Knowledge on Covid-19 among Undergraduate Students in Universiti Putra Malaysia

Nurul Samsiah Che Me, Haliza Abdul Rahman, Azrin Shah Abu Bakar

In-Text Citation: (Me et al., 2022)
To Cite this Article: Me, N. S. C., Rahman, H. A., & Bakar, A. S. A. (2022). Knowledge on Covid-19 among Undergraduate Students in Universiti Putra Malaysia. *International Journal of Academic Research in Business and Social Sciences*, *12*(14), 21–28.

Full Terms & Conditions of access and use can be found at
http://hrmars.com/index.php/pages/detail/publication-ethics

Knowledge on Covid-19 among Undergraduate Students in Universiti Putra Malaysia

Nurul Samsiah Che Me[2], Haliza Abdul Rahman[1,2], Azrin Shah Abu Bakar[2]

[1]Institute for Social Science Studies (IPSAS), Putra Infoport, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia, [2]Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia.
Email: dr.haliza@upm.edu.my

Abstract
Since early June 2021, COVID-19 cases in Malaysia reported averagely above than 5000 positive cases a day. Regarding thefluctuate of positive cases, it is important to consider the knowledge on COVID-19 during the pandemic. Undergraduatesstudent population had selected to provide an image of their responses to pandemic. Objective: The aim of this study is to compare the score of the knowledge COVID-19 prevention among students in UPM. Methodology: A cross-sectional survey was conducted from 18 - 28 June 2021. Total of 310 respondents participated in this study, and classified by 3 groups which are health sciences, engineering and social science. Purposive sampling used where the participants have same interest of classified groups. Result and Discussion: A total of 95 (30.6%) respondents are male and 215 (69.4%) are female. The average knowledge score was 10.8 (SD = 1.5, range 0-13). There are significant different of knowledge score on COVID-19 between different group of students. Conclusion: The majority of undergraduate students were knowledgeable of the important facts in pandemic COVID-19.
Keywords: COVID-19, Knowledge, Undergraduates, UPM

Introduction
The COVID-19 pandemic, also known as the coronavirus pandemic, is a global pandemic of COVID-19, caused by severe acute respiratory syndrome coronavirus 2. (SARS-CoV-2). On 11 March 2020, the World Health Organization characterized the spread of COVID-19 as a pandemic, marking the first global pandemic (WHO, 2021).

In Malaysia, until mid-July 2021, the total number of cases had risen between 9,000-13,000 cases per day (Dollah et al., 2022). For young people, and especially for vulnerable youth, the COVID-19 crisis poses considerable risks and disrupts education.
Generally, people had different background potentially effects in delivering information regarding Covid-19 that distributed by ministry while MCO. Azlan et al (2020) reported that although health officials have regularly disseminated COVID-19 information since the

disease's discovery in Malaysia, there has also been an increase in misleading and incorrect material. They also found that the average knowledge score of students were significantly lower than those of other occupation categories and those earning below RM3,000 per month showed significantly lower knowledge scores.

Regarding the fluctuate of positive cases, it is important to consider the public's understanding, tolerance, and reaction to COVID-19 during the epidemic to provide a clear image of the public's responses to curbing the widespread. Thus, the knowledge among youth hold toward the disease play an integral role in determining a society's readiness to accept behavioural change measures from health authorities.

In this study, it is important in determining the knowledge level among students in COVID-19 prevention. University students represent a subset of the youth population and are no exception to this issue pressing needs to live independently. This difference in knowledge levels may be a reflection of the country's present COVID-19 information environment. Findings from the study will also provide insight into managing risk communication among the student that have clearly different background. Therefore, undergraduate's student population from Universiti Putra Malaysia (UPM) had been selected to provide their knowledge on Covid-19 pandemic. According to the Ministry of Higher Education, admission to higher education institutions would continue as previously indicated throughout the execution of the MCO where international tests and professional organizations were permitted on campus (FMT Reporters, 2021). In Universiti Putra Malaysia, it is permitted all final year students to come back to campus in proceeding their learning session. Hence, this study of the knowledge on COVID-19 prevention among health sciences, engineering and social science students in UPM are required to image their clear respond toward the pandemic.

