

ASSESSING KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS COVID-19 AMONG USIM UNDERGRADUATES

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Abstract

Higher education institutions with significant numbers of young adults may become centres of acute outbreaks during a pandemic. Due to the large number of young adults, universities have the potential to become outbreak centres. The aim of this research is to examine the knowledge, attitude and practice (KAP) of university students towards COVID-19 at Universiti Sains Islam Malaysia (USIM), in Nilai. A self-administered questionnaire with a sample size of 2061 Universiti Sains Islam Malaysia (USIM) students was distributed to collect the data and analyzed using SPSS software. To identify the levels of KAP among USIM students, we used descriptive statistics based Likert scale questionnaire. Results show that the sample of students have excellent awareness (85 per cent) and good attitude (73.8 per cent) towards COVID-19. However, levels for practice is significantly lower (44.9%) than the other two attributes. This is most likely due to the unpreparedness to face this pandemic's crucial situation. In other words, it can be said that although students have a fairly good level of knowledge on the subject, there is still much room for improvement in attitude and practice.

Keywords: Attitude, COVID-19 pandemic, KAP survey, Knowledge, Practice, Malaysia, Survey data, Undergraduate students

INTRODUCTION

The outbreak of COVID-19 in Malaysia started back in January 2020, when it was first detected on 25th January among travellers from China arriving through Singapore following the cases in China (Sipalan & Holmes, 2020; GardaWorld, 2020). Reported cases remained relatively low and confined, mainly to imported cases, until localized

clusters began to emerge in March. The largest cluster was linked to a religious gathering held in Sri Petaling, Kuala Lumpur, in late February and early March. This then led to massive spikes in local cases and exportation of cases to neighbouring countries (Ng., 2020; The Straits Times, 2020). Within a few weeks, Malaysia had recorded the largest cumulative number of confirmed COVID-19 infections in Southeast Asia (The Straits Times, 2020), breaching over the 2000 marks inactive cases by the end of March from fewer than 30 at the start of the month. By 16th March, the virus is reported in every state and federal territory in the country. The Prime Minister of Malaysia later announced measures to combat the outbreak via live nationwide telecast on 13th March 2020 and by 16th March, a nationwide "Movement Control Order" (MCO), intended to mitigate the spread of COVID-19 through social distancing, was announced to last between 18th March and 31st March (Sukumaran, 2020; Bunyan, 2020; & Wern Jun, 2020).

The COVID-19 pandemic in early 2020 provided a unique opportunity to explore how students at universities are receiving and responding to emergency preparedness information during the outbreak height. University environments are peculiar, considering the permeability of their boundaries and the institution's activities affecting social contact between their members, both of which have the potential to influence behaviours. Universities are not immune to natural or humanmade disasters, and experience with these has illustrated the importance of continuity during and after these events. During a pandemic, such institutions must balance academic continuity with infection control and minimize morbidity.

To look at how the pandemic has affected students of higher learning institutions, this study is done based on a survey to see levels of knowledge, attitude and behavior amidst the COVID-19 period which is done amongst undergraduate students at the Universiti Sains Islam Malaysia (USIM), Nilai, Malaysia. Effective pandemic management requires an understanding of the factors influencing preventive behaviour to report on predictors of students' preventive behaviours during pandemic COVID-19.

In general, the purpose of this research is to determine the level of USIM students' knowledge, attitude and practice towards COVID-19 during the height of the pandemic with relation to their socio-demographic characteristics. In addition, the study also looked at the major source for reference on COVID-19 and activities students were involved during the MCO.

METHODOLOGY

Sample

The sample comprised of undergraduate students at Universiti Sains Islam Malaysia (USIM) in Nilai, Negeri Sembilan, where the total population is 10,189. By using a 95% confidence interval and 5% margin error, the total respondents required to answer the questionnaire is 371. A total of 2061 respondents participated in the survey.

Instrument

Participants accessed the final questionnaire via a Google form link distributed to all USIM undergraduate students, where consent will be implied upon completion and submission of the questionnaire. A pilot study on 30 respondents was conducted using the questionnaire, which was developed according to the World Health Organization World Health Survey Instruments and Related Documents (WHO, 2019). There are 17 items regarding knowledge, 15 items under attitude, and 14 items related to practice.

Data Analysis

The qualitative data on the completed survey were collected in Microsoft Excel, where SPSS (version 26) was used to analyse the data. More specifically, all the information was summarized using descriptive statistics to get a broad picture of the data concerning the socio-demographic information; knowledge, attitude, and practice towards COVID-19.

