

KNOWLEDGE AND COMMUNICATION OF INFORMATION DURING COVID 19 OUTBREAK AMONG NATIONAL DEFENCE UNIVERSITY OF MALAYSIA STUDENTS

Rayyan Cheong Tian Ming¹ , Muhammd Nurhazid¹, Nur Haffiza Binti Rahaman¹,
Liley Afzani Binti Saidi¹ and Haslinda Abdullah¹.
¹National Defence University of Malaysia

Abstract

The rapid emergence of the Covid 19 in 2020 has rattled Malaysian students. All of the pupils were perplexed by the instructions and were merely waiting for management to tell them what they needed to do. The purpose of this study was to determine NDUM students' knowledge, and information communication in response to the Covid19 outbreak. This survey received responses from 198 people. In this study, the quantitative method was employed to collect data from the questionnaires that were distributed. In this study, descriptive analysis, Pearson correlation analysis were used. The Statistical Package for Social Science (SPSS) version 23.0 was used to analyse the findings . According to the findings of this research, respondents agreed that knowledge and communication of information are significant aspects in responding to the Covid 19 outbreak. This study also discovered that communication of information have a strong association with how people react to the Covid 19 Outbreak. Knowledge has been proven to be the most significant aspect in responding to the Covid 19 Outbreak. Indeed, this research can help improve the university's knowledge and student management during the Covid 19 Outbreak.

Keywords: Knowledge, Communication, Covid 19, NDUM

1.Introduction

The world is battling a deadly sickness that has taken thousands of lives. A new coronavirus, COVID-19, has put numerous countries on lockdown, halting all human activity. The lack of knowledge regarding the disease's propagation, symptoms, and human immune response has made prevention difficult and problematic. By the end of January 2020, WHO has declared the epidemic a Public Health Emergency of International Concern [1]. In its 24 month, the virus had infected 512,607,587 and killed over 6,240,619 people in 187 nations [2]. Malaysia was not exempted from being affected by the epidemic. The first cases of COVID-19 in Malaysia were discovered on 25 January 2020, when three travellers from China entered the country via Johor after arriving in

Singapore earlier that day [3]. Malaysia, like other nations, enacted the Movement Control Order (MCO) on 18 March 2020 to contain the pandemic. The MCO mandated the closure of all public and private educational institutions[4]. This caused numerous difficulties for the education system and posed substantial difficulties for social workers, educators, and students of social work who work with individuals who are frequently thought weak and rely on close interpersonal assistance.

Combating the coronavirus requires knowledge [5]. Students must understand the epidemic and its impacts to avoid infection. This virus is infectious and lethal. The student should also have a solid communication network so they may live normally despite the movement constraints[6]. This Covid 19 pandemic can be very dangerous, but many students does not care about it because they think the virus is just like a normal flu and it is very hard to spread. Since the disease is still not contagious to them, so they do not have to do anything. When the government MCO's rules have been relaxed, students have started to take the rules for granted and not think about them as much as they used to. In addition, some of the students believe in the information that is being spread through the media without verifying it[7]. Furthermore, [8] stated that some students, especially those who live in rural areas, cannot go about their daily lives by buying or consuming things they need.

This could jeopardise the government's recovery efforts from the coronavirus. There will be numerous problems and consequences if the aforementioned issues continue to exist among students. Students will lose their desire to learn if they are confined for an extended period of time[9,10] and will also lead to mental health issues[11,12] and unhealthy lifestyles because they will be unable to go out or participate in outside activities [13,14,15]during this MCO .Therefore, the objectives of this study are as follow:

- I. To determine the level of students' knowledge during Covid 19 outbreak.
- II. To determine the level of students' communication of information during Covid 19 outbreak.
- III. To determine the relationship between students' knowledge, and communication of information with Covid 19 outbreak.

