The Relationship Between Knowledge Levels About Covid-19 and Compliance with the 5M Program in Reducing the Spread of Covid-19 Among Students of the Medica Farma Husada Polytechnic Mataram

Baharuddin Condeng[1(✉)], Syamsurianyah Syamsurianyah[2], Azizah Saleh[1], and Jihadil Qudsi[2]

[1] Politeknik Kesehatan Kementerian Kesehatan, Palu, Indonesia
baharuddincondeng@gmail.com
[2] Politeknik Medica Farma Husada, Mataram, Indonesia

Abstract. Since the beginning of 2020, the Covid-19 pandemic has captured the attention of the whole world. Infectious diseases that are included in this global category, have a fairly fast transmission speed. After the lockdown program, the government launched the 5M (in bahasa) program, namely washing hands with soap and running water, wearing masks, maintaining distance, staying away from crowds, and reducing mobilization. The sample used was 85 students spread over 6 study programs. Data was collected by distributing knowledge and compliance questionnaires via google form. Data analysis was performed with SPSS software. It was found that the level of knowledge of boarding students about Covid-19 was in the good category with an average percentage of 64.4% . The level of student compliance is in the high category with an average score of 54.7. The significance value (p-value) is 0.018 which is smaller than the alpha value of 0.05. Thus, it can be concluded that there is a relationship between the level of knowledge about Covid-19 and student compliance with the 5M program.

Keywords: Covid-19 · Spread of Covid-19 · Student Compliance · 5M Program

1 Introduction

Since the beginning of 2020, the Covid-19 pandemic has captured the attention of the whole world. Infectious diseases that are included in this global category, have a fairly fast transmission speed. In just 3 months since the first case was discovered in Wuhan, China (the first case of the Covid-19 patient was found in December 2019), the Covid-19 virus had arrived in Indonesia. Almost all countries around the world have been affected by the Covid-19 virus. Not only the direct virus but the impact of Covid-19 was felt by all countries [1].

The rapid spread of Covid-19 caused chaos in every country. Entry and exit closures are enforced by each country. No country wants to take the risk of the rapid spread of

S. Syamsuriansyah et al. (Eds.): ICoMTech 2021, AHSR 51, pp. 130–137, 2023.
https://doi.org/10.2991/978-94-6463-018-3_17

the COVID-19 virus. Likewise with the Indonesian state which closed access to enter the territory of the Indonesian state. Although access between regions is still open, the implementation of a very strict protocol for Indonesian citizens who want to mobilize between regions.

Based on the research of Syafrida and Hartati [2], very fast transmission comes from droplets that come from the mouth, nose of the patient when coughing, sneezing or talking to people around him.

Since the first case in Indonesia, the government has tried to take various measures so that the Covid-19 disease does not spread throughout Indonesia. Like the lockdown program implemented by almost all countries in the world. The lockdown program is intended to limit community mobilization so that the spread of Covid-19 caused by community mobilization can be suppressed. In the early days of the spread of Covid-19, the lockdown program was indeed a powerful weapon in preventing the spread of Covid-19. But over time, people are tired of the stay at home that is enforced. Because humans are creatures who like to interact with each other [3].

After the government's lockdown program launched the 3M program, namely 1) washing hands with soap and running water, it aims to clean hands regularly and thoroughly with an alcohol-based antiseptic or wash with soap and water. Washing hands with soap and water or using an alcohol-based antiseptic can kill viruses that may be on the hands [4]. 2) Wear a mask, it is expected to cover the mouth and nose with a mask both when talking and when sneezing, this aims to avoid inhaling Covid-19 virus droplets if the person has a disease [5]. Finally 3) maintain a distance i.e. maintain a distance of at least 1 m (3 ft) so that when someone coughs, sneezes, or talks, they spray small liquid droplets from their nose or mouth that may contain viruses [6].

The 3M program is quite effective in preventing the spread of Covid-19 because it can be applied by the community when outside the home. Because the 3M program is already quite effective, the government has added it to the 5M program, apart from those from 3M (washing hands with soap and running water, wearing masks and maintaining distance) as well as avoiding crowds and reducing mobilization. Staying away from crowds is intended to prevent people from gathering to carry out activities, while the goal is to reduce mobilization due to the high desire of the community to travel back to their respective areas which cannot be done during the lockdown program.

