

Original Research

Community Knowledge and Compliance in Doing Prevention of COVID-19

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Abstract

Background: Community compliance in taking measures to prevent transmission of COVID-19 must be based on good knowledge about COVID-19 so that it can break the chain of transmission of COVID-19. **Objective:** To determine the relationship between the level of community knowledge about COVID-19 with compliance to prevent COVID-19 at the Public Health Center of Jati Kudus. **Method:** This study used a quantitative analysis with a cross-sectional approach. The population was 115 people treated at Community Health Center of Jati Kudus with range aged 17-35 years, then got 89 respondents were obtained using the purposive sampling technique. The instrument used was a questionnaire. **Results:** From the results of univariate data testing, 65 respondents (73%) had good knowledge of COVID-19, while those who had sufficient knowledge were 24 people (27%). The results showed that all respondents complied with the prevention measures for COVID-19 with a percentage of 100%. Based on the bivariate test result, it was found that there was a relationship between the level of knowledge and compliance in preventing transmission of COVID-19 with a p-value of 0.034 and r (correlation coefficient) of 0.225. **Conclusion:** it can be concluded that there was a relationship between the level of community knowledge about COVID-19 and compliance with COVID-19 prevention at the Public Health Center of Jati Kudus.

INTRODUCTION

Community knowledge about COVID-19 is one of the serious and important things that must be known by the public. If the level of community knowledge about COVID-19 is still low, it will have an impact on the increasing number of COVID-19 cases worldwide. Therefore, community knowledge about COVID-19, especially the prevention of COVID-19, is important to break the chain of transmission of COVID-19. Coinciding on January 30, 2020, WHO declared COVID-19 as a Public Health

Emergency of International Concern (PHEIC). Then, on February 12, 2020, WHO has determined that COVID-19 in humans is known as Coronavirus Disease.¹

According to WHO in the Task Force for the Acceleration of Handling COVID-19 dated July 27, 2020, data on cases of the spread of COVID-19 globally in 216 countries, 16,096,741 cases were confirmed positive for COVID-19.² The prevalence of positive confirmed cases of COVID-19 in Indonesia is still quite high. Indonesia is in 24th position in the list of countries with the most cases of

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COVID-19³. Central Java as of July 27, 2020, as a province that ranks fourth, namely 8,412 confirmed positive cases of COVID-19 with the highest addition of positive patients in Indonesia, after East Java (20,539 confirmed positive cases of COVID-19), DKI Jakarta (19,125 confirmed positive cases) COVID-19), and South Sulawesi (8,881 confirmed cases of COVID-19).⁴

Kudus Regency is one of the districts in Central Java that is still in the red zone along with three other areas in Central Java, namely the cities of Semarang, Jepara, and Demak. Based on the report of the Task Force for the acceleration of handling COVID-19 in Kudus Regency on July 28, 2020, 8:00 p.m. WIB, there were 769 confirmed cases with details of 595 cases in the area covering Bae 60 cases, Dawe 32 cases, Gebog 30 cases, Jati 137 cases, Jekulo 84 cases, Kaliwungu 64 cases, Kota Kudus 92 cases, Mejobo 53 cases, Undaan 43 cases. Meanwhile, the number of cases outside the district of Kudus was 174 cases.⁵

Efforts to break the chain of the spread of COVID-19 require good understanding and knowledge from all elements including society.⁶ According to Mona, defining the knowledge of COVID-19 patients is the result of the patient's curiosity about everything related to his disease. Knowledge of COVID-19 prevention with community compliance to take precautions has a very important role in anticipating recurring events.⁷

The results of the study⁷ show that there is a relationship between public knowledge and compliance with using masks as an effort to prevent COVID-19. The results of the study⁸ indicated that gender had a significant relationship with knowledge about the prevention of COVID-19 with $p = 0.013 < 0.05$. Age, education, work status, and position in the family do not have a relationship with knowledge about COVID-19 prevention. Based on these two journals, the author wants to develop existing research. Devi & Nabila's research only

focuses on preventing COVID-19 regarding compliance with the use of masks. So, in this study, the authors want to examine the level of compliance with COVID-19 prevention, not only adherence to wearing masks but covering all COVID-19 prevention measures.

