

# Knowledge, Attitudes, and Practice among Malaysian in facing COVID-19 During the Implementation of Movement Control Order

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## Research article

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# Abstract

**Background:** The rapid acceleration in the number of hospitalizations and deaths of COVID-19 has attracted global attention and caused worldwide fear. In mid-March 2020, Malaysia has recorded the highest COVID-19 cases in Southeast Asia. As an immediate response, the Malaysian government has imposed Movement Control Order (MCO) to break the chain of infection and slow down the pandemic widespread. By mid-May 2020, R naught in Malaysia is at 0.3 as compared to 3.55 in mid-March 2020. Understanding the public's knowledge, awareness, and reaction toward COVID-19 during the outbreak in the general population is paramount to give a real picture of the public's responses in curbing the COVID-19 widespread. This study aims to determine the knowledge, attitude, and practice of social distancing among Malaysians during the COVID-19 outbreak.

**Methods:** This cross-sectional study presents results from 3211 respondents by answering questionnaires through an online survey from 24 - 26 March 2020, one week after MCO was imposed. Responses were summarized using descriptive statistics and Chi-square test ( $\chi^2$ ) statistic were used to test whether the data from two or more groups of categories are associated with social distance practice.

**Results:** Almost half of the respondents have an excellent level of knowledge (47.6%) and a positive attitude (47.4%) towards the COVID-19. Interestingly, more than half of the respondents (67.5%) performed good social distancing practice, while 30% exercised strict social distancing practice. A chi-square test shows that there is a significant association between knowledge and social distancing practice and no significant association between attitudes and social distancing practice.

**Conclusions:** There is no COVID-19 vaccine nor herd immunity obtained yet, therefore the social distancing practice is the effective mechanism adopted to reduce the COVID-19 widespread, and Malaysia has proven it.

## Background

Coronavirus disease (COVID-19) is an infectious disease caused by newly discovered pathogenic virus identified as novel coronavirus (2019-nCoV), also named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was first detected in Wuhan, Hubei Province, China, on 29 December 2019 [1,2,3]. World Health Organization (WHO) was officially informed by Wuhan Municipal Health Commission, China, about a mysterious pneumonia of 41 patients cluster on 31 December 2019, and the first mortality case was recorded in China on 11 January 2020 [4]. The COVID-19 are introduced from animals to human, then was transmitted from human to human via the respiratory systems, small droplets of saliva or a discharge from the nose when an infected person coughs, sneezes, or exhales [1,5,6]. The chain of infection occurs when an individual of close contact breathes next to the infected person or when he or she touches surfaces of objects contaminated with the virus and proceeded touching his or her mouth, nose or eyes [1]. As a preventive measure, WHO has introduced a guideline in handling COVID-19. In the guideline, WHO advises the public to clean their hands with alcohol-based

hand cleansers or wash them with soap and water regularly. It also includes practicing social distancing (also called “physical distancing”) of at least 1 meter (3 feet) from one another, or stay at home [1]. To date (June 2020), there is no vaccine available to cure COVID-19 yet, therefore the social distancing practice acts as the main mechanism that can potentially reduce the chances of a pathogenic virus being transmitted between those who have been infected and those who have not. This mechanism has been proven effective to avoid human-to-human transmission, hence reducing the morbidity and mortality of COVID-19 [7,8,9].

By mid-January 2020, COVID-19 was no longer limited to China only but has also spread around the globe. COVID-19 which initially localized from China has now become a global issue. The first COVID-19 case outside of China was reported in Thailand on 13 January 2020 [4]. The remarkably increasing pattern of the disease infections and the mortality incidences caused by the virus has forced WHO to declare the widespread of COVID-19 as a global public health emergency on 30 January 2020, and as pandemic alert level on 11 March 2020 [1,4]. By 12 May 2020, a total of 4,088,848 confirmed COVID-19 cases and 283,153 deaths have been reported globally [10]. Some affected countries have imposed strict regulations such as closing down their borders, bans on traveling, restricting public movement, and some practices lockdown order as an effort to hinder the virus transmission and break the chain of COVID-19.