2.Literature Review

Coronavirus (COVID-19) is an ailment caused by a new coronavirus, presently known as SARS Coronavirus 2. It was initially identified in December 2019 in Wuhan, Hubei Province, China [16]. SARS-CoV-2 is part of a wider family of RNA viruses that cause infections ranging from the common cold to more serious diseases like MERS-CoV and SARS-CoV. [17]. Fever, dry cough, tiredness, myalgia, shortness of breath, and dyspnoea are the major symptoms of COVID-19 [18].The Covid-19 pandemic has had a huge impact on people's lives all around the world. Lockdowns have had a significant impact on businesses, including education, as schools and universities all around the world have been forced to close their campuses, disrupting the learning of millions of students [19].

Knowledge has becomes a valuable asset in every organisations[20,21]. It is now regarded a factor that affects our personal, organisational, and social intelligence[22]. Knowledge is defined as a collection of relevant experiences, pertinent information, and expert insight that provides a framework for gauging and integrating new experiences and information[23,24]. According to the[2], contextual innovation through practise and learning is vital in tackling health challenges in terms of knowledge for the health system. Links to global health knowledge and shared experience are critical for health programmes to function effectively. Evidence suggests that knowledge is critical in combating pandemics [25] Deeper insights into existing public perceptions and practises can be achieved by analysing public awareness and knowledge of the coronavirus, hence assisting in the

identification of traits that affect the public in adopting healthy practises and responsive behaviour [26].

The most effective way to stop the spread of COVID-19 is to feed the public with the right information[27]. There is a lot of misleading information spread regarding Covid19 [28], therefore having a dedicated COVID-19 information portal is critical. Malaysia has its own specialised integrated COVID-19 web portal, national and state-specific helplines, legitimate email ID, and government social hub on WhatsApp, Twitter, Facebook, New Desk Telegram, Instagram, Twitter, LinkedIn, and YouTube. The Government of Malaysia developed the MySejahtera application to notify people about COVID-19 dangers, best practises, and recommendations[29]. The more effective the communication system, the more effective the management and administration[30]. Either formal or informal, communication must adhere to suitable procedures and adhere to ethical standards in order to be effective. Communication of information is learned in order to assist individuals in communicating their thoughts to others[31]. Thus, comprehending communication in social interactions aids the government in resolving the Covid-19 issue[32]

3. Research Methodology

The purpose of this study was to determine NDUM students' knowledge, and information communication in response to the Covid19 outbreak. This study employed a quantitative approach using a set of questionnaires. The selection of respondents was done via probability sampling. All respondents were recruited voluntarily and informed of the objectives of the study. This study involved a sample size of 198 students in NDUM. The questionnaire instrument used consists of five (5) parts namely (i) Part A: Demographics of Respondents, (ii) Part B: Level of Covid 19 outbreak, (iii) Part C: Knowledge, (iv) Part D: Level of communication of information. A five-point Likert scale was used (5 = strongly agree - 1 = strongly disagree). The Statistical Package for Social Science (SPSS) version 23.0 was used to analyse the findings

4. Research Findings and Discussion

The data from Table 1 shows that 71.7 percent of the respondents were male, and 28.3 percent were female. The results of the study found that respondents year 1 of study make up 39.0% (N=97) of the respondent base, followed by respondents who are year 2 of study at 25.8% (N=51), then those student from year 3 of study at 19.7% (N=39), year 4 of study at 4.0% (N=8) and year 5 of study at 1.5% (N=3). The findings reveal that the majority of the respondents are from FPPP which accounts for 32.8% (N=65) of respondents. These results were followed by FSTP at 29.8% (N=59), FKJ at 20.7% (N=41), FPKP at 11.6% (N=23). The findings indicate that less than 10% of the respondents are from Pusat Bahasa.