The results of the research on "Survey data of COVID-19-related knowledge, attitude, and practices among Indonesian undergraduate students", show that gender, place of residence, education major, and occupation affect students' knowledge, attitudes, and practices towards the prevention of COVID-19 in Indonesia.⁹

Success in carrying out COVID-19 prevention depends on people's compliance with infection control measures, which are greatly influenced by their knowledge, perceptions, and practices of the COVID-19 pandemic.¹⁰ According to H.M Hartopo as the acting Regent of Kudus, conveying the level of compliance of the people of Kudus Regency with the prevention of COVID-19, if previously it tended to increase by 60-70%, now it has decreased to 50%. From data from the Kudus District Health Office, Jati Subdistrict is one of the sub-districts in Kudus Regency which is in the first position with the most COVID-19 cases in Kudus.¹¹ So, the research aims to find out the relationship between the level of community knowledge about COVID-19 and compliance with COVID-19 prevention at Jati Kudus Public Health Center.

METHODS

This research uses quantitative analytic research with a cross-sectional approach, which is a type of analytic research that focuses on time measurement and research of the dependent and independent variables simultaneously at one time.

The variables of this study include the level of community knowledge about COVID-19 as an independent variable and compliance

with COVID-19 prevention as the dependent variable.

The population in this study was 115 people. So that the sample of this study amounted to 89 people who were calculated by the proportion estimation formula. Purposive sampling technique was used in determining the respondents who will be used as research samples, namely, visitors who seek treatment at Jati Kudus Public Health Center, aged 17-35 years old and willing to become respondents by signing an informed consent which is part of the inclusion criteria. This research was conducted at BLUD UPT Jati Kudus Public Health Center in January-February 2021.

The data collection procedure used a questionnaire. The questionnaire for the variable level of public knowledge about COVID-19 uses the Guttman scale and for the compliance variable to prevent COVID-19 using a Likert scale that has been tested for validity and reliability.

This research has received permission from the institution where the research was conducted by paying attention to ethics in research such as beneficence, respecting human dignity, and obtaining justice. Before the respondents filled out the questionnaire, informed consent was explained first. So, respondents have the right to choose whether they are willing to be respondents or not.

After the questionnaire is collected, data processing will be carried out. The steps in the data processing process include editing, coding, tabulating, and data entry. Data analysis in this study used univariate analysis and bivariate analysis using SPSS. The statistical test uses parametric statistics, namely the Pearson Product Moment correlation.

RESULTS

The results of the study are presented in a tabular form consisting of the

characteristics of the respondents, univariate and bivariate results.

Based on table 1, it is found that the gender of the respondents is mostly women as many as 57 respondents (64%) with ages 26-35 years as many as 48 respondents (53.9%). The domination of the respondent's job, namely 18 respondents (20.2%) who had not worked, the latest high school / equivalent education was 63 respondents (70.8%), and as many as 46 respondents (51.7%) were married.

Table 1
The Frequency Distribution of Respondent Characteristics (n=89)

Variable	f	%
Gender		
Male	32	36
Female	57	64
Age		
17-25 years	41	46,1
26-35 years	48	53,9
Occupation		
Administration dan graphic design	1	1,1
Pharmacist	1	1,1
Unemployment	18	20,2
Labor	7	7,9
Factory workers	2	2,2
Freelancer	1	1,1
Teacher	4	4,5
Housewife	14	15,7
General employees	12	13,5
Contractor	1	1,1
College student	8	9
Student	2	2,2
Nurse	1	1,1
Breeder	1	1,1
Odd Jobs	2	2,2
Private Workers	5	5,6
Farmer	1	1,1
Entrepreneur	8	9
Education		
Elementary School	2	2,2
Junior high school	6	6,7
Senior high school	63	70,8
Diploma	3	3,4
Bachelor degree	15	16,9
Marital Status		
Married	46	51,7
Single	43	48,3

Source: Primary Data, 2021

Based on figure 1, the results show that the most parameters for the level of public knowledge about COVID-19 are about the

transmission of COVID-19, which is as many as 84 respondents. While, the lowest level of knowledge was about the etiology of COVID-19, namely 66 respondents.

The result found that the respondents have good knowledge of as many as 65 people (73.0%) while those who have sufficient knowledge are 24 people (27.0%).

