and equip with hand washing facilities and have good ventilation.

- 4) Ensure teachers/individual who handling the patients always wearing face masks with gloves and disposable aprons, practicing physical distancing at least one meter from the patients, and frequently washing their hands with water and soaps or using a hand sanitiser.
- 5) Monitor and control the movements of patients.
- 6) Provide assistant to PKD for case investigation and identification of close contact of the patients. Patients and close contact persons will be further handled by PKD using the SOP given.
- 7) For students not living in hostels, if PKD is not available or as instructed by PKD, the family members need to be informed to pick the patients from school using their own transportation. Only one person is allowed to pick the patients and need to bring home right away. Family members need to comply with SOP including wearing face masks and keeping the car windows opened along the way home. Family members need to inform nearest PKD right after arriving at home.
- 8) For students living in hostels, patients need to be isolated immediately while waiting for PKD to arrive for further actions.
- 9) If schools noticed the patients condition is worsen, immediately call the nearest PKD or call 999 for emergency help.
- 10) If the patients are warden/school staffs or family members and instructed to perform isolation at home, the school management need to make sure the patients are stay at home and not come to work.
- 11) Sanitise the place and equipment used by the patients and seek advice from PKD about the procedure of sanitisation at the identified location.

- 12) Inform the patients to always monitor their health status in MySejahtera or Home Assessment Tool (HAT).
- 13) Food and drinks of patients need to be managed by schools according to SOPs provided by MOH.

In response to the positive COVID-19 cases in the schools, the District Health Office will be in charge of the further actions as stated in Section 18 (1) Act 342. According to the section, District Health Office have the power to order for school closure until the premises have been thoroughly disinfected. Failure to comply with the instruction is an offence under Section 22(b) Act 342 which is "disobey any lawful order issued by authorised officer". It can be subject under Section 24 (a) Act 342 where the person in guilty can be sent for "imprisonment for a term not exceeding two years or to fine or both." (Loheswar, 2021; The Commissioner Of Law Revision Malaysia, 2006).

Therefore, due to ongoing changes of COVID-19 situation in Malaysia, school management always needs to be alert with updates from the government and ensure the compliance to SOPs is maintained. School management should play their roles in combating the COVID-19 virus and pun in an effort to strive for zero infection at school level.

2.5 Knowledge, Attitude and Practice (KAP) on COVID-19

2.5.1 KAP on COVID-19 in General Populations

Many countries around the globe have assessed the KAP survey towards COVID-19 and came out with various results data. Findings from China are varied across studies. Gao et al. (2020) in their studies found that the public has excellent knowledge (91.2%) and a highly positive attitude (98%) towards COVID-19, which could explain the results of good practices (96.8%) among them. Good practices are also influenced by other factors such as occupation, education level and residency area where more focus should be given to non-medical workers, people with low education and people living in the villages. A study by Yang et al. (2021) revealed similar results in which the percentage of total scoring rate was high for knowledge (85.2%), attitude (92.9%) and practice (84.4%). However, this study has a limitation in which it involved a relatively small population from rural areas and non-medical background; thus, it might be unsuitable for generalisation.

In the meantime, A KAP survey in India observed lower percentage of results compared to previous studies in China. The overall correct rate for knowledge and practice is 74.7% and 88.1% respectively, which are considered as moderate. This could be due to government proactive movement in spreading the COVID-19 information among the publics. Despite the high level of knowledge and practice, the perception of India residents towards COVID-19 is quite low (57.6%). Most of the questions that scored low correct answers were about myths of COVID-19. There are many underlying beliefs regarding the protective action to prevent from the viral infection. Based on the results, 33.9% respondents believed that eating garlic can effectively protect them from COVID-19 infection. Not only that, nearly half of them (47.9%) have false perceptions that layering their body with alcohol or chlorine is not harmful to skin. Correcting public perception towards those myths is crucial to

promote good practices. Thus, more KAP studies should include such questions to investigate the misconceptions related to COVID-19 among publics before an intervention could be made (Goruntla et al., 2020). For example, researchers has suggested that Turkey and Malaysia to conducted enforcement in health education and promotion to correct the misconceptions based on their study results (Mehmet et al., 2020).

There was also a cross-cultural study on KAP towards COVID-19 that was conducted in a big scale, involving eight countries from five continents around the world. They are Bangladesh (South Asia), Australia (Oceania), Canada and USA (North America), Sweden and UK (Europe), UAE (Middle East), and Egypt (Africa). Since the scores are distributed by geographical area, country with the highest percentage of good knowledge is Europe (18.2%) while the highest percentage of low knowledge is Africa (14.2%). Regarding the positive response in fear towards COVID-19, South Asia has the highest score which was 34.8% (95% CI= 30.8-38.8) and the lowest score with 22.7% (95% CI= 17.2-28.2) was recorded by Middle East. However, there was no correlation detected between level of knowledge with fear in this study. The researchers recommended a health education programme relevant to the country's respective social norm in order to reduce the number of COVID-19 cases (Ali et al., 2020).

In Malaysia, many studies on KAP towards COVID-19 have been conducted among general population. One of the earliest KAP study was conducted by Abu Hasan et al. (2020). The results showed general population in Malaysia has moderate knowledge regarding COVID-19 (88.9%) in which most of the sections were answered

correctly except for two questions on COVID-19 symptoms (diarrhoea: 51.1%; similar symptoms with SARS: 64.8%). The survey on attitude and practices towards COVID-19 prevention also recorded an impressive score where 91.9% respondents showed positive attitude and 91.4% performed good practices. Although Malaysia citizens are found to be practicing strong preventive actions since the beginning period of COVID-19 pandemic in Mac 2020, enforcement is still needed. This is because another study conducted at a similar range of time found that a large group of people in Malaysia (49.3%) did not practice wearing face masks when going out from their home (Azlan et al., 2020).

After the implementation of MCO, Abu Samah et al. (n.d.) recorded in their study that half of the respondents (47.6%) were found to have an excellent understanding of the role of MCO, the way the virus is transmitted, the symptoms appeared, and how to protect from virus infection at individual level. However, there are still a group of people (24%) who are not aware of the importance of correct handwashing practices in preventing COVID-19. When asking about their state of mind during the pandemic, 47.4% responded positively. The majority of them were aware (agree: 55.5%; strongly agree: 42.6%) of their important roles as citizens in breaking the chain of infection. Their good knowledge and positive attitude may slightly have influenced their behaviour to maintain good social distancing practices (67.5%) and strictly exercised it during the lockdown (30%). Despite the claims, Azlan et al. (2020) observed that a higher knowledge score did not affirm good practices. This is because most of their respondents who exercised high-risk practices such as did not refrained from crowded places (mean=10.6±1.4, $P<0.01$) and did not wear face

mask in public (mean=10.6±1.4, $P<0.001$) one week before MCO are those with a higher understanding of COVID-19.

2.5.2 KAP on COVID-19 in Educational Institutions

In specification to study population, many KAP survey on COVID-19 in educational settings can be found from various studies worldwide. In China, determination of KAP towards COVID-19 was done among undergraduate students from both public and private universities in Shaanxi province. Based on the data outcomes, 82.34% of students have appropriate knowledge, 73.81% have a positive attitude, and 87.9% of them performed proactive practices. Undergraduate students are found to have low understanding of the people's susceptibility towards COVID-19. Only half of them (50.6%) knew that the virus can infect all people and not only the old and readily sick people. For the question asking on the impact of the pandemic on their studies, 65.1% of students gave negative respond as they said to be hugely affected and 75.2% wished to return to school when the pandemic ended (Peng et al., 2020). On the other hand, more than half of pharmacy students in Saudi Arabia (54.3%) did not encountered any impacts on their concentration and studies during the COVID-19 pandemic (Alrasheedy et al., 2021). For high school students in Italy, the impact is more towards social activities, especially due to restrictions on meeting friends and families in the middle of pandemic (Souli et al., 2020).

There is a contradiction with the study by Saefi et al. (2020). Their survey found that Indonesian undergraduate students have a low awareness on the mode of disease transmission and the method of protection despite the moderate overall mean score. Even though 78.99% of the students were correct about human-human

transmission was via respiratory droplets of infected person, nearly half of them (59.31%) were still confused about the ability of the virus to be spread through both airborne and touching surface of an inanimate object. It is the opposite of the study in Italy in which 72% students are aware that the virus could infect them through touching surfaces (Souli et al., 2020). Not only that, most Indonesian students (72.92%) have false understanding about protective mask as they believed that cloth mask was impenetrable for the SARS-COV-19 virus. This may due to the influence from the public who wear cloth mask to protect themselves when going out from home.

Another KAP survey conducted among university students in Japan have a better well-rounded result compared to other countries. According to Hatabu et al. (2021), the total mean score regarding understanding about COVID-19 exceeded 90%. They analysed that most students have an excellent understanding of the importance of avoiding 3C's which are close distance between people, crowded places, and confined spaces. Not only that, the students responded positively (68.5%) to the situation where they are needed to be injected with early drug as COVID-19 treatment and bared with the possible side effects if they are infected. They also have good practices (96.45%) as they adhere with hand washing and mask-wearing practice. This result was similarly detected among Indonesian university students in which 86.89% students wore mask in crowded places and 90.4% of them washed their hands with soap after returning home (Saefi et al., 2020). However, it is totally different in Jordan where large number of students (60.2%) revealed that they did not use face mask outside their home despite their moderate practice (84.3%) of COVID-19 prevention and positive attitude (81.1%) towards the infectious disease.

2.5.3 Association between Sociodemographic, Occupational, and Lifestyle with Knowledge, Attitude, and Practice regarding COVID-19

The association between knowledge, attitude, and practice has been tested various KAP studies to determine the relationship between each variable. Based on a study by Mehmet et al. (2020), the bivariate analysis results revealed that practice has statistically significant association with knowledge ($p<0.001$) and attitude ($p<0.001$) in Turkey while Malaysia showed significant association between knowledge with attitude ($p<0.001$) only. In the meantime, a previous study in Malaysia found correlation between each variable tested. Abu Hasan et al. (2020) found that knowledge of COVID-19 has moderate influence on attitude ($r= 0.557$, $p<0.001$) and practice ($r=0.578$, $p<0.001$), and attitude has strong influence on practice ($r=0.644$, $p<0.001$). Peng et al. (2020) discovered similar positive correlation between attitude and practice ($r= 0.319$, $p<0.05$) among university students in China.

There are several countries recorded the same result of the association between knowledge, attitude, and practice. Findings from KAP survey in Saudi Arabia discovered that knowledge is significantly associated with attitude ($\beta=0.095$, $SE=0.019$, $p<0.05$) and practices ($\beta=0.167$, $SE=0.036$, $p<0.01$). Similarly in China, knowledge is a significant predictor for attitude ($p<0.001$) and practice ($p<0.001$), and attitude is a significant predictors for practice ($p<0.001$) (Yang et al., 2021). It is also consistent with Zhong et al. (2020) where they observed a significant association between good knowledge of COVID-19 with positive attitude and good behaviour. It highlights that improving knowledge through health education could help promote an optimistic attitude and enhance the practice adherence. However, further investigation

is needed to explore on how knowledge and other factors could generate particular behaviour, especially under the pressure of COVID-19 pandemic (Yang et al., 2021).

2.6 Methodology

After critically reviewed, it was found that most of the previous KAP studies on COVID-19 possessed similarities in terms of study design and sampling technique. Majority of them were cross-sectional study and the sampling technique were mostly non-probability sampling such as quota sampling (M. Lee et al., 2021), a combination of purposive and snowball technique (Saefi et al., 2020), and convenience sampling (Al-Hanawi et al., 2020; Gao et al., 2020; Goruntla et al., 2020; Hatabu et al., 2021).

The questionnaires are mostly used as the main tools for data collection. In Malaysia, Abu Hasan et al. (2020) used a structured questionnaire that have adapted from previous studies and was pre-tested before used. The questionnaire was divided into four parts which are 1) demographics, 2) knowledge about COVID-19, 3) attitudes towards COVID-19, and 4) practices on COVID-19 prevention and control. The similar division of questionnaires can also be observed in other KAP studies (Azlan et al., 2020; Gao et al., 2020). The Cronbach's alpha reliability test for the questionnaire exceeds the value of 0.6 for each item; thus, it is acceptable to be used.

Meanwhile, another study in Malaysia by Abu Samah et al. (2020) has 5 main categories in their questionnaire in which the additional category is to determine the source of information. It was similar with the KAP study by Zhong et al. (2020). The study assessed the knowledge of COVID-19 ranging from origin of the disease, highest mortality cases reported globally, myths of COVID-19, way of disease transmitted,

COVID-19 symptoms, preventive measure, and mitigation strategies of Malaysia authorities, which is totally different from the study by Abu Hasan et al. (2020) that only asked on COVID-19 basic information, transmission and symptoms. It is advised for future studies to include questions on myths of COVID-19 as this study found observed about 40% people in Malaysia believed that taking vitamin C can prevent them from COVID-19 infection. Moreover, studies in India also observed similar situation on certain questions after included 10 myths of COVID-19 (Goruntla et al., 2020)

Different with other studies, a research by Hatabu et al., (2021) not only determined the level of KAP among their respondents, but also identified the factors influencing the level of KAP including demographic factors and psychological factors. The psychological aspects that they determined were extroversion and public/private self-consciousness. These two factors were found to be positively associated with the knowledge and attitude, therefore further studies should consider to be include these factors for stronger evidence and depth understanding.

2.7 Conclusion

In conclusion, the literature review shows that although majority study population scored a high level of knowledge, attitude and practice, there is a small percentage of the population who has a low understanding of COVID-19 transmission, falsely believed the myths of COVID-19, and performed high-risk practice despite their good knowledge on COVID-19. As a solution, more focus should be given to specific populations instead of general, such as communities living in rural areas, educational institutions, and have no medical background as their understanding and

practice towards preventive actions are crucial to combat the spread of COVID-19 infection. Not only that, further research should widen their studies to identify more factors that may influence the knowledge, attitude, and behaviour of people in COVID-19 prevention, and not limited to sociodemographic factors only. Identification of myths and underlying beliefs on COVID-19 among the population should also be included in future studies to determine the possibilities of being factors contributing to low adherence to COVID-19 preventive measures. Further investigation in this area may help the government to improve the existing preventive strategies towards COVID-19 which can be carried out by all range of age and leads to the end of the pandemic in the future.

CHAPTER 3

METHODOLOGY

3.1 Study Design

This study is a cross-sectional study which was designed to determine the level of knowledge, attitude, and practice towards COVID-19 and its associated factors among school management in North Selangor districts.

3.2 Study Location

This study was conducted at primary and secondary schools under the MOE in Hulu Selangor district, Sabak Bernam district, and Kuala Selangor district in North Selangor. The three districts were chosen due to the high number of active cases reported daily from August to November 2021. According to the Ministry of Health, Hulu Selangor, Sabak Bernam and Kuala Selangor which were previously maintained as green zones have converted to red zones (The Star, 2021). Schools in the red zones pose a high risk of being COVID-19 infection places, which explained the significant of these three districts as the study locations.



Figure 3.1: The study locations in North Selangor districts (Adapted from the website of Selangor Town and Country Planning Department)

3.3 Sampling

3.3.1 Study Population

The study population was all school management consists of school administrators and teachers from all primary and secondary schools under the MOE in three districts in North Selangor (Hulu Selangor, Sabak Bernam, Kuala Selangor).

3.3.2 Sampling Frame

The name list of all school administrators and teachers from primary and secondary schools under MOE in North Selangor districts (Hulu Selangor, Sabak Bernam, Kuala Selangor) were taken from the administration office of the respective schools.

3.3.3 Sampling Unit

A school administrator or teacher who was involved in school management in North Selangor districts (Hulu Selangor, Sabak Bernam, Kuala Selangor) was the sampling unit for this study.

3.3.4 Study Sample

School administrators and teachers who were involved in school management for schools in North Selangor districts (Hulu Selangor, Sabak Bernam, Kuala Selangor) and met the inclusion criteria were the subjects for this study.

3.3.5 Inclusion Criteria

The sampling unit must be:

- i. Aged above 18; and
- ii. Have experience in school management during COVID-19 pandemic regardless of years of working experience. This is because the major concern

is their level of KAP towards COVID-19 SOP compliance during the pandemic in general no matter they are new teachers or senior teachers.

3.3.6 Exclusion Criteria

Those who were excluded were:

- i. Students; or
- ii. Parents/guardians; or
- iii. School staff as they are not directly involved with the management of students during school reopening and operation.

3.3.7 Sampling Method

The subjects in this study were sampled using a multistage sampling technique. In the first stage, cluster sampling technique was used where schools in each district (Hulu Selangor district, Sabak Bernam district, Kuala Selangor district) were clustered into sub-districts (mukim). The list of sub-districts was taken from the Hulu Selangor Municipal Council, Sabak Bernam District Council and Kuala Selangor Municipal Council. Meanwhile, the list of schools was taken from the Selangor State Education Department.

Results from clustering showed Hulu Selangor had a total of 68 schools in 13 sub-districts, Sabak Bernam with a total of 64 schools in 5 sub-districts, and Kuala Selangor had 92 a total of schools in 9 sub-districts. The details were as shown in Table 3.1:

Table 3.1: The List of Schools in Sub-Districts in Hulu Selangor, Sabak Bernam, and Kuala Selangor

a) Hulu Selangor (Total districts: 13)	b) Sabak Bernam (Total district: 5)	c) Kuala Selangor (Total District: 9)
• Ampang Pecah – 10 schools • Batang Kali – 8 schools • Hulu Bernam – 16 schools • Kalumpang – 3 schools • Serendah – 20 schools • Buruh Telur – 0 school • Hulu Yam – 5 schools • Kerling – 3 schools	• Bagan Nakhoda Omar – 16 schools • Panchang Bedena – 13 schools • Sabak – 16 schools • Sg. Panjang – 9 schools • Pasir Panjang – 10 schools	• Bestari Jaya – 14 schools • Ijok – 5 schools • Jeram – 27 schools • Kuala Selangor – 7 schools • Pasangan – 9 schools • Tanjong Karang – 19 schools • Api-Api – 5 schools • Hulu Tinggi – 0 school • Hujung Permatang – 0 school

In the second stage, the schools in the sub-district were selected using simple random sampling. However, schools were randomly sampled only from the sub-district with the highest number of COVID-19 active cases as recorded daily from August to November 2021. This is because schools in red zone are at higher risk of COVID-19 infection due to community transmission within the area and strict adhere to the SOPs are vital with the rise of cases (Kaos, 2021b). After analysing the trend of COVID-19 active cases released by MoH, the schools were randomly sampled from the selected sub-districts which are Serendah (Hulu Selangor), Panchang Bedena (Sabak Bernam), and Ijok (Kuala Selangor). The details are as shown in Table 3.2.

Table 3.2: The list of Selected Schools in Hulu Selangor, Sabak Bernam and Kuala Selangor

a) Hulu Selangor (Sub-district: Serendah)	b) Sabak Bernam (Sub-district: Panchang Bedena)	c) Kuala Selangor (Sub-district: Ijok)
• Sekolah Menengah Kebangsaan Bukit Sentosa 2 • Sekolah Kebangsaan Bukit Sentosa • Sekolah Kebangsaan Bukit Beruntung 2	• Sekolah Kebangsaan Parit 4 • Sekolah Menengah Kebangsaan Sungai Besar	• Sekolah Kebangsaan Bukit Badong • Sekolah Jenis Kebangsaan (Cina) Ijok

In third stage, all subjects who involved in school management in the randomly selected schools were randomly sampled. Those who did not suffice the criteria were kept out of the sample. Thus, the total number of 304 respondents that comply with all criteria were obtained. The flow of sampling method is as shown in the Figure 3.2.

