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Community compliance in the implementation of health protocols as a prevention of covid-19 transmission

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Abstract
Background: The development of COVID-19 cases today triggers the government to issue a policy that is expected to be one of the preventive measures of COVID-19 cases, the policy is in the form of increased enforcement of health protocols. Success in the implementation of health protocols is influenced by several factors.
Objective: The purpose of this study is to determine factors related to community compliance in the implementation of health protocols as prevention of COVID-19 transmission.
Method: This type of research uses quantitative research with Cross Sectional design. The population for this study is the community in Kadungora Subdistrict. The sample number of 105 people was determined using random sampling samples. Data collection is done by distributing questionnaires. The data analysis used is the chi-square test.
Results: The results showed that factors related to compliance with the implementation of health protocols were knowledge (p-value = 0.021), attitude (p-value = 0.000), motivation (p-value = 0.000). While public figures have no relationship (p-value = 0.343).
Conclusion: Most respondents adhered to the implementation of health protocols. Compliance with health protocols can be influenced by knowledge, attitudes, and motivation. It is recommended for health workers to continue to provide education to the public about the importance of implementing health protocols as an effort to prevent Covid-19 transmission.

Keywords: COVID-19, health protocols, knowledge, attitudes, motivation

Introduction

The coronavirus pandemic is a focus almost all over the world because of the process of spreading this virus very quickly even in Indonesia [1]. *Severe Acute Respiratory Syndrome Coronavirus 2 is the cause of infectious disease Coronavirus Disease 2019 (COVID-19)* [2]. World Health Organization has determined january 30, 2020 that the incidence of COVID-19 becomes an Unsettling Public Health Emergency worldwide and March 11, 2020 is the beginning of the establishment of the COVID-19 pandemic [3]. WHO explained the incidence of COVID-19 globally in June 2021 recorded 172 million cases and a total of 3.7 million deaths. According to South-East Asia mapping, Indonesia is in the 2nd position with 1.8 million cases and 51 thousand deaths (CFR = 2.8%) (4). One more year Indonesia experienced the COVID-19 pandemic, which is characterized by the continued addition of COVID-19 cases every day. The increase in COVID-19 cases not only has an impact in the field of national health, but almost all sectors such as social, economic, tourism, public transportation and others that receive negative impacts from the increasing spread of the COVID-19 virus [5].

Increasing the spread of this virus, efforts are made to deal with the COVID-19 pandemic by issuing policies such as Social Distancing, Lockdown, Large-Scale Social Restrictions, New Normal, and the Enactment of Restrictions on Community Activities. In the process, the policy issued was not able to reduce the rate of COVID-19 transmission, the government took the initiative to issue a new policy in the form of COVID-19 vaccination which in its implementation was still balanced with health protocols [6].

Health protocols are a form of embodiment of community behavior in breaking the chain of transmission of COVID-19 [7]. However, indiscipline to health protocols has an impact on the addition of COVID-19 cases per day. In an effort to overcome the impact of public indiscufficiency on the behavior of the implementation of government health protocols, the government seeks education and dissemination of media such as billboards, flyers, banners and mask distribution. In addition, the government issued policies regarding health protocols such as hand washing campaigns, the use of masks, and keeping a distance [8].

Based on COVID-19 Task Force data from October to December, health protocol compliance numbers decreased. Compliance with wearing masks was 55% (down 28%), and the figure was keeping a distance and avoiding crowds was 39% (down 20%). Based on data from the COVID-19 Task Force, cases as of December 20

increased, recorded 47,108 compared to the previous month, which was 36,599 cases [9]. Based on the comparison of health protocol compliance trend graph with the addition of positive cases, it can be concluded that the decrease in health protocol compliance is in line with the increasing addition of positive cases of COVID-19 [10].

Previous research has suggested that aspects of knowledge can affect compliance, because a good understanding of the problem, its impact and prevention efforts, can influence a person in complying with a recommendation. Furthermore, attitude, by having a positive response or perception to a problem, can affect the action to be done. Then motivation, having the desire of yourself the advice that must be done can be an aspect / factor that can affect community compliance [11]. Other research mentions that community leaders can affect compliance, because with the attitudes and behavior of positive community leaders can be a role model for the surrounding community [12].