RESULTS AND DISCUSSION

Sociodemographic Background

A total of 2061 respondents are categorized in terms of socio-demographic profiles which includes gender, the state they live in, faculty, and their year of study. Figure 1 shows the percentages of respondents according to the socio-demographic profiles. Females form most respondents in this study with 76% of the total number of respondents. It can also be seen that majority of the respondents live in Selangor (23%) and a small percentage live in either Perlis, Sabah or Sarawak. Most of the respondents are seen coming from the Faculty of Science and Technology (16.6%); while regarding their year of study, most are currently in their third year (30.4%). Students were also asked on questions related to COVID-19 such as the major source they referred to for news on the issue and what activities they did during the MCO period.

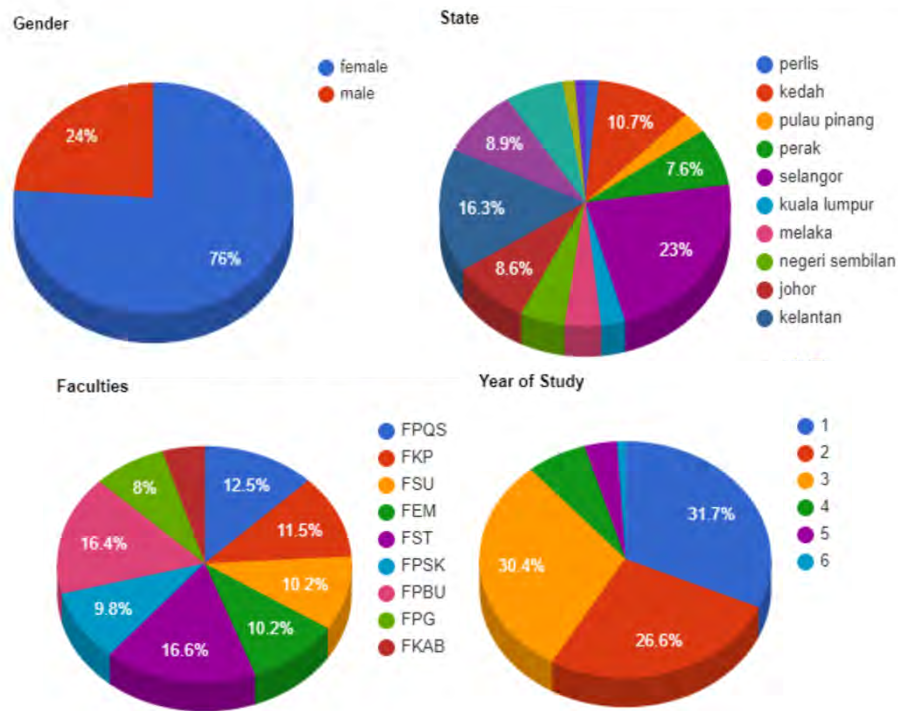


Figure 1 Sociodemographic background of respondents

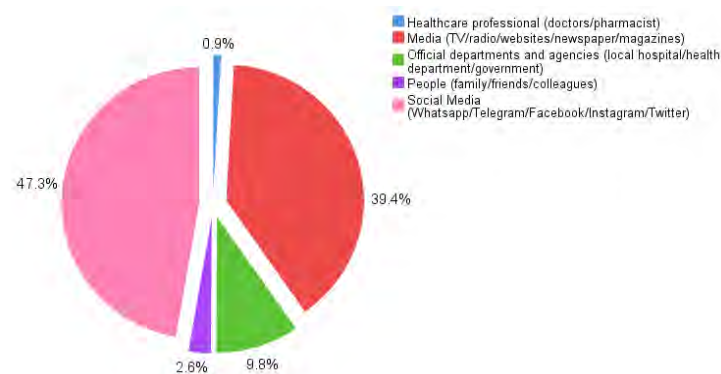


Figure 2 Preferred source of COVID-19 information

Figure 2 shows that the preferred source of COVID-19 information for USIM undergraduate students is social media (including WhatsApp, Telegram, Facebook, Instagram, and Twitter), with 47.3% of the respondents choosing this option. The next largest source is Media, with a total of 39.4%. Choosing Social Media is common among primary news source in some studies as it is the current platform to obtain information.

