COVID-19 Preventive Measures in Malaysia

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Abstract
First detected in Hubei, China, in mid-December 2019, the coronavirus disease 2019 (COVID-19) has spread rapidly. It is transmitted from severely infected individuals to their direct or close contact through breathing droplets and contaminated surfaces. The World Health Organisation (WHO) recommended some preventive measures to curb the virus. Among others are washing hands with soap and water, using hand sanitisers, wearing face masks, and practising social distancing. This study aims to identify the level of COVID-19 prevention in Malaysia and determine the most commonly practised preventive measures among Malaysians. The study involved 1,230 participants who were recruited through convenience sampling techniques. Data were collected through a set of questionnaires, which were analysed using Statistical Packages for Social Sciences version 26. The results indicated that the level of preventive measures among Malaysians was high (M=3.3). Social distancing (M= 3.75) was the most commonly practised preventive action, followed by staying at home (M=3.72).
Keywords: COVID-19, Immunisation, Malaysia, Outbreak, Prevention Action

Introduction
A new type of virus, known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that caused the COVID-19 disease has spread worldwide, causing infection of the respiratory tract. The World Health Organisation (WHO) declared the COVID-19 disease a global pandemic on March 11, 2020. The disease, which was first detected in Wuhan City, Hubei Province, China, in mid-December 2019, has been uncontrolled, thus sacrificing the lives of millions of people (Cucinotta & Vanelli, 2020).

Numerous viral epidemics, including the H1N1 flu in 2009 and the severe acute respiratory syndrome coronavirus (SARS-CoV) in 2002 and 2003, have been documented over

the past 20 years. Most recently, in 2012, Saudi Arabia reported the discovery of the Middle East respiratory syndrome coronavirus (MERS-CoV) (Cascella et al., 2021).

Vulnerable populations that are more likely to contract the SARS-CoV-2 virus include the elderly, young children, and people who have a history of chronic illnesses. Patients will face problems with their body's immune system, which becomes weakened, resulting in mild symptoms such as loss of new senses and taste, fever, cough, flu, diarrhoea and shortness of breath. Some experience serious conditions such as severe respiratory distress and acute cardiopulmonary arrest, which puts them at increased risk of death (Melley et al., 2020).

According to the New England Journal of Medicine (NEJM), some surfaces allow coronaviruses to persist in the air for a number of hours or even days. Scientists from the United States Centers for Disease Control and Prevention (CDC) reported that the virus level was similar to Severe Acute Respiratory Syndrome (SARS) when outside the human body (Perlman, 2020). While the WHO states that the spread of the COVID-19 disease occurs mainly between people in close contact with each other through aerosols or droplets containing the virus (World Health Organisation [WHO], 2020).

The first wave of COVID-19 in Malaysia was reported on January 25, 2020. It was successfully handled on February 17, 2020, with 22 cases that were completely recovered. Aside from two local contagions, all cases were reported as import cases from China and their contacts (Md Shah et al., 2020). In March 2020, the COVID-19 cases were reported as low. However, the four-day religious mass gathering held in Sri Petaling, Kuala Lumpur, from February 27 to March 1, 2020, has caused a tremendous spike in the reported cases. The second wave has made Malaysia the country with the highest COVID-19 cases per week in South East Asia (Elengoe, 2020).

The rise of COVID-19 cases has exceeded 553 as of March 16, 2020. With high cooperation from the religious gathering attendees and other related bodies, the Ministry of Health (MOH) frontliners manage to clear the biggest cluster on July 8, 2020, four months after the event (Abdullah, 2020). Following the shocking wave, the Malaysian Prime Minister has implemented a movement control order (MCO) for a duration of two weeks, starting from March 18 to March 31, 2020. A curfew was imposed, requiring everyone to follow social distancing and remain in isolation unless an emergency occurred. However, only one family member was allowed to leave the house and they were restricted to travel ten kilometres from their house (Elengoe, 2020).