The spread of COVID-19 based on Provincial data in June 2021, the top case reports in DKI Jakarta Province, West Java Province, and Central Java Province [13]. The percentage of compliance data wearing masks in West Java Province in May decreased from the previous month, from 80.69% to 73.59% and compliance presentations kept their distance from 78.07% to 72.56% [9]. Data confirmed positive COVID-19 in Garut Regency according to the top middle-aged group in the productive middle-aged group of 20-50 years, and according to the top gender in women [14]. Health protocol compliance rate data in May 2021 in Garut Regency was 3rd to not comply with the use of masks, and did not comply with maintaining distance. This means that compliance with health protocols in Garut Regency is still quite low [9]. Kadungora District consists of two Health Centers, namely Puskesmas Kadungora and Puskesmas Rancasalak. Based on data in June 2021 cases of COVID-19 in Kadungora Health Center recorded 237 cases, and in Puskesmas Rancasalak recorded 157 cases. Puskesmas Kadungora became the Health Center in Kadungora District with the highest COVID-19 cases. The level of compliance in the implementation of health protocols in Kadungora Subdistrict is still low The cause of not complying with this health protocol because it does not know the benefits of the use of masks and health protocols, the public also still assumes that using masks makes them claustrophobic and troublesome. Then, there is no public desire or motivation to implement health protocols, and the public also does not get information or reprimands from public figures when not implementing health protocols. Sex differences and age differences are not one of the benchmarks for society to adhere to health protocols. The purpose of this study is to find out factors related to community compliance in the implementation of health protocols as prevention of COVID-19 transmission.

Method

This type of research uses quantitaive research with analytical survey studies, and Cross Sectional design [15]. The research was conducted in Kadungora District in July 2021. The population for this study is the community in Kadungora Subdistrict. The size of the sample in this study was determined using the binomunal proportion formula, obtained a total sample of 105 respondents. The random sampling sample technique is used to determine the study sample, with criteria: people ranging in age from 17 years to 55 years old, and can speak Indonesian. Data collection uses questionnaires, which consist of willingness to be respondents, characteristics of respondents, compliance with the implementation of health protocols knowledge, attitudes, motivations, and the role of community leaders. This study uses desriptive and analytical analysis, descriptive is used to look at frequency distribution, as well as chi square tests to see the relationship of compliance with the application of health protocols knowledge, attitudes, motivations, and the role of community leaders with community compliance in the application of health protocols.

Result

Table 1: Distribution of Community Compliance in the Implementation of Health Protocols

Community Compliance	Frequency	Percentage
Obedient	43	41
Disobedient	62	59
Total	**105**	**100**

Table 1 shows the proportion of compliance with the implementation of health protocols among the public is mostly non-compliant to implement health protocols which is 59%.

Table 2: Distribution of Factors related to Community Compliance in the Implementation of Health Protocols

Knowledge	Frequency	Percentage
Tall	92	87,6
Low	13	12,4
Attitude		
Positive	59	56,2
Negative	46	43,8
Motivation		
Tall	57	54,3
Low	48	45,7
Public figures		
Support	54	51,4
Not supportive	51	48,6
Total	**105**	**100**

Table 2 shows that the proportion of people's knowledge, almost all knowledgeable with 92 (87.6%). The proportion of attitudes towards health protocols, most were positive with 59 (56.2%). The proportion of motivation in the implementation of health protocols, most have a high motivation with 57 (54.3%). The proportion of the role of public figures in the implementation of health protocols, mostly played a role with 54 (51.4%).