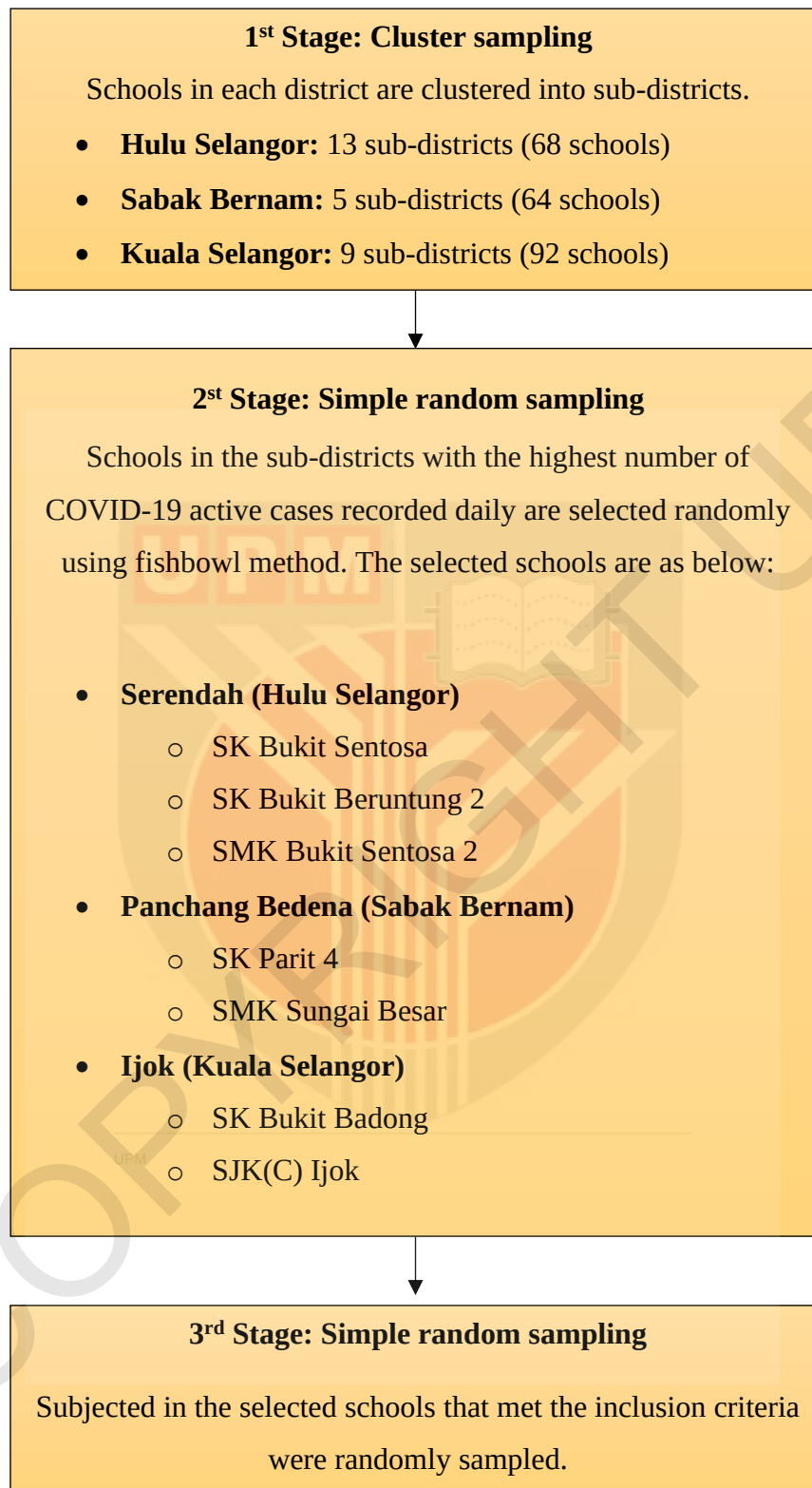


Figure 3.2: Flow chart of sampling method

3.3.6 Sample Size

The sample size for this study was calculated by each objective. The details of sample size calculation are as shown in Table 3.3.

Based on the results in Table 3.3, the total number of respondents needed for this study is 253 respondents. By considering non-responsive respondents, missing data, and errors, the number of respondents was increased by 20% for strength of analysis. The final calculation is made as below:

$$N = n + (20\% \times n)$$

$$N = 253 + (20\% \times 253)$$

$$N = 303.6 \approx 304 \text{ respondents}$$

In conclusion, the total number of respondents needed for this study was 304 respondents.

Table 3.3: Sample size calculation by each objectives

Objective	Formula	Prevalence from previous studies	Total sample size
To determine the sociodemographic characteristics, lifestyle and occupational factors of the respondents.	No sample size calculation	None	None
To identify the level of knowledge, attitude and practice towards COVID-19 among the school management.	No sample size calculation	None	None
To compare the level of COVID-19 SOP compliance (KAP) by sociodemographic characteristics, lifestyle, and occupational factors among the school management.	Group comparison formula by Lemeshow et al. (1991) $n = \frac{\left(Z_{1-\alpha/2} \sqrt{2\bar{P}(1-\bar{P})} + Z_{1-\beta} \sqrt{P_1(1-P_1) + P_2(1-P_2)} \right)^2}{(P_1 - P_2)^2}$	The reference prevalence are from Florence et al. (2021)	K vs P = 76.197 A vs P = 253.32

	Where,	K: 0.851
	$Z_{1-\alpha/2}$ = Standard error associated with confidential interval,	A:0.770
	95% CI = 1.96	P:0.657
	$Z_{1-\beta}$ = Standard error associated with power, 84.2% of power = 0.842	
	P_1 = estimated proportion (larger)	
	P_2 = estimated proportion (smaller)	
To examine the relationship of knowledge and practice towards COVID-19 SOP compliance by the school management.	Correlation sample size formula $n = \left[\frac{(Z_\alpha + Z_\beta)}{C} \right]^2 + 3$ Where, Z_α = Standard normal deviate, 95% CI =1.96 Z_β = Standard normal deviate, 80% of power =0.842	The reference is =198 samples from Al ahdab (2021) r = 0.198

	$C = 0.5 * \ln (1 + r)/(1 - r)$ r= estimated correlation coefficient		
To examine the relationship of attitude and practice towards COVID-19 SOP compliance by the school management.	Correlation sample size formula	The reference is from Al ahdab (2021)	=176 samples
	$n = \left[\frac{(Z_{\alpha} + Z_{\beta})}{C} \right]^2 + 3$		
	Where,	r = 0.210	
	Z_{α} = Standard normal deviate, 95% CI =1.96		
	Z_{β} = Standard normal deviate, 80% of power =0.842		
	$C = 0.5 * \ln (1 + r)/(1 - r)$ r= estimated correlation coefficient		
To determine the factors associated with practice	Regression	IV= 5	=90 samples

**towards COVID-19 SOP
compliance by the school
management.**

$$n = 50 + 8 * 5(IV)$$



3.4 Data Collection and Research Instruments

3.4.1 Data Collection Method

The data from respondents were collected using online-based questionnaire via Google form. The link of the Google form was distributed to the respondents through WhatsApps and Telegram.

In the initial page of the online-based questionnaire in the Google Form, respondents are screened and those who have the exclusion criteria were removed from having the access to the questionnaire. Respondents that passed the screening were informed about the nature of the research as written in the Respondent's Information Sheet on the next page. Then, the respondents were asked to tick the box if agree to participate in the research voluntarily. Upon the agreement, the respondents have access to answer the questionnaires. The respondents were needed to answer all parts in the questionnaire and submit when finished. All the information provided by the respondents were kept confidential and their identity will not be exposed without any prior permission.

3.4.2 Questionnaire

The questionnaire used in this study was adapted and modified from the previous studies on KAP towards COVID-19 (Abu Hasan et al., 2020; Abu Samah et al., 2020; Azlan et al., 2020). The questionnaire was available in English and Malay language. The contents of the questionnaire are as shown in Appendix E. The questionnaire comprises six sections: Section A (Background Information), Section B

(Occupational Information), Section C (Lifestyle Information), Section D (Knowledge), Section E (Attitude), and Section F (Practice).

In Section A, respondents need to provide sociodemographic characteristics, geographical information and source of COVID-19 knowledge. Section B will be questioning their occupational background and experience related to infectious disease. The questions are necessary because previous KAP studies on COVID-19 found that having SARS experience significantly influenced the person's attitude (Yang et al., 2021).

Meanwhile, Section C will acquire respondents' lifestyle information such as drug use, smoking habit, physical activity, mental stress, and sleep quality. These questions are important for this study to achieve one of the objectives: to determine factors associated with the practice. The variables in this section are significant due to several reasons and have been supported by previous literature. Firstly, drugs use may have an effect on compliance with preventive practices. Since drug users are highly at risk of COVID-19 infection, their high perceived susceptibility will likely encourage better practice (Lee et al., 2021). Secondly, although Gebretsadik et al. (2021) determined that smoking cigarettes is not associated with poor practice except alcohol drinking, more studies should be conducted to confirm the findings. Thirdly, stress and sleep disturbances may affect the KAP of respondents towards SOP compliance. The discomfort feelings from struggling in adapting to the new norm during COVID-19 can impact an individual's level of compliance (A. R. A. Aziz et al., 2021). Recent studies revealed a strong association between sleep quality and psychological well-being (Zhai et al., 2018). Those with high emotional and psychological well-being will have high compliance behaviour during COVID-19 (Chua et al., 2021).

Section D consists of 25 questions on COVID-19-related knowledge, including the route of virus transmission, the symptoms, and the SOPs of school management during the new norm. 10 questions in Section E are about their attitude while 18 questions in Section F about COVID-19 prevention and control practices. Knowledge, attitude and practice will be measured using the 5-Likert scale (5=Strongly Agree, 4=Agree, 3=Neither agree nor disagree, 2=Disagree, 1=Strongly Disagree). The measurement for knowledge by binary outcomes (1=True, 0=False) is not preferable in this study although it is mainly used by previous related to determine the environmental-related knowledge. This is because it creates a room for them to guess the items when they face uncertainty and will not represent respondents' real answers (Ramdas, 2018).

3.5 Quality Control

3.5.1 Validity of Questionnaire

The questionnaire used in this study have gone a content validity test performed by experts. In reports of instrument development, the most widely reported approach for content validity is the content validity index (Chiwaridzo et al., 2017; Lam et al., 2018; Rodrigues et al., 2017; Zamanzadeh et al., 2015). Content validity (CVI) calculations were from the third version (7 domains, 91 questions) of the questionnaires. The content validation was sent to six experts and only four experts agreed.

a) I-CVI Results (relevancy of individual items)

Ninety-one items were marked as relevant and the I-CVIs ranged from 0.50 to 1.00. Sixty-six items had an ICVI = 1.00, nineteen a score of 0.75, and six a score of 0.50. The majority of items were considered relevant.

b) S-CVI Results (relevancy of the overall questionnaire)

The $S-CVI/UA = 0.82$ and the $S-CVI/Ave = 0.91$. The Universal Agreement is calculated by adding all I-CVI's equal to 1.00 (75 items) divided by 91, while the Average takes the sum of all I-CVI (83.25) divided by 91. Overall, the Universal Agreement method and the Average approach shows high content validity of the questionnaires. With $S-CVI/AV = 0.90$, the instrument had good face validity and good content-related validity (Lam et al., 2018).

Finally, at the end of the content validation process, the instrument had six domains and 76 items for the pilot study.

3.5.2 Reliability of Questionnaire

A pilot test was conducted on 30 school management from schools other than sampled schools. Then, the items in the questionnaires have gone through the reliability test by measuring the Cronbach's Alpha Coefficient. The aim was to identify the internal consistency of the questionnaires in order to be used as the study instruments. According to, the Cronbach's alpha value should be greater than 0.7 to be acceptable. In this pilot study, all variables were found to be scored more than 0.7 for Cronbach's alpha which was considered acceptable. The value of each variable was shown in Table 3.4.

Table 3.4: Reliability Coefficients for Each Variable (N=30)

Variables	No. of Items	Item Deleted	Cronbach's Alpha
Knowledge	25	0	0.826

Attitude	10	0	0.854
Practice	18	0	0.770

3.6 Data Analysis

The data collected from the questionnaires were analysed and transformed into descriptive and inferential statistics using SPSS software version 25. In descriptive analysis, categorical data were presented in frequency and percentage while mean and standard deviation were for numerical data. To determine the association between independent and dependent variables, several methods of statistical analysis were performed. Based on the normality of the variable, the statistical test that were conducted were independent t-test, one-way ANOVA, Pearson correlation test, and linear regression test. The statistically significant value of $p < 0.05$ were used in this study. The details of statistical analysis plan by each objective are showed in Table 3.5.

Table 3.5: The statistical analysis by objectives

Objectives	Variables	Statistical Analysis
To determine the sociodemographic characteristics, lifestyle, and occupational factors of the respondents.	• Sociodemographic • Lifestyle • Occupational factors	• Frequency • Percentage • Mean • Standard deviation.
To identify the level of knowledge, attitude and practice towards COVID-19 among the school management.	• Knowledge • Attitude • Practice	• Frequency • Percentage • Mean • Standard deviation

To compare the level of COVID-19 SOP compliance (KAP) by sociodemographic characteristics, lifestyle, and occupational factors among the school management.	• Knowledge • Attitude • Practice • Sociodemographic • Lifestyle • Occupational factors	• Independent t-test • One-way ANOVA
To examine the relationship of knowledge, attitude, and practice towards COVID-19 SOP compliance by the school management.	• Knowledge • Attitude • Practice	• Pearson correlation
To determine the factors associated with practice towards COVID-19 SOP compliance by the school management.	• Knowledge • Attitude • Practice	• Linear regression

3.7 Research Flowchart

This study was conducted according to the Figure 3.3.

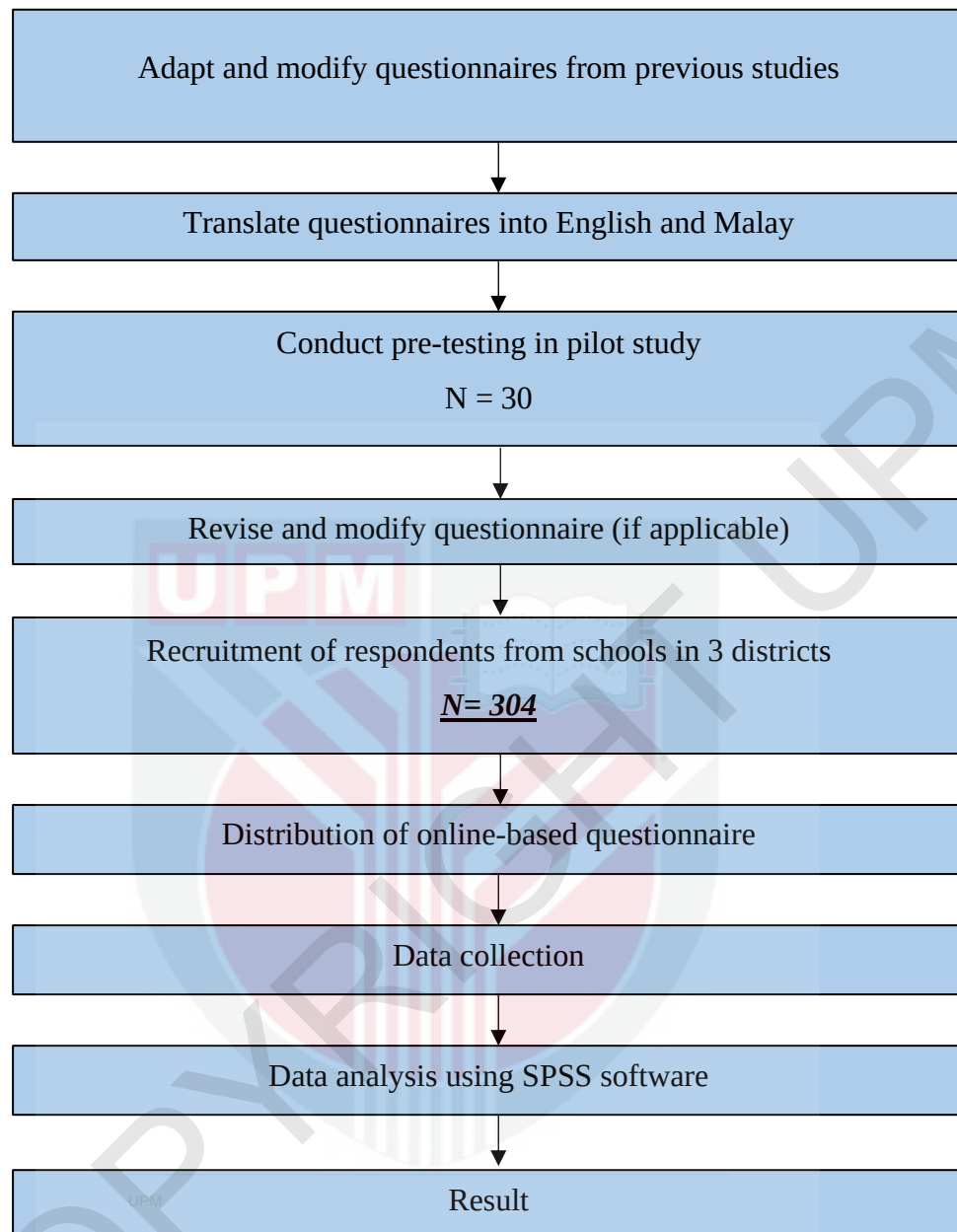


Figure 3.3: The flow chart of the study

4.8 Ethical Consideration

The human subject's approval was received from the Ethics Committee of Research Involving Human Subjects, Universiti Putra Malaysia before starting the data collection (JKEUPM-2021-363). Each of the respondent was provided with a consent form to read and agree prior the participation in the first page of online-based

questionnaire. The consent form contains the explanation about the purpose of the study, the procedure for respondents to follow, and also the respondents' benefits and risks upon participation in this study. The agreement of respondents to involve in the study is voluntary without any force from other parties. Respondents were provided with contacts information of the researchers for further information regarding the study. The details of the respondent information sheet and the informed consent form are as shown in Appendix II.



CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter contains the results of data analysis with the main objectives to determine the factors associated with knowledge, attitude, and practice towards COVID-19 SOP compliance among school management in North Selangor districts (Hulu Selangor, Sabak Bernam, Kuala Selangor). The results for each specific objective were obtained by running the descriptive and inferential analysis using the SPSS Software Version 26.

4.2 Response Rate

294 out of 304 respondents have submitted the questionnaire which formed the response rate of 96.71%. However, only 283 respondents were included and proceeded for data analysis as the remaining were excluded due to missing data and unfulfilled criteria. Those who were excluded were school staff or school management who were not involved during COVID-19 pandemic.

4.3 Respondent's Individual Information

The background information of each respondent was collected from three different sections in the questionnaires, in which Section A for socio-demographic

information, Section B for occupational information, and lifestyle characteristics from Section C. Descriptive analysis were used to analyse the data.

4.3.1 Respondent's Socio-demographic Characteristics

The socio-demographic characteristics of the respondents collected consists of gender, age, races, monthly income, school location, and source of knowledge. Table 4.1 shows the details of the distribution in frequency and percentage. Based on the results, 71.4% of the respondents are female while male is 28.6%. Most of them are aged between 31 to 40 (32.9%) and 41 to 50 (37.5%) while others are in range of 51 to 60 (21.2%) and 21-30 (8.5%). Malay are the major races participated in this study with 90.5%, followed by Chinese (5.7%) and Indian (3.9%). For monthly income, 17% received less than RM4000, 51.9% have monthly income in range of RM4001 to RM6000, 27.2% for monthly income between RM6001 to RM8000, and 3.9% for monthly income higher than RM8001. In terms of school location, Hulu Selangor has the highest respondents with 59.4% while respondents from Sabak Bernam and Kuala Selangor were 26.9% and 13.8% respectively. Ministry of Health (95.1%) was mostly used by the respondents as source of knowledge, followed by Ministry of Education (86.9%), social media (85.9%), friends (67.5%), family (60.1%), and Ministry of Communication and Multimedia (56.9%).

Table 4.1: Socio-demographics characteristics of respondents (N=283)

Socio-demographic characteristics	n	%	Mean	SD
Gender			1.71	0.453
Male	81	28.6		
Female	202	71.4		
Age			2.71	0.895

21-30	24	8.5		
31-40	93	32.9		
41-50	106	37.5		
51-60	60	21.2		
Races			1.13	0.441
Malay	256	90.5		
Chinese	16	5.7		
Indian	11	3.9		
Monthly income (RM)			2.18	0.753
<4000	48	17.0		
4001-6000	147	51.9		
6001-8000	77	27.2		
>8000	11	3.9		
School location			2.05	0.808
Hulu Selangor	168	59.4		
Sabak Bernam	76	26.9		
Kuala Selangor	39	13.8		
Source of COVID-19 knowledge:				
Ministry of Health (MOH)			1.95	0.217
No	14	4.9		
Yes	269	95.1		
Ministry of Education (MOE)			1.87	0.338
No	37	13.1		
Yes	246	86.9		
Ministry of Communication and Multimedia (MCMC)			1.57	0.496
No	122	43.1		
Yes	161	56.9		
Social media			1.86	0.349
No	40	14.1		
Yes	243	85.9		
Family			1.60	0.491
No	113	39.9		
Yes	170	60.1		
Friends			1.67	0.469
No	92	32.5		
Yes	191	67.5		

4.3.2 Respondent's Occupational Characteristics

Items in Section D were used with aims to identify the respondents' current position at school and their experiences related to infectious diseases at school. Table 4.2 shows the findings on respondents' occupational background. Based on the findings, school management participation is found to be higher from teachers (73.5%) than school administrators (26.5%). Most of them have experiences in handling communicable disease cases (69.7%) and managed the prevention program related to the disease (69.7%) in school before. School management were also found to be exposed to several common communicable disease throughout their working experience at school in such that measles (29.0%) scored the highest exposure, followed by COVID-19 (20.8%), food poisoning (19.4%), dengue fever (16.6%), food poisoning (19.4%), TB (6.7%), and HFMD (6.0%).

Table 4.2: Occupational Information of Respondents (N=283)

Occupational Characteristics	n	%	Mean	SD
What is your position in the current school?			1.73	0.442
School administrators	75	26.5		
Teachers	208	73.5		
Have you ever handled any infectious disease (e.g. dengue) cases in school?			1.30	0.461
No	197	69.6		
Yes	86	30.4		
Have you ever managed any infectious disease program (e.g. dengue prevention program) in school?			1.30	0.461
No	197	69.6		
Yes	86	30.4		
Have you been exposed to any infectious disease at school as stated below?				

