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Knowledge Level with Community Compliance in Implementing Covid-19 Prevention Health Protocols

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Article Info	ABSTRACT
	Covid 19 is a type of virus that spreads very quickly or infects other people. Most Indonesians do not comply with the government's recommendation to comply with health protocols. The purpose of this study was to analyze the level of knowledge with compliance in the Covid-19 health protocol. This study used a cross sectional approach. Samples were taken by accidental sampling technique as many as 154 people in RW 03 Manukan Kulon Village, Surabaya City. The variable level of knowledge and compliance instrument used a questionnaire. Data were analyzed using Spearman Rho's test with a significance degree of 0.05. The results showed that there was a relationship between the knowledge level variable (0.040) and compliance with the Covid-19 health protocol in RW 03, Manukan Kulon Village, Surabaya. The level of knowledge is very influential on compliance in carrying out health protocols. The implication of this study is that the level of knowledge affects the community's compliance with health protocols.

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1. INTRODUCTION

Covid 19 (Corona Virus disease 2019) is a type of disease caused by a virus, namely SARS COV 2 or commonly called the corona virus. Covid 19 is a type of virus that spreads very quickly or infects other people. In Indonesia, cases of Covid 19 infection have been found since March 2020. Since it was first discovered in Indonesia, the number of cases of Covid 19 has continued to increase. This is because most people do not obey the government's recommendations to comply with health protocols. Non-compliance with health protocols includes carrying out 5M correctly, namely maintaining a minimum distance of 1.5 meters from other people, secondly not using masks properly, and not washing hands as often as possible and not increasing immunity. This non-compliance can be caused by a lack of public knowledge about Covid 19 and how it spreads (1).

Based on Lawrence green's theory, there are 3 factors that influence people's compliance in their health behavior, namely predisposing factors consisting of knowledge, attitudes, beliefs, values, beliefs, society. Supporting factors are manifested in the availability or absence of the physical environment and the availability or absence of health facilities (2). While the driving factors that influence the behavior of health workers, parents, friends. With a good level of knowledge, it is hoped that the community can change, maintain and improve behavior towards a better direction, so that the virus does not spread widely. Seeing the rapid spread of the virus, several countries have implemented health measures (3). Health efforts are a series of activities carried out in an integrated, integrated and sustainable manner in order to maintain and improve the degree of public health in the form of disease prevention, health improvement, disease treatment, and health restoration by the government and or the community (4). The health effort is in the form of health promotion.

Health efforts implemented by the government are not necessarily carried out by the community. Many of them did not heed the government's advice.

This emerging phenomenon makes the authors wish to prove whether there is a relationship between knowledge and compliance in carrying out health protocols, and the community is expected to be able to comply with health protocols including implementing 5M.

2. RESEARCH METHOD

This study uses a quantitative approach with a cross-sectional research design that emphasizes the time of measurement or observation of data on the independent variable about public knowledge about Covid 19 and the dependent variable on community compliance in carrying out the Covid 19 prevention health protocol. The independent variable and dependent variable are assessed only once in just one moment. The research was carried out in RW 03, Manukan Kulon sub-district, Tandes sub-district, Surabaya and was conducted in January 2021. The population in this study were residents of RW 03, Manukan Kulon sub-district, Tandes sub-district, Surabaya, amounting to 250 respondents, the total sample was 154 respondents. The sampling technique in this study is accidental sampling, namely the determination of the sample based on coincidence, namely consumers who coincidentally / incidentally meet with researchers can be used as samples, if in the view of the person who happened to be met it is suitable as a data source (5)

Inclusion criteria in this study: residents of RW 03 who are able to use Smartphones to access and fill out questionnaires in a complete google form, residents of RT 03, RT 06, RT 11 where in this RT many are affected by covid 19 disease, and residents of RT 03, RT 06 , RT 11 who is able to be a respondent and is able to communicate. While the exclusion criteria: a subject who is willing to become a respondent but when he is about to fill in the data, it turns out that the person is confirmed to be Covid 19 and has to be hospitalized.

This research has been reviewed and declared to have passed the ethical test of the Health Research Ethics Commission of STIKES Hang Tuah Surabaya, no PE/6/I/2021/KEPK/SHT in an effort to protect human rights and welfare of nursing research subjects. At the time of conducting the research, the researcher guaranteed all the confidentiality of the respondents and did not violate the rights of the respondents and did not harm the respondents who participated in this research.