Table 3: Chi Square Test Factors related to Community Compliance in the Implementation of Health Protocols

Independent Variables	Community Compliance				*P value*	POR (95% CI)	
	Obedient		Disobedient				
	n	%	n	%		Lower	Upper
Knowledge							
Tall	42	45,7	50	54,3	0,021	10,080 (1,258-80,752)	
Low	1	7,7	12	92,3			
Attitude							
Positive	35	59,3	24	40,7	0,000	6,927 (2,754-17,426)	
Negative	8	17,4	38	82,6			
Motivation							
Tall	35	61,4	22	38,6	0,000	7,955 (3,146-20,114)	
Low	8	16,7	40	83,3			
Public figures							
Support	25	46,3	29	53,7	0,343	1,580 (0,721-3,464)	
Not supportive	18	35,3	33	64,7			

Table 3 shows that the variables related to public compliance in the application of health protocols are knowledge (p=0.021) and POR= 10,080 (1,258-80,752), attitude (p=0.000) and POR= 6,927 (2,754-17,426), and motivation (p=0.000) and POR= 7,955 (3,146-20,114). Public figures cannot be proven.

Discussion

This study examined the compliance of the implementation of health protocols, the results showed that most people did not comply with the implementation of health protocols as much as 59%. The results of this study are lower than previous studies, namely the level of public compliance with health protocols in the non-compliant category of 84.7% [16].

Obesity results in the field of health protocols: wearing masks, washing hands, maintaining distance, avoiding crowds, and reducing mobility. Health protocols that are difficult for people to implement are reducing mobility. This is due to the work of the community which is mostly as a trader that requires the community to always go out of the house. While the goal of reducing mobility is not to travel from one place to another, so that many people fall into the category of non-compliance.

In addition, the most dominant health protocol is to use a mask. Most people already know that the corona virus is a disease that is easily transmitted, so with the use of masks can prevent contracting COVID-19. The spread of the COVID-19 virus is easily transmitted through droplets and in contact with infected surfaces. So that the use of masks and washing has become an obligation that must be applied [17]. In addition, studies in Vietnam state that the prevention of COVID-19 transmission is by washing hands and using masks [18].

This study shows a knowledge relationship with community compliance in the application of health protocols. This research is in line with previous research that states that knowledge is related to COVID-19 prevention compliance [19]. Then another study showed that knowledge was related to compliance with the COVID-19 health protocol. Therefore, the provision of health information is necessary to improve knowledge and compliance of health protocols [20].

Knowledge is one of the factors that can shape a thought or attitude. The better the individual's knowledge the better the thoughts or attitudes that will be formed to create good actions/ behaviors. People who know well about the importance of health protocols as a form of prevention of COVID-19 transmission, tend to have a positive attitude or thought towards kiep so that the community will act obediently in implementing health protocols [21]. Knowledge is considered important in C OVID-19 prevention efforts if the community has good knowledge, hopefully the community is more compliant in COVID-19 prevention efforts recommended by the Government of Indonesia [21].

Based on the results of observations, most of the last education of the community in the category of higher education (high school). With a highly educated society, usually the community has more experience or additional information from various parties. So that highly educated people already have a picture or information and it is not difficult to receive new information. Knowledge is considered important in efforts to prevent Covid-19, if the community has good knowledge then it is expected that the public will be more obedient to Covid-19 prevention efforts recommended by the Indonesian government [22].

In theory, a person's level of education becomes one of the factors that can affect an individual's knowledge. If the education and knowledge of an individual is good, then the behavior of the individual will also be good (24). By being highly educated and well-educated, then society will tend to behave well.

Most people already know about COVID-19 and how to prevent it with the implementation of health protocols. Various information is currently easy to obtain, so with this ease people can increase their knowledge, especially about COVID-19. Public knowledge can be a basis for encouraging individuals to have good COVID-19 prevention behavior. So that by having good knowledge can make individuals act well and in behaving in implementing health protocols [25].

Attitudes relate to community compliance in the implementation of health protocols. This research is in line with previous research that states that attitudes relate to compliance with the COVID-19 health protocol [26]. Other studies have shown that attitudes are related to compliance with the COVID-19 health protocol (26).

Attitude has three interrelated components. The attitude-forming component consists of cognitive knowledge, beliefs, and beliefs, affective (emotional) related to a person's ability to assess an object, conative (behavior) that has a tendency to act. It can be concluded that attitude is prediposing for the formation of an action. People who have a positive attitude towards information or recommendations of health protocols, then tend to act according to the advice directed, while people who have a negative attitude will tend not to follow or even disobey the recommendations of health protocols [27].