In Malaysia, COVID-19 was first identified on 25 January 2020 [11]. By 16 March 2020, a total of 553 cases were diagnosed positive COVID-19, the highest cases recorded in Southeast Asia [12,13]. As a drastic measure, the Malaysian government placed the COVID-19 pandemic crisis under the control of the National Security Council (NSC), a national body that manages and administrates disaster crises. Immediately, NSC announced the implementation of Movement Control Order (MCO) throughout the country as a preventive measure to isolate the source of virus and break the chain of the COVID-19, hence slowing down the pandemic widespread [13,14]. Till the date of this article was written, the MCO has been announced by phases; the first started on 18 March to 31 March 2020 (phase-1), the second started on 1st April to 14 April 2020 (phase-2), third on 15 April to 28 April 2020 (phase-3), forth on 30 April to 12 May 2020 (phase-4), and Conditional Movement Control Order on 13 May to 9 June 2020 (phase-5) [15,16]. There are six Orders in Malaysian MCO, namely: (i) prohibition of movement and mass gathering across the country (including religious, sports, social and cultural activity); (ii) Malaysians are barred from traveling abroad; (iii) travelers are barred from entering the country; (iv) closure of all academic and learning institutions including kindergarten right up until pre-university level; (v) closure of all universities and vocational training centers; and (vi) closure of all government and private premises except those involved in essential services [17,18]. Under the MCO, Malaysians are required to stay at home and practice social distancing. The restriction of MCO is implemented under the prevention and control of infectious diseases act 1988, and the police act 1967. Those who do not abide by the MCO directives will be charged under those acts [18].

Till June 2020, Malaysia is in the war against COVID-19, of which social distancing is the strategy used. However, the success of this battle, likewise of other countries, will very much depend on the public's adherence to the regulations and their involvement in the good practices promoted by the authorities. The

public's awareness is reflected in their knowledge, attitudes, and practices (KAP) towards the disease [19]. The KAP studies are widely used to study public health [20]. Hence, KAP analysis is suitable to evaluate the public's response towards the COVID-19 pandemic. There is an urgency to understand what the public know, believe, and do in this critical period as an indication to gauge the strength of public support in curbing the spreading of COVID-19. In essence, this is about human management on the disease. In this study, we aim to determine the level of knowledge, attitude, and practice towards the COVID-19 among Malaysians, and also identify the level of knowledge and attitude toward social distancing practiced by Malaysians during the implementation of MCO.

## Methodology

Due to the urgency and precedence of event, researchers proposed a cross-sectional study to evaluate the public's perception on COVID-19, and how people practice social distancing during the virus outbreak period. We realized that it is important to understand the level of knowledge, attitudes, and practices of Malaysians throughout the MCO period. It was not feasible to conduct a face-to-face sampling survey in the middle of the pandemic, hence an online survey through Google Form was devised as a platform.

### *Instrumentation and measurement of the study*

This quantitative study used questionnaires as a tool or instrument for data collection. The instrument was developed by the researchers based on the current situation, information disseminated and public announcements by the relevant authorities through the media, which very much relates to the knowledge and attitudes towards COVID-19 as well as the practices in managing the virus spread. Thus, it consisted of five main variables in regard to COVID-19 namely knowledge, attitudes, practices, source of information, and socio-demographic characteristics. These variables also matched with several similar studies related to KAP on disease outbreak such as COVID-19 outbreak by Zhong, et al. (2020) and MERS-CoV outbreak by Asaad, et al. (2019).

Section A entails the items for measuring the respondent's knowledge pertaining to COVID-19. A total of 11 items using the dichotomous scale (true and false) were developed, consisting of questions such as the origin of the disease outbreak, global highest mortality cases, myth beliefs, types of transmission, symptoms of infection, preventive measures, and prevention initiatives by the Malaysian authority. Data for the correct answers for each item were combined to measure the total score for the knowledge variable. Discrete analysis showed that the minimum score was 0 and the highest score was 11. Since the data distribution of this study skewed towards the high score, the median score was used to determine the groups of level. They were grouped into two categories (based on the median score = 8), namely; average knowledge (0-8) and excellent knowledge (9-11). Even though the median score seems to skew towards the high score, it gives a better representation of central tendency than averages.

Meanwhile, Section B entails the attitudes towards COVID-19 where respondents were asked to rate their perspective or state-of-mind towards COVID-19, using a 4-point Likert scale score ranging from Strongly Disagree (1) to Strongly Agree (4). Nine items or statements were developed to measure attitude. The

total score ranged from 9 to 36. Each individual respondent's total score was averaged to determine the level of the attitude with median procedure, which were categorized into two categories, namely neutral attitude (3.11), and positive attitude (3.12-4.00).