Hence, the public is advised to adopt preventive measures to overcome the situation. These include wearing a face mask, practising social distancing, which requires keeping at least one metre away from others while exhibiting symptoms or in a public place, and regularly cleaning hands with soap and water after holding something or contacting someone. On the other hand, those who exhibit symptoms must immediately undergo COVID-19 screening and comply with quarantine orders as instructed by the authorities (National Security Council Malaysia [NSC], 2020).

In line with the flexibility given during the phases of the conditional movement control order (CMCO) and the restoration movement control order (RMCO), the Malaysian government, through the National Security Council (NSC), from time to time uploads and updates the Standard Operation Procedure guidelines (SOP) related to the management procedures of certain activities, whether business or social, to guide the public on how to implement such activities according to the guidelines (NSC, 2020).

Furthermore, media companies are actively engaged in corporate social responsibility by creating and broadcasting various media contents with hashtags such as #stayhome and

#kitajagakita. They carry out their responsibilities by urging and inspiring people to remain at home and adhere to the SOPs (Ganasegeran et al., 2020; Shah et al., 2020).

The public's acceptance of the SOPs' implementation is quite difficult. This is evident through the daily press releases reporting on cases of individuals being detained and subjected to legal measures due to flouting the MCO directive or violating the SOPs. The police statistics stated that during MCO phases one and two, which took effect from Wednesday, March 18, to Tuesday, April 14, 2020, 14,922 individuals were detained. Of the data, 3,627 individuals were detained in the first phase, while 11,295 individuals were in the second phase (Arif, 2020).

Individuals who find it difficult to comply with the rules, according to Lieutenant Commander, Dr Abu Yazid Abu Bakar (B), Senior Lecturer of Guidance and Counseling or Psychology, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), belong to personality disorders, either narcissistic personalities, where they often feel alone or anti-social personalities, where they find it difficult to comply with a set of social regulations. They may have one of those personality traits or a combination of both. However, from a psychological point of view, human beings are indeed resistant to changing the norm because something that has become a habit takes time to change (Arif, 2020).

There are several public health studies examining factors that influence respondents' behaviour towards preventive measures during the COVID-19 pandemic. This study, which took place when MCO came into force, is one of the preliminary studies in this area. Hence, this paper seeks to answer two major research questions, which are: (1) What is the level of preventive measures practised in Malaysia during the first MCO? and (2) What are the most commonly practised preventive measures among the public in Malaysia? In addition, the study also seeks to investigate two main objectives: (1) to identify the level of preventive measures practised in Malaysia during the first MCO; and (2) to determine the most commonly practised preventive measures among the public in Malaysia.

Literature Review

A survey of 1000 respondents before the COVID-19 vaccine was available in India indicated that 70% of respondents preferred to use liquid hand wash, while 55% of respondents used soap, 57% used sanitiser and 14% used alcohol-based spirits. Hand hygiene, according to Basu et al. (2020) was critical in protecting against and preventing the spread of the COVID-19 disease. A study by Atalan (2020) indicates that the simplest way to stop the transmission of the coronavirus or prevent infection is to practise good hygiene. Handwashing is the most significant preventive measure. In societies where handwashing is a habit and general hygiene standards are observed, the spread of this virus is thereby slowed.

According to Yimeng et al (2021), 52.8% of participants in their study reported have high uptake of preventive behaviours. These include full compliance with wearing masks in public and frequently washing their hands. They also avoided talking to or touching other people, and using public transportation unnecessarily. The online survey was conducted among 4827 respondents in 31 provinces and autonomous regions in China. On the other hand, several surveys have emphasised that people who have symptoms are advised to stay at home. According to Elengoe (2020), travel is one of several preventive measures that must be taken into consideration, especially in infected areas. Individuals who have just returned from visiting an infected place or upon returning from abroad must self-isolate at home. They have to perform a health screening at the nearest hospital or clinic to detect the coronavirus.

Social isolation restrictions are one of the best approaches for flattening the COVID-19 curve. Malaysia is not the only country that has imposed lockdown. A study conducted by Atalan (2020) found that nearly 90% of the world's countries adopt a social isolation approach. The lockdown implementation is an effective preventive measure to prevent the spread of COVID-19. Lockdown is one of the methods recommended by WHO to stop the virus from spreading. On March 22, 2020, India quickly closed its boundaries with other countries and imposed the largest COVID lockdown ever (Basu et al., 2020).