Dengue fever			1.17	0.373
No	236	83.4		
Yes	47	16.6		
Tuberculosis (TB)			1.07	0.251
No	264	93.3		
Yes	19	6.7		
Hand, Food and Mouth Disease (HFMD)			1.06	0.238
No	266	94.0		
Yes	17	6.0		
Food poisoning			1.19	0.396
No	228	80.6		
Yes	55	19.4		
Measles			1.29	0.454
No	201	71.0		
Yes	82	29.0		
COVID-19			1.21	0.407
No	224	79.2		
Yes	59	20.8		

4.3.3 Respondent's Lifestyle Characteristics

All items in the Section C were used to identify the respondent's lifestyle background. Based on the findings in Table 4.3, a small group of them were sometimes smoking (3.5%) or often smoking (3.2%). Majority of the respondents performed physical activities sometimes (45.2%) while 7.1% never did any physical activities. For stress-related experiences, less than 10% of them often have negative stress lately (5.7%). Those who often experienced bad sleeping patterns recorded the lowest percentage which was 4.6%.

Table 4.3: Lifestyle Information of Respondents (N=283)

Lifestyle characteristics	n	%	Mean	SD
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I smoke.			1.22	0.657
Never	250	88.3		
Rarely	14	4.9		
Sometimes	10	3.5		
Often	9	3.2		
Always	-	-		
I do any physical activities.			3.00	0.915
Never	20	7.1		
Rarely	51	18.0		
Sometimes	128	45.2		
Often	77	27.2		
Always	7	2.5		
I experienced negative stress lately.			2.06	0.909
Never	89	31.4		
Rarely	105	37.1		
Sometimes	72	25.4		
Often	16	5.7		
Always	1	0.4		
I experienced bad sleeping patterns lately.			2.01	0.846
Never	87	30.7		
Never	120	42.4		
Rarely	63	22.3		
Sometimes	13	4.6		
Often	-	-		
Always				

4.4 Normality Analysis

Table 4.4 shows that the results of the normality test based on the skewness and kurtosis. Assessing the normality assumption is important for using the parametric statistical test. Based on the maximum likelihood estimation (MLE) method (Mamat & Ramdas, 2018), the data sets of all constructs were normally distributed and have skewness and kurtosis of less than $+2/-2$. The skewness ranged from -0.685 to 0.365.

Table 4.4: The Assessment of Normality of Data Distribution

	Skewness	Kurtosis	Distribution
Knowledge	-0.530	0.365	Normal
Attitude	0.439	-0.658	Normal
Practice	0.224	-0.483	Normal

4.5 Descriptive Statistics for Knowledge, Attitude and Practice

All items of knowledge, attitude, and practice were analysed through descriptive analysis to determine the mean and standard deviation each of it. The level of knowledge, attitude, and practice were then categorized based on the mean scores; low (1 – 2.33), medium (2.34 – 3.66), and high (3.67 – 5) (Mamat & Ramdas, 2018).

4.5.1 Level of Knowledge of COVID-19 SOPs Compliance

Based on Table 4.5, respondents were found to have a high level of knowledge on COVID-19 SOPs compliance with an overall mean score of 4.73 (SD = 0.291, Range = 1-5) and a scoring rate of 94.6%. However, the respondents' knowledge on the absenteeism due to COVID-19 as a non-disciplinary issue has recorded the lowest scoring rate which was 75.6% (mean = 3.78, SD = 1.395, range = 1-5). Not only that, the mean score for the item "students are not allowed to eat the canteen during recess" also had a lower scoring rate of 79.4% (mean = 3.97, SD = 1.286, range = 1-5) compared to other knowledge items.

Table 4.5: Descriptive Statistics for Items in Knowledge (N= 283)

Item No.	Item Description	Range	Mean	SD	Level	Scoring Rate (%)
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K1	COVID-19 is a viral infection.	1-5	4.85	0.366	High	97.2
K2	COVID-19 can cause a severe acute respiratory syndrome.	1-5	4.88	0.353	High	97.6
K3	The first case of COVID-19 human infection was in Wuhan, China.	1-5	4.85	0.412	High	97.0
K4	COVID-19 can be transmitted through droplets during coughing or sneezing.	1-5	4.86	0.391	High	97.2
K5	COVID-19 virus can be spread through airborne transmission.	1-5	4.80	0.542	High	96.0
K6	COVID-19 virus can be transmitted by touching surfaces and objects contaminated by the virus.	1-5	4.81	0.458	High	96.8
K7	COVID-19 can be spread through close contact with the infected person.	1-5	4.88	0.336	High	97.6
K8	COVID-19 can be transmitted via handshaking.	1-5	4.81	0.509	High	96.2
K9	Someone infected with COVID-19 can transmit the virus even if they are not showing any symptoms.	1-5	4.86	0.372	High	97.2
K10	Students, teachers, and school staff can wear face masks to prevent the COVID-19 infection.	1-5	4.88	0.361	High	97.6
K11	Fever, cough, and shortness of breath are COVID-19 symptoms.	1-5	4.84	0.403	High	96.8
K12	Symptoms of COVID-19 are similar to Severe Acute	1-5	4.55	0.700	High	91.0

Respiratory Syndrome (SARS).						
K13	People with underlying chronic diseases are at a higher risk of COVID-19 infection.	1-5	4.84	0.412	High	96.8
K14	People over 60 years old have a higher risk of COVID-19 infection and may develop complications or death.	1-5	4.84	0.415	High	96.8
K15	There is a COVID-19 SOP, particularly for educational institutions (schools).	1-5	4.92	0.292	High	98.4
K16	School management must conduct screening for COVID-19 symptoms at the entrance gate every day before the school session starts.	1-5	4.61	0.780	High	92.2
K17	School assembly is not allowed.	1-5	4.82	0.463	High	96.4
K18	Students, teachers, or school staff who have close contact with COVID-19 patients should immediately be isolated. Close contact cases should remain in the isolation room for at least 10 days or as directed by the District Health Office.	1-5	4.84	0.429	High	96.8
K19	Wearing a face mask is compulsory within the school.	1-5	4.90	0.317	High	98.0
K20	Cocurricular activities are not allowed to be conducted in the school.	1-5	4.81	0.480	High	96.2

K21	Student absenteeism during the COVID-19 pandemic is not a discipline issue.	1-5	3.78	1.395	High	75.6
K22	Students with COVID-19 symptoms are not allowed to enter the school.	1-5	4.88	0.474	High	97.6
K23	Students are not allowed to eat at the canteen during recess.	1-5	3.97	1.286	High	79.4
K24	School operation is based on phases in the National Recovery Plan (NRP).	1-5	4.78	0.509	High	95.6
Overall Knowledge		1-5	4.73	0.291	High	94.6

4.5.2 Level of Attitude towards COVID-19 SOPs Compliance

Based on Table 4.6, the respondents' level of attitude towards COVID-19 was classified as high due to the overall attitude mean score of 4.74 (SD = 0.345, range = 1-5) with a scoring rate of 94.8%. The highest scoring rate was on the belief of everyone's responsibility to prevent the spread of COVID-19 (mean= 4.91, SD = 0.335, range = 1-5) which was 98.2%. Contradict from that, the respondents' belief on the ability of vaccines to protect them from COVID-19 infection (mean = 4.50, SD = 0.769, range = 1-5) had the lowest scoring rate of 90.0%.

Table 4.6: Descriptive Statistics for Items in Attitude (N=283)

Item No.	Item description	Range	Mean	SD	Level	Scoring Rate (%)
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AT1	I believe good hygiene practices can prevent COVID-19 transmission.	1-5	4.88	0.395	High	97.6
AT2	I am interested in knowing the COVID-19 preventive methods.	1-5	4.75	0.582	High	95.0
AT3	I believe everyone is responsible for preventing the spread of the COVID-19.	1-5	4.91	0.335	High	98.2
AT4	The Movement Control Order (MCO) is an effective effort by the government to curb the spread of COVID-19.	1-5	4.77	0.548	High	95.4
AT5	If I get infected with COVID-19, I will not do any high-risk practices that can get others infected.	1-5	4.83	0.630	High	96.6
AT6	I agree that COVID-19 will be successfully controlled.	1-5	4.69	0.610	High	93.8
AT7	I agree that compliance with SOPs can prevent COVID-19 transmission.	1-5	4.86	0.382	High	97.2
AT8	I believe that vaccines can protect us against COVID-19 infection.	1-5	4.50	0.769	High	90.0
AT9	The Ministry of Education has provided the educational institutions with adequate SOP and information on COVID-19.	1-5	4.65	0.603	High	93.0
AT10	The SOPs provided are easy to understand and comply with by the school management.	1-5	4.60	0.612	High	92.0
Overall Attitude		1-5	4.74	0.345	High	94.8

4.5.3 Level of Practice towards COVID-19 SOPs Compliance

Based on Table 4.7, the overall practice mean score was 4.46 (SD = 0.362, range = 1-5) and the scoring rate was 89.2%, suggesting that the respondents have a high level of practice towards COVID-19 SOPs. Most of the items had a scoring rate of more than 90%. The highest was 98.2% where majority of the respondents wear a face mask when going out (mean = 4.91, SD = 0.393, range = 1-5). However, it was found that item P2 (I do not go on vacation during the COVID-19 outbreak) and item P11 (I ensure students, teachers, and school staff with body temperature exceeds 37.5°C or having any symptoms are not allowed to enter the school) have a scoring rate of 88.2% (mean = 4.41, SD = 0.685) and 89.2% (mean = 4.46, SD = 0.931) respectively. On the other hand, the respondents' practice on notifying the District Health Office or specific parties when there were COVID-19 infection at school (item P3) was at medium level with a scoring rate of 65.0% (mean = 3.25, SD = 1.704, range = 1-5).

Table 4.7: Descriptive Statistics for Items in Practice (N=283)

Item No.	Item Description	Range	Mean	SD	Level	Scoring Rate (%)
P1	I do not go on vacation during the COVID-19 outbreak.	1-5	4.53	0.685	High	90.6
P2	I do not go to any crowded places during the COVID-19 outbreak.	1-5	4.41	0.675	High	88.2
P3	I notify District Health Office or specific parties if	1-5	3.25	1.704	Medium	65.0

	students or school staff are infected with COVID-19.					
P4	I wear a face mask when I go out.	1-5	4.91	0.393	High	98.2
P5	I cover my mouth and nose with a tissue when coughing and sneezing.	1-5	4.73	0.557	High	94.6
P6	I wash my hands before and after each activity.	1-5	4.69	0.549	High	93.8
P7	I maintain a 1-meter physical distancing with others at school.	1-5	4.61	0.543	High	92.2
P8	I wash my hands with water and soap or hand sanitizer that contains at least 70% alcohol.	1-5	4.62	0.615	High	92.4
P9	I refer to the Standard Operating Procedure (SOP) issued by MOH, NSC, and MOE from time to time.	1-5	4.59	0.654	High	91.8
P10	I ensure all students, teachers, and school staff always wear a face mask throughout the school session.	1-5	4.65	0.546	High	93.0
P11	I ensure students, teachers, or school staff with body temperature exceeds 37.54. or having any symptoms are not allowed to enter the school.	1-5	4.46	0.931	High	89.2
P12	I ensure good ventilation in the classroom.	1-5	4.61	0.703	High	92.2
P13	I make sure the arrangement of the class is rotated.	1-5	4.67	0.602	High	93.4

P14	I supervise and ensure all the students eat in the classroom during recess.	1-5	4.63	0.607	High	92.6
P15	I provide handwashing facilities with water and soap or hand sanitizer containing 70% alcohol.	1-5	4.58	0.726	High	91.6
P16	I ensure all types of assembly within the school are not allowed.	1-5	4.66	0.667	High	93.2
P17	I ensure all co-curricular activities within the school are not allowed.	1-5	4.64	0.756	High	92.8
Overall Practice		1-5	4.46	0.362	High	89.2

4.6 Comparison of Knowledge, Attitude, and Practice by Socio-demographic, Occupational, and Lifestyle Characteristics

4.6.1 Differences between Sociodemographic Characteristics with KAP

Based on the Table 4.8, there was a significant mean difference between age and practice ($P = 0.009$) where mean score of practice for age 51-60 (mean = 4.58 ± 0.333) was significantly higher than age 21-30 (mean = 4.32 ± 0.463 ; mean diff. = 0.263) and age 31-40 (mean = 4.42 ± 0.381 ; mean diff. = 0.160). Monthly income had a significant mean difference with attitude mean score ($P = 0.029$) but not with knowledge and practice mean score. Meanwhile for races, it was significantly different with knowledge mean score ($P = 0.027$) only. Next, there was a significant mean difference between practice mean score of school location ($P = 0.206$; mean diff. = 0.206), where practice mean score of Kuala Selangor (mean = 4.59 ± 0.294) was

significantly higher than Sabak Bernam (mean = 4.38 ± 0.430). For sources of COVID-19 information, Ministry of Education was found to have a significance difference across mean score of knowledge ($P = 0.010$; mean = 4.76 ± 0.263), attitude ($P = 0.026$; mean = 4.77 ± 0.320), and practice ($P = 0.017$; mean = 4.49 ± 0.338). However, for sources from Ministry of Multimedia and Communication, family, and friends, they were only significantly different with practice mean score of 4.51 ± 0.328 ($P = 0.018$), 4.52 ± 0.332 ($P = 0.001$), and 4.50 ± 0.333 ($P = 0.021$) respectively.



Table 4.8: Differences between socio-demographic characteristics with knowledge, attitude, and practice (N=283)

Socio-demographic characteristics	Knowledge		Attitude		Practice	
	Mean $\pm$ SD	P-value	Mean $\pm$ SD	P-value	Mean $\pm$ SD	P-value
Gender						
Male	4.72 $\pm$ 0.333	0.703	4.73 $\pm$ 0.365	0.658	4.48 $\pm$ 0.318	0.650
Female	4.74 $\pm$ 0.273		4.75 $\pm$ 0.337		4.46 $\pm$ 0.379	
Age						
21-30	4.76 $\pm$ 0.201	0.401	4.74 $\pm$ 0.340	0.062	4.32 $\pm$ 0.463	0.009*
31-40	4.76 $\pm$ 0.315		4.79 $\pm$ 0.314		4.42 $\pm$ 0.381	
41-50	4.73 $\pm$ 0.283		4.76 $\pm$ 0.366		4.46 $\pm$ 0.318	
51-60	4.68 $\pm$ 0.296		4.64 $\pm$ 0.342		4.58 $\pm$ 0.333	
Races						
Malay	4.72 $\pm$ 0.301	0.027*	4.73 $\pm$ 0.352	0.480	4.47 $\pm$ 0.361	0.810
Chinese	4.80 $\pm$ 0.157		4.79 $\pm$ 0.272		4.48 $\pm$ 0.348	
Indian	4.85 $\pm$ 0.147		4.85 $\pm$ 0.254		4.46 $\pm$ 0.443	
Monthly income (RM)						
<4000	4.66 $\pm$ 0.302	0.117	4.67 $\pm$ 0.408	0.029*	4.40 $\pm$ 0.417	0.349
4001-6000	4.73 $\pm$ 0.324		4.79 $\pm$ 0.323		4.45 $\pm$ 0.366	
6001-8000	4.77 $\pm$ 0.215		4.74 $\pm$ 0.327		4.51 $\pm$ 0.320	
>8001	4.83 $\pm$ 0.164		4.52 $\pm$ 0.366		4.51 $\pm$ 0.315	
School location						
Hulu Selangor	4.74 $\pm$ 0.210	0.106	4.73 $\pm$ 0.318	0.232	4.51 $\pm$ 0.366	0.006*
Sabak Bernam	4.63 $\pm$ 0.400		4.64 $\pm$ 0.436		4.38 $\pm$ 0.430	
Kuala Selangor	4.75 $\pm$ 0.299		4.76 $\pm$ 0.334		4.59 $\pm$ 0.294	

Source of knowledge							
MOH							
No	4.49 ± 0.579	0.128	4.46 ± 0.632	0.101	4.49 ± 0.325	0.785	
Yes	4.74 ± 0.264		4.76 ± 0.318		4.46 ± 0.365		
MOE							
No	4.57 ± 0.403	0.010*	4.59 ± 0.455	0.026*	4.29 ± 0.463	0.017*	
Yes	4.76 ± 0.263		4.77 ± 0.320		4.49 ± 0.338		
MCMC							
No	4.72 ± 0.315	0.600	4.74 ± 0.343	0.773	4.40 ± 0.396	0.018*	
Yes	4.74 ± 0.273		4.75 ± 0.348		4.51 ± 0.328		
Social media							
No	4.71 ± 0.279	0.701	4.79 ± 0.309	0.396	4.33 ± 0.505	0.067	
Yes	4.73 ± 0.294		4.73 ± 0.351		4.48 ± 0.329		
Family							
No	4.69 ± 0.322	0.061	4.69 ± 0.392	0.063	4.37 ± 0.388	0.001*	
Yes	4.76 ± 0.266		4.77 ± 0.307		4.52 ± 0.332		
Friends							
No	4.68 ± 0.287	0.061	4.71 ± 0.360	0.327	4.39 ± 0.408	0.021*	
Yes	4.75 ± 0.291		4.76 ± 0.337		4.50 ± 0.333		

Note: Significance at *p<0.05

4.6.2 Differences between Occupational Characteristics with KAP

Table 4.9 shows the findings of comparison between occupational factors with the KAP. The position of respondents in schools either a school administrator or a teacher did not have a significance difference with the KAP. The significance differences were identified between the experience of the respondents in handling infectious disease cases at school ($P = 0.028$) and the experience in managing infectious disease prevention program ($P = 0.005$) with knowledge mean scores only, but not with attitude and practice mean scores. It was also found that significance differences in the mean score of KAP varied across the type of infectious disease exposed by the respondents at school. In term of knowledge, the mean score was significantly differed with the respondent's exposure experience to dengue fever ($P = 0.000$), TB ($P = 0.000$), food poisoning ($P = 0.017$), and measles ($P = 0.000$). For differences in attitude mean score, it was statistically significant with the exposure experience to infectious diseases which are dengue fever ($P = 0.004$), food poisoning ($P = 0.005$), and measles ($P = 0.008$). On the other hand, practice mean scores shows significance differences with respondent's exposure experience to TB ($P = 0.044$), food poisoning ($P = 0.009$), and measles ($P = 0.028$). It was found that all KAP do not have significant mean difference with the exposure experience to HFMD and COVID-19.

Table 4.9: Differences between occupational characteristics with knowledge, attitude, and practice (N=283)

Occupational characteristics	Knowledge Score		Attitude Score		Practice Score	
	Mean $\pm$ SD	P-value	Mean $\pm$ SD	P-value	Mean $\pm$ SD	P-value
What is your position in the current school?						
School administrators	4.71 $\pm$ 0.282	0.371	4.71 $\pm$ 0.360	0.320	4.49 $\pm$ 0.366	0.423
Teachers	4.74 $\pm$ 0.295		4.75 $\pm$ 0.340		4.45 $\pm$ 0.361	
Have you ever handled any infectious disease (e.g. dengue) cases in school?						
No	4.71 $\pm$ 0.318	0.028*	4.72 $\pm$ 0.368	0.161	4.49 $\pm$ 0.358	0.072
Yes	4.78 $\pm$ 0.211		4.78 $\pm$ 0.282		4.40 $\pm$ 0.367	
Have you ever managed any infectious disease program (e.g. dengue prevention program) in school?						
No	4.70 $\pm$ 0.319	0.005*	4.72 $\pm$ 0.369	0.148	4.46 $\pm$ 0.370	0.673
Yes	4.79 $\pm$ 0.202		4.78 $\pm$ 0.280		4.48 $\pm$ 0.346	
Have you been exposed to any infectious disease at school as stated below?						
Dengue fever						
No	4.71 $\pm$ 0.308	0.000**	4.72 $\pm$ 0.362	0.004*	4.46 $\pm$ 0.379	0.997
Yes	4.84 $\pm$ 0.144		4.84 $\pm$ 0.219		4.46 $\pm$ 0.266	
Tuberculosis (TB)						
No	4.72 $\pm$ 0.298	0.000**	4.73 $\pm$ 0.350	0.054	4.47 $\pm$ 0.362	0.044*
Yes	4.87 $\pm$ 0.086		4.86 $\pm$ 0.250		4.30 $\pm$ 0.336	
Hand, Food and Mouth Disease (HFMD)						
No	4.73 $\pm$ 0.293	0.428	4.74 $\pm$ 0.342	0.837	4.47 $\pm$ 0.368	0.275

Yes	4.79 ± 0.263		4.76 ± 0.397		4.37 ± 0.244	
Food poisoning						
No	4.72 ± 0.307	0.017*	4.72 ± 0.363	0.005*	4.49 ± 0.361	0.009*
Yes	4.80 ± 0.202		4.83 ± 0.241		4.35 ± 0.349	
Measles						
No	4.70 ± 0.322	0.000**	4.71 ± 0.370	0.008*	4.49 ± 0.381	0.028*
Yes	4.82 ± 0.170		4.82 ± 0.263		4.39 ± 0.302	
COVID-19						
No	4.72 ± 0.281	0.269	4.75 ± 0.329	0.559	4.46 ± 0.374	0.982
Yes	4.77 ± 0.328		4.72 ± 0.404		4.46 ± 0.315	

Note: *Significance at $p < 0.05$, ** $p < 0.001$

4.6.3 Differences between Lifestyle Characteristics with KAP

In table 4.10, it shows the comparison of KAP across lifestyle characteristics. Based on the findings, there was a significance mean differences between physical activities with knowledge and practice. For knowledge, person that always did physical activities had a significantly higher knowledge mean score than those rarely did physical activities ($P = 0.004$, mean = 4.72 ± 0.250 , mean diff = 0.146) and sometimes did physical activities ($P = 0.000$, mean = 4.72 ± 0.309 , mean diff = 0.153). Meanwhile for practice, person that often did any physical activities had significance lower practice score than those always did ($P=0.004$, mean = 4.11 ± 0.238 , mean diff= 0.489), but significance higher practice score than those rarely did ($P = 0.028$, mean = 4.41 ± 0.366 , mean diff = 0.187) or sometimes ($P = 0.008$, mean = 4.43 ± 0.350 , mean diff. = 0.169). On the other hand, the knowledge mean score was differ significantly to the experience bad sleeping patterns ($P = 0.021$), where persons who sometimes experienced bad sleeping patterns (mean = 4.81 ± 0.193) had significantly higher knowledge score with mean difference of 0.105 than those who are rarely (mean = 4.71 ± 0.291 , $P = 0.036$). Similar with practice, experience bad sleeping pattern had a significance difference with attitude mean score ($P = 0.016$). The attitude mean score of 4.82 ± 0.254 for persons who never experienced bad sleeping patterns was significantly higher than of 4.70 ± 0.394 for those who rarely experienced it (mean diff. = 0.121, $P = 0.045$).