Section C measures social distancing practices. A seven-item statement was developed ranging from no social distance practice to strict social distance practice. Respondents were asked to choose one item that reflects his/her daily practices during this MCO period. Since the scale is ordinal, the scores were then grouped into four categories namely; No social distance practice = (1), Poor social distance practice = (2, 3, 4), Good social distance practice = (5, 6), and Strict social distance practice = (7). Finally, Section D of the questionnaires focuses on the basic demographic data such as age, gender, education level, and the source of information about COVID-19.

A pilot-test was conducted on 58 respondents from three types of groups such as academicians (subject matter experts in social sciences and health sciences), professional workers, and the general public. A reliability test was conducted using SPSS (Version 22). All items met the required recommendation of Cronbach's alpha value ( $\alpha < .70$ ), which indicated acceptable internal consistency.

### ***Study Participants***

The questionnaire was posted online via social media (mostly thru WhatsApp and Facebook) on 24 - 26 March 2020, a week after the implementation of MCO. A total of 3211 samples were collected within 3 days (2422 respondents on the 1st day, 752 respondents on the 2nd day, and 37 respondents on the 3rd day). Table 1 shows the demographics characteristics of the respondents. A majority of the respondents were females (68.8%), aged between 35-44 years old (35.4%), 25-34 years old (25.1%) and 15-24 years old (18.2%). The mean age was 36 years. Location wise, almost half of the respondents (49.6%) were from the Central zone of Peninsular Malaysia while 8.2% of the respondents participating in this survey were from Borneo Island (East Malaysia). In terms of education, a total of 55.0% of the respondents obtained a bachelor's degree, and 71.7% are currently actively working. A majority (63.3%) of the respondents referred to social media as their main source of information about COVID-19, instead of newspapers (.9%).

**Table 1** The characteristics of study participants (N=3211)

Variable		<i>n</i>	%
Age:	15 - 24 years	585	18.2
	25 - 34 years	805	25.1
	35 – 44 years	1138	35.4
	45 – 54 years	490	15.3
	55 years ≥	193	6.0
	Mean	36.0	
	SD	11.297	
Gender:	Male	1001	31.2
	Female	2210	68.8
Zones of States:	North	226	7.0
	Central	1593	49.6
	South	604	18.8
	East	526	16.4
	Borneo	262	8.2
Academic Level:	MCE & lower	568	17.7
	HMCE & Diploma	878	27.3
	Bachelor's Degree	1291	40.2
	Masters & PhD	474	14.8
Occupation:	Government Servants	1441	44.9
	Private organization / NGOs	671	20.9
	Self-employed	189	5.9
	Student	586	18.2
	Pensioners	82	2.6
	Housewife/Not working	242	7.5
Main Source of Information on COVID-19:	Social media	2033	63.3
	Internet/website	420	13.1

TV and Radio	609	18.9
Newspaper	29	.9
Family/friends/medical person	120	3.8

Note: MCE refers to the Malaysia Certificate of Education. HMCE refers to the Higher Malaysia Certificate of Education and equivalent with Diploma.

### ***Statistical analysis***

In this descriptive study, simple descriptive statistics such as frequencies, percentages, and mean scores were used to present and describe the data collected from the respondents. The Chi-square test ( $\chi^2$ ) statistic was used to test whether the data from two or more groups of categories are associated with participants' social distance practice. Variable measure includes the level of knowledge and level of attitude. Data analysis was performed using SPSS version 22.

## **Results**

A majority of the respondents have general knowledge about COVID-19. Based on the data obtained (Table 2), almost all (98.8%) of the respondents are aware of the purpose of MCO in breaking the COVID-19 chain, and they are also aware of the transmission of the disease ie. through mouth and nose (93%). Similarly, more than 90% of the respondents (93.7%) believe that practicing social distancing can prevent the spread of the deadly disease. However, there are still some Malaysians who are not aware that serious infection of COVID-19 can cause pneumonia (37%), and quite a percentage (24%) of them do not realize that washing hands with soap for 20 seconds as recommended to ensure good personal hygiene can help prevent COVID-19 from spreading.