Table 1: Demographic profile

	Demographic profile	Frequency	Percentages(%)
Gender	Male	142	71.7
	Female	56	28.3
Year of Study	1	97	39.0
	2	51	25.8
	3	39	19.7
	4	8	4.0
	5	3	1.5
Faculty	FPPP	65	32.8
	FSTP	59	29.8
	FKJ	41	20.7
	FPKP	23	11.6
	PUSAT BAHASA	10	5.1
	Total	198	100.0

4.1 Level of students' awareness during Covid19 outbreak.

As demonstrated in Table 2 ,the analysis of students' awareness during Covid 19 outbreak. From the analysis, the researchers found that the highest average value was 4.47 which stated, " I know what is Corona Virus Outbreak". Meanwhile, the lowest item referred to " I know that Corona Virus is spreading rapidly and many deaths are reported " with an average value of 2.82. Overall, the average value of students' level of awareness regarding covid 19 was 3.30 which was at a moderate level.

Table 2 Level of students' awareness during Covid19 outbreak

No	Item	Score Mean	Level
1	I know what is Corona Virus Outbreak	4.47	High
2	I know that Corona Virus is spreading rapidly and many deaths are reported	2.82	Moderate
3	We are all being quarantined because of the Corona Virus Outbreak	3.28	Moderate
4	My organization is seriously taking action to manage Corona Virus Outbreak in the Campus	2.97	Moderate
5	We students are all having online classes only during this outbreak	2.96	Moderate
	Total	3.30	Moderate

4.2 Level of students' knowledge during Covid19 outbreak.

As demonstrated in Table 3 ,the analysis of students' knowledge during Covid 19 outbreak. From the analysis, the researchers found that the highest average value was 3.83 which stated, " I know about the danger and consequences of Corona virus infection ". Meanwhile, the lowest item referred to " I know what to do if I get infected" with an average value of 3.09. Overall, the average value of students' level of awareness regarding covid 19 was 3.33 which was at a moderate level.

Table 3 Level of students' knowledge during Covid19 outbreak

No	Item	Score Mean	Level
1	I am always alert to current issues	3.47	Moderate
2	I know the current rules during this MCO	3.53	Moderate
3	I know about the danger and consequences of Corona virus infection	3.83	High
4	I know about how to take care of my hygiene and my general well-being during this Corona Virus outbreak	3.52	Moderate
5	I know how to manage myself from being infected	3.59	Moderate
6	I know what to do if I get infected	3.09	Moderate
7	I have all the information needed and who to contact should I get infected	3.62	Moderate
	Total	3.33	Moderate

4.3 Level of students' communication of information during Covid19 outbreak.

As demonstrated in Table 4 ,the analysis of students' knowledge during Covid 19 outbreak. From the analysis, the researchers found that the highest average value was 3.83 which stated, " I know about the danger and consequences of Corona virus infection ". Meanwhile, the lowest item referred to " I know what to do if I get infected " with an average value of 3.09. Overall, the average value of students' level of awareness regarding covid 19 was 3.33 which was at a moderate level.

Table 4 Level of students' communication of information during Covid19 outbreak

No	Item	Score Mean	Level
1	We receive all the necessary information regarding the MCO and classes very quickly	3.54	Moderate
2	We receive all the necessary information regarding the MCO and classes on time	2.98	Moderate
3	All policies and procedures regarding MCO and students' movement are communicated to us quickly	3.41	Moderate
4	There is someone available to answer my queries, whenever I need any information related to academic	3.44	Moderate
5	There is someone available to answer my queries, whenever I need any information related to my personal affairs	3.32	Moderate
	Total	3.52	Moderate

4.4 The relationship between students' knowledge and communication of information during Covid19 outbreak.

The relationship between knowledge (X_1) , communication of information(X_2) , and Covid 19 outbreak(Y) , was investigated using Pearson product-moment correlation coefficients (r). By referring to Table 5, the results indicate that for two variables that are knowledge (X_1) and Covid 19 outbreak (Y), the Pearson Correlation coefficient is moderate and significant where $r = 0.638^{**}$ and $P = 0.000$. A positive relation in between these two variables is shown by the Pearson correlation coefficient ($r= 0.638$) and the relationship is also moderate. This result also indicates a significant relationship between knowledge (X_1) and the coronavirus outbreak (Y), at which significant value is 0.000. In addition, the value shows lower than the set alpha value ($P = 0.05$).