Table 4.10: Differences between lifestyle characteristics with knowledge, attitude, and practice (N=283)

Occupational characteristics	Knowledge Score		Attitude Score		Practice Score	
	Mean $\pm$ SD	P-value	Mean $\pm$ SD	P-value	Mean $\pm$ SD	P-value
I smoke.						
Never	4.73 $\pm$ 0.302	0.544	4.74 $\pm$ 0.353	0.464	4.47 $\pm$ 0.368	0.360
Rarely	4.83 $\pm$ 0.115		4.88 $\pm$ 0.204		4.36 $\pm$ 0.319	
Sometimes	4.78 $\pm$ 0.131		4.75 $\pm$ 0.264		4.45 $\pm$ 0.224	
Often	4.69 $\pm$ 0.291		4.68 $\pm$ -.353		4.30 $\pm$ 0.365	
Always	-		-		-	
I do any physical activities.						
Never	4.62 $\pm$ 0.370	0.000**	4.62 $\pm$ 0.335	0.169	4.38 $\pm$ 0.544	0.000**
Rarely	4.72 $\pm$ 0.250		4.70 $\pm$ 0.377		4.41 $\pm$ 0.366	
Sometimes	4.72 $\pm$ 0.309		4.74 $\pm$ 0.365		4.43 $\pm$ 0.350	
Often	4.78 $\pm$ 0.267		4.79 $\pm$ 0.292		4.60 $\pm$ 0.282	
Always	4.87 $\pm$ 0.045		4.91 $\pm$ 0.146		4.11 $\pm$ 0.238	
I experienced negative stress lately.						
Never	4.67 $\pm$ 0.308	0.388	4.77 $\pm$ 0.291	0.845	4.51 $\pm$ 0.391	0.368
Rarely	4.72 $\pm$ 0.320		4.72 $\pm$ 0.301		4.47 $\pm$ 0.342	
Sometimes	4.79 $\pm$ 0.233		4.75 $\pm$ 0.037		4.40 $\pm$ 0.373	
Often	4.86 $\pm$ 0.096		4.69 $\pm$ 0.262		4.42 $\pm$ 0.252	
Always	4.92 $\pm$ 0		4.90 $\pm$ 0		4.72 $\pm$ 0	
I experienced bad sleeping patterns.						
Never	4.74 $\pm$ 0.271	0.021*	4.82 $\pm$ 0.254	0.016*	4.55 $\pm$ 0.372	0.077
Rarely	4.71 $\pm$ 0.291		4.70 $\pm$ 0.394		4.43 $\pm$ 0.034	

Sometimes	4.81 ± 0.193	4.77 ± 0.290	4.42 ± 0.338
Often	4.53 ± 0.586	4.49 ± 0.480	4.42 ± 0.300
Always	-	-	-

Note: Significance at *p<0.05, **p<0.001



4.7 Relationship between Knowledge, Attitude, and Practice Towards COVID-19 SOP Compliance

A Pearson correlation analysis was conducted to measure the relationship between knowledge, attitude, and practice. The strength of correlation are based on (Mamat & Ramdas, 2018) with the correlation coefficient (r) ranges from -1.00 to +1.00, as shown in Table 4.11.

Table 4.11: Reference value for correlation coefficient (r)

Size of Correlation	Strength of Correlation
0.91 until 1.00 or -0.91 until -1.00	Very strong
0.71 until 0.90 or -0.71 until -0.90	Strong
0.51 until 0.70 or -0.51 until -0.70	Moderate
0.31 until 0.50 or -0.31 until -0.50	Weak
0.01 until 0.30 or -0.01 until -0.30	Very weak
0.00	No correlation

Based on the findings in Table 4.12, there was a correlation between knowledge with practice ($p < 0.001$), attitude with practice ($p < 0.001$), and knowledge with attitude ($p < 0.001$). For the strength of correlation, the relationship between knowledge with practice was identified as weak correlation ($r = 0.329$), attitude with practice was very weak ($r = 0.266$), and knowledge with attitude was moderate ($r = 0.583$). Therefore, we accept the hypothesis that there was a significant positive relationship between knowledge, attitude and practice towards the COVID-19 SOP compliance by the school management.

Table 4.12: Correlation between knowledge, attitude, and practice (N=283)

Knowledge Score	Attitude Score	Practice Score
-----------------	----------------	----------------

	r	P-value	r	P-value	r	P-value
Knowledge	1	-	0.583**	0.000	0.329**	0.000
Attitude	0.583**	0.000	1	-	0.266**	0.000
Practice	0.329**	0.000	0.266**	0.000	1	-

**Correlation is significant at $p < 0.001$

4.6 Association between Socio-demographic, Occupational, and Lifestyle with Knowledge, Attitude, and Practice Towards COVID-19 SOP Compliance

A linear regression analysis was conducted to determine the influence of independent variable towards the practice and were performed separately in the simple linear regression. The findings of simple linear regression were shown in Table 4.13.

Table 4.13: Simple linear regression with KAP towards COVID-19 SOPs compliance

Variables	R Square	Unstandardized Coefficient		Standardized Coefficient	t	p	95% CI for B	
		Beta	SE				Lower	Upper
Age (21-30 vs 31-40)	0.006	-0.060	0.046	-0.077	-1.300	0.195	-0.150	0.031
Age (21-30 vs 41-50)	0.000	-0.001	0.045	-0.001	-0.020	0.984	-0.089	0.087
Age (21-30 vs 51-60)	0.030	0.152	0.052	0.172	2.932	*0.004	0.050	0.255
Gender (Male vs Female)	0.001	-0.020	0.048	-0.025	-0.422	0.673	-0.114	0.074
Races (Malay vs Chinese)	0.001	-0.059	0.093	-0.083	-0.637	0.525	-0.243	0.124
Races (Malay vs Indian)	0.000	0.018	0.112	0.010	0.163	0.871	-0.201	0.238
Monthly Income (<4001 vs 4001-6000)	0.001	-0.018	0.043	-0.024	-0.406	0.685	-0.102	0.067
Monthly Income (<4001 vs 6001-8000)	0.007	0.069	0.048	0.084	1.421	0.156	-0.026	0.164
Monthly Income (<4001 vs >8000)	0.001	0.050	0.112	0.027	0.446	0.656	-0.170	0.269
School Location (Hulu Selangor vs Sabak Bernam)	0.022	-0.122	0.048	-0.150	-2.543	*0.012	-0.217	-0.028
School Location (Hulu Selangor vs Kuala Selangor)	0.017	0.138	0.062	0.131	2.223	*0.027	0.016	0.260
Source of COVID-19 Information:								
MOH (No vs Yes)	0.000	-0.027	0.099	-0.016	-0.273	0.785	-0.223	0.169
MOE (No vs Yes)	0.034	0.197	0.063	0.183	3.128	*0.002	0.073	0.321
MCMC (No vs Yes)	0.021	0.105	0.043	0.144	2.437	*0.015	0.020	0.190
Social Media (No vs Yes)	0.022	0.155	0.061	0.149	2.533	*0.012	0.035	0.276
Family (No vs Yes)	0.041	0.150	0.043	0.203	3.480	*0.001	0.065	0.235

Friends (No vs Yes)	0.019	0.106	0.046	0.137	2.326	*0.021	0.016	0.196
Position in School (School administrator vs Teacher)	0.002	-0.039	0.049	-0.048	-0.803	0.423	-0.135	0.057
Experience in handling any infectious disease cases in school (No vs Yes)	0.011	-0.084	0.047	-0.107	-1.804	0.072	-0.176	0.008
Experience in managing any infectious disease prevention program in school (No vs Yes)	0.011	-0.084	0.047	-0.107	-1.804	0.072	-0.176	0.008
Exposure experience to infectious disease in school								
Dengue fever (No vs Yes)	0.000	0.000	0.058	0.000	-0.003	0.988	-0.114	0.114
TB (No vs Yes)	0.014	-0.173	0.086	-0.120	-2.019	*0.044	-0.341	-0.004
HFMD (No vs Yes)	0.004	-0.099	0.091	-0.065	-1.093	0.275	-0.277	0.079
Food poisoning (No vs Yes)	0.024	-0.143	0.054	-0.156	-2.647	*0.009	-0.249	-0.037
Measles (No vs Yes)	0.017	-0.104	0.047	-0.131	-2.213	*0.028	-0.197	-0.012
COVID-19 (No vs Yes)	0.000	0.001	0.053	0.001	0.023	0.982	-0.103	0.106
I smoke (Never vs Rarely)	0.000	-0.103	0.076	-0.032	-1.009	0.892	-0.131	0.220
I smoke (Never vs Sometimes)	0.011	-0.084	0.047	-0.107	-1.804	0.072	-0.176	0.008
I smoke (Never vs Often)	0.002	-0.039	0.049	-0.048	-0.803	0.0423	-0.135	0.057
Physical Activities (Never vs Rarely)	0.000	0.008	0.045	0.010	0.174	0.862	-0.080	0.096
Physical Activities (Never vs Sometimes)	0.010	-0.082	0.049	-0.099	-1.662	0.098	-0.179	0.015
Physical Activities (Never vs Often)	0.054	0.190	0.047	0.233	4.022	**0.000	0.097	0.282
Physical Activities (Never vs Always)	0.024	-0.360	0.137	-0.155	-2.625	*0.009	-0.630	-0.090
Negative Stress (Never vs Rarely)	0.000	0.008	0.045	0.010	0.174	0.862	-0.080	0.096
Negative Stress (Never vs Sometimes)	0.010	-0.082	0.049	-0.099	-1.662	0.098	-0.179	0.015

Negative Stress (Never vs Often)	0.001	-0.041	0.093	-0.026	-0.439	0.661	-0.255	0.143
Negative Stress (Never vs Always)	0.002	0.261	0.363	0.043	0.718	0.473	-0.454	0.976
Bad Sleeping Pattern (Never vs Rarely)	0.007	-0.062	0.043	-0.085	-1.434	0.153	-0.148	0.023
Bad Sleeping Pattern (Never vs Sometimes)	0.003	-0.051	0.052	-0.059	-0.992	0.322	-0.153	0.051
Bad Sleeping Pattern (Never vs Often)	0.001	-0.041	0.103	-0.024	-0.399	0.690	-0.244	0.162
Mean Knowledge	0.109	0.410	0.070	0.330	5.857	**0.000	0.272	0.548
Mean Attitude	0.070	0.277	0.060	0.264	4.595	**0.000	0.159	0.396

*indicates $p < 0.05$, **indicates $p < 0.001$

In this study, all the independent variables that were found significantly associated with variable practice in the simple linear regression were further tested with multiple linear regression. Multiple regression was conducted to determine the significant relationships between multiple independent variable with dependent variable, and to predict a value of one variable for given values of the others Prior to that, major assumptions in multiple regression are tested to make sure no violation is meet. The assumptions that should be meet are:

- 1) There must be a linear relationship between the outcome variable and independent variables.
- 2) The residuals are normally distributed.
- 3) There was no multicollinearity.
- 4) The variance of error terms is homoscedasticity.

For assumption 1, the scatterplot showed by all independent variable towards the dependant variable formed a clear linear line (Figure 4.1). Therefore, the first assumption was accepted. For assumption 2, the histogram of residuals showed by all independent variable towards the dependent variable were in a bell shaped and normally distributed (Figure 4.2). Therefore, the normality assumption was accepted. As for assumption 3 which is the multicollinearity, the VIF values of the variable were used to address this assumption. Based on the table below, there was no multicollinearity that exists since the value of VIF for all the variables were close to 1 but below 5. Furthermore, the correlation coefficient was below 0.8 which indicated that there was no multicollinearity (Table 4.13). Therefore, the third assumption was

not violated. For the last assumption which the variance of error terms was homoscedasticity, it was proven by a plot of standardized residuals versus standardized predicted value. Since there was no clear pattern or cone shaped pattern in the distribution, the data was said to be homoscedasticity (Figure 4.3). Therefore, the last assumption was fulfilled.

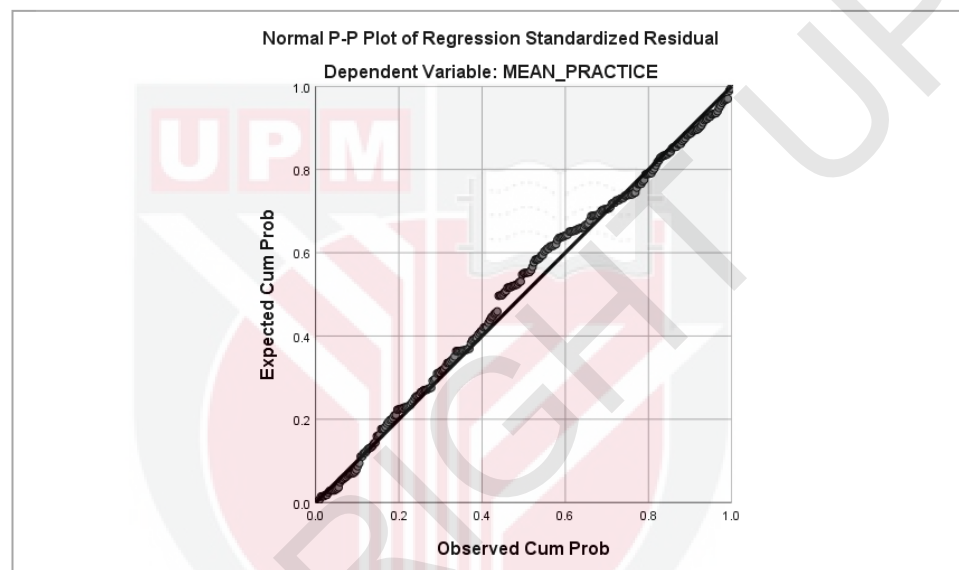


Figure 4.1: Scatterplot for linearity testing

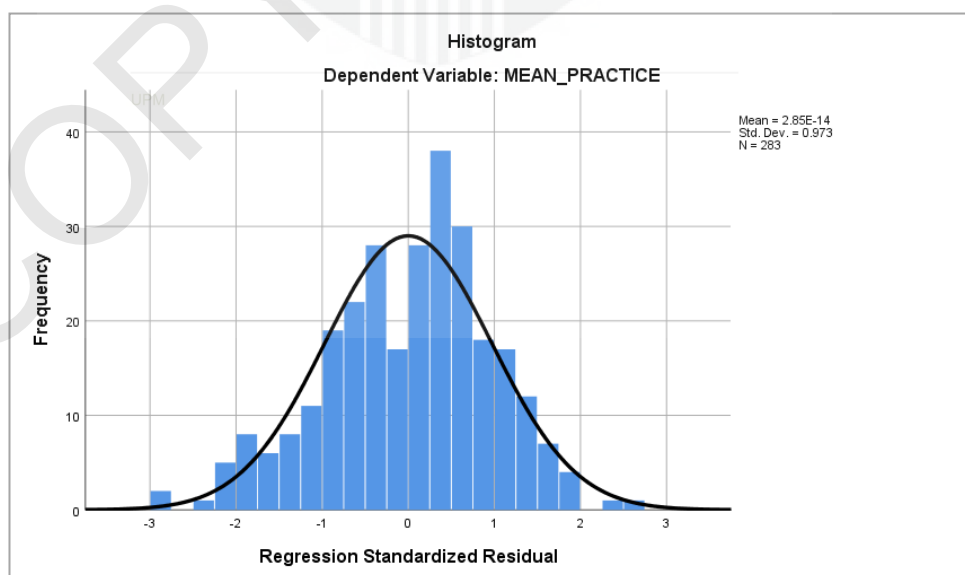


Figure 4.2: Histogram of residuals for normality testing

**Table 4.13: The Correlation Coefficient and Variance Inflation Value (VIF)
(N=283)**

Variables	Correlation Coefficient (r)	VIF
Age (21-30 vs 51-60)	0.191	1.064
School Location (Hulu Selangor vs Sabak Bernam)	-0.073	1.123
School Location (Hulu Selangor vs Kuala Selangor)	-.052	1.123
Source of COVID-19 Information: MOE (No vs Yes)	0.084	1.385
Source of COVID-19 Information: MCMC (No vs Yes)	0.032	1.358
Source of COVID-19 Information: Social Media (No vs Yes)	0.046	1.285
Source of COVID-19 Information: Family (No vs Yes)	0.053	2.407
Source of COVID-19 Information: Friends (No vs Yes)	-0.049	2.367
Exposure to TB (No vs Yes)	-0.088	1.168
Exposure to Food poisoning (No vs Yes)	-0.056	1.601
Exposure to Measles (No vs Yes)	-0.056	1.677
Physical Activities (Never vs Often)	0.148	1.076
Physical Activities (Never vs Always)	-0.113	1.123
Mean Knowledge	0.204	1.615
Mean Attitude	0.118	1.604

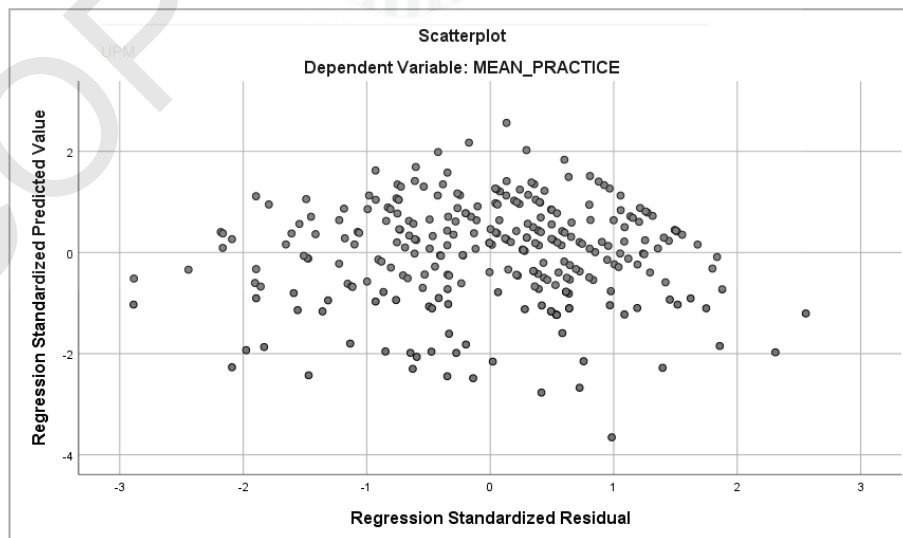


Figure 4.3: The scatterplot for homoscedasticity testing.

Table 4.14 shows the multiple regression testing for independent variables with practice towards COVID-19 SOPs compliance. The change in variance in practice explained by the independent variables is 30.4% (R square). From the table, there was significant positive influence of the independent variables towards practice ($F=7.777$, $p<0.001$). There were only four independent variable that have significance influence towards practice, which were age ($\beta=0.168$, $SE=0.045$), physical activities ($\beta=0.121$, $SE=0.042$), knowledge ($\beta=0.333$, $SE=0.083$), and attitude ($\beta=0.160$, $SE=0.069$).

The model is:

$$\text{Practice (y)} = 1.970 + 0.168 (\text{age}) + 0.121 (\text{physical activities}) + 0.333 (\text{knowledge}) + 0.160 (\text{attitude})$$

This means that school management who aged 51-60 have 0.168 practice more than school management who aged 21-30. School management who often performed physical activities have 0.121 practice more than school management who never performed physical activities. Not only that, increased in 1 standard deviation of knowledge will increase the practice by 0.333 standard deviation while increased in 1 standard deviation of attitude will increase the practice by 0.160 standard deviation.