Many countries have restricted public movement by closing schools, limiting industrial operations by encouraging workers to work from home, and quarantining some places where COVID-19 cases are reported to be high. In the United States, the government used different approaches to ensure compliance with the stay-at-home measure. States like Washington, California, and New York adopted sanctions. For example, imposing fines and or jail sentences on offenders aims to deter people from breaking the law. Furthermore, to enforce these sanctions, some localities, such as Los Angeles, have increased law enforcement patrols (Rooij et al., 2020).

According to Zhao et al (2020), the public in Hong Kong was experiencing an increase in psychological suffering due to lockdown. Distancing from others and staying at home for a longerperiod have been linked to increase risks of depression symptoms such as boredom, low mood, and mental distress. Ganasegeran et al (2020) discovered that lockdowns have "exceptional psychological implications" for people.   In Malaysia, the government has provided psychological services through the establishment of care lines and virtual counselling sessions to combat stress, anxiety, depression, and loneliness.

A study of factory employees in China by Pan et al (2020) found that respondents self-reported a high level of compliance with face mask use at the beginning of their employment. According to several studies, wearing a face mask is one of the advised precautions for personal safety (Basu et al., 2020; Howard et al., 2021; Martinelli et al., 2021). Additionally, it is a preventative step to guarantee that the general public's health can be shielded from the COVID-19 disease. Martinelli et al (2021), on the other hand, point out that mask-wearing was never a part of European society and was always connected to Asian culture. The use of masks heavily relies on the person's perception. The use of masks depends heavily on the individual's perception. These include the risk of infection, their sense of responsibility and belonging to society, culture, and religion, as well as their need to showcase their own identity.

Furthermore, Howard et al (2021) indicate that mask-wearing prevents people from getting infected. This mask-wearing is the most effective public prevention measure. However, according to Basu et al (2020), it is difficult to obtain a face mask at an early stage of the pandemic as the number of infected patients continues to rise. There were pharmacies and chemist shops selling masks at high prices to panicky buyers. Panic has resulted in increased demand for face masks (Elengoe, 2020; Shah et al., 2020). In a survey of 1114 Western Ugandans, 95.2% felt that wearing face masks in public was crucial for protecting themselves against COVID-19, and 60.3% washed their hands before and after wearing the face mask. Despite that, 51.5% removed their face mask anytime they spoke with someone (Sikakulya et al., 2021).

Hence, there is a need to understand why certain people ignoring standard operating procedures and have refused to take preventive measures. It is also important that we understand the reasons behind preventive measures resistance in view of the high rate of COVID-19 infections in Malaysia.

Methods

• *Research Design*

This study employed a quantitative survey approach. The main research question that guided the study are, "What is the level of preventive measures practised in Malaysia during the first movement control order (MCO)?" and "What are the most commonly practised preventive measures among the public in Malaysia?" The study also seeks to identify two main objectives: (1) to determine the level of preventive measures practised in Malaysia during the first MCO and (2) to determine the most commonly used preventive measure among the public in Malaysia. A set of self-administered questionnaires were developed using the Google Form application and distributed online through e-mail and social networking sites. These platforms are inexpensive and the best approach to reach targeted respondents due to the implementation of MCO throughout the country (Mahmud, 2008; Ridzuan et al., 2018).

• *Sampling Techniques*

A non-probability convenience sampling was used in this study. According to Mahmud (2008), non-probability sampling has three categories: purposeful sampling, convenience sampling, and quota sampling. Convenience sampling techniques were used when targeting respondents in multi-level societies. In this study, the targeted respondents were government and private workers, self-employed individuals, housewives, retirees, students, and unemployed individuals. The total number of respondents was 1,230.