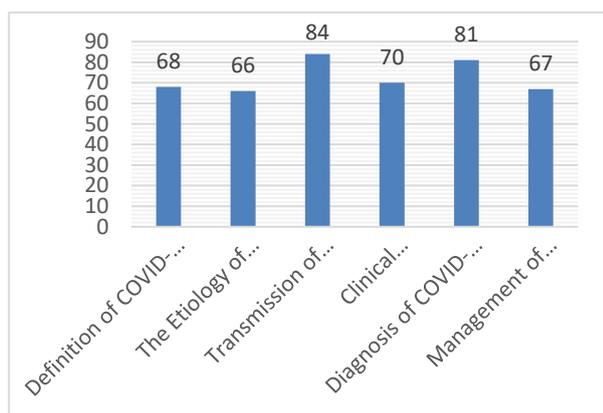


Figure 1

Parameters About the Knowledge Level of COVID-19

The result shows the results of the mean scores of 3 and 4. For the statement, a score of 3 means agrees while a score of 4 means strongly agrees. For an unfavorable score of 3, it means disagree and a score of 4 means strongly disagree. The results showed that the most parameters regarding mistakes in preventing COVID-19 were wearing masks as many as 88 respondents. While the lowest parameter regarding prevention of COVID-19 is about keeping a minimum distance of 1 meter.

Based on the result showed that all respondents prevention COVID-19 which is 89 respondents (100%). According to the Indonesian Ministry of Health (2020), COVID-19 transmission from one individual to another is indicated by symptoms of fever, sore throat, cough, shortness of breath, and some individuals test positive for asymptomatic COVID-19.¹²

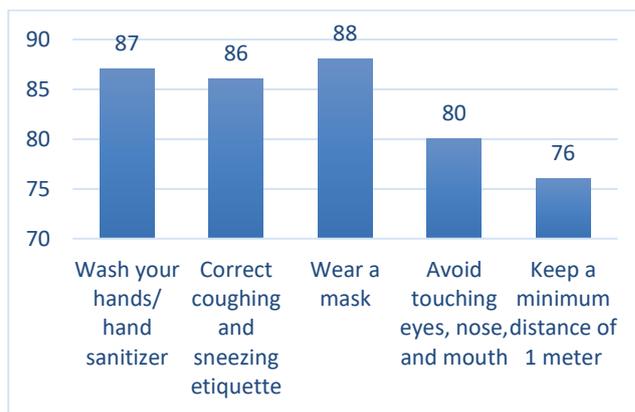


Figure 2

The Parameter Description Questionnaire Regarding Compliance to Prevent COVID-19

The results of the bivariate analysis using the Pearson Product Moment Correlation test in table 2 shows the results of the analysis of the relationship between the level of knowledge and adherence to prevention, obtained p-value = 0.034 < (0.05) so that Ha is accepted and Ho is rejected, meaning that there is a relationship between the level of community knowledge about COVID-19 and compliance the prevention of COVID-19 at Jati Kudus Public Health Center. As for the value of the degree of correlation values obtained r = 0.225 means to have a weak correlation. If the Pearson Correlation value is 0.21 to 0.40, it is said that the correlation is weak.

Table 2
The Analysis of the Level of Knowledge About COVID-19 with Compliance to Prevent COVID-19 (n=89)

Indicators	Compliance Prevention of COVID-19				p
	Comply		No Comply		
	f	%	f	%	
Level of Knowledge					
Good	65	73,0	0	0,0	0,034
Sufficient	24	27,0	0	0,0	

DISCUSSION

The respondent's level of knowledge about COVID-19 at the Jati Kudus Public Health Center, it can be concluded that

respondents who had good knowledge were 65 people while those who had sufficient knowledge were 24 people. The results of this study are in line with research¹³, where the majority of the level of knowledge of the people of North Sulawesi about COVID-19 is in a good category, namely 388 people. "The people of North Sulawesi already know that COVID-19 can cause death, not all people infected with COVID-19 show signs and symptoms, the incubation period for COVID-19 is 2-14 days, signs and symptoms of being infected with COVID-19, ways of transmitting COVID-19, prevention of transmission of COVID-19, and immediate isolation for people who have direct contact with someone infected with Covid-19".¹³

The other research is also in line with this research where most of the knowledge level of the people of Murtajih Village, Pademawu District is good 32 people (51.6%).¹⁴ According to Astutik, the factors that influence a person's knowledge are age, education, experience, information, socio-culture and economy, and environment.¹⁵ In this study, most of the respondents were aged 26-35 years. This shows that the older a person gets, the more experience he gets so that the knowledge gets better, but the ability to remember knowledge will decrease as a person gets older.¹⁶

The results of the univariate analysis of compliance with COVID-19 prevention showed that all respondents complied with the prevention of COVID-19, with as many as 89 people. This is in line with research⁷ which shows that most people obey using masks, as many as 46 respondents.