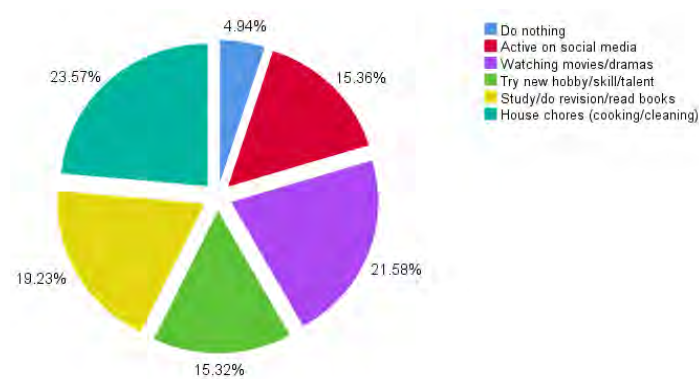


Figure 3 Student's activities during Movement Control Order (MCO)

This is quite consistent with the result in Figure 3, where 15.36% of these respondents spend their time active on social media during the MCO. However, more students involved themselves with house chores (23.57%), watching movies/dramas (21.58%), and study or revise (19.23%) as part of their activities during MCO. Apart from that, students also spent their time trying new hobbies or skills (15.32%).

Knowledge, Attitude and Practice Level

Each of the variables involved has specific items to measure them, as portrayed in Supplementary data (S1). Knowledge (covering basic knowledge of prevention and symptoms), attitude, and practice have 17, 15, and 14 items each. Items in each of the KAP components are added to generate a score for each category. In general, scores of 70%, 35 – 70%, and below 35% denotes 'excellent', 'moderate' and 'poor', respectively. Table 1 shows the details of these variables. Meanwhile, in terms of attitude, the questionnaire covered the acceptance of the participants towards the implementations of orders from the government which include 15 items. A mean score of 73.95 is observed, and it is approximated that 73.8% of USIM students react positively towards COVID-19 with excellent scores, while 26.1% of them have moderate attitude scores. In contrast, practice items comprised of the preventive measures and restrictions applied by the respondents during the pandemic to reduce transmission. A mean score of 67.60 is observed for practice and the result shows that most of the students (54.8%) have moderate practice scores, and 44.9% have excellent practice scores, followed by only 0.3% with poor practice.

Table 1 Number of questionnaire items and levels of knowledge, attitude, and practice regarding COVID-19 among USIM students.

Variables	N	Min	Max	Mean	S.D	Level %, N = 2061		
						Poor	Moderate	Excellent
Knowledge	17	14.71	100.00	80.69	11.43	0.1	14.9	85.0
Attitude	15	33.33	100.00	73.95	9.53	0.0	26.1	73.8
Practice	14	0.00	100.00	67.60	11.49	0.3	54.8	44.9

Knowledge, Attitude and Practice Level across Faculty

Figure 4 illustrates the comparison of knowledge, attitude, and practice in percentages across faculties in USIM. Based on this figure, it is clearly seen that the percentage of knowledge categorized in the ‘excellent’ category is much higher than that of attitude and practice. More specifically, all faculties reached over 80% in terms of knowledge compared to the other two variables. This proves that despite having a good level of knowledge on the matter, the attitude and practice still need much room for improvements. For knowledge, it is observed that the Faculty of Engineering & Built Environment has the most percentage of ‘excellent’ level at 89%, followed by the Faculty of Science and Technology and Faculty of Leadership and Management at 87.39%. Meanwhile, for attitude levels, the Faculty of Leadership and Management make a lead at 79.83 %, followed closely by the Faculty of Quranic and Sunnah Studies at 79.07%. Finally, for practice the Faculty of Medicine and Health Sciences leads at 59.61%, followed by a tie of 50% from the Faculty of Science and Technology and Faculty of Dentistry. Overall, if viewed from the sciences vs. non-sciences stream in faculties, both knowledge and practice are higher in terms of ‘excellent’ levels in the sciences stream compared to non-sciences. However, in terms of attitude, the non-sciences group takes lead with an average of 77.068% compared to the sciences group of 67.48%.