This finding is further support in numerous public health sectors where the impact of knowledge on health behaviours has been confirmed [33,34,35].By referring to [36] stating that students must be prepared to deal with the Covid19 outbreak. It is critical to ensure that the coronavirus outbreak among university students always meets the optimum standards. Data analysis has demonstrated that having knowledge about how to combat this pandemic can help to contain or delay the coronavirus

outbreak across the country [37]. Appropriate knowledge not only motivates the people to act, but also enables the right action to be taken.

Besides that, the relationships between communication of information (X₂) and Covid19 outbreak (Y) are illustrate in Table 5. The results indicate that for two variables that are communication of information (X₂) and coronavirus outbreak (Y), the Pearson Correlation coefficient is strongly high and significant where $r = 0.540^{**}$ and $P = 0.000$. A positive relation in between these two variables is shown by the Pearson correlation coefficient ($r= 0.540$) and the relationship is also moderate. This result also indicates a significant relationship between communication of information (X₂) and the coronavirus outbreak (Y), at which significant value is 0.000. In addition, the value shows lower than the set alpha value ($P = 0.05$).

Communication of information is crucial for the people to acquire knowledge and to follow or defy official recommendations[38]. A study discovered that public attention to the media had a critical role in the behavioural modifications necessary to manage swine flu in Saudi Arabia[39]. This is reinforced by [40] that without good communication, gaps will develop for vulnerable people, adding to the difficulties of battling the coronavirus pandemic. Difficulty and attitudes regarding public health communication activities are critical for increasing knowledge and, ultimately, acceptance or rejection of government recommendations. Numerous countries have identified empirical evidence demonstrating the critical role of information in the prevention and control of infectious diseases across a spectrum of diseases, including COVID-19 [41].

Table 5 The Relationship between students' knowledge and communication of information during Covid19 outbreak.

Variables			Y	X ₁	X ₂
Y	Covid 19 outbreak	r	1		
		Sig. (2-tailed)			
X ₁	Knowledge	r	.638**	1	
		Sig. (2-tailed)	.000		
X ₂	Communication of Information	r	.540**	.576**	1
		Sig. (2-tailed)	.000	.000	

5. Conclusion

COVID-19 is a serious developing infectious illness. Given the seriousness of COVID-19, prevention is key to minimising infection rates and containing disease dissemination. In conclusion, the research found that significant findings between knowledge, communication of information, and awareness of Covid 19 are obvious. All variables exhibited a strong correlation. It is widely believed that the most most significant aspect in responding to the Covid 19 Outbreak is through improved student knowledge. For the theoretical and practical contribution, on this study provides the academics and the practitioners a platform for other studies in the same area, specifically in the context of higher education in Malaysia. This study will enlighten practitioners, students and academics who wish to understand more about the importance of knowledge and communication during Covid19 outbreak. The research findings will be used to make recommendations on how to improve the learning process.