• *Research Measurement*

A total of 25 questions were provided in line with the study's objectives. This includes the questions on demographic background. Based on the literature, the questions were then created on a Google Form (Alremeithi et al., 2021; Atalan, 2020; Azlan et al., 2020; Basu et al., 2020; Elengoe, 2020; Ganasegeran et al., 2020; Kaihan et al., 2021; Shah et al., 2020; Azhar et al., 2021). The division of questions was presented based on ordinal, nominal and scale to measure the data obtained. In addition, 16 items were used to measure stress among respondents who represent Malaysians. The estimated stress stages were classified based on a Likert scale of one to four. The data obtained was filtered and included in the system using the Statistical Package for Social Science version 23 (IBM-SPSS). All questions were carefully formulated and worded to make it easy for participants to answer.

• *Data Analysis*

Data analysis was based on three basic things: survey level, pilot testing, and data transfer. The questionnaire form was distributed to the first 50 respondents to identify the reliability of the research, before being distributed to other respondents. A total of 1230 questionnaires were answered and returned. All collected data has been transferred into the system for analytical purposes.

Findings and Discussion
Descriptive Statistics

A total of 1230 respondents have responded to the questionnaire Table 1 indicates the descriptive statistics of the respondents covering several of their demographic profiles.

Table 1
Demographics Background (n = 1230)

	Frequency (N)	Percent (%)
Gender		
Men	422	34.3
Women	808	65.7
Marital status		
Single	355	28.9
Married	839	68.2
Divorced	36	2.9
Age		
18 - 30	298	24.2
31 - 40	449	36.5
41 - 50	326	26.5
51 and above	157	12.8
Races		
Malay	1149	93.4
Chinese	25	2.0
Indian	23	1.9
Others	33	2.7
Work		
Student	133	10.8
Government Sector	607	49.3
Private Sector	273	22.2
Self-employed	125	10.2
Unemployed	23	1.9
Housewife	69	5.6
Household		
B40	446	36.3
M40	544	44.2
T20	240	19.5
Location		
Town	719	58.5
Suburbs	306	24.9
Rural	205	16.7
Overseas		

Based on their demographic background, the majority of respondents were Malay (93.4%). More than half of the respondents were female (65.7%), married couples (68.2%), and those who were living in the town area (58.5%). Furthermore, in terms of age and employment status, the distribution was quite divergent within the groups, with 36.5 % of respondents aged 31 to 40, 26.5% aged 41 to 50, 24.2% aged 18-30 and 12.8% aged 51 years and above.

Almost half of respondents or 49.3% were government servants, 22.2% were in the private sector, 10.8% and 10.2% were students and self-employed respectively, and 5.6% were housewives. Based on the household income category, 44.2% represented the M40 income group, 36.3% were within the B40 group, and the remaining 19.5% were within the T20 group.

- **Level of COVID-19 preventive measures**

Overall, the level of COVID-19 preventive measures in Malaysia was relatively high during the first MCO. According to Table 2, the average score across all 16 survey items was 3.3, which implies that the majority of respondents were practising most of the preventive measures. The most frequently used and practised measures were social distancing (M=3.75, SD=0.570), staying at home (M=3.72, SD=0.601) and consistently washing one's hands (M=3.68, SD = .565).

Table 2
Level of COVID-19 preventive measures (N=1230)

Items	Mean	Std. Deviation
I try to practice social distance/distancing from being with outsiders.	3.75	.570
I try not to leave my house as long as I can.	3.72	.601
I always wash my hands.	3.68	.565
I clean myself first after coming home from outside before spending time with family.	3.65	.659
I prefer to cook my food instead of buying food through the delivery system.	3.65	.634
I always wear a face mask when I'm out of the house.	3.58	.736
I bought a hand sanitiser, a face mask and gloves as a precaution.	3.58	.709
I always bring with me 'hand sanitiser' wherever I am.	3.54	.824
I think it is safer to use electronic payments.	3.42	.786
Items I have purchased I will wash first before use.	3.23	.886
I always eat nutritious food, especially during this COVID-19 season.	3.20	.786
I will not meet with the food deliverer, instead, the food is placed in a special place such as hung on the fence, yard and so on.	3.04	.962
I take supplements like vitamins C and D to boost my body's immunity.	2.84	1.107
I prefer to buy items online to avoid contact and try to reduce to the store.	2.83	.951