The results of this study differ from other research showing that as many as 89 respondents of COVID-19 volunteers did not comply with the protocol for preventing the transmission of COVID-19.¹⁷ The majority of North Sulawesi people have a positive attitude towards COVID-19, as many as 396 respondents.¹³ "The positive attitude of the people of North Sulawesi is the importance of wearing a mask when

leaving the house during the pandemic, not traveling outside the house if there is no urgent need, having to maintain a distance of at least 1.5 meters, avoiding crowded places during the pandemic, washing hands using soap or hand sanitizer. , immediately take a shower and wash your hair after arriving at home and wash all used clothes outside the house and get adequate rest, exercise diligently, and consume nutritious foods to increase immunity.¹³" This positive attitude can also be interpreted as public compliance with COVID-19 prevention measures.

The results of the bivariate analysis of the relationship between the level of public knowledge about COVID-19 and compliance with taking preventive measures for COVID-19 with the Pearson Product Moment Correlation Test obtained p-value = 0.034 < α (0.05). This means that there is a significant relationship between the level of community knowledge about COVID-19 and compliance with COVID-19 prevention measures. As for the degree of relationship value, the value of $r = 0.225$ is obtained, meaning that it has a weak correlation.

This research is in line with research conducted by Sari and 'Atiqoh (2020) which states that there is a relationship between public knowledge and compliance with wearing masks. Evidenced by the results of the bivariate analysis to test the relationship between knowledge and compliance with the community using masks with the Chi-Square test using fisher exact, the value of $p = 0.004 < \alpha$ (0.05) was obtained.

In the analysis of this study, most of the respondents had not worked, namely 18 people. This means that the majority of respondents in this study are not from the professional group. However, the results showed that the level of knowledge in the category was sufficient for 65 people, and for the category was enough for 24 people. As for the compliance variable in preventing COVID-19, it shows that all respondents

have complied with COVID-19 prevention measures. According to Sumartini (2020), states that respondents who have not worked have a lot of time to explore and get information from various mass media sources. Besides, people who have not worked can often attend counseling held by students or health workers because they have a lot of free time.¹⁶

In theory, a person's education level will affect their level of knowledge. If the level of education and knowledge is good, then the behavior will also be good.¹⁸ This study shows that most of the respondents' last education was Senior High School or equivalent. This is in line with the other research that the highest educational characteristics were mostly Senior High School as many as 59 people, while the smallest was Master degree graduates as many as 4 people. Apart from formal education, information or knowledge can be obtained from various sources, namely through other people and the mass media. So, low education does not mean having low knowledge. However, the higher a person's education, the easier it will be to receive the information obtained so that his knowledge will increase.¹⁶

Education about health will affect one's health behavior, this is because the education obtained will gain knowledge and have an impact on one's behavior in preventing disease. So, someone who has good knowledge regarding healthy behavior will tend to have good behavior towards health. Therefore, to increase healthy behavior, it is also necessary to increase knowledge.

According to the preliminary study, the highest number of COVID-19 cases was in Jati District. However, after doing research it shows that the level of knowledge of the majority of the community is good. As for compliance with the prevention of COVID-19, all respondents fall into the obedient category. This happened because when researchers conducted a preliminary study

in July 2020, Kudus Regency was included in the red zone and Jati District was the district with the greatest number of COVID-19 cases. While the research was conducted in January-February 2021, in which Kudus Regency has entered the green zone. So, during that time the community had received a lot of information from various media or the local government.

CONCLUSION

After conducting the research, it can be concluded that there is a relationship between the level of public knowledge about COVID-19 and compliance with COVID-19 prevention at Jati Kudus Public Health Center.

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CONFLICTS OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

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