

Analysis of The Influence of Community Knowledge, Attitude and Behavior Factors on The Compliance Level of Health Protocol Covid-19

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ABSTRACT: This study aims to analyze and obtain empirical evidence of the influence of people's knowledge, attitudes and behavior on the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan.

The research method is an explanatory research. The research sample was 171 respondents. The sampling technique was using purposive sampling method. The purposive sampling method is a sampling technique with certain considerations using multiple linear regression analysis using the SPSS 23.0 for windows program.

The results of the study suggest that knowledge has a negative and significant effect on the level of compliance with the COVID-19 health protocol. Attitudes have a positive and significant effect on the level of compliance with the COVID-19 health protocol. Behavior has a positive and significant effect on the level of compliance with the COVID-19 health protocol. Meanwhile, simultaneously knowledge, attitudes and behavior influence the level of compliance with the COVID-19 health protocol. In this study it can be concluded that the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan is influenced by variations in the knowledge, attitudes and behavior of the community by 60.3% and the remaining 39.7% is influenced by other variables not included in the this research. Batulicin District should be able to increase cooperation with the community health centers, the Health Office and the Regional Government in an effort to increase the level of compliance with the COVID-19 health protocol. Meanwhile, the Health Office or community health centers should always socialize and improve health promotion about the importance of complying with the COVID-19 health protocol with 3M. Researchers are expected to be able to carry out further research by adding independent / independent variables that can affect the COVID-19 health protocol.

Keywords: Knowledge, Attitudes, Behavior, Compliance with Health Protocols

I. INTRODUCTION

Coronavirus Disease 2019 (COVID-19) is an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS Cov-2). SARS Cov-2 is a new type of coronavirus that has never been previously identified in humans. There are at least two types of coronavirus that are known to cause diseases that can cause severe symptoms such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Common signs and symptoms of COVID-19 infection include symptoms of acute respiratory distress such as fever, cough and shortness of breath. The average incubation period is 5-6 days with the longest incubation period being 14 days. In severe cases of COVID-19 it can cause pneumonia, acute respiratory syndrome, kidney failure, and even death

It is not known when the COVID-19 pandemic will end so that people are expected to be able to adapt by implementing a new lifestyle (new normal). The community must be able and willing to follow the COVID-19 health protocol, where this requires the cooperation of the entire community and the government so that COVID-19 cases go down. Among them are government recommendations with 3M, namely wearing masks, maintaining distance and washing hands using soap and running water or hand sanitizers (Presiden

Republik Indonesia, 2020)

Health protocols require public understanding with socialization related to the new normal era where there are several influencing factors such as community knowledge, attitudes and behavior. The higher a person's knowledge will affect their attitudes and behavior in daily life, including the level of compliance with health protocols during the COVID-19 pandemic. Compliance is increasing in female respondents, higher education level, good knowledge and good attitude (Nuriati et al., 2021)

Knowledge is the result of sensing humans or a person on an object through their senses. This knowledge is strongly influenced by the intensity of attention and perception of the object. Most of a person's knowledge is obtained through the sense of hearing (ears) and the sense of sight (eyes). The knowledge studied is about understanding the process of disease transmission, information related to prevention that can be done, information about the distribution of cases. Knowledge is very important in continuing aspects of attitude and behavior because if someone does not know then no real action will be taken. Public knowledge in preventing disease transmission will suppress further Covid-19 transmission (Zhong et al., 2020).

Attitude is a readiness or willingness to act and is not the implementation of a particular motive. (Arifin et al., 2019a) In other words, the attitude function is not yet an action (open reaction) or activity, but is a behavioral disposition (action), or a closed reaction (Arifin et al., 2019b). If knowledge will explore answers to what is known by the public about COVID-19, but attitudes will explore public opinions or assessments of COVID-19. The public's attitude towards the COVID-19 pandemic and the implementation of public compliance with the new normal era health protocols play a very important role in preventing the spread of COVID-19.

Human behavior is the result of all kinds of experiences and human interactions with the environment that are manifested in the form of knowledge, attitudes and actions. Health behavior problems in the community are lack of awareness to wear masks, maintain distance, lazy to wash hands and not use hand sanitizers and simple behavior has a tremendous impact (Zhang et al., 2021. Law et al., 2020).

Many people do not follow the health protocols as recommended by the government and this is due to the following reasons:

1. Due to need factors, people choose to work outside the home instead of staying at home
2. It's hard to get a mask
3. There is a habit of not staying at home
4. There is a perception that the corona virus has not spread in the area where he lives.

When people don't follow the government's recommendations due to some of the things above, it means they don't take steps to prevent the spread of the COVID-19 virus. If the prevention movement is not carried out, it means that it will accelerate the process of spreading the virus, and the health protocols submitted by the government will not be effective because people do not implement them in their daily lives (Giammarinaro, 2020).

