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Reni Oktarina ✉; Nuryanto Nuryanto; Oom Komalasari; ... et. al

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Implementation of COVID-19 Preventive Health Protocol in Palembang of South Sumatera Province

Reni Oktarina [1, a)], Nuryanto Nuryanto[1], Oom Komalasari[1], Sri Maryani[1], and Ekowati Retnaningsih[1]

[1]*Board of Regional Research and Development of South Sumatera Province Demang Lebar Daun Street, No. 486, Palembang, South Sumatra, Indonesia*

[a)] Corresponding author: reniloka_bta@yahoo.com

Abstract. In South Sumatera, the increase in COVID-19 occurred after three weeks of confirmed cases in Indonesia. The community's knowledge, attitudes, and behavior toward COVID-19 are an integral part of the fight against COVID-19. Community compliance with preventive behavior against COVID-19 can reduce transmission rates. This study aims to describe COVID-19 prevention behavior using masks, washing hands, and social distancing in Palembang. Crossectional study methods were conducted on 602 respondents using questionnaires collected using google forms. To see an overview of preventive behavior and the factors that affect it, use the chi-square test. Most of the respondents already have good knowledge and attitude about the prevention of COVID-19. Respondents who used masks as much as 95.2%, kept their distance (89.9%) and washed their hands (92.4%). Some variables such as age groups, type of occupation, education level, level of knowledge, and positive attitude of respondents towards COVID-19 are related to the behavior of wearing a mask. Furthermore, the variables related to social distancing behavior are respondents' knowledge and attitude, while those associated with handwashing behavior are education and knowledge levels. The use of masks is the primary choice in preventing COVID-19. The older the age, the more obedient the respondents using masks and washing their hands, but not social distancing.

INTRODUCTION

COVID-19 is a new infectious disease caused by the coronavirus known as novel coronavirus. The coronavirus is from Wuhan in China in late 2019 [1]. Common symptoms of the disease are fever, runny nose, cough, sore throat, and shortness of breath. The disease is transmitted through droplets or spits splashes [2]. Recent research suggests that transmission can occur through the air [3].

The number of COVID-19 cases has increased exponentially and has been declared a pandemic by WHO [4]. In Indonesia, the first COVID-19 case was confirmed in Jakarta in early March 12, 2020, and within a month has spread to 9 provinces in Indonesia [5]. The first case of COVID-19 in South Sumatera was confirmed after three weeks after the first confirmed case in Indonesia [6]. There were five positive cases in South Sumatera at the end of March 2020 and increased 30-fold in one month to 150 positive cases at the end of April 2020. In April, the number of positive confirmation cases in Palembang was confirmed cases, the highest number of positive cases compared to another city in South Sumatera [7].

Various efforts are being made to break the chain of transmission of COVID-19, including the government's recommendation to implement the COVID-19 preventive health protocol. The main behavior in implementing health protocols for COVID-19 prevention by using a mask, social distancing, and washing hands with soap or hand sanitizer [8].,[9]. The success of preventing the spread of COVID-19 is inseparable from the participation of the community. The community is expected to implement COVID-19 preventive health protocol behavior to reduce the spread of transmission in the community. Health behavior, in general, is influenced by various factors, including the characteristics of society, knowledge, and attitudes [10].

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An overview of implementing COVID-19 preventive health protocols is needed to prepare program planning for decision-makers in Palembang. It describes the stakeholder can make policies to develop prevention and countermeasures programs for COVID-19 transmission more purposefully. Therefore, it is essential to conduct a level analysis of community behavior in implementing the COVID-19 preventive health protocol as input for policy-making stakeholders in the prevention and countermeasures of COVID-19 in Palembang.

METHOD

This study is a further analysis of research on the Knowledge of Attitudes and Behavior of people towards COVID-19 in 17 districts and cities in South Sumatera Province held on April 18-30, 2020. The research design is a crossectional survey. Data collection by using google forms and distributed through social media groups. The variables used in this study are the characteristic variables of respondents, The Level of knowledge, attitudes, and behaviors prevented against COVID-19.