Table 4.14: Multiple linear regression with KAP towards COVID-19 SOPs compliance

Variables	Unstandardized Coefficient		Standardized Coefficient	t	p	95% CI for B	
	Beta	SE	Beta			Lower	Upper
(Constant)	1.970	0.346		5.696	0.000	1.289	2.651
Age (21-30 vs 51-60)	0.168	0.045	0.197	3.742	**0.000	0.080	0.257
School Location (Hulu Selangor vs Sabak Bernam)	-0.061	0.043	-0.077	-1.411	0.156	-0.145	0.023
School Location (Hulu Selangor vs Kuala Selangor)	0.056	0.055	0.055	1.013	0.312	-0.052	0.164
Source of COVID-19 Information: MOE (No vs Yes)	0.102	0.062	0.099	1.642	0.102	-0.020	0.225
Source of COVID-19 Information: MCMC (No vs Yes)	0.026	0.042	0.037	0.629	0.530	-0.056	0.109
Source of COVID-19 Information: Social Media (No vs Yes)	0.053	0.058	0.052	0.905	0.366	-0.062	0.167
Source of COVID-19 Information: Family (No vs Yes)	0.059	0.057	0.083	1.048	0.296	-0.052	0.170
Source of COVID-19 Information: Friends (No vs Yes)	-0.056	0.059	-0.076	-0.963	0.336	-0.172	0.059
Exposure to TB (No vs Yes)	-0.132	0.077	-0.095	-1.718	0.087	-0.284	0.019
Exposure to Food poisoning (No vs Yes)	-0.062	0.057	-0.070	-1.089	0.277	-0.174	0.050
Exposure to Measles (No vs Yes)	-0.056	0.051	-0.073	-1.102	0.271	-0.156	0.044
Physical Activities (Never vs Often)	0.121	0.042	0.154	2.907	*0.004	0.039	0.203
Physical Activities (Never vs Always)	-0.270	0.122	-0.120	-2.221	0.127	-0.510	-0.031
Mean Knowledge	0.333	0.083	0.259	3.993	**0.000	0.169	0.497
Mean Attitude	0.160	0.069	0.149	2.312	*0.022	0.024	0.296

Note: R=0.551, R Square=0.304, Adjusted R Square=0.265, F=7.777 ANOVA p-value=0.000, *indicates p<0.05, **indicates p<0.001

CHAPTER 5

DISCUSSION

5.1 Introduction

The spread of COVID-19 infection is a major threat to the health and well-being of humans and holds a big impact on the education sector. Because education should no longer be put in halt because of COVID-19, compliance with the SOPs at school have become the only choice to contain the disease transmission. As a result, strict compliance with the SOPs is attained by improving the school management's knowledge, attitude, and practice. To our knowledge, this study is one of the earliest studies to examine the KAP towards COVID-19 SOPs compliance in school settings in Malaysia.

5.2 Knowledge towards COVID-19 SOP Compliance

Based on the findings, school management is classified as having a high knowledge level (94.6%). It is contradicted with studies among teachers in China and Northwest Ethiopia where only 63.7% and 33.2% have good knowledge about COVID-19 respectively (Handebo Id et al., 2021; Lin et al., 2019). The score gap might be due to the difference in time in which the studies are being conducted. The school management in this study may have collected adequate knowledge and awareness about the disease after two years of experiencing COVID-19. The government's effective risk communication about COVID-19 through various

platforms nationwide might be other reasons behind their high knowledge regarding disease transmission and symptoms. Majority of school management was aware that fever, cough, and shortness of breath are the common symptoms of COVID-19 (96.8%), and asymptomatic patients can transmit the virus to others (97.2%). School management needs to have a strong understanding of these matters for them to conduct screening of symptoms at school entrance and take extra cautious all the time, especially when most children show no symptoms upon being infected with COVID-19 (CDC, 2021b).

Regarding COVID-19 SOPs, the school management has excellent knowledge about the SOPs written in the Guidelines of School Management and Operation 3.0. While many of the knowledge items scored high, it was found that some of the school management might be confused about student absenteeism as a non-disciplinary issue (75.6%) and the student forbiddance to eat at the canteen during recess (79.4%). According to the latest update by MOE, students absence from schools due to fear of COVID-19 infection will not be issued with warning notice (Mohd Sulaiman, 2021). Meanwhile, only boarding school students are allowed to eat at the dining hall during recess with teachers supervision (MOE, 2021). Therefore, ways to convey the information need to be improved to ensure all school management is aware of correct and updated information in the current guidelines.

In this study, races have a significant difference with knowledge only. School management who was experienced in handling infectious disease cases, experienced in managing infectious disease prevention program, and has exposure experience with dengue fever, TB, food poisoning, and measles possessed a significantly better

understanding of COVID-19 and SOPs at school. It contradicts with a study by Yang et al. (2021), which shows knowledge has no significant difference with exposure to epidemic area and SARS experience. Nevertheless, exposure or specific experience with infectious diseases may enhance the knowledge level of school management. A study by Rennie et al. (2019) has proven that exposure and involvement in HIV care among medical students significantly influenced their knowledge about the disease. These highlighted that health education intervention should focus on increasing awareness among school management who are inexperienced in facing any infectious diseases.

5.3 Attitude Towards COVID-19 SOP Compliance

Regarding attitudes, school management showed a high level of attitude towards COVID-19. 93.8% of them are convinced that COVID-19 will be successfully controlled in the future. Their high confidence can be explained by the government's proactive actions and fast response in enacting tight control and preventative measures against COVID-19 among school management. During the mitigation phase, Malaysia's government has focused on two main measures: travel restriction through enforcement of MCO and massive targeted screening in the community to break the chain of COVID-19 transmission. Other stringent public health measures are also conducted including the closure of many industries, banning of mass gatherings, strict surveillance of positive cases, and enforcement of standardized operating procedures (Aziz et al., 2020). In China, their residents' belief in the victory against COVID-19 were enhanced by their country's effective mitigation measures such as lockdown of Hubei Province, traffic restrictions around the country, and allocation of large medical

aid to Wuhan after the outbreak (Zhong et al., 2020). Hence, government should continue channeling country's status and achievement in controlling COVID-19 to induced positive attitude among school management and publics.

In Syrian, 91.5% of the respondents agreed that closure of schools is an effective action to prevent the disease spread. In Malaysia, with the school reopening for face-to-face learning, schools have a large potential to be a place of COVID-19 transmission unless strict adherence to SOPs is maintained all the time (WHO, 2020a). The disease outbreak in schools may be contributed by community transmission, especially in schools within the red zone (Kaos, 2021a; Selan, 2021). Majority of the school management believed that compliance with SOPs could prevent COVID-19 transmission (97.2%) and it is everyone's responsibility to adhere to it (98.2%). General population in Saudi Arabia recorded similar perception on the MOH compliance to curb the disease spread (Al-Hanawi et al., 2020). Although the guidelines on school management and operation were frequently updated to meet the changes of COVID-19 situations, school management perceived that as a good action by the MOE in providing adequate SOPs to the educational institutions (93.0%) and easy to understand and comply by the school management (92.0%). It is suggested for government to engage actively with school management to provide solutions and ensure supportive environment for better SOPs compliance at school.

Results also show that school management strongly believes in the vaccine's ability to protect from COVID-19 infection despite having the lowest attitude score (90.0%). It is consistent with a study by Mohamed et al. (2021), where majority public in Malaysia optimistic that vaccines can protect themselves and others who are not

vaccinated. Mohamed et al. (2021) also revealed that the findings are largely due to the MOH proactive actions in vaccine promotional programs through social media, mass media, forums with experts, and support from country leaders. In Malaysia, the three major vaccines used: AstraZeneca, Pfizer, and Sinovac are proven to be effective against SARS-CORV-2 with a low rate of death among vaccinated people by the Institute of Clinical Research (ICR) under MOH (Kaos & Rahim, 2021). Until all school management have completed their vaccination, government should monitor closely the spread of false information about vaccines and focus on health education to increase their confidence.

5.4 Practice Towards COVID-19 SOP Compliance

Next, the high level of practice towards the SOPs compliance in school was identified among the school management in this study. Good practice of wearing face mask were observed in the current studies and previous studies (Abu Hasan et al., 2020; M. Lee et al., 2021; Zhong et al., 2020), indicating that face mask-wearing has been a part of living in the new norm. School management also diligently maintained good hand hygiene and physical distancing at school, which is better than Northwest Ethiopia's school teachers (Handebo Id et al., 2021). Of concern is that 11.3% of them still go to crowded places and 9.4% go on vacation during the pandemic. These actions could create the risk of COVID-19 infection at school. It is understandable that visiting certain crowded places such as supermarkets could not be avoided to buy necessities but should be with strict social distance practice (Abu Samah et al., 2020). The school management also should not lower their guard and go for a vacation although the government has lifted the interstate travel ban. Taking the lessons from the previous

high educational clusters in our country (Harun, 2021), schools management should take extra precautions with their movement and strictly adhere to the SOPs all the time.

Another concern is the evidence of 35% of the school management who did not notify the District Health Office when students or school staff were infected with COVID-19. Notification of positive COVID-19 cases to the health authorities is crucial to control the outbreak in the first place before it transmits to others (Bernama, 2021). However, in this study, the result might be inaccurate due to the error in the question itself. It is likely that most of the teachers did not comply with this SOP because it is the school administrator's role to execute the action. School administrators should make decisions or issues related to the SOPs and the safety of every school member (MOE, 2021). In other words, school principal which is the leader of organization holds a critical responsibility in school operation, including implementation of SOPs given by MOE (Samsudin et al., 2021). Further reminder and encouragement from the health authorities is required to ensure prompt notification of COVID-19 cases from school management could protect students, teachers, and staff.

The study results showed that school management over 50 years old has a better practice of SOPs at school than those aged 21-40. It is probably due to their more immense responsibility in managing the safety of school and the pressure of becoming role model to students since most of them at that age held a higher position in the organization. There is also a significant mean difference between the location of schools with practice. Significantly higher SOPs compliance was found among school management in Kuala Selangor than Sabak Bernam might because of their perceived fear of the disease and exposure to a large amount of COVID-19 active cases in the

district. The result is the opposite of a previous study in China where participants who lived in a residential area with confirmed COVID-19 cases showed no significant difference with KAP (Yang et al., 2021). These results suggested that health education intervention on the importance of SOPs compliance should be improved targeting the younger school management and schools located in the red zone.

5.5 Association between Knowledge Attitude and Practices Towards COVID-19 SOP Compliance

This study observed positive and significant correlations between knowledge-practice, attitude-practice, and knowledge-attitude among the school management ($p < 0.001$). These indicated higher knowledge and attitudes scores associated with having good practice on SOPs compliance. A similar relationship between KAP was also documented in other studies (Abu Hasan et al., 2020; Al ahdab, 2021; Lin et al., 2019), bringing to light the equal importance of improving awareness and knowledge to promote better SOPs compliance among school management.

Significant predictors for practice towards COVID-19 SOPs compliance were knowledge, attitude, age, and physical activities. Erfani et al. (2020) and Lee et al. (2021) observed consistent results, where persons who improved their knowledge on COVID-19 will significantly influence their positive attitude and good practice regarding COVID-19. A study in China also identified that the good practice towards COVID-19 prevention in general population were associated with good knowledge and optimistic attitude (Zhong et al., 2020). During the Ebola endemic in Nigeria, knowledge and attitude significantly predicted the adherence of the students with the public service announcements. Hence, this study inferred that risk communication

among school management is important to educate them the importance of compliance towards preventive measures and induced their willingness to sustain the compliance.

It was found that school management above the age of 50 were significantly associated with better SOPs compliance. Chua et al. (2021) identified the similar aged group among general population in 12 Asian countries have significant association with high practice. While the current study identified age as a significant predictor of practice, several studies revealed no association between age with practice (Alrasheedy et al., 2021; Gebretsadik et al., 2021; Hatabu et al., 2021). Meanwhile, it is surprising that frequent physical activities were also significantly associated with high practice of SOPs. There are limited studies discovered the association between physical activities with practice towards COVID-19 prevention. According to Ferreira et al. (2020), frequent physical activities is one of the important self-approach to combatting viral infection. A research revealed that routine exercises could strengthen the immune system and induce immune response against COVID-19 respiratory infection by improving immune competence, especially among older adults (Pelinski da Silveira et al., 2021). Therefore, further studies are needed to explain the inconsistency of the association. Intervention programs focusing on the significant predictors identified in the current study may influence school management's compliance with COVID-19 SOPs within school settings.

CHAPTER 6

CONCLUSION

6.1 Conclusion

To conclude, this cross-sectional study was conducted at primary and secondary schools located in Hulu Selangor, Sabak Bernam, and Kuala Selangor which involved 283 school managements as the respondent. The aimed was to determine the factors associated with COVID-19 SOPs compliance among school management in the North Selangor districts. These are among few findings in this study:

- School management were mostly female and Malay teachers in their 40s. Majority of them have experience related to infectious disease in schools and live a healthy lifestyle.
- School management had a high level of knowledge (94.6%), attitude (94.8%), and practice (89.2%) towards COVID-19 SOPs compliance at school during the pandemic.
- The level of KAP were varied across sociodemographic, occupational, and lifestyle towards COVID-19 SOPs compliance
- Age, physical activities, knowledge and attitude were factors associated with practice towards COVID-19 SOP compliance among school management.

6.2 Strength and Limitation

The strength of this study is it is one of the earliest studies that determine the KAP on COVID-19 SOPs compliance in school settings during the pandemic and could be the baseline for further research. Next, the findings from this study have

shown that the SOPs developed by the MOE has served its purpose which is to ensure a safe school environment for students. Not only that, the questionnaire was adapted from the previous studies and modified in accordance with the latest MOE guidelines for schools which have been through content validation.

Several limitations of this study should be acknowledged. First, this study did not include school management from private schools and preschools under the MOE, so the findings might not be generalized to them. Second, the practice level identified might not represent their full compliance towards the whole SOPs in the guidelines since other SOPs management of student hostels and school facilities are not studied. Third, there could be a potential recall bias due to the use of self-reported questionnaire.

6.3 Recommendations

More studies related to this scope will be helpful to address more factors and understand the KAP of these population following the shift of COVID-19 situation in Malaysia. However, it is suggested to improve study population, where the sample size shall cover entire states in Malaysia.

Based on the significant predictors of practice identified in this study, health intervention programs targeting school management who are in early adulthood, early middle age, and have physically inactive lifestyles are essential for promoting high KAP towards the SOPs. It is also recommended that MOE and MOH to fully optimize the use of their official media to deliver adequate information about COVID-19 SOPs and communicate the risk efficiently to everyone working educational institutions. Continuous in-house training to the school management is advised to be conducted by MOE to ensure the correct implementation of SOPs. Finally, MOE should consider

allocating a Safety and Health Officer in each State Education Department or District Education office in lined with the objectives of OSHA 1994.



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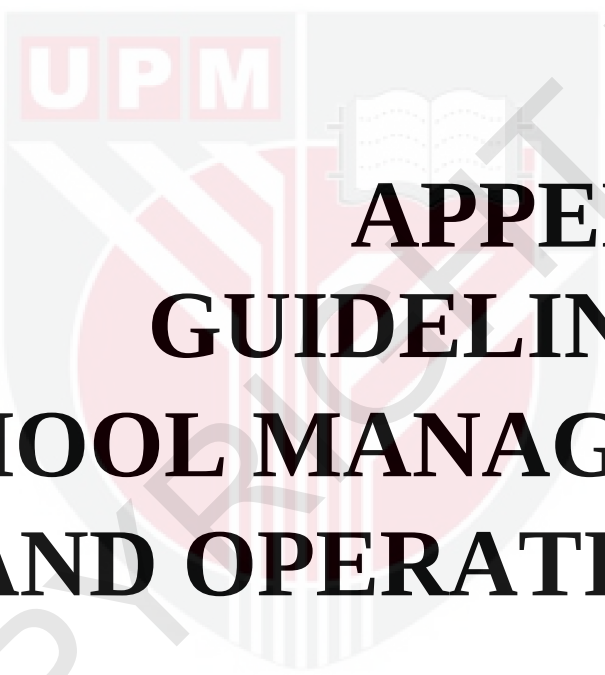
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The background features a large, faint watermark of the UPM logo, which includes a shield with a book and the letters 'UPM'.

APPENDIX I GUIDELINES OF SCHOOL MANAGEMENT AND OPERATION 3.0

PENGURUSAN PEMBUKAAN SEKOLAH

3. Pengurusan Pembukaan Sekolah

3.1 Panduan Umum

- 3.1.1 Pembukaan semula sekolah dalam PPN adalah tertakluk kepada ketetapan KPM berdasarkan penilaian risiko, nasihat dan pandangan KKM dan MKN.
- 3.1.2 Kehadiran murid ke sekolah adalah pada kadar 50% daripada enrolmen keseluruhan.
- 3.1.3 Kapasiti murid setiap kelas dihadkan kepada 50% daripada jumlah murid dalam kelas tersebut dan murid hadir secara penggiliran minggu.
- 3.1.4 Bagi Sekolah Kurang Murid (<150 murid), kehadiran murid adalah secara bersemuka tanpa penggiliran berdasarkan kumpulan yang hadir mengikut fasa PPN.
- 3.1.5 Sekolah hendaklah sentiasa bersedia dari semasa ke semasa untuk beroperasi mengikut Fasa yang ditetapkan oleh KPM.
- 3.1.6 Sekiranya berlaku perubahan fasa, pengoperasian sekolah dan kehadiran murid ke sekolah hendaklah mengikut ketetapan fasa baharu selepas 2 minggu daripada tarikh peralihan ke fasa tersebut berdasarkan surat makluman yang akan dikeluarkan oleh JPN.
- 3.1.7 Pihak sekolah perlu bersedia dengan pelan komunikasi kepada ibu bapa/penjaga dan pihak-pihak lain yang berkepentingan.
- 3.1.8 Surat kebenaran khas akan dikeluarkan oleh pihak sekolah kepada murid bagi membolehkan mereka merentas negeri atau daerah untuk hadir ke sekolah.

- 3.1.9 Ibu bapa/Penjaga dibenarkan untuk menghantar dan mengambil anak/anak jagaan di sekolah dengan mematuhi waktu/masa hadir dan balik murid seperti yang ditetapkan oleh sekolah.
- 3.1.10 Guru-guru mesti berada di stesen tempat bertugas dan boleh hadir bertugas pada bila-bila masa.

3.2 Pembukaan Semula Sekolah Dalam Fasa 1 PPN

3.2.1 Kategori murid yang terlibat adalah seperti berikut:

- i. Murid kelas peperiksaan Tingkatan 6 Semester 2 hadir secara bersemuka tanpa penggiliran; dan
- ii. Murid kelas peperiksaan antarabangsa iaitu IGCSE O-Level hadir secara bersemuka tanpa penggiliran.

3.3 Pembukaan Semula Sekolah Dalam Fasa 2 PPN

3.3.1 Kategori murid yang terlibat adalah seperti berikut:

- i. Sekolah Rendah
 - a. Murid Berkeperluan Khas (MBK) di Sekolah Kebangsaan Pendidikan Khas (SKPK) dan Program Pendidikan Khas Integrasi (PPKI) hadir secara bersemuka tanpa penggiliran.
- ii. Sekolah Menengah:
 - a. Murid kelas peperiksaan Tingkatan 6 Semester 2 hadir secara bersemuka tanpa penggiliran;
 - b. Murid Prauniversiti Semester 3 di Sekolah Sukan Malaysia hadir secara bersemuka tanpa penggiliran;

- c. Murid kelas peperiksaan antarabangsa iaitu International Baccalaureate Diploma (IBD) Tahun 2, IGCSE O-Level, A-Level dan Australia Higher School Certificate hadir secara bersemuka tanpa penggiliran; dan
- d. MBK di Sekolah Menengah Kebangsaan Pendidikan Khas (SMKPK)/Sekolah Menengah Pendidikan Khas Vokasional (SMPKV) dan PPKI hadir secara bersemuka tanpa penggiliran.

3.4 Pembukaan Semula Sekolah Dalam Fasa 3 PPN

3.4.1 Kategori murid yang terlibat adalah seperti berikut:

- i. Sekolah Rendah
 - a. Semua murid Prasekolah hadir secara bersemuka tanpa penggiliran; dan
 - b. MBK di SKPK dan PPKI hadir secara bersemuka tanpa penggiliran.
- ii. Sekolah Menengah:
 - a. Murid kelas peperiksaan Tingkatan 6 Semester 2 hadir secara bersemuka tanpa penggiliran;
 - b. Murid Prauniversiti di Sekolah Sukan Malaysia hadir secara bersemuka tanpa penggiliran;
 - c. Murid kelas peperiksaan antarabangsa iaitu IBD Tahun 2, IGCSE O-Level, A-Level dan Australia Higher School Certificate hadir secara bersemuka tanpa penggiliran;
 - d. MBK di SMKPK/SMPKV dan PPKI hadir secara bersemuka tanpa penggiliran;
 - e. Murid kelas peperiksaan awam seperti SPM, SVM,

- STAM dan STPM serta peperiksaan antarabangsa yang setara di sekolah harian/sekolah swasta hadir secara bersemuka dengan penggiliran; dan
- f. Murid kelas peperiksaan awam seperti SPM, SVM, STAM dan STPM di sekolah berasrama sepenuhnya hadir secara bersemuka tanpa penggiliran.

3.5 Pembukaan Semula Sekolah Dalam Fasa 4 PPN

3.5.1 Pembukaan semula sekolah dalam Fasa 4 PPN adalah secara berperingkat seperti berikut:

PERINGKAT 1

- i. Sekolah Rendah
 - a. Semua murid Prasekolah hadir secara bersemuka tanpa penggiliran; dan
 - b. MBK di SKPK dan PPKI hadir secara bersemuka tanpa penggiliran.
- ii. Sekolah Menengah
 - a. Murid kelas peperiksaan Tingkatan 6 Semester 2 hadir secara bersemuka tanpa penggiliran;
 - b. Murid Prauniversiti di Sekolah Sukan Malaysia hadir secara bersemuka tanpa penggiliran;
 - c. Murid kelas peperiksaan antarabangsa iaitu IBD Tahun 2, IGCSE O-Level, A-Level, Australia Higher School Certificate hadir secara bersemuka tanpa penggiliran;
 - d. MBK di SMKPK/SMPKV dan PPKI hadir secara bersemuka tanpa penggiliran;

- e. Murid kelas peperiksaan awam seperti SPM, SVM, STAM dan STPM serta peperiksaan antarabangsa yang setara di sekolah harian/sekolah swasta hadir secara bersemuka dengan penggiliran; dan
- f. Murid kelas peperiksaan awam seperti SPM, SVM, STAM dan STPM di sekolah berasrama sepenuhnya hadir secara bersemuka tanpa penggiliran.