Methodology
This is a cross-sectional study aim to compare the knowledge on COVID-19 prevention. It was conducted at Universiti Putra Malaysia with three differences background of final year students grouped. Population of final year is the best choice because they are also most likely affected as physical class begin the second semester. According to the Ministry of Higher Education, admission to higher education institutions would continue as previously indicated throughout the execution of the MCO where international tests and professional organisations were permitted on campus (FMT Reporters, 2021). In UPM, it is permitted all final year students to come back to campus in proceeding their learning session

In UPM, there are 16 faculties, which include social science (Economics and Management, Computer Science and Information Technology Modern Languages, Agriculture, Forestry and Environment and Educational Studies), engineering (Engineering, Communication Design and Architecture) and health science (Medicine and Health Sciences, Science, Veterinary Medicine, Biotechnology and Biomolecular Sciences, Food Science and Technology). The course details have completely different syllabus that create different background groups. So, this study are focus to compare the knowledge scores between few groups of different study background in UPM. Hence, two faculties from each core of studies were selected from health sciences, engineering and social science and a final year students selected by purposive sampling based their core of studies.

The calculation of the sample size for prevalence of knowledge were based on previous studies conducted in Malaysia by (Azlan et al., 2020). Therefore, the total sample size for this study were310 respondents. An online questionnaire regarding knowledge of COVID-19 were adapted from Azlan et al (2020) as well and will be distributed through sample population respectively. The Cronbach alpha value for the pre-test was 0.7. The questionnaire was composed of the following:

The first part consists of relevant details demographic data such as age, gender, family income, ethnicity and faculty. The second part consists of questions about Covid-19 knowledge. Thirteen questions will be evaluated, and the answer choice was 'yes' or 'no' where the wrong answer 1 score and 0 score was given a correct answer. Table 2 shows of score ranges from 0- 13 points and classified as follows into 3 levels (Azlan et al., 2020):

High level (80-100%)   11-13 scores
Moderate level (60-79%)   8-10 scores
Low levels (less than 59%) 0-7 scores

Approval of the study obtained from Ethics Committee for Research Involving Human Subjects Universiti Putra Malaysia (UPM) with the approval number JKEUPM-2021-20. Next, recorded data from the questionnaire will be evaluated using the Statistical Package for Social Sciences (SPSS) Version 25.

The data analysis was used to summarize and explain the data including descriptive statistics (frequency, percentage, mean, and standard deviation). As the data is not normally, it was then proceed with a non-parametric test of Kruskal Wallis. Kruskal Wallis was used to compare the knowledge score on Covid-19 between groups of selected final year students in Universiti Putra Malaysia.

Result and Discussion
A total of 310 participants participated in the study (Table 1). Out of the total participants, 95 (30.6%) are male and 215 (69.4%) are female. From that, 257 (82.9%) are Malay followed by Chinese 31 (10.0%) and 22 (7.1%) are Indian. For family income, 125 (40.3%) students are come from family who have income range in RM1001-RM3001 per month.

Table 1
Socio-demographic Characteristics of Participants

Socio-demographic characteristics		Number	Percentages (%)
Gender	Male	95	30.6
	Female	215	69.4
Ethnicity	Malay	257	82.9
	Chinese	31	10.0
	Indian	22	7.1
Faculty	Health Sciences	129	41.6
	Engineering	82	26.5
	Social Science	99	31.9
Family Income	Below RM1000	54	17.4
	RM1001 - RM3000	125	40.3
	RM3001 - RM6000	61	19.7
	RM6001 above	70	22.6

A set questions consist of thirteen questions were used to measure knowledge on the COVID-19 virus (Table 2). Out of 13 questions are given to the participants to measure their knowledge regarding COVID-19, 7 questions had reported more than 90% where it indicate in high level of knowledge on COVID-19. The results also indicated that most participants knew that people who had main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and body aches (93.8%) and isolation and treatment of people who are infected with the COVID-19 virus are effective ways to reduce the spread of the virus (95.1%) as well as people who have contact with someone infected with the COVID-19 virus (96.3%). Since participants are come from final year students, it had been showed that students are aware about COVID-19 information. It also consistent with previous study among Sabah student where it revealed they have a solid understanding of COVID-19 and a realistic solution to the outbreak (Fatah et al., 2021) and study among undergraduates in China show that the majority of Chinese undergraduate students have a basic understanding of COVID-19, although their performance may differ according on school type and major (Peng et al., 2020) However, it reported that (37.0%) participants are confused about common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus.

Table 3 show the average knowledge score for participants was 10.8 (SD = 1.5, range 0-13). The overall rate of the knowledge questionnaire had been categorized for high level is 13-11, for moderate level is 10-8 and for low level is 7-0. About 54.5% (169) of participants were able to obtain scores above 11, representing an acceptable level of knowledge on COVID-19. While 44.2% (137) representing the moderate level and 1.3% (4) for low level of knowledge on COVID-19.