II. CONCEPTUAL MODEL AND RESEARCH HYPOTHESES

Health protocols require public understanding with socialization related to the new normal era where there are several influencing factors such as community knowledge, attitudes and behavior. The higher a person's knowledge will affect their attitudes and behavior in daily life, including the level of compliance with health protocols during the Covid-19 pandemic. Compliance is increasing in female respondents, higher education level, good knowledge and good attitude (Ferdous et al., 2020) Zhang et al., 2021) (Ngwewondo et al., 2020)

Based on this, a research model and hypothesis were developed

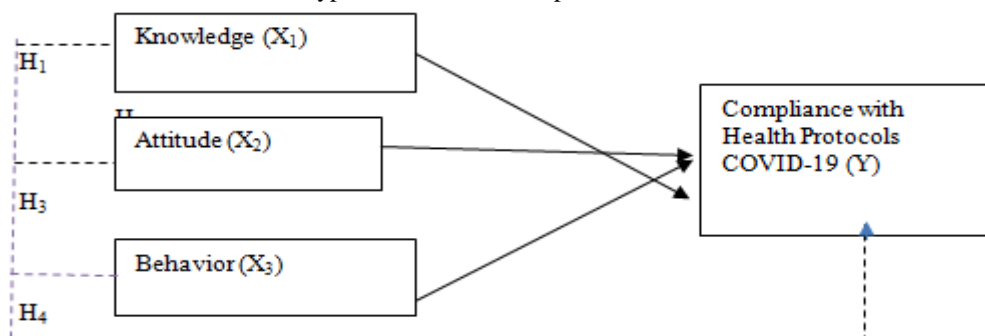


Figure 1 Conceptual Framework for Research Models

Hypothesis Development:

H1 = Public knowledge affects the level of compliance with the Covid-19 health protocol.

H2 = People's attitudes affect the level of compliance with the Covid-19 health protocol.

H3 = Community behavior affects the level of compliance with the Covid-19 health protocol.

H4 = People's knowledge, attitudes and behavior affect the level of compliance with the Covid-19 health protocol.

III. RESEARCH METHODS

This type of research is explanatory research, namely research that explains the causal relationship between the independent variable (X) and the dependent variable (Y) through hypothesis testing to obtain facts about the symptoms of the problems that arise. The sampling technique in this study used interviews and questionnaires.

The population used in this study is the community in Batulicin sub-district based on data from adult community visits who seek treatment at the Batulicin Health Center one month from September to mid-November 2020, as many as 300 people. Based on the slovion calculation, the number of samples taken in this study was 171 people selected at random.

The analysis technique uses multiple regression statistical tools, where previously the data must be tested first with the help of SPSS which to test data quality consists of Validity Test, Reliability Test, Normality Test, Multicollinearity Test, heteroscedasticity test (Ghozali, 2018).

IV. RESULTS AND DISCUSSIONS

Based on the comparison between the r table and the results of the SPSSV 23 test, it was obtained that the r table was 0.150 while the lowest r-count items were 0.550 larger than the r table, thus the data was declared valid. While the data reliability test is known to be the lowest variable, namely 0.864, it shows above 0.7, so the data is also reliable.

Based on the calculation results of the SPSS Version 23.0 program, the Adjusted R Square value of 0.603 means that 60.3% of the variation in the compliance variable is influenced by variations in the knowledge, attitude, and behavior variables. While the remaining 39.7% variation in compliance variable is influenced by variations in other variables that are not included in this study.

**Normality Test Table
One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		171
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.64599475
	Absolute	.095
Most Extreme Differences	Positive	.095
	Negative	-.073
Kolmogorov-Smirnov Z		1.239
Asymp. Sig. (2-tailed)		.093

a. Test distribution is Normal.

b. Calculated from data.

Sumber: Data Output SPSS 23.0 Tahun 2021

Based on the results of the normality test above, it is known that the output results obtain a significance value of $0.093 > 0.05$. So it can be concluded that all data in this study are normally distributed.

**Table of Multicollinearity Test Results
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.501	1.693		3.840	.000	
	Knowledge	-.072	.035	-.111	-2.084	.039	.821 1.217
	Attitude	.623	.053	.705	11.832	.000	.658 1.519
	Behaviour	.108	.030	.199	3.588	.000	.761 1.314

a. Dependent Variable: Compliance

Resources: Data Output SPSS 23.0,2021

Based on the output above, it is known that the knowledge variable VIF value (X1) is 1.217, the attitude variable VIF value (X2) is 1.519, and the behavior variable VIF value (X3) is 1.314. So it can be concluded that all variables in this study did not occur multicollinearity symptoms because all variables obtained VIF values < 10

