

Research article

Relationship Between Knowledge and Implementation of Health Protocols to Prevent COVID-19 in West Java Residents

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The number of COVID-19 cases continues to grow and spread throughout the world and Indonesia is no exception. The application of health protocols is one form of prevention of COVID-19 whose spread can be minimized. The purpose of this study was to analyze the relationship between knowledge and the application of health protocols in the prevention of COVID-19. This research used a cross-sectional approach. Participants were heads of family who were domiciled or had a residence in the Buana Flamengo Housing as evidenced by an identification card. Proportional random sampling was used to recruit 52 participants and data were analyzed using the Chi-square test. The results showed that there was no relationship between knowledge and the application of health protocols in the prevention of COVID-19 (p -value = 1.000, POR value = 0.720, which means that poor knowledge was associated with a 0.72 times risk of carrying out poor COVID-19 preventative health protocol behavior compared to those who had good knowledge). This was because respondents tended to have good knowledge and good implementation of health protocols related to COVID-19. It is hoped that there will be new policies and programs adapted to the characteristics of the community as well as the development of technology and information made available by the Government in encouraging and increasing public knowledge about COVID-19.

Keywords: knowledge, health protocol, COVID-19

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1. Introduction

At the end of 2019 the world was shocked by the emergence of a phenomenal case of a new virus infection, namely the *coronavirus*. [1] This coronavirus first was discovered at the end of December 2019 in the city of Wuhan, Hubei Province of China. [2] The number of infected people continues to increase from time to time, and spread throughout the world, COVID-19 is very dangerous and also causes high mortality at this time. [3] On July 28, 2021, there were 1.78 million cases with a death number of 49,328. This proves that the spread of COVID-19 is still increasing. [4] Meanwhile, the situation for the spread of COVID-19 in the West Java Provincial Government. The answer from the official website was recorded on July 28, 2021, reaching 590,392 patients who were

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confirmed positive for COVID-19 with a death toll of 8,886. This data experienced a drastic increase compared to the previous 1 month, as on June 30, 2021, there were 381,455 confirmed positive COVID-19 patients with a death toll of 5,352.[5] Cimahi City is one of the cities in West Java that contributed to the number of COVID-19 cases, one of the highest in West Java, recorded on July 28, 2021, with 14,827 confirmed cases with 207 deaths in Cimahi City. Cases in Cimahi City in July 2021 were the highest compared to other cities or regencies in West Java, such as West Bandung Regency, where the number of COVID-19 on 28 July 2021 confirmed only 6,464 cases with 87 deaths, or also Cimahi City is still very high in COVID-19 cases. compared to Cianjur Regency, which recorded 7,061 confirmed cases of COVID-19 with 12 deaths.[6]

In response to the spread of COVID-19, the Government has issued several policies and measures to prevent the transmission of COVID-19 infection in several regions in Indonesia. At the regional level, the increase in cases began to shift to the Sumatra, Kalimantan and Sulawesi regions. increase in cases ranged from 29.2% - 50.8%. However, the transmission continues to increase. This is caused by the behavior of people who are still negligent in obeying government regulations. This is something that needs to be watched out for because negligence will encourage the spread of COVID-19 cases to be faster and death cases to be higher. The increase in death cases was 27.3% compared to the previous period, which was 11,713 deaths nationally.[1] Several studies have stated that the level of compliance and control of COVID-19 is still low and there is an assumption that the disease includes the common cold, one of which is the low level of knowledge in several community groups, especially in the Cimahi City area, West Java Province.[7]

Efforts to break the chain of spread of COVID-19 require good understanding and knowledge from all elements, including the community. Knowledge is a result of curiosity through sensory processes, especially in the eyes and ears of certain objects. Knowledge is also the most important domain factor in the formation of behavior. A person's knowledge is influenced by several factors, including the level of education, occupation, age, environmental factors and socio-cultural factors. Good public knowledge regarding COVID-19 will help shape community behavior in preventing and controlling COVID-19 by implementing health protocols. The implementation of the health protocol is one form of prevention of COVID-19, so in achieving this goal, the main steps that the community wants to implement are implementing health protocols such as washing hands regularly with soap and also preparing hand washing equipment in every home.[8] Although the implementation of health protocols is considered effective, in practice there are still many community members who do not carry out this health protocol due to the low

knowledge of the community, the results of research conducted by Darma Yantion, the Description of Public Knowledge about COVID-19 and Community Behavior in the mass of the COVID-19 pandemic concluded that public knowledge about the COVID-19 pandemic was in the good category, namely 70%, but the implementation of the health protocol was still not good. Darma Yantion, Description of Public Knowledge about COVID-19 and Community Behavior during the COVID-19 pandemic concluded that public knowledge about the COVID-19 pandemic was in the good category, namely 70%, but the implementation of the health protocol was still not good. The research conducted by Darma was only done descriptively and the results were not exhaustive. There are many factors that can affect the application of health protocols by the community but if you look at it from a behavioral science perspective, knowledge is one of the factors in encouraging people's behavior to implement health protocols in preventing COVID-19. [9].