Measurement of knowledge, attitude, and behavior variables is done by processing raw data from the questionnaire and then selecting questions related to the implementation of health protocols in the prevention of COVID-19. The collected data is scored and then categorized based on the median. The knowledge variable is a composite result of 8 questions about the causes, symptoms, transmission, and prevention of COVID-19. The composite attitude variable of 8 statements about COVID-19 as a dangerous disease, stigma towards the patients, and attitudes towards preventive behavior against COVID-19. Preventive behavior variables are measured from 3 implementing health protocols: using a mask, social distancing, and washing hands with soap or hand sanitizer.

Respondents who have knowledge values or attitudes above or equal to the median value are categorized as good. In contrast, respondents who have knowledge values or attitudes lower than the median value are classified as less. Behavior is categorized as good if respondents apply three instructions to the health protocol in total, while respondents who use only 1 or 2 health protocol instructions are classified as less.

RESULT

Table 1 shows the number of respondents who participated in this survey activity was 602 respondents. Most work as private employees (36.9%) and civil servants / TNI / Polri (31.7%), highly educated (79.7%), female (61.6%) and aged 26-45 years (56.3%). Based on the analysis results, the level of knowledge, attitude, and behavior of respondents in Palembang were quite good.

TABLE 1. Frequency Distribution of Characteristics Respondents

Variable	Frequency (%)
Occupation	
- Civil servant/ Army/Police	191 (31,7)
- Health Worker	44 (7,3)
- Privat sector	222 (36,9)
- Housewife	49 (8,1)
- Student	96 (15,9)
Education	
- Low	20 (3,3)
- Middle	102 (16,9)
- High	480 (79,7)
Sex	
- Male	235 (38,4)
- Female	377 (61,6)
Age Groups	
- 13-32	244 (40,5)
- 33-52	292 (48,5)
- 53-73	66 (11,0)

TABLE 2. Frequency Distribution of Knowledge Frequency, Attitudes, and Behaviors of Respondents

No	Variable	Sample	Number	%
1	Knowledge	602		
	- Less		131	21.8
	- Good		471	78.2
2	Attitude	602		
	- Less		167	27.7
	- Good		435	72.3
3	Behavior	602		
	- Less		71	11,8
	- Good		531	88,2

Table 2 showed that most respondents (78%) had good category knowledge about health protocols for preventing COVID-19. Most respondents (72%) had a good attitude toward health protocols in preventing COVID-19. When viewed from implementing health protocols, most respondents (88.2%) have behaved well. To explore the relationship of independent variables to the behavior of the implementation of the COVID-19 preventive health protocol, chi-square tests were conducted on all independent variables to each of the three instructions in the health protocol. The result can be seen in Table 3.

TABLE 3. Relationship of Characteristics, Knowledge, and Attitudes with Behavior of the application of each COVID-19 Preventive Health Protocol Instruction