PERINGKAT 2

- i. Sekolah Rendah
 - a. Semua murid Prasekolah hadir secara bersemuka tanpa penggiliran;
 - b. MBK di SKPK dan PPKI hadir secara bersemuka tanpa penggiliran; dan
 - c. Murid Tahun 1, 2 dan 3 hadir secara bersemuka dengan penggiliran.
- ii. Sekolah Menengah
 - a. Murid kelas peperiksaan Tingkatan 6 Semester 2 hadir secara bersemuka tanpa penggiliran;
 - b. Murid Prauniversiti di Sekolah Sukan Malaysia hadir secara bersemuka tanpa penggiliran;
 - c. Murid kelas peperiksaan antarabangsa iaitu IBD Tahun 2, IGCSE O-Level, A-Level, Australia Higher School Certificate hadir secara bersemuka tanpa penggiliran;
 - d. MBK di SMKPK/SMPKV dan PPKI hadir secara bersemuka tanpa penggiliran;
 - e. Murid kelas peperiksaan awam seperti SPM, SVM,

STAM, STPM, peperiksaan antarabangsa yang setara serta murid Tingkatan 3 dan Tingkatan 4 di sekolah harian/sekolah swasta hadir secara bersemuka dengan penggiliran; dan

- f. Murid kelas peperiksaan awam seperti SPM, SVM, STAM, STPM serta murid Tingkatan 3 dan Tingkatan 4 di sekolah berasrama sepenuhnya hadir secara bersemuka tanpa penggiliran.

PERINGKAT 3

i. Sekolah Rendah

- a. Semua murid hadir secara bersemuka dengan penggiliran;
- b. Semua murid Prasekolah hadir secara bersemuka tanpa penggiliran; dan
- c. MBK di SKPK dan PPKI hadir secara bersemuka tanpa penggiliran.

ii. Sekolah Menengah

- a. Murid kelas peperiksaan Tingkatan 6 Semester 2 hadir secara bersemuka tanpa penggiliran;
- b. Murid Prauniversiti di Sekolah Sukan Malaysia hadir secara bersemuka tanpa penggiliran;
- c. Murid kelas peperiksaan antarabangsa iaitu IBD, IGCSE O-Level, A-Level, Australia Higher School Certificate hadir secara bersemuka tanpa penggiliran;
- d. MBK di SMKPK/SMPKV dan PPKI hadir secara bersemuka tanpa penggiliran;
- e. Semua murid termasuk murid IPS hadir secara bersemuka dengan penggiliran; dan

- f. Semua murid sekolah asrama sepenuhnya hadir secara bersemuka tanpa penggiliran.
- 3.5.2 Pengoperasian pembukaan sekolah di lokasi Gelembung Pelancongan adalah berdasarkan pengoperasian pembukaan semula sekolah dalam Fasa 4 PPN.

3.6 Pembukaan Kolej Vokasional

- 3.6.1 Pembukaan Kolej Vokasional (KV) adalah tertakluk kepada takwim KV yang ditetapkan setelah sesi persekolahan dibuka.
- 3.6.2 Murid KV hadir secara penggiliran seperti berikut:
- i. empat (4) minggu bersemuka bagi tahap Diploma Vokasional Malaysia (DVM);
 - ii. tiga (3) minggu bersemuka bagi tahap Sijil Vokasional Malaysia (SVM) dan Sijil Kemahiran Malaysia (SKM) termasuk mod Sistem Latihan Dual Nasional (SLDN); dan
 - iii. Pengajian yang tidak bersemuka akan meneruskan pembelajaran secara PdPR.

3.7 Pembukaan IPS Kategori Pusat

Pembukaan IPS kategori pusat dalam PPN melibatkan pusat tuisyen, pusat bahasa, pusat kemahiran, pusat latihan dan pusat perkembangan minda (murid 7 tahun ke atas) adalah seperti berikut:

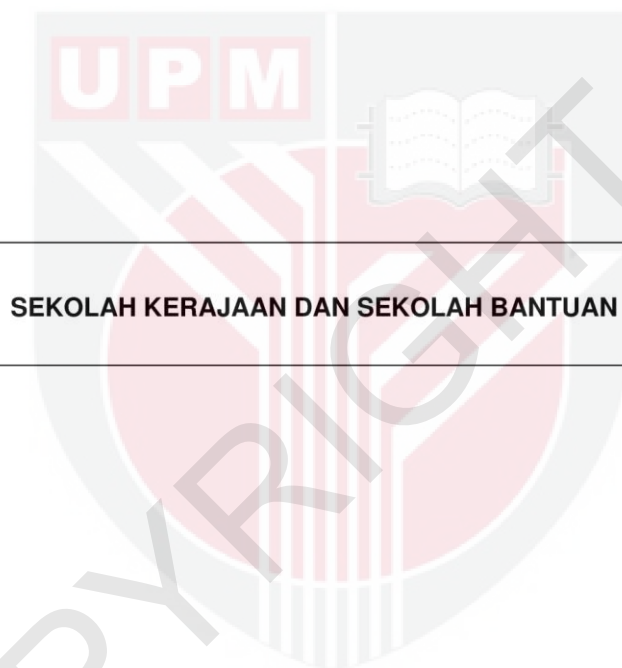
- i. Fasa 1: semua murid melaksanakan PdPR;
- ii. Fasa 2: semua murid melaksanakan PdPR;

- iii. Fasa 3: murid hadir bersemuka dengan kapasiti maksimum 50%; dan
- iv. Fasa 4:
 - a. Peringkat 1: murid hadir bersemuka dengan kapasiti maksimum 50%.
 - b. Peringkat 2: murid hadir bersemuka dengan kapasiti maksimum 70%.
 - c. Peringkat 3: murid hadir bersemuka sepenuhnya.

3.8 Pengawalan dan Penyuraian Murid di Pintu Pagar Sekolah

- 3.8.1 Waktu/Masa hadir dan balik murid boleh dilaksanakan secara berperingkat setelah mendapat kelulusan pendaftar negeri.
- 3.8.2 Bagi mengelakkan kesesakan, pihak sekolah boleh mengurus pergerakan keluar masuk murid berdasarkan model berikut:
 - i. Model 1: Ruang menunggu di dalam kawasan sekolah;
 - ii. Model 2: Laluan terarah dan sehalu;
 - iii. Model 3: Kawalan keberadaan murid oleh Polis/ RELA/ PBT/ PIBG/ Alumni/ PIBK/ KSIB/ Sukarelawan (Ibu bapa dan Komuniti);
 - iv. Model 4: Penyuraian murid secara berperingkat; dan
 - v. Model 5: Menunggu di dalam bilik darjah (sistem panggilan).
- 3.8.3 Penggabungan model boleh dilaksanakan mengikut situasi dan kesesuaian sekolah.

- 3.8.4 Semua murid perlu terus balik ke rumah apabila tamat sesi persekolahan.
- 3.8.5 Pergerakan murid dari kelas ke pintu pagar sekolah adalah berdasarkan pada model penyuraian yang telah dipilih oleh pihak sekolah.
- 3.8.6 Murid yang berjalan kaki, menaiki kenderaan ibu bapa/bas/van dicadangkan untuk disuraikan terlebih dahulu.
- 3.8.7 Bagi murid yang berkenderaan sendiri, pihak sekolah bertanggungjawab memastikan:
- i. Murid yang membawa kenderaan sendiri dan penumpangnya (jika berkenaan) hendaklah menunggu di ruang menunggu yang ditetapkan oleh pihak sekolah dengan pengawasan guru bertugas;
 - ii. Murid yang membawa kenderaan sendiri dan penumpangnya (jika berkenaan) disuraikan dari ruang menunggu secara berperingkat dengan pengawasan guru bertugas;
 - iii. Murid yang membawa kenderaan sendiri tidak berkumpul di luar pintu pagar sekolah selepas disuraikan dengan kerjasama guru bertugas/ polis/ RELA/ PIBG/ PIBK/ sukarelawan/ pengawal keselamatan; dan
 - iv. Pihak sekolah dengan kerjasama polis/RELA /PIBG/PIBK/sukarelawan/pengawal keselamatan memastikan murid yang membawa kenderaan sendiri terus beredar meninggalkan sekolah.



SEKOLAH KERAJAAN DAN SEKOLAH BANTUAN KERAJAAN

4. Sekolah Kerajaan dan Sekolah Bantuan Kerajaan

4.1 Pengurusan Sekolah

4.1.1 Kehadiran guru dan murid ke sekolah adalah seperti berikut:

- i. kehadiran guru tertakluk pada arahan perkhidmatan Jabatan Perkhidmatan Awam (JPA) dan KPM dari semasa ke semasa; dan
- ii. kehadiran murid adalah berdasarkan model pengoperasian sekolah yang ditetapkan.

4.1.2 Pemeriksaan rekod perjalanan:

- i. sekiranya terdapat murid, guru atau AKP yang mempunyai perjalanan luar negara, mereka hendaklah mengemukakan rekod kesihatan seperti surat arahan kuarantin daripada KKM; dan
- ii. murid, guru atau AKP yang tidak memenuhi syarat para (i) hendaklah diasingkan dan diuruskan perjalanan mereka untuk balik ke rumah dengan kadar segera.

4.1.3 Semua jenis perhimpunan di sekolah tidak dibenarkan.

4.1.4 Aktiviti berkumpul bagi tujuan PdP dibenarkan. Bilangan murid dan guru yang terlibat bergantung pada kapasiti kawasan atau ruang di sekolah dengan mengambil kira penjarakan fizikal dan keselamatan.

4.2 Pengurusan Prasarana

Pentadbir bertanggungjawab:

- 4.2.1 memastikan sekolah/institusi pendidikan berada dalam keadaan selamat untuk beroperasi;
- 4.2.2 memastikan kawasan dan bangunan sekolah termasuk semua bilik PdP dibersihkan sebelum sesi persekolahan bermula dan selepas tamat sesi persekolahan pada setiap hari;
- 4.2.3 memastikan fokus utama pembersihan adalah pada permukaan yang sering disentuh dan pada paras ketinggian yang boleh dicapai oleh tangan seperti tombol pintu, suis lampu, singki, kepala paip, butang lif, pengepam tandas, pelapik duduk tandas dan susur tangan di laluan pergerakan murid bagi sekolah yang mempunyai MBK dan lain-lain;
- 4.2.4 menyediakan pelan perancangan susun atur bilik-bilik PdP dengan mengoptimumkan penggunaan bilik-bilik khas dan lokasi lain yang bersesuaian serta boleh berfungsi dengan baik untuk PdP;
- 4.2.5 memastikan susun atur di bilik PdP mengambil kira penjarakan fizikal;
- 4.2.6 memastikan pengudaraan dan pencahayaan yang mencukupi bagi setiap bilik PdP, bilik guru dan pejabat. Perkara berikut perlu diberi perhatian:
 - i. tingkap dan pintu sentiasa dibuka;
 - ii. langsir ditanggalkan bagi aliran udara;
 - iii. penggunaan kipas angin digalakkan;
 - iv. kekerapan penggunaan bilik-bilik khas yang memerlukan penggunaan penyaman udara

untuk tujuan PdP dibenarkan pada tahap minimum;

- v. penyaman udara boleh digunakan pada tahap minimum;
- vi. mengekalkan suhu penyaman udara dalam julat 23°C - 26°C;
- vii. memastikan penyaman udara diselenggara secara berkala; dan
- viii. penggunaan penapis udara mudah alih digalakkan.

4.2.7 menyediakan bilik yang berasingan untuk guru dan AKP yang masih belum menerima vaksin lengkap atau tidak mengambil vaksin;

4.2.8 memastikan permaidani, tikar dan *skirting* meja tidak digunakan di bilik PdP;

4.2.9 menyediakan bilik isolasi bagi murid yang bergejala/kontak rapat/positif COVID-19 sebelum mendapatkan rawatan;

4.2.10 menyediakan tanda penjarakan fizikal yang bersesuaian di tempat berikut:

- i. bilik PdP: tanda penjarakan diletakkan pada kaki meja baris hadapan dan baris tepi pertama untuk rujukan;
- ii. kantin: tanda penjarakan diletakkan pada ruang makan, ruang berbaris untuk pembelian dan pengambilan makanan serta laluan ke singki;
- iii. bilik guru/pejabat: tanda penjarakan diletakkan pada kerusi, meja, kaunter dan tempat mengimbas kehadiran; dan

- iv. lif: tanda penjarakan diletakkan mengikut kapasiti lif.
- 4.2.11 menyediakan pelan laluan pergerakan terarah atau sehalu. Tanda penjarakan diletakkan untuk memandu arah pergerakan murid di dalam kawasan sekolah termasuk asrama;
- 4.2.12 menyediakan tong sampah bertutup dan dipastikan sentiasa ditutup;
- 4.2.13 menyediakan sabun di lokasi yang bersesuaian seperti kantin, tandas dan surau, manakala pensanitasi tangan boleh disediakan di lokasi seperti bilik PdP, pejabat dan bilik guru;
- 4.2.14 mempamerkan bahan bercetak mengenai langkah kebersihan dan keselamatan di lokasi strategik seperti laluan murid, kantin, bilik PdP, pejabat, bilik guru, ruang menunggu dan asrama sebelum sesi persekolahan bermula. Pentadbir hendaklah memuat turun bahan bercetak terbitan KKM daripada laman sesawang KKM;
- 4.2.15 meletakkan notis/poster peringatan langkah-langkah pencegahan COVID-19 di pintu masuk utama sekolah; dan
- 4.2.16 memastikan premis dan kemudahan di sekolah seperti dewan, surau dan kemudahan lain hanya untuk kegunaan murid, guru dan warga sekolah sahaja.

4.3 Pengurusan Pengajaran dan Pembelajaran (PdP)

PdP akan berlaku dalam dua kaedah iaitu PdP di sekolah dan PdP di rumah. Pentadbir perlu menyediakan jadual PdP di sekolah dan Pengajaran dan Pembelajaran di Rumah (PdPR) serta menyemak semula Rancangan Pengajaran Tahunan (RPT).

4.3.1 PdP di Sekolah

- i. Pentadbir perlu memastikan PdP yang dilaksanakan mengambil kira penjarakan fizikal, kebersihan dan keselamatan. Pentadbir perlu mengambil tindakan berikut bagi melancarkan pelaksanaan PdP:
 - a. mengadakan mesyuarat penyelarasan;
 - b. memastikan jadual PdP mengambil kira bilangan kelas yang beroperasi dan kesediaan guru serta murid;
 - c. melaksanakan Pentaksiran Bilik Darjah (PBD) dengan menggunakan pelbagai kaedah mengikut kesediaan dan kesesuaian murid;
 - d. melaksanakan pemantauan PdP;
 - e. memberikan bimbingan secara berfokus kepada guru untuk memastikan pembelajaran dapat dilaksanakan secara berkesan; dan
 - f. memastikan pelaksanaan intervensi yang bersesuaian berdasarkan keperluan guru dan murid.

- ii. Guru yang melaksanakan PdP di sekolah hendaklah:
- a. mengamalkan penjarakan fizikal dengan murid pada setiap masa;
 - b. merancang pelbagai kaedah penyampaian PdP yang bersesuaian. Kaedah PdP yang boleh diterokai adalah seperti pembelajaran teradun (blended learning) iaitu gabungan pengajaran bersemuka dan penggunaan teknologi secara dalam talian;
 - c. merancang dan melaksanakan aktiviti PdP termasuk PdP di luar bilik darjah dengan mengambil kira penjarakan fizikal, kebersihan dan keselamatan. Aktiviti PdP di luar sekolah seperti lawatan sambil belajar dan kem kecemerlangan akademik tidak dibenarkan;
 - d. semua aktiviti amali yang dilaksanakan sama ada di dalam atau di luar bilik darjah bagi mata pelajaran Pendidikan Jasmani dan Pendidikan Kesihatan (PJPK), Sains Sukan dan mata-mata pelajaran lain adalah dibenarkan dengan mengambil kira penjarakan fizikal, kebersihan dan keselamatan berdasarkan arahan semasa oleh KPM; dan

- e. melaksanakan pentaksiran dan intervensi yang sesuai bagi memastikan murid mencapai sekurang-kurangnya tahap penguasaan minimum.

4.3.2 Pengajaran dan Pembelajaran di Rumah

- i. Pentadbir perlu memastikan PdPR dilaksanakan dengan:
 - a. mengambil kira kesesuaian dan kesediaan guru serta murid;
 - b. menggunakan pendekatan PdPR secara dalam talian, luar talian atau *off-site*;
 - c. menyediakan jadual waktu PdPR yang merangkumi peruntukan masa PdP dan *tutorial* dengan merujuk Panduan Pelaksanaan Jadual Waktu PdPR;
 - d. memastikan pelaksanaan PdPR adalah berdasarkan Manual PdPR Versi 2;
 - e. memastikan guru melapor pelaksanaan PdPR dalam Sistem Pelaporan Pengajaran dan Pembelajaran di Rumah (SPdPR); dan
 - f. memantau pelaksanaan PdPR dan melaksanakan intervensi mengikut keperluan.

- ii. Guru yang melaksanakan PdPR hendaklah:
- a. menyediakan Rancangan Pengajaran Harian (RPH) yang mengandungi sekurang-kurangnya maklumat seperti objektif, cara bagaimana hendak mencapai objektif dan kenyataan sejauh mana objektif itu tercapai mengikut Surat Pekeliling Ikhtisas Bilangan 3/1999: Penyediaan Rekod Pengajaran dan Pembelajaran;
 - b. mempelbagaikan kaedah penyampaian PdP mengikut kreativiti masing-masing berdasarkan kesesuaian dan kesediaan murid;
 - c. melaksanakan PBD berdasarkan Panduan Pelaksanaan Pentaksiran Bilik Darjah Dalam Talian yang boleh dimuat turun daripada laman sesawang Bahagian Pembangunan Kurikulum. Panduan ini juga merangkumi penerangan PBD bagi PdPR secara luar talian;
 - d. melaksanakan PBD apabila sesi persekolahan bermula bagi murid yang tidak dapat menyerahkan tugas mereka secara dalam talian atau serahan tangan; dan
 - e. merekod pelaksanaan PdPR dan pelibatan murid dalam SPdPR.

4.4 Pelibatan Ibu Bapa/Penjaga

Ibu bapa/penjaga boleh dilibatkan melalui Persatuan Ibu Bapa dan Guru (PIBG) dan Kumpulan Sokongan Ibu Bapa (KSIB) bagi membantu pihak sekolah:

4.4.1 meningkatkan kesedaran dan kefahaman berkaitan dengan penularan jangkitan COVID-19:

- i. memberikan kesedaran kepada anak/anak jagaan tentang penjarakan fizikal sebelum, semasa dan selepas menaiki kenderaan;
- ii. menasihati anak/anak jagaan supaya tidak berjabat tangan (bersalaman) atau bersentuhan antara satu sama lain sama ada guru, rakan-rakan atau orang sekeliling;
- iii. menasihati anak/anak jagaan supaya sentiasa mengamalkan kebersihan sebelum dan selepas makan;
- iv. mematuhi sistem pergerakan pergi dan balik murid ke sekolah;
- v. menggalakkan ibu bapa/penjaga sendiri yang menghantar dan mengambil anak/anak jagaan;
- vi. menyarankan ibu bapa/penjaga menyediakan makanan dan minuman dari rumah untuk anak/anak jagaan bagi mengurangkan pergerakan dan kesesakan di kantin;
- vii. memastikan anak/anak jagaan mengambil sarapan yang sesuai sebelum hadir ke sekolah;

- viii. menasihati anak/anak jagaan agar tidak berkongsi makanan dan minuman dengan murid lain; dan
- ix. menjaga kebersihan dan keselamatan anak/anak jagaan sebelum dan selepas pulang dari sekolah dengan kerap membasuh tangan dan mandi.

4.4.2 membantu pihak sekolah membuat tanda penjarakan fizikal dan mengawal pergerakan murid semasa datang, waktu rehat dan balik serta mengikut keperluan pihak sekolah; dan

4.4.3 membantu pihak sekolah menyediakan pensanitasi tangan dan alat pengimbas suhu badan untuk kegunaan pihak sekolah (jika mampu dan berkeperluan).