3. RESULT AND DISCUSSION
3.1. Characteristics of Respondents

Tabel 1. Frequency Distribution of Respondents Characteristics (n=154)

No.	Characteristics	N	(%)
1.	Gender		
	a. Male	36	23.4
	b. Female	118	76.6
2.	Education		
	a. Primary school	1	0.6
	b. SMP	3	1.9
	c. SMA	75	48.7
	d. Perguruan Tinggi	75	48.7
3.	Work		
	a. Enterpreneur	63	40.9
	b. PNS/TNI/POLRI	16	10.4
	c. Student	28	18.2
	d. Doesn't work	47	30.5
4.	Get information		
	a. Television	71	46.1
	b. Internet/Social media	79	51.3
	c. health worker information	4	2.6

3.2. Distribution of Knowledge Level Relationship with Community Compliance

Table 2. Distribution of Knowledge Level Relationship with Community Compliance
in Implementing Health Protocols in RW 03 Manukan Kulon Sub-district Surabaya
on January 01 – 31, 2021 (n= 154)

Level Knowledge	Kepatuhan Masyarakat						Total	
	Low				High			
	F	%	F	%	F	%	N	%
High	30	32,3	55	59,1	8	8,6	93	100.0
Moderate	18	35,3	30	58,8	3	5,9	51	100.0
Low	5	50,0	5	50,0	0	0	10	100.0
Total	53	34,4	90	58,4	11	7,1	154	100.0

Spearman's rho statistical test value 0.040 (α=0.05)

This study shows that respondents with good knowledge and moderate compliance dominate compared to respondents with good knowledge and high compliance, this can be seen by the number of respondents answering correctly on the knowledge level questionnaire which explains "To prevent the transmission of covid 19, one of them is by maintaining physical distance of at least 1-2 meters?". Many people in RW 03 Manukan Kulon Village still don't understand about Covid-19, the results of the cross table test are obtained ($\rho = 0.005$) which is dominated by RT 11 residents who still have sufficient knowledge as many as 46 people (50.5%). This can also affect how many people are in one dwelling house, the results of the cross table test are obtained ($\rho = 0.018$) counting the number of respondents having more than 4 family members in one house as many as 26 people (48.1%), thus the need for the role of community leaders and local health workers to distribute information about Covid-19 and how to use health protocols as best they can. Knowledge or cognitive is a very important domain for the formation of one's behavior (6). This is in line with the theory (Emaliyati,2010) that compliance is influenced by several factors, namely cultural, economic, social, self-efficacy, and knowledge. High knowledge can also be supported by education, information, environment, age, experience, socio-cultural and economic. One of the influencing factors is education, from the cross table between knowledge and education, 75 people with the latest college education were found with enough knowledge category 47 people (62.7%), good knowledge 19 people (25.3%), and less knowledge 9 people (12.0%), 75 people with high school education with sufficient knowledge category (46.7%), 33 people with good knowledge (44.0%), and 7 people with less knowledge (9.3%), then for residents with junior high school education as many as 3 people with sufficient knowledge category 2 people (66.7%), and good knowledge 1 person (33.3%), while for elementary school educated residents only 1 person (100.0%) has less knowledge. Knowledge is one of the important things to pay attention to in the context of handling, especially in terms of preventing the spread of transmission and suppressing the spread of the Covid 19 virus (7). This is also in line with research from (4) who explained that a high level of knowledge can be seen from their high education, making it easier to receive various information related to Covid 19. In addition, a young age makes their ability to grasp information better.

The results of the study in table 2. show that the relationship between the level of knowledge and community compliance in health protocols in RW 03 Manukan Kulon Sub-district Surabaya obtained data that from 154 people with good knowledge as many as 93 people including good knowledge with low compliance as many as 33 people (32,3 %), good knowledge with moderate compliance as many as 55 people (59.1%) and good knowledge with high compliance as many as 8 people (8.6%). Citizens who have sufficient knowledge as many as 51 people, including those with sufficient knowledge with low compliance as many as 18 people (35.3%), moderate knowledge with moderate compliance as many as 30 people (58.8%), and those who have sufficient knowledge with high compliance as many as 3 people (5.9%). Residents who have less knowledge as many as 10 people, among others, namely those who have less knowledge with low compliance as many as 5 people (50.0%), less knowledge with moderate compliance as many as 5 people (50.0%). Based on the results of the Spearman's Rho statistical test, it was found that the value = 0.040 which is smaller than the value, which is 0.05 ($\rho <0.05$) which indicates that there is a relationship between the level of knowledge and compliance in carrying out the Covid 19 virus prevention health protocol in the RW. 03 Manukan Kulon Village, Surabaya.