Based on the results of observations, the public has a supportive attitude in the compliance of health protocols and adjusts to the knowledge gained about health protocols. There is socialization about COVID-19 and health protocols so that the public trusts and can comply with health protocols. This proves that a society that has a supportive attitude can make the community to obediently apply.

The public already believes and supports the effective prevention with health protocols. The public has been informed before whether or not directly about health protocols is an effort to prevent the transmission of COVID-19. This is evidenced by the community's 74.1% agreed attitude towards the health protocol statement is a way not to contract COVID-19. Community attitudes become one of the factors that can affect compliance, individuals who have a good attitude, then the individual tends to act well as well. Individual attitudes can be shaped on a cognitive basis. Cognitive is the process of understanding by interacting with information so that it can lead to individual confidence in the information obtained. So that attitude can be an encouragement to be able to behave well against health protocols [25].

Motivation relates to community compliance in the implementation of health protocols. This is in line with previous research that states that motivation with compliance with the COVID-19 health protocol has a significant relationship [26]. Other research shows that motivation is related to compliance [28]. Motivation is an individual's inner and external drive that aims to drive and encourage his or her attitudes and behavior changes. Motivation comes from the observation of an object so that it can cause a conflict that can encourage individuals to do or do

something. This means that if the community has motivation in itself to prevent COVID-19, then the community has a desire or motivation to comply in implementing health protocols [29].

Based on the results of observations, the public has a high motivation in implementing health protocols. The results of the tests conducted that motivation became Very related to the compliance of health protocols. Motivation can be related to attitudes, people who have confidence and confidence in COVID-19 and have the desire not to contract COVID-19, then with motivation and good attitude the community will implement health protocols as a result of good attitude and motivation. People's attitudes and motivations can be improved by getting encouragement from health workers. The intended encouragement can be in the form of health promotion, empowerment, and others.

The public has the motivation or desire to implement health protocols to prevent the transmission of COVID-19. This is evidenced by the motivation of the community agreeing 72.3% to the community to implement health protocols because they realize that COVID-19 is an infectious disease. Motivation is one of the driving factors that can affect compliance in the use of personal protective equipment. Based on the form of motivation consists of instrinsic motivation and extrinsic motivation. Instrinsic motivation comes from the individual itself, aspects that can give rise to intrinsic motivation include the needs and desires that exist in the individual which includes needs, interests, pleasures, and curiosity, because this instrinsic motivation does not require reward and punishment [30].

Community leaders have not been shown to be related to community compliance in the implementation of health protocols. Community leaders are part of society itself, but have influence in their environment, because they have good insight and knowledge [31]. The support of community leaders is basically socializing about health programs (health protocols), so that the public is willing to accept and participate. It is hoped that through such support can improve the community to behave and comply to prevent the transmission of COVID-19 [32].

Based on the results of observations, community leaders have played a role in health protocols, because community leaders have carried out their roles or duties. This is seen by public figures who disseminate or install information about health protocols as a form of dissemination of information to the public. But some people argue that public figures do not reprimand their citizens if there are those who do not use masks. This can be one of the factors that affect people's non-compliance in the application of health protocols, namely there is no rebuke for people who do not use masks. By not being given a reprimand and warning, the public will feel if not using a mask when outside the house is not a concern, by having such thoughts / perceptions will affect the level of compliance in health protocols. So in this study the role of public figures does not become a benchmark for health protocol compliance. So in this study there is no relationship between public figures and compliance with health protocols. This is in line with other research that states that public figures with unrelated compliance are significant [1].

Conclusion

The study resulted in the conclusion that most respondents were compliant in the implementation of health protocols. Compliance with health protocols can be influenced by knowledge, attitudes, and motivation. While the role of public figures cannot be proven as a risk factor. It is recommended for health workers to continue to provide education to the public about the importance of implementing health protocols as an effort to prevent Covid-19 transmission.

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