

THE IMPORTANCE OF KNOWLEDGE ABOUT HEALTH PROTOCOLS FOR THE PREVENTION OF COVID-19 TRANSMISSION IN NON-MEDICAL STUDENTS OF SURABAYA, INDONESIA

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ABSTRACT

Lack of public compliance with the implementation of health protocol activities in daily life has resulted in increased cases of Covid-19 in Indonesia, so the government issued the latest policy regarding the health protocol, namely 6M, which consists of wearing masks, maintaining hand hygiene, maintaining distance, reducing mobility, staying away from crowds, and avoid eating together. This study aims to educate and make the public more aware of the importance of health protocols during the Covid-19 pandemic. This research used total sampling method. The target of the counseling was non-medical students in Surabaya who took part in Covid-19 educational counseling by filling out complete pre-test and post-test questions. The results obtained were an increase in the average score (17.26 points) on tests filled before and after the educational presentation of health protocols with a value of $p < 0.001$ ($p < 0.05$), and 34 of them showed higher post-test scores. From the data that obtained from 92 samples, there was an increase and significant difference in knowledge about 6M health protocols after an online educational presentation given to non-medical students in Surabaya as evidenced by the increase in average score between pre-test and post-test.

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INTRODUCTION

Coronavirus disease (Covid-19) was an infectious disease caused by the newly discovered coronavirus. Most people infected with the Covid-19 virus experience mild to moderate respiratory illness and recover without requiring special treatment¹. In a study conducted by Burhan, it was found that the mortality rate reached 2-3%². However, the death toll could not be ascertained because the data were still growing. When compared to Severe Acute Respiratory Syndrome (SARS) and Middle

East Respiratory Syndrome (MERS), which were extraordinary events that were also caused by different types of coronavirus, the mortality rate from Covid-19 tended to be lower as compared to SARS mortality rate of 10% and MERS 37%². So, the public does not to be panic, but should remain vigilant by taking precautions in accordance with the recommendations set by the government³. The best way to prevent and reduce transmission is to be well-informed about Covid-19, the disease it causes, and how it spreads. One way to

protect oneself is by washing hands frequently or using antiseptic liquids and not touching the face¹.

The spread of Covid-19 has succeeded in infecting hundreds of millions of people in the world in a short time⁴. Indonesia is one of the countries affected by Covid-19 with a fairly high number of confirmed cases. Until July 24, 2021, there were 3,127,826 million total Covid-19 cases. With the high number of cases, the public was encouraged to adopt a healthy lifestyle according to health protocols to anticipate the increase in the spread and number of infections during the Corona virus pandemic⁵. Based on the Ministry of Health, the established guidelines for preventing and controlling Covid-19 in the community included physical distancing, maintaining hand hygiene, coughing/sneezing etiquette, wearing masks, limiting activities outside the home, considering large-scale social restrictions (PSBB), ensuring access to hand hygiene in front of the community, building public facilities and transportation centers by setting up hand washing facilities⁶. A study by Pinasti et al. found that not a few people only knew a part of the health protocol⁵. In a study conducted by Saputro et al. about public knowledge on health protocols, it was found that 23.1% of people knew about the use of masks, 21.5% knew about washing hands using running water and soap, 14.5% knew about clean hands with hand sanitizer, and 20% knew for physical distancing⁷. So it can be interpreted that the understanding of health protocols as a whole has not been optimal in the community⁸.

Then, with the addition of positive cases, according to the Special Staff of the Minister of Health for the Improvement of Health Human Resources, Dr. Mariya Mubarika, it indicated that the transmission

of the Covid-19 virus was still happening due to the fact that health protocols was still being violated⁶. In reality, in everyday life there were still many people who did not obey health protocols, such as using masks inappropriately, not doing physical distancing, staying out of the house even though it is not an urgent problem and still lack of personal hygiene. So, the government issued the latest 6M policy, namely wearing masks, maintaining hand hygiene, maintaining distance, reducing mobility, staying away from crowds, and avoiding eating together. This was an effort by the government to prevent and control the spread of Covid-19 due to an increasingly uncontrolled spike in the cases.

Therefore, we conducted online counseling activities by taking the topic of the importance of implementing the 6M health protocol which consists of wearing masks, maintaining hand hygiene, maintaining distance, reducing mobility, staying away from crowds, avoiding crowds, and eating together. This activity is one of the supports to help the government in preventing and controlling the spread of Covid-19 in Indonesia. By educating and making the public aware of the importance of the health protocol, so that the public could improve their compliance to the Covid-19 health protocol when carrying out daily activities.