KESELAMATAN MURID, GURU DAN WARGA SEKOLAH

5. Keselamatan Murid, Guru dan Warga Sekolah

5.1 Pentadbir bertanggung jawab:

- 5.1.1 merujuk kepada SOP yang dikeluarkan oleh KKM, MKN dan KPM dari semasa ke semasa;
- 5.1.2 memberikan penerangan dan pendidikan berterusan kepada murid, guru, warga sekolah/institusi pendidikan dan ibu bapa/penjaga mengenai penularan jangkitan COVID-19 dengan memperincikan kepentingan vaksinasi, penjagaan kesihatan seperti mencuci tangan dengan air dan sabun atau pensanitasi tangan, memakai pelitup muka dan mengamalkan penjarakan fizikal;
- 5.1.3 memastikan murid, guru dan warga sekolah berada dalam keadaan sihat untuk hadir ke sekolah;
- 5.1.4 memastikan murid, guru dan warga sekolah sentiasa memakai pelitup muka sepanjang tempoh berada di sekolah;
- 5.1.5 menggalakkan murid, guru dan warga sekolah memakai pelitup muka berganda dan pelindung muka sepanjang tempoh berada di sekolah;
- 5.1.6 memastikan saringan suhu badan dilakukan terhadap murid, guru dan warga sekolah pada setiap hari di pintu masuk sekolah sebelum sesi persekolahan bermula. Jika suhu badan melebihi 37.5°C atau bergejala, mereka tidak dibenarkan masuk ke kawasan sekolah. Saringan boleh

dilaksanakan di dalam kawasan sekolah berhampiran dengan pintu masuk utama jika laluan masuk ke sekolah sempit atau berhampiran dengan jalan utama bagi mengelakkan kesesakan;

5.1.7 memastikan masa senggang diperuntukkan bagi mengambil suhu badan murid yang berjalan kaki/berbasikal ke sekolah;

5.1.8 melantik guru bertugas untuk:

- i. mengawal pergerakan murid di pintu masuk utama sekolah semasa tiba dan pulang;
- ii. mengimbas suhu badan murid; dan
- iii. mengawal pergerakan murid semasa rehat.

5.1.9 memastikan murid, guru dan warga sekolah sentiasa mematuhi penjarakan fizikal pada setiap masa;

5.1.10 memastikan hebahan mengenai langkah kebersihan dan keselamatan dibuat melalui siar raya pada waktu pagi, waktu rehat dan sebelum tamat sesi persekolahan setiap hari. Peringatan secara berterusan dilaksanakan semasa PdP;

5.1.11 memastikan murid, guru dan warga sekolah kerap mencuci tangan dengan air dan sabun atau pensanitasi tangan;

5.1.12 memastikan guru atau Pembantu Pengurusan Murid (PPM) membantu MBK yang perlu memegang bahan bantu belajar (guna sama) seperti gambar rajah timbul dan peralatan khas mencuci tangan dengan air dan sabun atau pensanitasi tangan;

- 5.1.13 mengingatkan murid untuk mematuhi dan menggunakan laluan pergerakan yang disediakan;
- 5.1.14 membekalkan pelitup muka kepada murid yang bergejala dan mereka diasingkan di bilik isolasi sementara menunggu ibu bapa/ penjaga membawa mereka pulang;
- 5.1.15 memastikan guru bimbingan dan kaunseling melaksanakan Saringan Minda Sihat secara berkala dalam norma baharu di sekolah dan mengambil tindakan berikut:
- i. menyediakan profil murid yang dikenal pasti melalui Saringan Minda Sihat bagi menyokong perkembangan emosi murid secara berterusan;
 - ii. melaksanakan intervensi minda sihat kepada murid yang dikenal pasti dan sesi kaunseling secara berterusan serta berfokus bagi meningkatkan kemahiran daya tindak murid;
 - iii. mengadakan konsultasi bersama-sama ibu bapa/penjaga bagi membantu menyokong perkembangan emosi murid; dan
 - iv. merujuk kepada Pejabat Kesihatan Daerah (PKD) untuk penilaian klinikal serta fasiliti kesihatan berkenaan rawatan/intervensi segera bagi kes krisis murid seperti mencederakan diri, membahayakan diri atau melibatkan penderaan.
- 5.1.16 memastikan pihak luar yang bukan warga KPM termasuk orang kenamaan tidak dibenarkan memasuki kawasan sekolah kecuali bagi tujuan

- pembaikan dan penyelenggaraan sekolah dengan syarat telah divaksin lengkap;
- 5.1.17 memberikan taklimat keselamatan kepada pihak penyedia perkhidmatan sokongan serta membuat penegasan supaya sentiasa mengingatkan pekerja mereka mengenai perkara berikut:
- i. mengimbas suhu badan mereka setiap hari sebelum mulakan tugas;
 - ii. tidak memasuki kawasan sekolah jika bergejala;
 - iii. mematuhi arahan penjarakan fizikal, pemakaian pelitup muka dan prosedur keselamatan yang lain; dan
 - iv. mengamalkan *hand hygiene* (mencuci tangan dengan air dan sabun atau pensanitasi tangan).
- 5.1.18 memastikan guru, AKP dan pekerja perkhidmatan sokongan yang belum divaksin mematuhi SOP yang ditetapkan KPM;
- 5.1.19 membuat keputusan untuk menangani isu pengoperasian sekolah berdasarkan garis panduan yang dikeluarkan oleh KPM serta mengambil kira pandangan pihak yang berkaitan seperti PPD dan PKD; dan
- 5.1.20 menjaga kerahsiaan warga sekolah yang disahkan sebagai pesakit COVID-19.

5.2 Pengurusan Murid, Guru dan Warga Sekolah Semasa Waktu Rehat

- 5.2.1 Pengusaha kantin hanya menyediakan makanan berbungkus.
- 5.2.2 Murid makan di dalam bilik PdP dengan seliaan guru pada waktu rehat.
- 5.2.3 Bagi bilik PdP yang berhawa dingin, murid perlu makan di ruang terbuka dengan seliaan guru.
- 5.2.4 Murid yang makan di dewan makan asrama pada waktu rehat dengan seliaan guru bertugas.
- 5.2.5 Guru makan di dalam bilik guru secara individu.
- 5.2.6 Warga sekolah makan di tempat yang ditetapkan.

5.3 Pengurusan Murid, Guru dan Warga Sekolah yang Bergejala

- 5.3.1 Pihak sekolah hendaklah mengambil tindakan segera seperti berikut:
 - i. mengasingkan murid di bilik isolasi;
 - ii. melaksanakan Ujian Kendiri COVID-19 bagi murid;
 - iii. memaklumkan kepada ibu bapa/penjaga/ahli keluarga keadaan murid, guru dan warga sekolah tersebut; dan
 - iv. guru dan warga sekolah yang bergejala perlu ke fasiliti kesihatan berhampiran.

5.4 Pengurusan Murid, Guru dan Warga Sekolah yang Disahkan Positif COVID-19

5.4.1 Pihak sekolah hendaklah mengambil tindakan segera seperti berikut;

- i. mengasingkan pesakit di bilik isolasi;
- ii. memaklumkan kepada PKD yang berhampiran untuk mendapatkan nasihat dan arahan selanjutnya;
- iii. memastikan pesakit sentiasa memakai pelitup muka;
- iv. memastikan guru/individu yang mengurus pesakit memakai pelitup muka serta digalakkan memakai sarung tangan pakai buang, menjaga penjarakan fizikal sekurang-kurangnya satu (1) meter daripada pesakit dan kerap mencuci tangan dengan air dan sabun atau pensanitasi tangan;
- v. memantau dan mengawal pergerakan pesakit;
- vi. memberi kerjasama kepada PKD untuk menjalankan siasatan dan mengenal pasti kontak rapat kepada pesakit. Pesakit dan kontak rapat akan diuruskan selanjutnya oleh PKD mengikut SOP yang ditetapkan;
- vii. bagi murid harian, sekiranya PKD tidak tiba atau atas arahan PKD, ahli keluarga perlu dimaklumkan untuk menjemput pesakit dari sekolah dengan menggunakan kenderaan sendiri. Hanya seorang sahaja dibenarkan

menjemput pesakit dan hendaklah terus pulang ke rumah. Ahli keluarga hendaklah mematuhi SOP (termasuk memakai pelitup muka dan membuka tingkap kenderaan) sepanjang perjalanan pulang ke rumah. Ahli keluarga hendaklah memaklumkan kepada PKD yang berhampiran dengan segera apabila tiba di rumah;

- viii. bagi murid asrama, pesakit segera diasingkan di bilik isolasi sementara menunggu PKD tiba untuk tindakan selanjutnya;
- ix. menguruskan makanan dan minuman untuk murid yang dikuarantin mengikut SOP yang ditetapkan oleh KKM;
- x. sekiranya pihak sekolah mendapati keadaan pesakit bertambah teruk, segera hubungi PKD berhampiran atau talian 999 untuk bantuan kecemasan;
- xi. sekiranya pesakit adalah guru, warga sekolah atau ahli keluarga yang menetap dalam kawasan sekolah, pesakit perlu ke PKD yang berhampiran untuk mendapatkan rawatan dan arahan selanjutnya; dan
- xii. mensanitasi tempat dan peralatan yang digunakan oleh pesakit serta mendapatkan nasihat daripada PKD mengenai keperluan melaksanakan pembasmian kuman di lokasi yang dikenal pasti.

5.5 Pengurusan Murid, Guru dan Warga Sekolah yang Dikenal Pasti Sebagai Kontak Rapat kepada Pesakit COVID-19

5.5.1 Pihak sekolah hendaklah mengambil tindakan segera seperti berikut:

- i. mengasingkan mereka di bilik yang berasingan;
- ii. menjalankan Ujian Kendiri COVID-19 bagi murid;
- iii. memaklumkan kepada PKD untuk mendapatkan nasihat dan arahan selanjutnya;
- iv. memastikan mereka sentiasa memakai pelitup muka;
- v. memantau dan mengawal pergerakan mereka;
- vi. memberi kerjasama kepada PKD semasa siasatan kes dijalankan;
- vii. bagi murid harian yang dikenal pasti sebagai kontak rapat, ibu bapa/penjaga atau waris perlu dimaklumkan supaya membawa anak/anak jagaan pulang ke rumah;
- viii. bagi murid asrama yang dikenal pasti sebagai kontak rapat perlu diasingkan di bilik pengasingan sementara menunggu arahan/ tindakan selanjutnya oleh PKD. Mereka perlu kekal berada di bilik pengasingan selama sekurang-kurangnya 10 hari atau seperti yang diarahkan oleh PKD;
- ix. memastikan guru/individu yang mengurus mereka memakai pelitup muka serta digalakkan memakai sarung tangan pakai buang, menjaga penjarakan fizikal sekurang-kurangnya satu (1) meter daripada mereka dan kerap mencuci tangan

- dengan air dan sabun atau pensanitasi tangan;
- x. sekiranya kontak rapat adalah guru, warga sekolah atau ahli keluarga yang menetap dalam kawasan sekolah, mereka perlu mengemaskini status dalam MySejahtera; dan
 - xi. mensanitasi tempat dan peralatan yang digunakan oleh mereka serta mendapatkan nasihat daripada PKD mengenai keperluan melaksanakan pembasmian kuman di lokasi yang dikenal pasti.

5.6 Penutupan Sekolah bagi Kes Positif COVID-19

- 5.6.1 Sekolah yang disahkan mempunyai kes positif COVID-19 perlu memaklumkan dengan segera kepada PKD, PPD dan JPN.
- 5.6.2 Membantu PKD menjalankan penilaian risiko dan mengenal pasti kontak rapat.
- 5.6.3 Menerima nasihat dan arahan PKD berhubung penutupan sekolah.
- 5.6.4 Memaklumkan penutupan/pembukaan semula sekolah kepada ibu bapa/penjaga, PPD dan JPN.
- 5.6.5 Meletakkan notis penutupan dan tarikh pembukaan semula sekolah di pintu masuk utama sekolah.

APPENDIX II
INFORMED CONSENT
FORM



UPM
UNIVERSITI PUTRA MALAYSIA

**JAWATANKUASA ETIKA UNIVERSITI UNTUK
PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG,
SELANGOR, MALAYSIA**

FORM 2.4: RESPONDENT'S INFORMATION SHEET AND INFORMED CONSENT FORM

Please read the following information carefully and do not hesitate to discuss any questions you may have with the researcher.

1. STUDY TITLE :

Factors associated with COVID-19 SOP compliance among school management in North Selangor districts (Hulu Selangor, Sabak Bernam, Kuala Selangor) 2021: A cross-sectional on KAP

2. INTRODUCTION:

The COVID-19 outbreak has been declared as pandemic by WHO on 11 March 2020 and the impacts caused by the pandemic can be seen in all dimensions. In early 2021, Malaysia government has reopened the school nationwide. Several guidelines and SOPs have been released as preventive strategies to curb the spread of COVID-19 infection in school. This problem should be addressed since the adherence of school management towards the SOPs plays a vital role to reduce the virus transmission in school. Therefore, the aim of this research is to determine the factors associated with knowledge, attitude, and practice (KAP) towards COVID-19 SOP compliance among school management in North Selangor districts (Hulu Selangor, Sabak Bernam, Kuala Selangor). A cross-sectional study will be conducted from July to November 2021, with estimation of 182 respondents from primary and secondary schools in North Selangor districts will be selected randomly. A modified self-administered questionnaire will be used to assess the knowledge, attitude, and practice of school management towards COVID-19 SOP compliance and its associated factors. This study is important as it can help to increase the knowledge and awareness for school management on the issue of risk factors and prevention towards COVID-19 infection in school.

3. WHAT WILL YOU HAVE TO DO?

If you agree to involve with this research, you will get a set of online questionnaire and you need to complete it. The answer of the questionnaire will be recorded directly to the online system. The questionnaire consists of six sections: Section A (Background information), Section B (Occupational information), Section C (Lifestyle information), Section D (Knowledge), Section E (Attitude), Section F (Practice).

4. WHO SHOULD NOT PARTICIPATE IN THE STUDY?

A person aged below 18 years old, does not has experience in school management during the COVID-19 pandemic, and students are excluded from participating in this study.

5. WHAT WILL BE THE BENEFITS OF THE STUDY:

(a) TO YOU AS THE SUBJECT?

There may or may not be any benefits to you. However, you may gain additional knowledge about COVID-19 from this questionnaire. If you are interested to know the research outcome, you may leave your contact number to the researchers.

(b) TO THE INVESTIGATOR?

The results from this study will help investigators to assess the knowledge, attitude and practice towards COVID-19 SOP compliance and determine the associated factors. The results may be useful for investigators to conduct future studies related to this topic.

6. WHAT ARE THE POSSIBLE RISKS?

Respondent's risk is minimal because it is only involved answering questionnaire based study. You are free to decline to answer any of the questions that you feel uncomfortable with.

7. WILL THE INFORMATION THAT YOU PROVIDE AND YOUR IDENTITY REMAIN CONFIDENTIAL?

All the information obtained from this study will be kept confidential and will not be made publicly available, to the extent permitted by regulation and/ or law concerned. If this study are published or presented to the public, your identity will not be exposed without any prior permission.

8. WHO SHOULD YOU CONTACT IF YOU HAVE ADDITIONAL QUESTIONS DURING THE COURSE OF THE RESEARCH?

If you have any question regarding this study, please contact:

1. Associate Prof. Dr. Karmegam Karuppiah (Supervisor)

H/p: 013-5818331

Email: megam@upm.edu.my

2. Nurul Izzah binti Roslan (Researcher)

H/p: 016-4197659

Email: nurulizzah.rs@gmail.com

9. CONSENT

I Identity Card No.
address.....
.....hereby voluntarily agree to take
part in the research stated above *(clinical /drug trial/video recording/ focus
group/interview-based/ questionnaire-based).

I have been informed about the nature of the research in terms of methodology,
possible adverse effects and complications (as written in the Respondent's
Information Sheet). I understand that I have the right to withdraw from this research
at any time without giving any reason whatsoever. I also understand that this study is
confidential and all information provided with regard to my identity will remain
private and confidential.

I* wish / do not wish to know the results related to my participation in the research

I agree / do not agree that the images/photos/video recordings/voice recordings
related to me be used in any form of publication or presentation (if applicable)

* delete where necessary

Signatur..... Signature
(Respondent) (Witness)

Date:..... Name :.....

I/C No. :.....

I confirm that I have explained to the respondent the nature and purpose of the above-
mentioned research.

Date Signature
(Researcher)



BORANG 2.4: PENERANGAN DAN PERSETUJUAN RESPONDEN

Sila baca maklumat berikut dengan teliti. Sekiranya anda mempunyai sebarang pertanyaan, sila kemukakan kepada penyelidik.

1.TAJUK KAJIAN:

Pengetahuan, sikap, dan amalan terhadap pematuhan SOP COVID-19 di kalangan pengurusan sekolah di daerah Utara Selangor (Hulu Selangor, Sabak Bernam, Kuala Selangor) 2021: Kajian rentas terhadap KAP

2. PENGENALAN

Wabak COVID-19 telah diisytiharkan sebagai pandemik oleh WHO pada 11 Mac 2020 dan impaknya boleh dilihat dari pelbagai segi. Pada awal tahun 2021, kerajaan telah mengarahkan pembukaan semula semua sekolah di dalam negara. Beberapa garis panduan dan SOP telah dikeluarkan sebagai langkah pencegahan untuk mengatasi penyebaran wabak COVID-19 di sekolah. Masalah ini perlu diambil berat kerana tahap pematuhan pengurusan sekolah terhadap SOP memainkan peranan penting dalam mengurangkan risiko jangkitan COVID-19 di dalam kawasan sekolah. Oleh itu, tujuan kajian ini dijalankan adalah untuk mengenal pasti faktor yang berkaitan dengan pengetahuan, sikap dan amalan terhadap pematuhan SOP COVID-19 di kalangan pengurusan sekolah di daerah Utara Selangor (Hulu Selangor, Sabak Bernam, Kuala Selangor). Satu kajian rentas akan dijalankan dari Julai sehingga November 2021, dengan anggaran sebanyak 182 responden daripada sekolah rendah dan menengah di Utara Selangor akan dipilih secara rawak. Satu soal selidik akan digunakan untuk menilai pengetahuan, sikap dan amalan pengurusan sekolah terhadap pematuhan SOP COVID-19 dan faktor-faktor yang berkaitan. Kajian ini adalah penting kerana ia dapat membantu menambah pengetahuan dan kesedaran pengurusan sekolah dalam isu faktor risiko dan pencegahan jangkitan COVID-19 di sekolah.

3. APAKAH YANG PERLU ANDA LAKUKAN?

Jika anda setuju untuk menyertai kajian ini, anda akan diberikan satu soal selidik dan perlu melengkapkannya. Jawapan anda di dalam soal selidik ini akan direkodkan oleh sistem. Soal selidik mengandungi tujuh bahagian: Bahagian A (Maklumat diri), Bahagian B (Maklumat pekerjaan), Bahagian C (Maklumat gaya hidup), Bahagian D (Pengetahuan), Bahagian E (Sikap), Bahagian F (Amalan).

4. SIAPA YANG TIDAK BOLEH MENYERTAI KAJIAN INI?

Kajian ini tidak melibatkan mereka yang berusia bawah 18 tahun, tiada pengalaman dalam pengurusan sekolah ketika pandemik COVID-19, dan pelajar sekolah.

5. APAKAH FAEDAH MENYERTAI KAJIAN INI?

a) KEPADA ANDA SEBAGAI PESERTA?

Kajian ini mungkin memberi atau tidak memberi manfaat kepada anda. Walaubagaimanapun, anda mungkin dapat menambah pengetahuan tentang COVID-19 daripada soal selidik ini. Jika anda berminat untuk mengetahui hasil kajian ini, anda boleh memberikan nombor telefon anda kepada penyelidik untuk dihubungi.

b) KEPADA PENYELIDIK?

Hasil kajian ini akan membantu penyelidik untuk menilai pengetahuan, sikap dan amalan terhadap pematuhan SOP COVID-19 dan faktor-faktor yang berkait. Hasil kajian ini mungkin membantu penyelidik untuk menjalankan kajian berkaitan tajuk ini pada masa hadapan.

6. ADAKAH IA BERISIKO?

Kajian ini mempunyai risiko yang minimal dan tidak memberikan apa-apa kesan sampingan kepada anda kerana kajian ini hanya melibatkan kajian soal selidik.

7. ADAKAH MAKLUMAT DAN IDENTITI SAYA KEKAL RAHSIA?

Segala maklumat anda yang diperolehi dalam penyelidikan ni akan disimpan dan dikendalikan secara sulit, bersesuaian dengan peraturan-peraturan dan/ atau undang-undang yang berkenaan. Sekiranya hasil penyelidikan ini diterbitkan atau dibentangkan kepada orang ramai, identiti anda tidak akan didedahkan tanpa kebenaran anda terlebih dahulu.

8. SIAPA YANG SAYA PERLU HUBUNGI SEKIRANYA SAYA MEMPUNYAI SOALAN TAMBAHAN SEMASA MENGIKUTI PENYELIDIKAN INI?

Jika anda mempunyai sebarang pertanyaan berkenaan kajian ini, anda boleh menghubungi penyelidik bagi penyelidikan ini:

1) Prof. Madya Dr. Karmegam Karuppiah (Pensyarah dan penasihat penyelidikan)

Tel: 013-5818331

Email: megam@upm.edu.my

2) Nurul Izzah binti Roslan (Penyelidik)

Tel: 016-4197659

Email: nurulizzah.rs@gmail.com

1. PERSETUJUAN

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 Helaiian 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.

Saya setuju / tidak bersetuju untuk imej/gambar/rakaman video/ rakaman suara
digunakan dalam apa jua bentuk penerbitan atau pembentangan. (sekiranya berkaitan).