This is in line with the results of observations made by researchers in the Buana Flamengo housing where the application of health protocols in the housing is still not good. Based on this, the researcher has the aim of conducting research, namely analyzing the relationship between knowledge and the application of health protocols in an effort to prevent COVID-19 for residents of Buana Flamengo Cibeber Housing, Cimahi City.

2. Method

The design of this study is a quantitative method with a cross sectional approach, namely to analyze the relationship of knowledge to the application of health protocols in an effort to prevent COVID-19 for residents of Buana Flamengo Cibeber Housing, Cimahi City. This research was conducted in Buana Flamengo Housing, Cibeber Village, South Cimahi District, Cimahi City, West Java Province. This research was conducted in July 2021.

The population in this study The total population or number of heads of families (KK) in the Buana Flamengo Cibeber housing complex, Cimahi City is 114 heads of families (KK). The sampling technique in this study is Proportional Random Sampling, that is, each member of the population from each block has the same opportunity to become a candidate to be used as a sample, so 52 samples are obtained. One of the criteria for determining research respondents is the Head of the Family who is domiciled or has a residence in the Buana Flamengo Housing as evidenced by an identification card.

Research data collection is done by using questionnaires and direct interviews conducted personally between researchers and respondents. The questionnaire used aims to determine and analyze the relationship of knowledge to the application of health protocols in an effort to prevent COVID-19 for residents of Buana Flamengo Cibeber Housing, Cimahi City. Prior to the research, the questionnaire was tested for validity and reliability to get the right measuring instrument.

This study used univariate and bivariate data analysis. Univariate analysis was used to tabulate the frequency of demographic statistics. Bivariate analysis was conducted to examine the relationship between the independent variable and the dependent variable using the Chi-square Test. This test was conducted to determine the relationship of knowledge to the application of health protocols in an effort to prevent COVID-19 for residents of the Buana Flamengo Cibeber Housing, Cimahi City. All procedures performed in this study, involving human participants, comply with the ethical standards of national research committees and/or institutions. This research was designed and conducted with the ethical principles established by Stikes General Achmad Yani Cimahi. Therefore, ethical approval was obtained from the Ethics Research Committee General Achmad Yani Cimahi Stick of Ethics with No. 41 / KEPK / VIII / 2020.[10]

3. Results

TABLE 1: Characteristics of of the head of the family (KK) in the Buana Flamengo Cibeber housing, Cimahi City.

No	Variable	F	%
1	Gender		
	Male	52	100%
	female	0	0%
2	Age		
	<30 years	32	61,5%
	>30 years	20	38,5%
3	Education		
	Elementary School	7	13,5%
	Junior high school	11	21,2%
	Senior High School/Equivalent	24	46,2%
	Higher education	10	19,2%

Table 1 describes the characteristics of respondents who become the head of the family male as much as 100%, the most age <30 years 61.5%, the highest level of education is at the senior high school level is 46.2%.

TABLE 2: The results of the analysis of the knowledge of the head of the family (KK) in the Buana Flamengo Cibeber housing, Cimahi City.

Knowledge of the application of health protocols in the prevention of COVID-19	Frequency	Percentage(%)
Well Knowledge	46	88.5
Poor Knowledge	6	11.5
Total	52	100.0%

Based on the table above, it is found that the respondents who have knowledge in the good category are 46 respondents with a percentage (88.5%), while respondents who have knowledge in the poor category are 6 respondents with a percentage (11.5%).

TABLE 3: The results of the analysis of the relationship between the knowledge of the head of the family (KK) in the Buana Flamengo Cibeber housing complex, Cimahi City.

Knowledge	Implementation of the COVID-19 health protocol				Total		PR (95%CI)	P Value
	No		Yes		N	%		
	N	%	n	%	N	%		
Poor Knowledge	1	16.7%	5	83.3%	6	100%	0.720 (95% CI:0.075-6.889)	1,000
Well Knowledge	10	21.7%	36	78.3%	46	100%		
Amount	11	21.2%	41	78.8%	52	100%		

Based on the table above, it can be seen that there is 1 respondent with a percentage (16.7%) who has poor knowledge and does not implement health protocols in an effort to prevent COVID-19, on the other hand there are 10 respondents with a percentage (21.7%) who have good knowledge and do not implement health protocols in an effort to prevent COVID-19. The application of health protocols in preventing COVID-19 which is still not very well implemented is the use of masks, there are still many respondents who do not understand the importance of using masks in preventing the transmission of COVID-19. The results of the statistical test obtained a p value = 1,000, so it can be concluded that there is no relationship between knowledge and the application of health protocols in an effort to prevent COVID-19 for residents of the Buana Flamengo Cibeber Housing, Cimahi City.