The Covid-19 which is taking the world by storm, including Indonesia, can spread to anyone and anywhere. Likewise, the Mataram City area where the Medica Farma Husada Polytechnic is located. To be able to comply with the 5M program, all levels of society, including students, must have complete knowledge about Covid-19 and comply with all program instructions launched by the government so as to prevent the spread of Covid-19 can be implemented [7].

2 Research Methods

The data used are cross sectional data. The population is all students at the Medica Farma Husada Mataram Polytechnic, totaling 570 students, with a significance level of 10%, using the Slovin formula, so the minimum number of samples is 85 students. The sampling technique used non-probability sampling method, convenience sampling.

Students who were selected as samples were students who were willing and able to fill out online questionnaires via google form. The contents of the online questionnaire consist of two main points, the first part is to get the level of student knowledge about Covid-19, as many as 20 questions in the form of questions with true or false choices, which include: understanding Covid-19, causes, signs and symptoms, prevention and treatment [8]. If the respondent's answer is correct then it is given a value of one (1) and if it is wrong it is given a value of zero (0). The second part is to identify the level of compliance with the 5M program as many as 8 questions. The questions asked are in accordance with the 5M program issued by the government. Respondents were asked to answer yes or no. Respondents' answers that show compliance are given a value of 1 while those who indicate non-compliance are given a value of 0.

The validity and reliability of the questionnaire have been tested with the results of all valid statement items (p_value below 5% error) and proven reliable with a Chronbach alpha value of 0.849 (greater than the reliable limit of 0.6). Data collection was carried out at the Medica Farma Husada Mataram Polytechnic on Jalan Medica Farma no 1, Sekarbela District, Mataram City, West Nusa Tenggara in March 2022. Data analysis was carried out descriptively and chi-square test to analyze the relationship between knowledge and compliance with the help of the SPSS program.

3 Result and Discussion

A total of 85 respondents gave answers in this study. All respondents are students at the Medica Farma Husada Mataram Polytechnic campus from various majors and batches. All respondents filled out the questionnaire completely so that none of the respondents' answers needed to be eliminated. Table 1 provides an overview of the characteristics of respondents by gender and study program.

Table 1 explains that based on the gender of the respondents, there are more female respondents (55.3%) than male respondents (44.7%). Meanwhile, based on the study program, respondents in the Pharmacy were 26 (30.6%) respondents, respondents in

Table 1. Description of Respondents Characteristics.

Variable		n	%
Gender	Man	38	44,7
	Woman	47	55,3
Total		85	100
Study Program	Pharmacy	26	30,6
	Medical Laboratory Technology	29	34,1
	Medical Records and Health Information	23	27,1
	Statistics	2	2,4
	Software Engineering Technology	5	5,9
Total		85	100

the Medical Laboratory Technology were 29 (34.1%) respondents, respondents in the Medical Record and Health Information as many as 23 (27.1%) respondents, and the rest in Statistics as many as 2 (2.4%) respondents, and Software Engineering Technology as many as 5 (5.9%) respondents.

To determine the respondent's level of knowledge about Covid-19, a descriptive analysis was carried out based on the score of the level of knowledge ranging from poor knowledge to good knowledge [9].

Table 2 explains that the level of knowledge of respondents about COVID-19 varies. There are 15 (17.6%) respondents who have a level of knowledge in the "less" category. Respondents with the level of the "enough" category were 23 (27.1%) respondents. Meanwhile, the most respondents were respondents with "good" knowledge category as many as 47 (55.3%) respondents.

In analyzing the level of respondents' compliance with the 5M program, a descriptive analysis was also carried out, which is presented in Table 3. The average level of respondents' compliance with the 5M program is in the high level category with a percentage of 64.4%. So it can be concluded that most of the students at the Medica Farma Husada Polytechnic adhere to and run the 5M program well.