References

- [1] World Health Organization. (2020). "2019-NCoV Outbreak is an Emergency of

- International Concern.” World Health Organization
- [2] WHO COVID-19 Dashboard. Geneva: World Health Organization, 2020. Available at <https://covid19.who.int/> (accessed on 28 Apr 2022).
- [3] Pfordten D, Ahmad R. (2020) Covid-19: Current situation in Malaysia. Available at: www.thestar.com.my/news/nation/2020/03/23/covid-19-current-situation-in-malaysia-updated-daily (accessed 22 Apr 2021).
- [4] Azman, N., & Abdullah, D. (2021). A critical analysis of Malaysian Higher Education Institutions’ response towards Covid-19: sustaining academic program delivery. *Journal of Sustainability Science and Management*, 16(1), 70-96.
- [5] Ranjan, R., & Ranjan, G. K. (2020). Knowledge regarding prevention of novel coronavirus (COVID-19): an electronic cross-sectional survey among selected rural community. *Int J Trend Sci Res Dev*, 4(3), 422-6.
- [6] Jeffery, K. A., & Bauer, C. F. (2020). Students’ responses to emergency remote online teaching reveal critical factors for all teaching. *Journal of Chemical Education*, 97(9), 2472-2485.
- [7] Brindha, D., Jayaseelan, R., & Kadeswaran, S. (2020). Social media reigned by information or misinformation about COVID-19: a phenomenological study.
- [8] Banati, P., Jones, N., & Youssef, S. (2020). Intersecting vulnerabilities: The impacts of COVID-19 on the psycho-emotional lives of young people in low-and middle-income countries. *The European Journal of Development Research*, 32(5), 1613-1638.
- [9] Iivari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital transformation of everyday life—How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care?. *International Journal of Information Management*, 55, 102183.
- [10] Martinez-Garcia, M., Rabasa, A., Barber, X., Polotskaya, K., Roomp, K., & Oliver, N. (2021). Key factors affecting people’s unwillingness to be confined during the COVID-19 pandemic in Spain: A large-scale population study. *Scientific reports*, 11(1), 1-18.
- [11] Pfefferbaum, B., & North, C. S. (2020). Mental health and the Covid-19 pandemic. *New England Journal of Medicine*, 383(6), 510-512.
- [12] Usher, K., Durkin, J., & Bhullar, N. (2020). The COVID-19 pandemic and mental health impacts. *International journal of mental health nursing*, 29(3), 315.
- [13] Palmer, K., Monaco, A., Kivipelto, M., Onder, G., Maggi, S., Michel, J. P., ... & Donde, S. (2020). The potential long-term impact of the COVID-19 outbreak on patients with non-communicable diseases in Europe: consequences for healthy ageing. *Aging clinical and experimental research*, 32(7), 1189-1194.
- [14] Mattioli, A. V., Ballerini Puviani, M., Nasi, M., & Farinetti, A. (2020). COVID-19 pandemic: the effects of quarantine on cardiovascular risk. *European journal of clinical nutrition*, 74(6), 852-855.
- [15] Mattioli, A. V., Sciomer, S., Cocchi, C., Maffei, S., & Gallina, S. (2020). Quarantine during COVID-19 outbreak: Changes in diet and physical activity increase the risk of cardiovascular disease. *Nutrition, Metabolism and Cardiovascular Diseases*, 30(9), 1409-1417.
- [16] Wu F, Zhao S, Yu B, Chen Y-M, Wang W, Song Z-G, et al. A new coronavirus associated with human respiratory disease in China. *Nature*. (2020) 579:265–9. doi: 10.1038/s41586-020-2008-3
- [17] Zhou P, Yang X-L, Wang X-G, Hu B, Zhang L, Zhang W, et al. A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature*. (2020) 579:270–3. doi: 10.1038/s41586-020-2012-7