4. Discussion

Knowledge is one of the important factors in shaping a behavior. Knowledge is a behavioral domain that is very important in the formation of one's actions. A person with good knowledge tends to carry out COVID-19 prevention behaviors. In this study, knowledge about COVID-19 prevention health protocols is very important so as not to contract the COVID-19 virus, public knowledge of health protocols can also be interpreted as a result of knowing from the public about preventive measures properly and correctly according to procedures related to COVID-19 prevention.[11]

In this study, there was 1 respondent with a percentage (16.7%) who had poor knowledge and did not implement health protocols in an effort to prevent COVID-19, on the other hand there were 10 respondents with a percentage (21.7%) who had knowledge in the good category and did not implement health protocols in an effort to prevent COVID-19. The results of the statistical test obtained a p value = 1,000, so it can be concluded that there is no relationship between knowledge and the application of health protocols in an effort to prevent COVID-19 for residents of the Buana Flamengo Cibeber Housing, Cimahi City. From these results, the researcher assumes that there is no relationship between knowledge and the application of health protocols in an effort to prevent COVID-19 due to several factors, one of which is the environment and also the rules that require people to carry out COVID-19 prevention behavior so as to encourage positive community behavior both those who have lack of good knowledge or those who have good knowledge, on the other hand, the level of education factor can also be a factor that encourages the absence of a relationship between knowledge and the application of health protocols in efforts to prevent COVID-19.

The results of this study, there was 1 respondent with a percentage (16.7%) who had poor knowledge and did not implement health protocols in an effort to prevent COVID-19, on the other hand there were 10 respondents with a percentage (21.7%) who had knowledge in the good category and did not implement health protocols in an effort to prevent COVID-19. The statistical test results obtained a p value = 1,000, so it can be concluded that there is no relationship between knowledge and the application of health protocols in an effort to prevent COVID-19 for residents of Buana Flamengo Cibeber Housing, Cimahi City. The results obtained by this researcher support the results of previous research that has been studied by Warouw which states that 78.7% of Indonesian people have good knowledge, 65.6% have a positive attitude and 85, 5% have good behavior in COVID-19 prevention behavior.

From these results, the research obtained by the researcher and the results of previous studies obtained similarities, namely the respondents' knowledge is very good about the COVID-19 Protocol. There are many factors that influence the similarity of the results of this study, where the researchers assume that there is no relationship between knowledge and the application of health protocols in the prevention of COVID-19, this is due to several factors, one of which is the environment and also regulations from the government that require people to carry out COVID-19 prevention behavior. thus encouraging positive community behavior, both those who have poor knowledge and those who have good knowledge. It should be noted that the characteristics of the Indonesian people are very afraid of the rules issued by the government if these rules will have an impact on sanctions that will be imposed if they violate these rules. In this case, to encourage the public to be able to implement the health protocol, the government issued a policy, namely if the Health protocol is not implemented, sanctions will be given to people who violate these rules so that this is the main reason people are willing and able to implement the health protocol. On the other hand, the education level factor can also be a factor that encourages the absence of a relationship between knowledge and the application of health protocols in an effort to prevent COVID-19. This proves that good public knowledge of the behavior of the COVID-19 prevention protocol is important for the practice of preventive actions carried out by the community itself. It is important for the public to know about the behavior of the COVID-19 prevention health protocol, especially the Buana Flamengo Cibeber Housing, Cimahi City to be able to handle, prevent, and immediately conduct an examination if there are signs and symptoms of COVID-19. And most importantly in preventing the spread of COVID-19 by knowing how to implement health protocols properly.

On the other side, the research methods used by researchers and previous researchers have similarities in the use of research methods, namely by using quantitative methods, this is most likely to give the same results so that to get different results it may be necessary to do and choose different research methods such as approaches. with the experimental method so that the research results can get different results. Or you can also choose a mix method method by combining quantitative and qualitative research methods so that the research results obtained will be better and more varied in the data to be collected later so that the research results will be much better. [12]

5. Conclusion

There is no relationship between knowledge and the application of health protocols in an effort to prevent COVID-19 for residents of the Buana Flamengo Cibeber Housing, Cimahi City. This is because respondents tend to have good knowledge and good implementation of health protocols related to COVID-19. The public is expected to strictly adhere to health protocols during their activities in the midst of the COVID-19 pandemic as an effort to break the chain of the spread of COVID-19. It is also hoped that there will be new policies and programs adapted to the characteristics of the community as well as the development of technology and information made by the government in encouraging and increasing public knowledge about COVID-19.

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