Table 3 also explains that of the 8 statements submitted to respondents, there are 3 statements with the highest level of "compliance" category which has a percentage above 80%. First on the statement "I always prepare a mask at home", which has the highest percentage of the "compliance" category with a percentage of 95.3%. The two statements "I am obliged to implement 5M when outside the home" with a percentage of 84.7%. The three statements "I always pay attention and apply health protocols wherever I am" with a percentage of 81.2%.

In addition, the statement with the lowest percentage in the "low" category is also explained. The statement "I am obliged to implement 5M at home" with a percentage of 28.2%. For other statements are in the "medium" category.

To find out whether there is a significant relationship between the level of knowledge about Covid-19 and adherence to the 5M program, a bivariate correlation test was carried out with the Chi-Square test.

Table 4 shows the p_value of 0.018. This value is smaller than 0.05, so it was decided that there is a significant relationship between the level of knowledge about Covid-19 and adherence to the 5M program.

Table 2. Analysis of Students' Knowledge Levels.

Knowledge Level	Frekuensi	%
Not Enough	15	17,6
Enough	23	27,1
Good	47	55,3
Total	85	100

Percentage level of knowledge: <70% = poor, 70–79% = enough, 80–89% = good, and 90–100% = very good.

Table 3. Level of Student Compliance with the 5M Program.

No	Statement	Obey		Not Obey	
		n	%	n	%
1	I believe that implementing 5M is a safe and effective way to control COVID-19	37	43,5	48	56,5
2	I believe that the implementation of 5M can reduce transmission (transmission) and reduce morbidity and mortality due to COVID-19	51	60,0	34	40,0
3	I am obliged to do 5M at home	24	28,2	61	71,8
4	I am obliged to implement 5M when outside the house	72	84,7	13	15,3
5	I always pay attention and apply health protocols wherever I am	69	81,2	16	18,8
6	I am looking for the 5M program to get education (both from health workers and seeking information on my own) regarding the obligation to implement 5M	56	65,9	29	34,1
7	I am sure that the implementation of the 5M implementation program in Indonesia has been carried out well	48	56,5	37	43,5
8	I always prepare a mask at home	81	95,3	4	4,7
Average		54,75	64,4	30,25	35,6

Compliance percentages: 0–19.9 very low, 20–39.9 low, 40–59.9-moderate, 60–79.9 high, and 80–100 very high.

Table 4. Chi-Square Test Results Knowledge Level of Student Compliance.

Analysis	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2	0,018

In an effort to prevent and break the chain of the spread of Covid-19, it begins with good knowledge and understanding of Covid-19. Based on knowledge and understanding, behavior will be formed in responding to something [10]. Likewise, to respond to Covid-19, the right behavior will break the chain of spread of Covid-19, at least it will reduce the spread in the environment itself.

The government with the 5M program is trying to reduce the spread of COVID-19. The lockdown program that was once implemented by the government could no longer be implemented in this one year, therefore the government launched the 5M program. So that people can socialize with the environment but still keep the spread of COVID-19 from spreading again.

In Table 2 which explains the level of students' knowledge of Covid-19, more than 50% of students have "good" knowledge. The rest are at "enough" and "less" levels. This concludes that students already understand information about COVID-19. This is because currently knowledge about Covid-19 can be obtained easily both offline and online [11].

Knowledge and compliance have a positive relationship [12]. The term compliance used is to describe behavior [5]. In this case the behavior of students in implementing the 5M program.

The results of the data analysis in Table 3 show that there are 3 statements with a "high" compliance level category, namely the statement "I always prepare masks at home", this means that students have preparations in responding to the spread of covid-19. Masks are the initial and simplest protection in preventing the spread of COVID-19. Masks are sold freely in pharmacies and in minimarkets. So that the use of masks is an obligation for people who leave the house.

The second highest statement "I am obliged to implement 5M when outside the home" confirms the student's commitment to preventing the spread of Covid-19. The implementation of 5M when outside the home is a community obligation. Especially when crowding, the application of 5M becomes a protector in tackling the spread of Covid-19.

The third highest statement "I always pay attention and apply health protocols wherever I am", is almost the same as the second statement, but health protocols are the most complete part in preventing the spread of Covid-19. So by implementing this, it means that students are highly committed to preventing the spread of Covid-19. In addition to statements with an answer in the "high" category, there are also statements in the "low" category, namely the statement "I am obliged to implement 5M at home". This means that students at home do not carry out 5M because students do not feel threatened by the spread of Covid-19 if they are in their own homes.