**Table 2** Knowledge of the respondent on COVID-19

Item	True	False
1. The first case of the COVID-19 was detected in the Hubei province of China	89.4%	10.6%
2. Regularly taking vitamin C will not prevent COVID-19 infection	58.7%	41.3%
3. COVID-19 spreading can be prevented from human to human by adopting a social distance of at least 1 meter	93.7%	6.3%
4. Washing hands with soap and water should be done for at least 20 seconds	76.0%	24.0%
5. COVID-19 can be transmitted through the nose and mouth	93.0%	7.0%
6. Patients without chronic disease are less at risk if infected with COVID-19	24.3%	75.7%
7. Fever is a symptom of COVID-19 infection	88.8%	11.2%
8. The main purpose of the Movement Control Order (MCO) is to break the chain of COVID-19	98.8%	1.2%
9. Serious infection of COVID-19 can cause pneumonia	63.0%	37.0%
10. In Malaysia, the first wave of the outbreak was detected from the influx of foreign tourists	64.2%	35.8%
11. Currently (23 March 2020), the country with the highest COVID-19 death rates is Italy	79.5%	20.5%

Table 3 shows the attitudes of respondents towards the disease on 4-point Likert scale measurement. The mean score reflects the perception of respondents in which the skew towards high mean shows optimistic attitudes towards COVID-19. The overall mean of the items is (M=3.20) which shows that respondents manifested a positive attitude towards the COVID-19 Pandemic. Most of the respondents highly agreed that this disease is risky to human health (M=3.39) and that it can affect the comfort of their daily life (M=3.34). Hence, the respondents tend to agree that the COVID-19 outbreak is difficult to be handled by themselves (M=2.95) but they are optimistic that the disease spreading can be controlled (M=3.02) through their cooperation as a citizen to overcome it (M=3.40).

**Table 3** Attitudes of the respondent on COVID-19



Item	1	2	3	4	<i>M</i>	<i>SD</i>
					3.20	.353
1. COVID-19 outbreak is difficult for me to handle	2.2%	26.3%	45.1%	26.4%	2.95	.782
2. COVID-19 outbreak could endanger me/family's health in the near future	2.9%	5.4%	63.4%	28.4%	3.17	.650
3. COVID-19 outbreak needs my cooperation as a citizen to overcome it	.9%	1%	55.5%	42.6%	3.40	.561
4. COVID-19 outbreak can easily infect myself	1.8%	11%	51.8%	35.4%	3.21	.701
5. COVID-19 outbreak spreading can be controlled	3.5%	9.2%	68.6%	18.7%	3.02	.647
6. COVID-19 outbreak can threaten national security	1.7%	3.3%	58.7%	36.3%	3.30	.612
7. COVID-19 outbreak can affect the comfort of daily life	1.1%	2.0%	58.7%	38.2%	3.34	.575
8. COVID-19 outbreak is risky to human health	.9%	1.1%	56.0%	42.1%	3.39	.559
9. COVID-19 patients may recover with early treatment	2.7%	10.6%	65.5%	21.3%	3.05	.651

Note: 1 refer to strongly disagree; 2 is disagree; 3 is agree; and 4 is strongly agree

There are seven options of social distancing practices that the respondents can choose from. Table 4 shows the percentage distribution of social distancing practices among respondents during COVID-19 outbreak. A majority of respondents practice social distancing. They stay at home but will go to the store or supermarket to buy necessities (62.6%), and only (9%) do not practice social distancing during the disease outbreak. Some respondents took selected advice by not meeting potentially infected persons (.8%) or put a distance from infected persons (.7%). All in all, from the result, it indicates that the respondents exhibit good cooperation in following instructions announced by the authorities to stay at home (94.1%) which is in line with the social distancing practice.

**Table 4** Social distancing practices of the respondent on COVID-19

Item	n	%
1. No problem moving around in my normal daily environment	28	.9
2. No problem meeting anyone except those who are potentially infected or exposed to COVID-19 (medical team)	25	.8
3. Put a distance from people suspected with COVID-19 only	22	.7
4. Limit my movement to the nearest neighborhood only	116	3.6
5. Stay at home, but will go to the store / supermarket to buy necessities	2010	62.6
6. Stay at home, but no problem to talk to my neighbors	160	5.0
7. Stay at home, not going out and meeting anyone even relatives	850	26.5

Based on Table 5, the results show the level of KAP toward COVID-19 among respondents. Almost 50% of the respondents have an excellent level of knowledge (47.6%) and positive attitude (47.4%) towards the COVID-19. This indicates that almost half of the respondents have a positive state-of-mind and are optimistic about the disease outbreak. Concerning social distancing practices, more than half of the respondents (67.5%) demonstrated good practice, while almost 30% exercised a strict social distance practice.