**Glejser . Heteroscedasticity Test Results Table
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.391	1.103		3.980	.000
1 Knowledge	.000	.023	.001	.015	.988
Attitude	-.074				
Behaviour	-.021				
		.034	-.199	-2.160	.032
		.020	-.091	-1.064	.289

a. Dependent Variable: RES2

Resources: Data Output SPSS 23.0,2021

Based on the output above, it can be seen that the knowledge variable has a significant value of 0.988 > 0.05, it can be concluded that the knowledge variable has no symptoms of heteroscedasticity, the attitude variable has a significant value of 0.032 < 0.05, it can be concluded that the attitude variable has symptoms of heteroscedasticity, and the behavioral variable has a significant value. of 0.289 > 0.05, it can be concluded that the behavioral variable has no symptoms of heteroscedasticity.

Based on the Table of Multicollinearity Test Results above, it is known that the significance number of the influence of knowledge (X1) on compliance (Y) is 0.039 < 0.05 so it is significant. While the number t test = -2.084 < t table = 1.974 (df = n-k-1 = 171-3-1 = 167, = 0.05, one-sided test) means that it has a negative effect. Thus, H1 is accepted, meaning that knowledge affects the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan. The effect of attitude (X2) on compliance (Y) is 0.000 < 0.05 so it is significant. While the number t test = 11.832 > t table = 1.974 (df = n-k-1 = 171-3-1 = 167, = 0.05, one-sided test) means that it has a positive effect. Thus, H2 is accepted, meaning that attitudes affect the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan. The effect of behavior (X3) on compliance (Y) is 0.00 < 0.05 so it is significant. While the number t test = 3.588 > t table = 1.974 (df = n-k-1 = 171-3-1 = 167, = 0.05, one-sided test) means that it has a positive effect. Thus, H3 is accepted, meaning that behavior affects the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan.

In this study, to find the effect of the independent variables from the multiple linear regression equation together, it can be tested using the F test.

Tabel Uji F-test

Model	F-test	Sig.
Regression	87,001	0,000

Resources Data primer 2021

Hypothesis 4 proposed is as follows: Knowledge, attitude and behavior have a simultaneous effect on the level of compliance with the COVID-19 health protocol, it is known that the significance number between knowledge, attitude, and behavior towards compliance (Y) is 0.000 < 0.05 so it is significant and calculated F value of 87.001 > F table of 2.71 ($\alpha = 0.05$, Numerator (number of variables- 1) = 6 - 1 = 5 and Denominator (n - k - 1) = 94 - 6 - 1 = 87. Thus, H4 is accepted, meaning that knowledge, attitudes, and behavior simultaneously affect the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan.

This research is perceptual, namely explaining respondents' perceptions of knowledge, attitudes, behavior and compliance with COVID-19 health protocols in Batulicin District, Tanah Bumbu Regency, South

Kalimantan. Respondents in this study were people in Batulicin sub-district. The results of the study are described sequentially according to the order of the research objectives, as follows:

Public knowledge has been shown to have an effect on the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan. Knowledge has a negative and significant effect on the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan. Negative influence here means that the higher a person's knowledge is not necessarily the better the level of compliance with the COVID-19 health protocol and vice versa, the lower a person's knowledge is not necessarily the lower the level of compliance with the COVID-19 health protocol. This is because there are other variable factors that do not exist in this study. A person's knowledge is not only influenced by education as in this study, it is also influenced by media factors such as television, radio, newspapers, and magazines, also influenced by exposure to information where information is something that can be known or as a transfer of knowledge, or information as a technique to collect information. , prepare, store, manipulate, publish, analyze and disseminate information for a specific purpose. Information can be found in everyday life, obtained from data and observations of the world around us and passed on through communication (Arifin Zainal, 2017).

If someone with higher education but never reads media from magazines, television, newspapers or radio about the COVID-19 health protocol, knowledge is lacking. with low education but often read the media and are often exposed to information about compliance with the COVID-19 health protocol, knowledge about COVID-19 can be good. Although knowledge has a negative but significant effect on the level of compliance with COVID-19 health protocols.

Knowledge is the result of sensing humans or a person on an object through their senses. This knowledge is strongly influenced by the intensity of attention and perception of the object. Most of a person's knowledge is obtained through the sense of hearing (ears) and the sense of sight (eyes)(Fishbein & Ajzen, 1975)..Knowledge is very important in continuing aspects of attitude and behavior because if someone does not know then no real action will be taken. Public knowledge in preventing disease transmission will suppress further COVID-19 transmission (S. Law et al., 2020).