Table 2
Knowledge Questions on COVID-19

No.	Question	True	False
1	The main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and body aches	**93.8%**	6.2%
2	Common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus.	37.0%	**63.0%**
3	There currently is no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection	**88.9%**	11.1%
4	Not all persons with COVID-2019 will develop to severe cases. Only those who are elderly and have chronic illnesses are more likely to be severe cases	**82.5%**	17.5%
5	Eating or touching wild animals would result in the infection by the COVID-19 virus	17.5%	**82.5%**
6	Persons with COVID-19 cannot infect the virus to others if they do not have a fever.	2.5%	**97.5%**
7	The COVID-19 virus spreads via respiratory droplets of infected individuals	**85.2%**	14.8%
8	The COVID-19 virus is airborne	**75.3%**	24.7%
9	Ordinary residents can wear face masks to prevent the infection by the COVID-19 virus	**96.3%**	3.7%
10	It is not necessary for children and young adults to take measures to prevent the infection by the COVID-19 virus.	8.6%	**91.4%**
11	To prevent the infection by COVID-19, individuals should avoid going to crowded places and avoid taking public transportations.	**95.1%**	4.9%
12	Isolation and treatment of people who are infected with the COVID-19 virus are effective ways to reduce the spread of the virus.	**95.1%**	4.9%
13	People who have contact with someone infected with the COVID-19 virus should be immediately isolated in a proper place. In general, the isolation period is 14 days.	**96.3%**	3.7%

Table 3
Knowledge Score on COVID-19 of participants

Level of knowledge score	N	(%)
High (13-11)	169	(54.5%)
Moderate (10-8)	137	(44.2%)
Low (7-0)	4	(1.3%)
Total N	**310**	**(100.0%)**

Table 4 shows the Kruskal Wallis was used to to determine the knowledge score between health sciences, engineering, and social science students. Out of 310 participants, they are 129 from health sciences students, 82 from engineering students and 99 from social science students. In this study shows that there is significant different between knowledge score between health science, engineering, and social science students. The median of knowledge score shows in health science and social science students are greater than engineering students. It also indicates that student who have science background tend to have higher median of knowledge score on COVID-19 compared to people who have engineering as study background. Research from China also indicates that medical students demonstrated a high level of knowledge, which might be attributed to their training in clinical medicine and public health (Peng et al., 2020).

Table 4
Compare the knowledge score on COVID-19 between health science, engineering and social science students in Universiti Putra Malaysia

Type of faculty	Number of participants	Knowledge Score (Median/IQR)	Z-statistics	P
Health Sciences	129	11.0 (2)	**30.317**	**0.000**
Engineering	82	10.0 (2)		
Social Science	99	11.0 (1)		

Conclusion
In conclusion, this study revealed the high level on the knowledge among participants. Majority of participants have good knowledge on COVID-19. However, students are confused about common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus. Besides, there is a significant different of knowledge score on COVID-19 between different group participants.

Based on the study findings, it is recommended that the need for more comprehensive education programmes that make decisions based on the consistency of information provided by the university and other authorities. Also, health team and university administrations should play a more active role in educating community of correct information regarding symptoms of flu and COVID-19, the difference between them and recommend appropriate screening and diagnosis, especially person infected on covid-19. Furthermore, COVID-19 education activities should be proactive, focusing on eliminating disinformation in the form of open-ended, and erroneous information. Hopefully, with good knowledge regarding COVID-19 can lessen the contagious virus in future.

References

Azlan, A. A., Hamzah, M. R., Sern, T. J., Ayub, S. H., & Mohamad, E. (2020). Public knowledge, attitudes and practices towards COVID-19: A cross-sectional study in Malaysia. PLOS ONE, 15(5), e0233668. https://doi.org/10.1371/journal.pone.0233668

Dollah, R., Jafar, A., Joko, E. P., Sakke, N., Mapa, M. T. Atang, C., Hung C. V., & George, F. (2022). Perception of youth in East Malaysia (Sabah) towards the Malaysia national covid-19 immunisation programme (PICK). Journal of Public Health and Development, 20 (1), 203-217. https://doi.org/10.55131/jphd/2022/200116

Fatah, N. S. A., Nurhasim, M. F., Kaltes, I. A., Jaafar, A. S. I. A., Amran, I., & Baharum, A. (2021). Awareness KAP on COVID-19 among university students in Sabah. International Journal of Advanced Technology and Engineering Exploration, 8(74), 161–166. https://doi.org/10.19101/ijatee.2020.s1762135

Peng, Y., Pei, C., Zheng, Y., Wang, J., Zhang, K., Zheng, Z., & Zhu, P. (2020). A cross-sectional survey of knowledge, attitude and practice associated with COVID-19 among undergraduate students in China. BMC Public Health, 20(1). https://doi.org/10.1186/s12889-020-09392-z