**Table 5** Level of KAP on COVID-19

Level Group	n	%
<b><i>Knowledge</i></b>		
1. Average	1684	52.4
2. Excellent	1527	47.6
<b><i>Attitudes</i></b>		
1. Neutral	1690	52.6
2. Positive	1521	47.4
<b><i>Practices</i></b>		
1. No social distance practice	28	.9
2. Poor social distance practice	163	5.1
3. Good social distance practice	2170	67.5
4. Strictly social distance practice	850	26.5

A chi-square test of independence was performed to examine the relationship between the level of knowledge and the social distance practice on COVID-19 (Table 6). The association between these

variables was significant  $\chi^2 (3, N = 3211) = 10.665, p = .014, \Phi\text{Cramer} = .058$ . Therefore, it is apparent that social distance practice is dependent on the level of knowledge (with small effect size using Cramer's V). It is noteworthy to report that the majority of respondents at average level of knowledge with good social distance practice (34.6%), and respondents whose knowledge is at excellent level with good social distance practices (32.9%) signify the high group frequency.

Besides, Table 6 also portrays the findings of the Chi-Square test of independence between the level of attitudes and social distance practices on COVID-19  $\chi^2 (3, N = 3211) = 6.009, p = .107$ . Even though the results show no significant relation between variables, respondents in a group of neutral attitudes with good social distance practice (36.5%) are detected as having the highest group frequency.

**Table 6** Chi-square of knowledge and attitude toward social distance practice on COVID-19

Level	No social distance practice	Poor social distance practice	Good social distance practice	Strictly social distance practice	Total	$\chi^2$ value	Asymp. p-value
	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>		
<b>Knowledge</b>						10.665	.014
Average	20 (0.6)	100 (3.1)	1112 (34.6)	452 (14.1)	1684 (52.4)		
Excellent	8 (0.3)	63 (2.0)	1058 (32.9)	398 (12.4)	1527 (47.6)		
<b>Attitudes</b>						6.099	.107
Neutral	16 (0.5)	80 (2.5)	1173 (36.5)	421 (13.1)	1690 (52.6)		
Positive	12 (0.4)	83 (2.6)	997 (31.0)	429 (13.4)	1521 (47.4)		

## Discussion

Almost 50 percent of respondents have an excellent level of knowledge on this new disease. Based on the study, a majority of the respondents are well-informed about the reason for the implementation of the MCO in Malaysia and the recommendation of social distancing practice by the health authority as the data recorded high percentages on these aspects. Similarly, respondents know the attributes of the disease in terms of its mode of transmission, early symptoms, and of course its origin. Nevertheless, the study shows that there are some lacking in terms of the disease prevention. This is paramount because it is very much related to human behavior. There is a substantial number of respondents who are oblivious about the good practice of washing hands and some also believe that taking certain vitamins can prevent COVID-19 infection.

The findings of this study indicate that the main sources of information on COVID-19 are the social media and broadcast media (television and radio). As such, relevant authorities such as the Health Education Division, Ministry of Health Malaysia, and media (social, electronic, and mass media) have roles to play in advancing the knowledge of the citizen in preventing the disease spread [21]. Therefore, the method of disseminating information to educate the public through these platforms should be optimized. In addition to raising public health awareness on COVID-19, the authorities should play an important role in eradicating fake news and myth beliefs that do not base on scientific facts.

In general, the study shows that most of the respondents are responding positively towards the pandemic. Although COVID-19 is a new phenomenon, the respondents' positive responses towards the items asked implicitly portrayed their state-of-mind. The high in the mean score per item denotes this. They are optimistic that this disease can be controlled, and that it can be treated if diagnosed early, but they are also aware of its risks to human health, and that it could affect the comfort of their life. At the individual level, the data also discovers that respondents were neither feeling inferior nor overconfident about the outbreak. This is reflected in the item, "COVID-19 is difficult for me to handle" and "COVID-19 could endanger me/family health in the near future" which recorded a low range of mean scores that signify they are very cautious about the disease. However, they also strongly believe that their cooperation is needed to overcome this pandemic. All of these responses indicate their mental readiness to face the disease.

A noteworthy finding shows that a majority of the respondents are at the level of good social distancing practice as the data recorded high percentages on the item of "Stay at home but will go to the store/supermarket to buy necessities". This is a positive indicator of people's cooperation toward the implementation of MCO, highlighting the necessity of social distancing practice in reducing opportunities of the SARS-CoV-2 transmission. The knowledge and attitude of people might have positive effects on their behaviors when dealing with disease infections. At the individual level, the data also discovers that respondents were neither feeling inferior nor overconfident about the outbreaks. This was reflected in the item, "COVID-19 is difficult for me to handle" and "COVID-19 could endanger me/family health in the near future" which recorded a low range of mean scores that signify they are very cautious about the disease. However, they also strongly and positively believe that their cooperation is needed to overcome this pandemic. All of these responses indicate their mental readiness to face the disease [22,23].