*potong yang tidak berkenaan

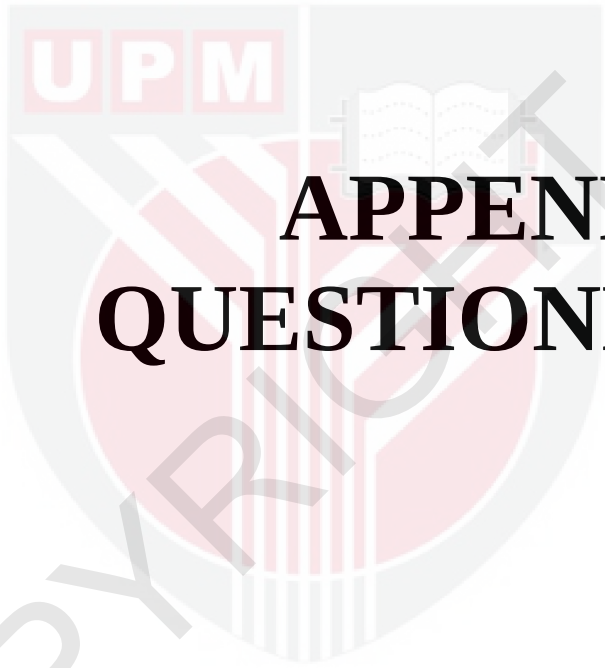
Tandatangan..... Tandatangan.....
(Responden) (Saksi)

Tarikh :..... Nama:.....

No. K/P:

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

Tarikh Tandatangan.....
(Penyelidik)



APPENDIX III

QUESTIONNAIRE



QUESTIONNAIRE FORM
BORANG KAJI SELIDIK

KNOWLEDGE, ATTITUDE AND PRACTICE COVID-19 'SOP'
COMPLIANCE AMONG SCHOOL MANAGEMENT IN SELANGOR,
KUALA LUMPUR & PUTRAJAYA

PENGETAHUAN, SIKAP DAN AMALAN TERHADAP PEMATUHAN SOP COVID-19 DI KALANGAN PENGURUSAN SEKOLAH DI SELANGOR, KUALA LUMPUR & PUTRAJAYA

ID NO./NO.ID: _____

DATE/TARIKH: _____

QUESTIONS INSTRUCTIONS:

Arahan soalan:

1. THIS QUESTIONNAIRE FORM CONSISTS OF SEVERAL SECTIONS: -

Borang soal selidik ini terdiri daripada beberapa bahagian: -

PART A : BACKGROUND INFORMATION

BAHAGIAN A : MAKLUMAT DIRI

PART B : OCCUPATIONAL INFORMATION

BAHAGIAN B : MAKLUMAT PEKERJAAN

PART C : LIFESTYLE INFORMATION

BAHAGIAN C : MAKLUMAT GAYA HIDUP

PART D : KNOWLEGDE

BAHAGIAN D : PENGETAHUAN

PART E : ATTITUDE

BAHAGIAN E : SIKAP

PART F : PRACTICE

BAHAGIAN F : AMALAN

2. YOU REQUIRED TO ANSWER ALL QUESTIONS IN THIS QUESTIONNAIRE.

Anda dikehendaki menjawab semua soalan dalam soal selidik ini.

3. PLEASE MARK THE ANSWER IN THE PROVIDED ANSWER SECTION.

Sila tandakan jawapan di bahagian yang telah disediakan.

4. THE QUESTIONNAIRE SHOULD BE RETURNED TO THE RESEARCHER AFTER COMPLETING ALL THE QUESTIONS.

Borang soal selidik hendaklah dikembalikan kepada penyelidik selepas menjawab semua soalan.

SECTION A : BACKGROUND INFORMATION

BAHAGIAN A: MAKLUMAT DIRI

- A1 AGE :**
Umur
- A2 GENDER :** ☐ **MALE** ☐ **FEMALE**
Jantina *Lelaki* *Perempuan*
- A3 RACE :** ☐ **MALAY** ☐ **CHINESE**
Bangsa *Melayu* *Cina*
- ☐ **INDIAN** ☐ **OTHERS**
India *Lain-lain*
- A4 MONTHLY INCOME :**
Pendapatan Bulanan
- A5 SCHOOL :**
Sekolah
- A6 SCHOOL LOCATION :** ☐ **1. HULU SELANGOR**
Lokasi Sekolah *Hulu Selangor*
- ☐ **2. SABAK BERNAM**
Sabak Bernam
- ☐ **3. KUALA SELANGOR**
Kuala Selangor
- A7 SOURCE OF COVID-19 INFORMATION**
Sumber Maklumat COVID-19
- ☐ **1. MINISTRY OF HEALTH**
Kementerian Kesihatan
- ☐ **2. MINISTRY OF EDUCATION**
Kementerian Pendidikan
- ☐ **3. MINISTRY OF COMMUNICATION AND MULTIMEDIA**
Kementerian Komunikasi dan Multimedia
- ☐ **4. SOCIAL MEDIA**
Media Sosial
- ☐ **5. FAMILY**
Keluarga
- ☐ **6. FRIENDS**
Kawan-kawan

SECTION B: OCCUPATIONAL INFORMATION

BAHAGIAN B: MAKLUMAT PEKERJAAN

- B1** **What is your position now?** : ☐ **School administrator**
Apakah jawatan anda sekarang? ☐ **Teacher**
Pentadbir sekolah Guru
- B2** **Have you ever handled any infectious disease (e.g. dengue) cases in school?** : 1. ☐ **Yes** 2. ☐ **No**
Ya Tidak
Pernahkah anda menangani sebarang kes penyakit berjangkit (e.g. denggi) di sekolah?
- B3** **Have you ever managed any infectious disease program (e.g. dengue prevention program) in school?** : 1. ☐ **Yes** 2. ☐ **No**
Ya Tidak
Pernahkah anda mengelola sebarang program berkaitan penyakit berjangkit (e.g program pencegahan denggi) di sekolah?
- B4** **Have you been exposed to any infectious disease at school as stated below?** : ☐ **1. Dengue fever**
Demam denggi
☐ **2. Tuberculosis (TB)**
Tuberculosis (TB)
☐ **3. Hand, Foot and Mouth Disease (HFMD)**
Penyakit kaki, tangan dan mulut (HFMD)
☐ **4. Food poisoning**
Keracunan makanan
☐ **5. Measles**
Demam campak
☐ **6. COVID-19**
COVID-19

SECTION C: LIFESTYLE INFORMATION

Bahagian C: Maklumat gaya hidup

- D1 I smoke.** : ☐ **Never** ☐ **Rarely** ☐ **Sometimes**
Saya merokok. *Tidak* *Jarang-*
Pernah *jarang* *Kadang-*
☐ **Often** ☐ **Always**
Selalu *Sentiasa*
- D2 I do any physical activities.** : ☐ **Never** ☐ **Rarely** ☐ **Sometimes**
Saya melakukan sebarang *Tidak* *Jarang-*
aktiviti fizikal. *Pernah* *jarang* *Kadang-*
☐ **Often** ☐ **Always**
Selalu *Sentiasa*
- D3 I experienced negative stress lately.** : ☐ **Never** ☐ **Rarely** ☐ **Sometimes**
Saya mengalami tekanan *Tidak* *Jarang-*
negatif kebelakangan ini. *Pernah* *jarang* *Kadang-*
☐ **Often** ☐ **Always**
Selalu *Sentiasa*
- D4 I experienced bad sleeping patterns lately.** : ☐ **Never** ☐ **Rarely** ☐ **Sometimes**
Saya mengalami kitaran *Tidak* *Jarang-*
tidur yang teruk *Pernah* *jarang* *Kadang-*
kebelakangan ini. ☐ **Often** ☐ **Always**
Selalu *Sentiasa*

SECTION D: KNOWLEDGE**BAHAGIAN E: PENGETAHUAN****PLEASE CIRCLE YOUR ANSWER USING THE SCALE OF 1 TO 5 AS FOLLOWS:***Sila bulatkan jawapan anda dengan menggunakan skala 1 hingga 5 seperti di bawah:***1****2****3****4****5****STRONGLY
DISAGREE**

Sangat Tidak Setuju

DISAGREE
Tidak Setuju**NEITHER AGREE
NOR DISAGREE**
Ragu-ragu**AGREE**
Setuju**STRONGLY AGREE**
Sangat Setuju**Knowledge about COVID-19**

K1	COVID-19 is a viral infection <i>COVID-19 adalah jangkitan virus</i>	1	2	3	4	5
K2	COVID-19 can cause severe acute respiratory syndrome <i>COVID-19 boleh menyebabkan sindrom pernafasan yang teruk</i>	1	2	3	4	5
K3	The first case of human infection in Wuhan, China <i>Kes pertama jangkitan manusia di Wuhan, China</i>	1	2	3	4	5
K4	COVID-19 can transmit through droplets during coughing or sneezing <i>COVID-19 boleh menular melalui titisan semasa batuk atau bersin</i>	1	2	3	4	5
K5	COVID-19 virus can transmit via airborne <i>COVID-19 boleh menular melalui udara</i>	1	2	3	4	5
K6	COVID-19 virus can be transmitted by touching surfaces and devices contaminated by virus COVID-19 <i>Virus COVID-19 boleh dijangkiti dengan menyentuh permukaan dan peranti yang tercemar oleh virus COVID-19</i>	1	2	3	4	5
K7	COVID-19 can spread through close contact with infected persons <i>COVID-19 boleh tersebar melalui kontak rapat dengan orang yang dijangkiti</i>	1	2	3	4	5
K8	COVID-19 transmit via hand shaking <i>COVID-19 boleh menular melalui bersalaman tangan</i>	1	2	3	4	5
K9	Someone infected can transmit the virus even if they are not showing symptoms <i>Orang yang dijangkiti boleh menyebarkan virus walaupun tidak menunjukkan sebarang simptom</i>	1	2	3	4	5
K10	Students, staff and etc. can wear face masks to prevent the infection by the COVID-19 virus <i>Murid, kakitangan dan lain-lain boleh memakai pelitup muka bagi mencegah jangkitan virus COVID-19</i>	1	2	3	4	5
K11	Fever, cough, and shortness of breath are COVID-19 symptoms <i>Demam, batuk dan sesak nafas adalah simptom COVID-19</i>	1	2	3	4	5
K12	Symptom of COVID-19 similar to SARS virus <i>Simptom COVID-19 adalah sama seperti virus SARS</i>	1	2	3	4	5
K13	Patient with underlying chronic diseases is at higher risk of infection <i>Pesakit yang mempunyai sejarah penyakit kronik adalah berisiko tinggi untuk dijangkiti</i>	1	2	3	4	5

K14	People with age over 60 years old have a higher risk of developing severe disease and death <i>Golongan yang berumur 60 tahun ke atas adalah berisiko tinggi untuk mendapat penyakit yang teruk dan membawa kepada kematian.</i>	1	2	3	4	5
K15	There is a COVID-19 SOP particularly for educational institution (school) <i>Terdapat SOP COVID-19 yang perlu dipatuhi di institusi Pendidikan (sekolah)</i>	1	2	3	4	5
K16	School management must conduct screening test at the entrance <i>Pihak sekolah perlu melakukan ujian saringan di pintu masuk sekolah</i>	1	2	3	4	5
K17	The school management must provide a Letter of Absence (LOA) to the student who is not allowed to school in relation of COVID-19 <i>Pihak sekolah perlu memberikan Letter of Absence (LOA) kepada murid yang tidak dibenarkan ke sekolah berkaitan dengan COVID-19</i>	1	2	3	4	5
K18	School assembly is not allowed <i>Perhimpunan sekolah tidak dibenarkan</i>	1	2	3	4	5
K19	Students or staff who have contact with someone infected should be immediately isolated. Close contact should remain in the isolation room for at least 10 days or as directed by the PKD <i>Pelajar atau kakitangan yang mempunyai hubungan dengan seseorang yang dijangkiti harus segera diasingkan. Kontak rapat perlu kekal berada di bilik pengasingan selama sekurang-kurangnya 10 hari atau seperti yang diarahkan oleh PKD.</i>	1	2	3	4	5
K20	Wearing a mask is compulsory around school area <i>Memakai pelitup muka di kawasan sekolah adalah diwajibkan</i>	1	2	3	4	5
K21	Cocurricular activities is not allowed in school <i>Aktiviti kokurikulum di sekolah tidak dibenarkan</i>	1	2	3	4	5
K22	Student absenteeism during pandemic is one of discipline issue <i>Ketidakhadiran murid ke sekolah ketika pandemic dianggap satu kesalahan disiplin</i>	1	2	3	4	5
K23	Students with symptoms is not allowed to attend school <i>Murid bergejala tidak dibenarkan hadir ke sekolah</i>	1	2	3	4	5
K24	Students are allowed to eat at canteen during break <i>Murid dibenarkan makan di kantin ketika waktu rehat</i>	1	2	3	4	5
K25	School operation is based on phases in the National Recovery Plan (NRP) <i>Pengoperasian sekolah adalah berdasarkan fasa-fasa di dalam Pelan Pemulihan Negara (PPN)</i>	1	2	3	4	5

SECTION E: ATTITUDES

BAHAGIAN F: SIKAP

PLEASE CIRCLE YOUR ANSWER USING THE SCALE OF 1 TO 5 AS FOLLOWS:

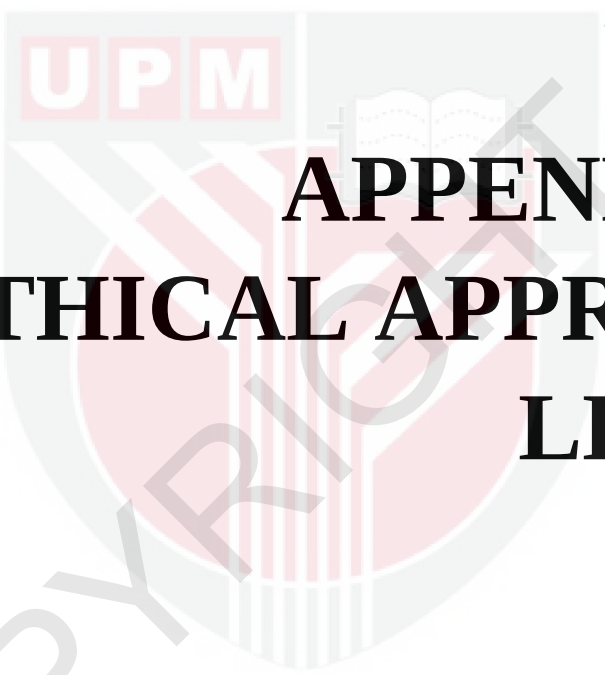
Sila bulatkan jawapan anda dengan menggunakan skala 1 hingga 5 seperti di bawah:

1	2	3	4	5
STRONGLY DISAGREE Sangat Tidak Setuju	DISAGREE Tidak Setuju	NEITHER AGREE NOR DISAGREE Ragu-ragu	AGREE Setuju	STRONGLY AGREE Sangat Setuju

AT1	I believe COVID-19 can be prevented by good hygiene practices <i>Saya percaya COVID-19 boleh dicegah melalui amalan kebersihan yang baik</i>	1	2	3	4	5
AT2	I am interested in knowing the methods of prevention of COVID-19 <i>Saya berminat untuk mengetahui cara mencegah COVID-19</i>	1	2	3	4	5
AT3	I believe everyone is responsible for preventing the spread of the COVID-19 <i>Saya percaya semua orang bertanggungjawab untuk mencegah penularan COVID-19</i>	1	2	3	4	5
AT4	The Movement Control Order (MCO) was an effective effort by government to prevent the spread of the disease <i>Perintah Kawalan Pergerakan (PKP) adalah satu usaha yang efektif oleh kerajaan bagi membendung penularan penyakit</i>	1	2	3	4	5
AT5	If I get infected with COVID-19, I will not spread the virus to others to get them infected too <i>Jika saya dijangkiti COVID-19, saya tidak akan menyebarkan virus ini daripada menjangkiti orang lain</i>	1	2	3	4	5
AT6	I agree that COVID-19 will successfully controlled <i>Saya bersetuju bahawa COVID-19 akan berjaya dikawal</i>	1	2	3	4	5
AT7	I agree that compliance to SOP can prevent COVID-19 transmission <i>Saya bersetuju bahawa kepatuhan pada SOP dapat mencegah penularan COVID-19.</i>	1	2	3	4	5
AT8	I believe that vaccine can protect us against COVID-19 infection <i>Saya percaya bahawa vaksin dapat melindungi kita daripada mendapat jangkitan COVID-19</i>	1	2	3	4	5
AT9	The Ministry of Education has provided the educational institution with adequate SOP and information on COVID-19 <i>Kementerian Pendidikan telah menyediakan SOP dan informasi yang mencukupi mengenai COVID-19</i>	1	2	3	4	5
AT10	The SOP provided is easy to understand and comply by the school management <i>SOP yang disediakan amat mudah untuk difahami dan dipatuhi oleh pihak sekolah</i>	1	2	3	4	5

SECTION F: PRACTICE										
BAHAGIAN G: AMALAN										
PLEASE CIRCLE YOUR ANSWER USING THE SCALE OF 1 TO 5 AS FOLLOWS:										
Sila bulatkan jawapan anda dengan menggunakan <u>skala 1 hingga 5</u> seperti di bawah:										
1 STRONGLY DISAGREE Sangat Tidak Setuju 2 DISAGREE Tidak Setuju 3 NEITHER AGREE NOR DISAGREE Ragu-ragu 4 AGREE Setuju 5 STRONGLY AGREE Sangat Setuju										
P1	I do not go on vacation during outbreak. <i>Saya tidak pergi melancong ketika wabak</i>					1	2	3	4	5
P2	I do not go to any crowded place <i>Saya tidak pergi ke tempat yang sesak</i>					1	2	3	4	5
P3	I notify District health office or specific parties if students or staff infected with COVID-19 <i>Saya memberitahu Pejabat Kesihatan Daerah (PKD) atau pihak berkenaan jika murid atau kakitangan dijangkiti COVID-19</i>					1	2	3	4	5
P4	I wear a face mask when go out <i>I memakai pelitup muka bila keluar</i>					1	2	3	4	5
P5	I cover mouth and nose with tissue when coughing or sneezing <i>Saya menutup mulut dan hidung dengan tisu ketika batuk atau bersin</i>					1	2	3	4	5
P6	I wash my hands before and after each action <i>Saya mencuci tangan sebelum dan selepas membuat sesuatu perkara</i>					1	2	3	4	5
P7	I stand 1-meter away from others (1 meter social distance) <i>Saya mengekalkan jarak sosial 1 meter dari orang sekeliling (penjarakan sosial 1 meter)</i>					1	2	3	4	5
P8	I wash hands with soap or hand sanitizer that contains at least 70% alcohol <i>Saya mencuci tangan dengan sabun atau pembersih tangan yang mengandungi sekurang-nya 70% alkohol</i>					1	2	3	4	5
P9	I refer to the Standard Operating Procedure (SOP) issued by MOH, MKN and MOE from time to time <i>Saya merujuk Prosedur Operasi Standard (SOP) yang dikeluarkan oleh KKM, MKN dan KPM dari semasa ke semasa</i>					1	2	3	4	5
P10	I ensure all students, staff and etc. always wear face mask throughout the period of school <i>Saya memastikan semua pelajar, kakitangan dan lain-lain sentiasa memakai pelitup muka sepanjang tempoh persekolahan.</i>					1	2	3	4	5
P11	I supervise and ensure students or staff with temperatures above 37 ° C or having any symptoms are not allowed to attend school <i>Saya menyelia dan memastikan pelajar atau kakitangan yang bersuhu melebihi 37°C atau bergejala tidak dibenarkan hadir ke sekolah</i>					1	2	3	4	5
P12	I given a Letter of Absence (LOA) to students or staffs whose infected with COVID-19 or under quarantine.					1	2	3	4	5

	<i>Saya memberikan surat ketidakhadiran (LOA) kepada pelajar dan kakitangan yang telah dijangkiti atau yang sedang dalam tempoh kuarantin.</i>					
P13	I ensure good ventilation in the classroom <i>Saya memastikan bilik darjah mempunyai pengudaraan yang baik</i>	1	2	3	4	5
P14	I make sure that the table arrangement in the classroom is rotated <i>Saya memastikan susun atur meja di kelas dengan penggiliran</i>	1	2	3	4	5
P15	I supervise and ensure all the students to eat in the classroom during break <i>Saya menyelia dan memastikan murid makan di dalam kelas ketika waktu rehat.</i>	1	2	3	4	5
P16	I provide hand washing place with soap or hand sanitizer containing 70% alcohol <i>Saya menyediakan tempat membasuh tangan berserta sabun atau pembersih tangan yang mengandungi 70% alkohol</i>	1	2	3	4	5
P17	I ensure no mass gathering or school assembly within school area <i>Saya memastikan tiada perhimpunan sekolah dijalankan di kawasan sekolah</i>	1	2	3	4	5
P18	I ensure no curriculum activities is allowed in school area <i>Saya memastikan tiada aktiviti kokurikulum dijalankan di kawasan sekolah</i>	1	2	3	4	5

The image features a large, faint watermark of the Universiti Putra Malaysia (UPM) logo in the background. The logo is a shield-shaped emblem with a red and white design, including a book and a torch. The letters 'UPM' are prominently displayed in the top left corner of the shield. Overlaid on this watermark is the title 'APPENDIX IV ETHICAL APPROVAL LETTER' in a bold, black, serif font, centered on the page.

APPENDIX IV ETHICAL APPROVAL LETTER