This research is in line with (8) who explained that one of the factors that made residents no longer comply with the health protocols in Covid 19, was the lack of knowledge about Covid 19 so that it could have a negative impact on information distortion. Even though there is a lot of information circulating in electronic media and the internet, as well as the ability to access the internet that they have, it makes it easier for them to access various information about Covid 19. However, the behavior of implementing health protocols at this

time should be based on the awareness of the community itself, because many people who actually already know various knowledge related to health protocols or the Covid 19 pandemic but can't implement it well in their daily lives (4).

The researcher's assumption explains that increasing public knowledge regarding Covid 19 can encourage people to obey all health protocols that have been set by the government and can be a benchmark for the government in obtaining further strategies to reduce the spread of Covid 19 prevention so as to increase knowledge, especially for people who considered to be at risk and tend to have low knowledge about this disease. Therefore, it is important to spread information that is clear, and easily understood by all circles of society so that they must know, know, learn and understand everything related to Covid 19. This is in line with research from (9) which explains that individual knowledge about the prevention of Covid 19 can be seen in the compliance with the use of masks which have an important role in minimizing the recurrence of Covid 19.

3.3. Discussion

Results in table 7 showed a moderate pain scale in hypertensive patients, as many as twenty-eight people (93%), and severe pain in as many as two people (7%) before the intervention of red ginger warm compress (Zingiber Officinale Var Rubrum). Headaches even up to the neck in patients with hypertension are usually caused by vascular disorders or disturbances in blood flow. According to (10), Headaches in people with hypertension flow faster in the blood vessels in the head so that the brain's work to meet oxygen becomes greater, resulting in headaches. Pain or discomfort in the neck occurs because the blood vessels around the neck become narrowed so that the neck will experience contraction of the neck muscles and blood vessels.

Results in table 8 showed the mild pain scale in hypertensive patients who experienced mild pain as many as 19 people (63%) and moderate pain as many as 11 people (37%) after the intervention of a red ginger warm compress (Zingiber Officinale Var Rubrum). Ginger has a spicy and hot taste and has a laxative, antihelmintic and antirheumatic pharmacology activity. The benefits of ginger have been known for generations as a medicine for relieving headaches, coughs, and colds (11).

Ginger (Zingiber officinale var) is included in the WHO priority list as the most widely used medicinal plant globally. The rhizome, which contains zingiberol and curcuminoids, has been proven to reduce inflammation and joint pain. The oleoresin in ginger possesses spicy, bitter, and fragrant qualities. Oleoresin is a powerful anti-inflammatory and antioxidant. Ginger's water and non-volatile oil content act as a diluent, allowing oleoresin to penetrate the skin without causing irritation or injury to the peripheral circulation (12).

Based on studies, ginger has benefits, among others, stimulating the release of the hormone adrenaline and widening blood vessels so that blood flows faster and smoother. This effect causes blood pressure to drop. The most important component is gingerol, an anticoagulant that prevents blood clots. Gingerol is also thought to be able to lower cholesterol levels (13).

According to the theory put forward by (14), in ginger content, hundreds of active chemical compounds are composed, each of which has certain properties for the body. Ginger contains phenolic compounds, which have been shown to have anti-inflammatory properties and are effective at preventing joint disease and muscle tension. Patients with hypertension often complain of symptoms such as headaches, aches, and discomfort in the neck (15). Headaches are caused by crusting in the blood vessels or atherosclerosis so that the elasticity of the blood vessels decreases. Atherosclerosis causes spasms of the blood vessels (arteries), blockage, and decreased O2 (oxygen) which will lead to headaches or distension of structures in the head or neck (16).

According to the theory of (17), giving wet hot compresses can improve blood circulation in the body, eliminate swelling (edema), increase pus drainage, and reduce pain. Warm compresses can be combined with natural ingredients such as ginger. The types of ginger known by the public are esprit ginger, elephant ginger, and red ginger. The most widely used ginger for medicine is red ginger because red ginger has a higher volatile oil content than other gingers (18).

4. CONSLUSION

This study shows that there is a relationship between the level of knowledge and the level of community compliance in carrying out the Covid 19 virus prevention health protocol in RW 03, Manukan Kulon Village, Surabaya. Respondents are encouraged to comply with health protocols. Non-compliance with health protocols includes carrying out 3M properly, namely maintaining a minimum distance of 1.5 meters from other people, secondly not using masks properly, and not washing hands as often as possible and not increasing immunity.
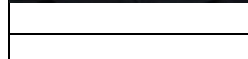
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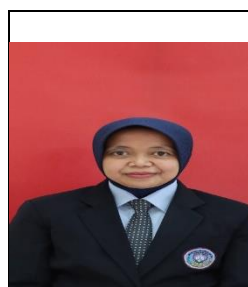
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