MATERIALS AND METHODS

The online education counseling activity was started by obtained permits and approval on the time of its implementation, then information dissemination through Instagram social media was carried out to attract respondents who might be interested to take part in Covid-19 online education counseling. The target of the counseling in

this activity was non-medical students in Surabaya who took part in the Covid-19 educational counseling activity with the condition that they must fill out the pretest and posttest questions completely. This activity was in the form of online counseling through Zoom application with material on the importance of implementing the 6M Health protocol in preventing and controlling the spread of Covid-19 in Indonesia. At the beginning of the counseling, pretest questions were given and at the end of the counseling posttest questions must be filled out completely by the respondent which were used as data in this study. This study used a total sampling method, with 92 samples of respondents who were included in the research sample criteria. The research instrument consisted of 8 questions that had been tested for validation and reliability, then the instrument was sent online during outreach activities through Zoom application and filled in online as well. Then, the data obtained were processed using the Wilcoxon Signed Rank Test statistical analysis program with p-value <0.05. The data were considered statistically significant between before and after the intervention.

RESULTS

From Table 1, it can be seen that the pre-test score was dominated by the score of 31-70 (54.3%), while the post-test score was dominated by the score of 71-100 (57.6%). From Table 2, it can be seen that the total score of pre-test was 5000 with 54.34 in average. Meanwhile the post-test total score was 6587.5 with 71.60 in average. So, it can be concluded that there was an increase of 17.26 points average score between pre-test and post-test.

Table 1. Distributions of Pre-Test and Post-Test Scores

Category	Pre-Test		Post-Test	
	f	%	f	%
Score 0–30	14	15.2	8	8.7
Score 31–70	50	54.3	31	33.7
Score 71–100	28	30.5	53	57.6
Total	92	100	92	100

Table 2. Average of Pre-Test and Post-Test Scores

Category	Total Score	Average Score
Pre-Test	5000	54.34
Post-Test	6587.5	71.60

Table 3. Test Results Difference between Pre-Test and Post-Test Scores

Category	Respondent		P
	f	%	
Post Test Score < Pre Test Score	4	4.3	0.000*
Post Test Score > Pre Test Score	34	37	
Post Test Score = Pre Test Score	54	58.7	
Total	92	100	

*Significant level at p<0.05

From Table 3, there are four respondents who have a lower post-test than the pre-test score and 54 respondents have the same score between the two. Only 34 respondents were able to get a post-test score higher than a pre-test score. The results of the different tests conducted using the Wilcoxon Signed Rank Test showed a significant value of p<0.05, which means that there was a significant difference in the knowledge of non-medical students in Surabaya regarding the 6M health protocols

between before and after being given educational presentation.

DISCUSSION

A community has an important role in breaking the chain of Covid-19 transmission so that does not cause new sources of clusters in places. People must be able to do their activities back in the Covid-19 pandemic by adapting new and healthier habits, which is carried out by all components in society as well as empower the existing resources⁹.

According to Health Ministry of Republic Indonesia, *Komunikasi Risiko dan Pemberdayaan Masyarakat* (KRPM) is an important component in response to public health emergency, whether locally, nationally, or internationally. KRPM uses a strategy that involves the community in preparedness and develop interventions that are acceptable and effective to stop the spread of the epidemic widespread and can protect individuals and communities⁶.

The success of KRPM in the community in the form of delivery communication, information and education to change people's behavior. This policy must also be supported by other efforts. Two others attempts are enforcement or discipline against regulations or provisions that have been set by the government. In this case, if there are individuals or groups of people who do not implement the health protocol, they can be subjected to fines or social punishment. Thus, learning and a deterrent effect will be obtained for those who break the rules⁶.

Moreover, engineering action is also required. In the context of prevention and control of the current Covid-19, social engineering can be implemented in the form of certain modifications or

arrangements, so that the community does not crowd, keep the distance or stay at home, as carried out by means of PSBB or PPKM which were carried out in several regions in Indonesia⁶.

With a combination of these three behaviour change techniques (3E: Education, Enforcement, Engineering), it was hoped that each individual will implement *Perilaku Hidup Bersih dan Sehat* (PHBS), so as to maintain themselves and their families from the threat of infectious diseases, especially Covid-19⁶.

Knowledge is very influential on compliance with 6M health protocols, where good knowledge will form good compliance. This was proved by the result of a research, which found that good knowledge can affect a person's attitude¹⁰. If someone's knowledge is good, then that person tends to have a positive attitude. The result is that good knowledge about efforts to prevent the spread of Covid-19 will have an impact on positive attitudes about efforts to prevent Covid-19 as well¹¹. Therefore, we held socialization to provide additional knowledge about 6M health protocols to public.

In addition, we also assessed the knowledge of non-medical students in Surabaya through several questions given before and after the socialization. There was an increase in knowledge about the 6M health protocols as evidenced by an increased in the average score on the pre-test and post-test filled by non-medical students in Surabaya as much as 17.26 points (Table 2).

CONCLUSION

Online education presentation of Covid-19 health protocols as an effort to prevent the transmission of Covid-19 in Surabaya had improved the respondents'

understanding and awareness on the implementation of the health protocols.

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CONFLICT OF INTEREST

All Authors have no conflict of interest

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AUTHOR CONTRIBUTION

All authors have contributed to all process in this research, including preparation, data gathering and analysis, drafting and approval for publication of this manuscript.

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