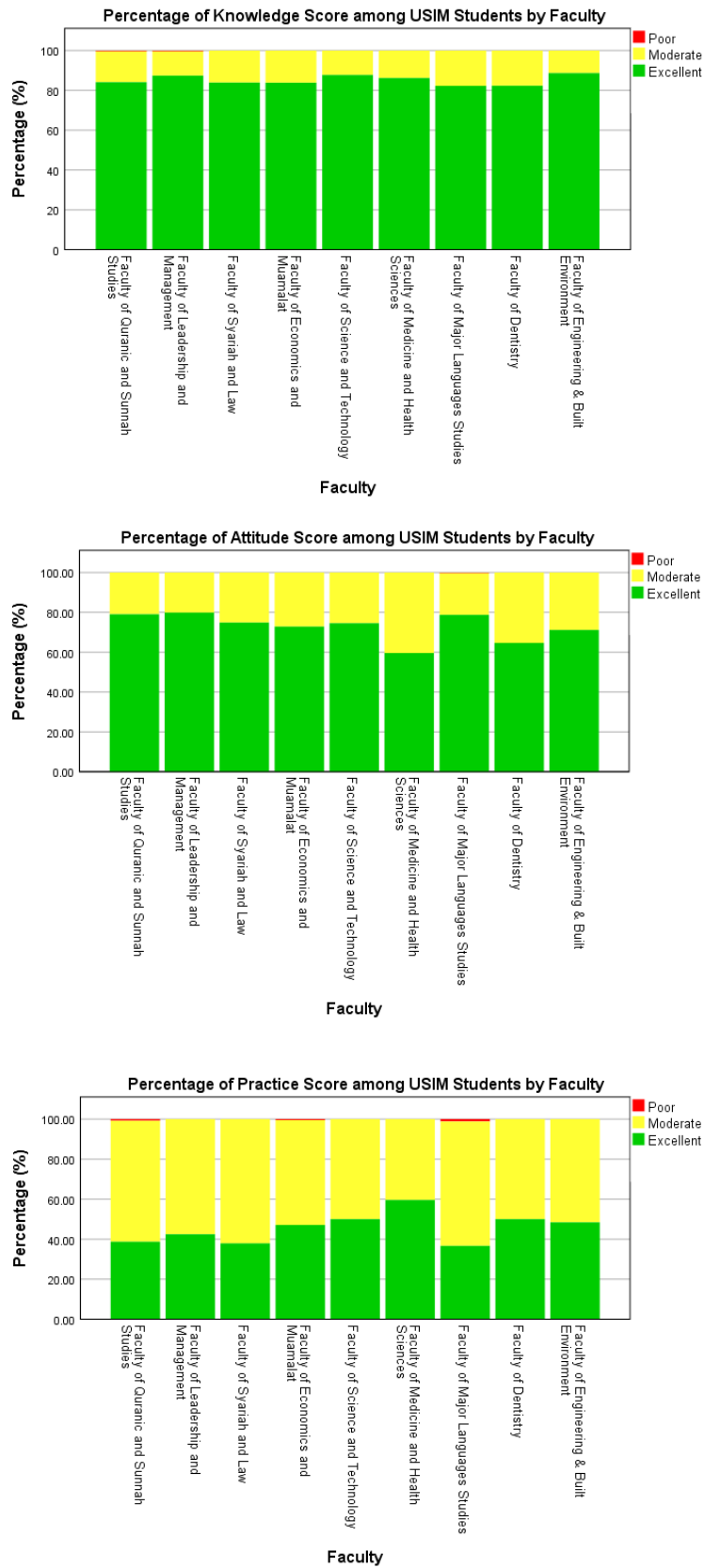


Figure 4 Comparison of Knowledge, Attitude and Practice across Faculties in USIM

CONCLUSION

This study used a quantitative approach to measure the level of knowledge, attitude and practice among students in USIM towards pandemic COVID-19. The questionnaire was distributed and analysed using SPSS. It was discovered that most of the USIM's students have an excellent knowledge and attitude towards COVID-19. However, the practice score is rather low which is very likely due to the unpreparedness to face the critical situation of this pandemic. In other words, it can be said that although students have pretty good level of knowledge on the matter, attitude and practice still have much room for improvements.

REFERENCES

- Bunyan, J. (2020). *PM: Malaysia under movement control order from Wed until March 31, all shops closed except for essential services*. The Malay Mail. Archived from the original on 16 March 2020. Retrieved on 16 March 2020.
- GardaWorld. (2020). *Malaysia: First cases of 2019-nCoV confirmed January 25*. Archived from the original on 18 February 2020. Retrieved on 18 February 2020.
- Kate, Ng. (2020). *Coronavirus: Malaysia cases rise by 190 after mosque event as imams urge online services*. The Independent. Archived from the original on 5 April 2020. Retrieved on 5 April 2020.
- Sipalan, J., Holmes, S. (2020). *Malaysia confirms first cases of coronavirus infection*. Reuters. Archived from the original on 18 February 2020. Retrieved on 18 February 2020.
- Sukumaran, T. (2020). *Coronavirus: Malaysia in partial lockdown from March 18 to limit outbreak*. South China Morning Post. Archived from the original on 16 March 2020. Retrieved on 16 March 2020.
- The Straits Times. (2020). *Coronavirus: Malaysia records eight deaths; 153 new cases bring total to 1,183*. Archived from the original on 5 April 2020. Retrieved on 5 April 2020.
- Wern Jun, Soo. (2020). *Movement control order not a lockdown, says former health minister*. The Malay Mail. Archived from the original on 17 March 2020. Retrieved on 17 March 2020.
- World Health Organization. (2019). *Coronavirus disease (COVID-19) technical guidance: infection prevention and control / WASH*, Coronavirus Dis., Nov. 2019, <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/infection-prevention-and-control>. Retrieved on May 20, 2020.