Items	Mean	Std. Deviation
I also sunbathe in the morning to get sunshine which contains Pro-Vitamin D3 to get immune.	2.50	1.034
I also wear gloves when leaving the house.	2.45	1.139
Overall Average	3.3	

* 3.02-4.02 = high; 2.01 – 3.01 = medium; 1.0 – 2.0 = low (Pallant, 2020)

Table 2 shows the mean score analysis of Malaysians perception of preventive measures during the first MCO. The highest mean score was (M=3.75, SD=.570) with the item "I try to practise social distance/distancing from being with outsiders." This indicates that most Malaysians during the first MCO were practising social distancing and practising it diligently. According to Khairulnissa et al (2021), the positive behaviour among Malaysians was attributed to the government's efforts in informing and educating the public through various media and platforms, especially social media. Furthermore, Gan (2021) indicates that social media is among the most popular channels to gather information and express opinions during crises. In fact, health authorities make extensive use of social media to encourage the public to practise safe practises and effective approaches. Important information using social media is able to deliver messages to the public on safety measures.

An online survey conducted by the Ministry of Health among 26,841 Malaysians on new norms and practises has revealed that 93.3% of respondents wear face masks, 89.6% practice social distancing, while 89.7% agreed to wash hands using soap or hand sanitisers (Rahim, 2020). This demonstrates the great levels of discipline displayed by Malaysians. Every change begins with one person, and this is the first move towards success in any endeavour, including the fight against the COVID-19 pandemic.

The second most-practised preventive measure was to stay at home. The average mean score was (M = 3.72, SD=.601). According to Zhao et al. (2020), a study among 1,501 respondents in Hong Kong indicate that 59.7% of its population avoided going out, travelled to crowd areas, or to social gatherings with more than four individuals. The majority of respondents or 58.4% spent at least four of the previous seven days at home. Lower stress levels, fewer anxiety and depression symptoms, as well as perceived efficiency and compliance with social distance were all linked to these factors.

The lowest mean score in this survey is (M=2.45, SD = 1.139) with the item "I also wear gloves when leaving the house". Gloves are a component of personal safety equipment (PPE). Healthcare professionals used it to lessen the risk of contamination and infection while looking after both patients and themselves. However, ordinary people have also worn gloves while engaging in routine tasks like going to the grocery store, a pharmacy, or riding public transportation (Morales et al., 2021). Respondents in this survey did not chose glove as an effective preventive measure even though its use can prevent the skin of the hands from touching the virus. Practically it is not (Azizi, 2020). According to Morales et al (2021), using gloves can give people a false sense of security, increasing their susceptibility to contamination from improper use or improper handling when bringing them outside. The danger of infection and surface contamination could rise due to improper glove use by the general public.

The mean response for all surveyed items was above 2.0, with the highest standard deviation of 1.139, which indicated that every preventive measure was applied by most of the respondents. As proposed by previous studies, social distancing, also known as physical

distancing, was identified as one of the main approaches that can flatten the COVID-19 infection curve (Basu et al., 2020; Elengoe, 2020; Shah et al., 2020).

Conclusion

The level of preventive measures among Malaysians was high (M=3.3) during the first movement control order (MCO). This is based on Pallant (2020) interpretation. Social distancing (M= 3.75) was the most commonly practised preventive action, followed by staying at home (M=3.72). Most participants involved in this study indicated that they adopted preventive measures as recommended by the authorities. Other precautions include wearing masks, washing hands with soap and water, and using sanitisers. Maintaining SOP compliance measures, particularly social distancing, in the long run may be difficult, especially with the high demand on economic and societal resources. Therefore, each party is responsible for fulfilling their responsibilities.

The findings from this study are significant as a scientific reference, especially for policymakers to manage decision-making during the pandemic. Among other things, enhancing publicity and education about COVID-19 prevention measures. The government needs to identify priority needs, population targets, and innovation in new education programmes. Public awareness campaigns must be ongoing, especially on social networking sites, to reach a significant portion of the people and maintain public adherence to COVID-19 prevention measures. Future research that focuses on rural residents and low-income households is probably more likely to be successful.

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