- [18] Çalica Utku, A., Budak, G., Karabay, O., Güçlü, E., Okan, H. D., & Vatan, A. (2020). Main symptoms in patients presenting in the COVID-19 period. *Scottish Medical Journal*, 65(4), 127-132.
- [19] Onyema, E. M., Eucheria, N. C., Obafemi, F. A., Sen, S., Atonye, F. G., Sharma, A., & Alsayed, A. O. (2020). Impact of Coronavirus pandemic on education. *Journal of Education and Practice*, 11(13), 108-121.
- [20] Omotayo, F. O. (2015). Knowledge Management as an important tool in Organisational Management: A Review of Literature. *Library Philosophy and Practice*, 1(2015), 1-23.
- [21] Brown, J. S., & Duguid, P. (1998). Organizing knowledge. *California management review*, 40(3), 90-111.
- [22] Narkulov, S. D., Sadullaevna, A. F., & Umarova, F. S. (2019). The impact of the process of civil society development of the creative feature of social intellect.
- [23] Mohajan, H. K. (2016). Knowledge is an essential element at present world. *International Journal of Publication and Social Studies*, 1(1), 31-53.
- [24] Cross, R., Parker, A., Prusak, L., & Borgatti, S. P. (2003). Knowing what we know. *Networks in the knowledge economy*, 208.
- [25] Desalegn, Z., Deyessa, N., Teka, B., Shiferaw, W., Hailemariam, D., Addissie, A., ... & Abebe, T. (2021). COVID-19 and the public response: Knowledge, attitude and practice of the public in mitigating the pandemic in Addis Ababa, Ethiopia. *PLoS One*, 16(1), e0244780.
- [26] Podder, D., Paul, B., Dasgupta, A., Bandyopadhyay, L., Pal, A., & Roy, S. (2019). Community perception and risk reduction practices toward malaria and dengue: A mixed-method study in slums of Chetla, Kolkata. *Indian journal of public health*, 63(3), 178.
- [27] Xiao, Y., & Torok, M. E. (2020). Taking the right measures to control COVID-19. *The Lancet Infectious Diseases*, 20(5), 523-524.
- [28] Elhadad, M. K., Li, K. F., & Gebali, F. (2020). Detecting misleading information on COVID-19. *Ieee Access*, 8, 165201-165215.
- [29] Muhamad Khair, N. K., Lee, K. E., & Mokhtar, M. (2021). Community-Based Monitoring in the New Normal: A Strategy for Tackling the COVID-19 Pandemic in Malaysia. *International journal of environmental research and public health*, 18(13), 6712.
- [30] Ibrahim, N., Liaw, J. O. H., Singh, I. S. T., Ming, R. C. T., MohdZainol, N. A., Yaacob, S., & Hamid, A. H. M. N. (2021). PERCEPTION AND COMMUNICATION IN MANAGING PANDEMIC COVID 19 AMONG ROYAL MALAY REGIMENT. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(14), 5709-5713.
- [31] Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *The international journal of human resource management*, 16(5), 720-735.
- [32] Masngut, N., & Mohamad, E. (2021). Association between public opinion and Malaysian government communication strategies about the COVID-19 crisis: content analysis of image repair strategies in social media. *Journal of medical Internet research*, 23(8), e28074.
- [33] Kosiba, G., Gacek, M., Wojtowicz, A., & Majer, M. (2019). Level of knowledge regarding health as well as health education and pro-health behaviours among students of physical education and other teaching specialisations. *Baltic Journal of Health and Physical Activity*, 11(1), 9.
- [34] Lee, M., Kang, B. A., & You, M. (2021). Knowledge, attitudes, and practices (KAP) toward COVID-19: a cross-sectional study in South Korea. *BMC Public Health*, 21(1), 1-10.
- [35] Suhrcke, M., & de Paz Nieves, C. (2011). *The impact of health and health behaviours on educational outcomes in high-income countries: a review of the evidence*. World Health Organization. Regional Office for Europe.

- [36] Yusuf, B. N., & Ahmad, J. (2020). Are we prepared enough? A case study of challenges in online learning in a private higher learning institution during the Covid-19 outbreaks. *Advances in Social Sciences Research Journal*, 7(5), 205-212.
- [37] Elledge, B. L., Brand, M., Regens, J. L., & Boatright, D. T. (2008). Implications of public understanding of avian influenza for fostering effective risk communication. *Health promotion practice*, 9(4_suppl), 54S-59S.
- [38] Ning, L., Niu, J., Bi, X., Yang, C., Liu, Z., Wu, Q., ... & Liu, C. (2020). The impacts of knowledge, risk perception, emotion and information on citizens' protective behaviors during the outbreak of COVID-19: a cross-sectional study in China. *BMC public health*, 20(1), 1-12.
- [39] Balkhy, H. H., Abolfotouh, M. A., Al-Hathloul, R. H., & Al-Jumah, M. A. (2010). Awareness, attitudes, and practices related to the swine influenza pandemic among the Saudi public. *BMC infectious diseases*, 10(1), 1-7.
- [40] Pfeffer, J., & Sutton, R. I. (1999). Knowing "what" to do is not enough: Turning knowledge into action. *California management review*, 42(1), 83-108.
- [41] Reddy, B. V., & Gupta, A. (2020). Importance of effective communication during COVID-19 infodemic. *Journal of Family Medicine and Primary Care*, 9(8), 3793.