The results of this study support the research conducted by Yanti et al (Yanti et al., 2020), showing that public knowledge about the COVID-19 pandemic is in the good category, namely 70%. In the research of Rosidin et al (Rosidin et al., 2020), knowledge forms the attitude of concern for community leaders, but these concerns make them know how to prevent it so that they encourage action to prevent and cope with COVID-19 in the community.(Sinaga, 2021)

The attitude of the community has been proven to have an effect on the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan. Attitude is a person's closed response to a particular stimulus or object that already involves the relevant opinion and emotion factors (happy – not happy, agree – disagree, good – not good, and so on). Attitude is a readiness or willingness to act and is not the implementation of certain motives, so the attitude has not taken action but is a predisposing behavior (action) or closed reaction(Ferdous et al., 2020).

The results of this study support research conducted by Yanti et al al(Yanti et al., 2020) , showing that 59% of respondents have a positive attitude towards social distancing as a prevention of non-pharmaceutical COVID-19 transmission in Indonesia. In a study from Utami et al (2020), it showed that 70.7% of the people had a good attitude in preventing COVID-19.

Community behavior has been shown to affect the level of compliance with the COVID-19 health protocol in Batulicin District, Tanah Bumbu Regency, South Kalimantan. Behavior is an individual's response or reaction to stimuli or the environment. According to Theory of Reason Action (Fishbein & Ajzen, 1975), says that a person will perform an action if he views the action positively and if he believes that other people want him to do it. The theory of Planned Behavior, says that many behaviors are not all under full control so the concept of perceived behavioral control is added to deal with this kind of behavior. In the theory of planned behavior, it will determine certain intentions and behaviors regarding the availability of opportunities and the necessary resources, for example from experience. Both theories above use the basic assumption that humans behave in a conscious way and consider all available information.

The results of this study support the research conducted by Yanti et al (Yanti et al., 2020, showing that 93% of respondents have good behavior towards social distancing to prevent the COVID-19 outbreak in Indonesia. In the research of Yanti et al (Yanti et al., 2020), it showed that the behavior of the community had complied with health protocols during the COVID-19 pandemic by 85.33%. In the research of Rosidin et al (Rosidin et al., 2020), it shows that the behavior of community leaders in implementing PHBS is the key to preventing the spread of COVID-19 infection.

To determine the level of compliance with health protocols in an effort to prevent the spread of COVID-19, there are supporting factors that influence the community, including knowledge, attitudes and behavior. According to the theory developed by Lawrence Green which was pioneered in 1980 regarding the

analysis of human behavior from the health level, it says that behavior is motivated by 3 main factors, namely: Predisposing factors, which include knowledge, attitudes, beliefs, traditions, values, experiences and so on.

Supporting factors (enabling factors), including the availability of resources, health facilities, transportation facilities, service facilities and so on.

Factors that strengthen or encourage (reinforcing factors), which include attitudes and behavior of officers, attitudes of community leaders, government policies and so on. In addition, behavior can also be influenced by 2 factors, namely internal factors and external factors. Internal factors include: knowledge, intelligence, perception, emotion, motivation, experience and so on. While external factors include the environment, socio-economic, cultural and so on.

In this study, knowledge, attitudes and behavior simultaneously influence the level of compliance with the COVID-19 health protocol. Based on the results of the coefficient of determination test above, 60.3% of the variation in the compliance variable is influenced by variations in the knowledge, attitude, and behavior variables. While the remaining 39.7% variation in compliance variable is influenced by variations in other variables not included in this study such as beliefs, community traditions, socio-economics, culture, environment, motivation and high population mobility.

The implementation of the health protocol with 3M, namely wearing masks, maintaining distance and washing hands with soap and running water, has been carried out in Batulicin sub-district, Tanah Bumbu district, South Kalimantan according to Tanah Bumbu Regent Regulation No. 28 of 2020 concerning Guidelines for a New Productive and Safe Society for Corona Virus Disease 2019 which was published in September 2020.

V. CONCLUSIONS AND SUGGESTIONS

A lot of information is conveyed to the public about the dangers of covid, but it still doesn't motivate them to obey health regulations. Attitude reactions in the form of feelings of liking such as rewards or punishments are getting more attention, and the public is willing to behave well in compliance with policies to avoid the spread of the covid 19 virus. Thus, prevention of the spread of covid 19 must be carried out in a coordinated manner, both health workers, security, government officials at all levels, and Public. Community behavior must be supported by the provision of health protocol needs such as mask facilities, hand washing facilities, and others. There should be a policy that promotes rewards for individuals or groups who adhere to health protocols. Strict action must be taken equally for violators of health protocols.

Researchers are expected to be able to conduct further research by adding independent/independent variables that can affect the Covid-19 health protocol such as trust, socio-economic, cultural, environmental, motivational and high population mobility. Also increasing the dependent variable level of compliance with 3M health protocols to 5M, namely wearing masks, maintaining distance, washing hands with soap and running water, avoiding crowds and reducing mobility and can also add 1M, namely office health protocol management.

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