It is a norm in most cultures that when people meet they tend to sit, talk, or stand close, and in most cases shake hands. In a close relationship among relatives, people hug and kiss each other. This behavior takes place either in public space or personal space, and permitted by their respective culture. There is no social distancing in this respect. However, during this difficult time, health experts promote social distancing. It was found that social distancing is the primary strategy to break the chain of COVID-19 spreading [1,7]. Based on this study, a majority of the respondents are aware of the social distancing practice. They realized the meaning of social distancing. It is not only about keeping oneself one meter away from the other person but also to limit one's movement. Practically, they choose to stay at home but only go out to buy necessities for their family members, while maintaining social relationships with

neighbors. Nevertheless, a small quarter of respondents choose a stringent measure to be at home by not going out or meeting anyone including relatives. The impact of physical distance with everyone and hygienic practices to reduce the chances of virus transmission as promoted by the authorities is noticeable.

To date (mid-May), new reported cases on COVID-19 have been reduced to two figure digits as compared to mid-March and early April 2020. The positive impact of public's cooperation on social distancing practice compliance is reflected one month after the implementation of the social distancing practice through MCO, with COVID-19 cases in Malaysia being at 7%, below the 10% benchmark by WHO [24]. Moreover, by mid-May 2020, the COVID-19 infectivity rate or  $R_0$  in Malaysia is at 0.3 as compared to 3.55 in mid-March 2020 [25]. Social distancing as a new normal among the public during the critical period has successfully slowed down the new reported cases daily. This is important to ensure the total numbers of infected cases do not go beyond healthcare capacity so that health workers can provide the best quality of care and treatment for those infected with COVID-19, especially those in the risk groups. This study also indicates that there is a significant association between knowledge and social distancing practice, and no significant association between attitudes and social distancing practice. Even though only knowledge has association with social distancing practices, a majority of the respondents practiced good social distancing, while almost 30% exercised strict social distancing practice. It may be due to the factors of cooperation and compliance to the Movement Control Order by the authorities.

It is important to note that social distancing is not to stop social interaction among friends, relatives, and neighborhoods. Without interaction, it could cause other mental health issues such as loneliness, stress, and depression. Some people may already have struggled with on a daily basis. Therefore, in such situation of this pandemic to practicing social isolation, those individuals are likely to have raise some psychological issues [26]. For the sake of breaking the chain of virus transmission, which has proven in many disease outbreak prevention [7,8,9], more explanation on the operationalization of the strategy is needed for the public to avoid misconception which will create negative implication as mentioned above.

## Conclusion

Generally, Malaysians possess an average level of knowledge and a neutral attitude with good social distancing practice in reacting to COVID-19 outbreak. Although COVID-19 is quite new to the citizens, their knowledge and positive responses towards this pandemic may be contributed by the implementation of MCO and the government's initiatives to enhance public knowledge and inculcate positive attitude on good social distancing practice through the media and social media. Hence, imposing strict regulations such as movement control order, in the beginning of the outbreak can be seen as an introduction to the new normal for the citizen to adopt new behaviors to keep up personal hygiene and self-regulatory habits when socially interacting. All these measures were instilled during the whole phases of the MCO implementation.

The surveillance of COVID-19 widespread is a continuous activity by the health authority. Efforts to prevent the COVID-19 widespread must be intensified to break the chain and reduce the occurrence of new cases. This is especially true as many clusters of foreign workers (legal or illegal) and immigrants living in slum urban and rural areas in the country may not be under the auspices of the local health authority. In the current context, for Malaysians, social distancing practice is not an absolute solution to stop the COVID-19 widespread, but it is the effective mechanism adopted to reduce the COVID-19 widespread. Until the COVID-19 vaccine is available and the herd immunity situation is obtained by the people, only then can we go back to normal life.

## Declarations

### Author details

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### Ethics approval and consent to participate

This studies do not involve clinical/biological samples. The respondents in this study are anonymous and no specific identity recorded or can be retrieved. Hence, the study does not require ethical approval.

### Consent for publication

Not applicable.

### Competing interests

The authors declare that they have no competing interests.

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### Authors' contributions

AAS, MM, AHS and SRH conceived the study, collected the data, performed the analysis discussion, and wrote the manuscript together. AHS performed the analysis. AAS and MM performed the editing and

finalized the manuscript. All authors have read and approved the final manuscript and the manuscript is currently not submitted for publication elsewhere.

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