After analyzing the Chi-Square test, it was concluded that there was a relationship between the students' level of knowledge and the students' compliance with running the 5M program. These results are in line with the research of F. L. Mustofa et al., [12], but not in line with research Saputra & Simbolon [13]. The level of knowledge is indeed the basis for taking a behavior such as obedience in carrying out something. The higher the knowledge obtained, the more appropriate the attitude will be.

4 Conclusion

Based on the results of the study, the conclusion was that the students of the Medica Farma Husada Polytechnic had knowledge of Covid-19 in the "good" category. The average level of compliance is in the "high" category, and based on the results of the test of the relationship between the level of knowledge and compliance, it shows that there is a relationship between the level of knowledge and student compliance.

Acknowledgment. Thank you to Polytechnic Medica Farma Husada Mataram for giving permission to researchers to carry out research there, and thank you also to students who have filled out this research questionnaire.

References

1. WHO, Medical Records Manual: A Guide for Developing Countries. Manila: Pacific Regional Publications, 2006.
2. R. Hartati and S. Syafrida, "Bersama Melawan Virus Covid-19 di Indonesia," 2020.
3. Y. Herlambang, "Participatory Culture dalam Komunitas Online sebagai Representasi Kebutuhan Manusia," J. Teknol. Inf. dan Komun., vol. 2, no. 1, pp. 61–71, 2014.
4. Z. Zahrotunnimah, "Langkah taktis pemerintah daerah dalam pencegahan penyebaran virus Corona Covid-19 di Indonesia," SALAM J. Sos. Dan Budaya Syar-I, vol. 7, no. 3, pp. 247–260, 2020.
5. M. D. Wahyudi, E. Z. Zatihulwani, and others, "Hubungan Tingkat Pengetahuan Masyarakat Tentang Covid-19 Dengan Kepatuhan Pelaksanaan Protokol Kesehatan Di Desa Gempolmanis Kecamatan Sambeng Kabupaten Lamongan," PRIMA WIYATA Heal., vol. 2, no. 2, pp. 28–37, 2021.
6. I. Purnamasari and A. E. Raharyani, "Tingkat pengetahuan dan perilaku masyarakat Kabupaten Wonosobo tentang Covid-19," J. Ilm. Kesehat., vol. 10, no. 1, pp. 33–42, 2020.
7. S. Notoatmodjo, "Kesehatan masyarakat ilmu dan seni," 2011.
8. R. Katharina, "Relasi Pemerintah Pusat-Pemerintah Daerah Dalam Penanganan COVID-19," Info Singk., vol. 12, no. 5, pp. 25–30, 2020.
9. S. Arikunto, "Metode peneltian." Jakarta: Rineka Cipta, 2010.
10. J. D. T. Donsu, "Psikologi Keperawatan; Aspek-aspek Psikologi.", Yogyakata: Pustaka Baru Press, 2017.
11. A. Mustofa and N. Suhartatik, "Meningkatkan Imunitas Tubuh Dalam Menghadapi Pandemi Covid-19 Di Karangtaruna Kedunggupit, Sidoharjo, Wonogiri, Jawa Tengah," SELAPARANG J. Pengabdi. Masy. Berkemajuan, vol. 4, no. 1, pp. 317–323, 2020.
12. F. L. Mustofa, I. Husna, M. Anggraini, and R. A. Putra, "Hubungan Tingkat Pengetahuan dan Sikap Masyarakat Terhadap Kepatuhan Penerapan 3M Dalam Rangka Pencegahan Covid-19 di RT 11 RW 12 Jatinegara Jakarta Timur," J. Med. Malahayati, vol. 5, no. 2, pp. 102–108, 2021.
13. A. W. Saputra and I. Simbolon, "Hubungan tingkat pengetahuan tentang COVID-19 terhadap kepatuhan program lockdown untuk mengurangi penyebaran Covid-19 di kalangan mahasiswa berasrama Universitas Advent Indonesia," Nutr. J., vol. 4, no. 2, pp. 1–7, 2020.