Variables	Total	Using Masks				Pv	Social Distancing				Pv	Washing Hand				Pv
		Yes	%	No	%		Yes	%	No	%		Yes	%	No	%	
Age Groups	**602**					**0.043**					0.117					0.442
13 -32		226	96.2	18	7.4		213	87.3	31	12.7		222	91.0	22	9.0	
33-52		282	96,6	10	3.4		265	90.8	27	9.2		271	92.8	21	7.2	
53-73		65	98,5	1	1.5		63	95.5	3	4.5		63	95.5	3	4.5	
Female		350	95.4	17	4.6		329	89.6	38	10.4		338	92.1	29	7.9	
Male		223	94.9	12	5.1		212	90.2	23	9.8		218	92.8	17	7.2	
Occupation	**602**					**0.002**					0,169					0.398
Civil servant/ Police		186	97.4	5	2.6		173	90.6	18	9.4		176	92.1	15	7.9	
Health workers		44	100	0	0		42	95.5	2	4.5		43	97.7	1	2.3	
Private sector employee		211	95	11	5		201	90.5	21	9.5		207	93.2	15	6.8	
Housewife		48	98	1	2		45	91.8	4	8.2		45	91.8	4	8.2	
Student		84	87.5	12	12.5		80	83.3	16	16.7		85	88.5	11	11.5	
Education	**602**					**0.003**					0,124					**0.011**
Hight		464	96.7	16	3.3		437	91	43	9		451	94	29	6	
Middle		91	89.2	11	10.8		86	84.3	16	15.7		87	85.3	15	14.7	
Low		18	90	2	10		18	90	2	10		18	90	2	10	
Knowledge	**602**					**0.004**					**0.033**					**0.015**
Good		455	96,6	16	3.4		430	91.3	41	8.7		442	93.8	29	6.2	
Less		118	90.1	13	9.9		111	84.7	20	15,3		114	87.0	17	13.0	
Attitude	**602**					**0.005**					**0.004**					0.086
Good		421	96.8	14	3.2		401	92.2	34	7.8		407	93.6	28	6.4	
Less		152	91.0	15	9.0		140	83.8	27	16,2		149	89.2	18	10.8	
		573	**95.2**	29	**4.82**		541	**89.9**	61	**10.1**		556	**92.4**	46	**7.6**	

The percentage of health protocol behaviors that are most widely carried out by successive communities are wearing masks (95.2%), washing hands (92.4%), and maintaining distance (89.9%). Table 3. shows there are five independent variables related to the behavior of mask use, namely age group (p-value 0.043), type of work (p-value 0.002), education level (p-value 0.003), knowledge level (p-value 0.004), and attitude of respondents towards COVID-19 (p-value 0.005). Independent variables related to social distancing behavior are knowledge level (p-value 0.033) and respondents' attitude toward COVID-19 (p-value 0.004). While the variables associated with the behavior of handwashing with soap / using sanitizer, there are two independent variables: the level of education (p-value 0.011) and respondents' level of knowledge (p-value 0.015).

DISCUSSION

The results showed that most respondents had good knowledge, good attitude, and behavior towards COVID-19. At the beginning of the pandemic, information about COVID-19 was very intensively informed through the media. Respondents get information about COVID-19 from various sources such as print media, electronic media, social media, friends, and family [11]. Indonesian migrant workers in China get knowledge about COVID-19 sourced from online social media [12]. Implementing the COVID-19 health protocol is necessary to prevent COVID-19 transmission in the community. People must make changes in lifestyle with a new order and adaptation of habits (new normal) to live productively and avoid COVID-19 transmission. Discipline in applying the principle of a cleaner and healthier lifestyle is key in suppressing the transmission of COVID-19 in the community, so it is expected that the COVID-19 outbreak can end soon [13].

Knowledge and public awareness play an important role in prevention because adherence to preventive measures depends on understanding the disease [14]. An understanding of COVID-19 has a significant direct link to perceived vulnerability and severity [12]. People who are concerned about this virus will follow the government's prevention protocols, such as using masks outside, living and working from home, using sanitizer, and practicing social distancing during pandemics. An understanding of COVID-19 has a direct influence on threat perception and severity. Then the perceived perception of threats and severity significantly affects the intention of behaving even indirectly. Then, the intention directly affects a person's behavior [15].

Research shows the use of masks as the most dominant prevention to do because it is easier to do. So at the beginning of the pandemic, masks became a rare item and became expensive. The general public in India is advised to reduce medical masks and prefers to wash their hands with soap [16]. At the beginning of the pandemic in Palembang, respondents predominantly used masks by 95.2 %. As of September 22, 2021, the level of community compliance with masks and social distancing in Palembang became 69.03% and 68.60%. In South Sumatra, there are some districts with low compliance with health protocols, they are Ogan Komering Ulu Selatan (OKUS), Pagar Alam, and Lahat [17]. There are still low some areas in the implementation of compliance with health protocols because there are still people who do not believe in COVID-19, so it becomes uncared for.

The older the age respondent, the more obediently using the mask. Older respondents are more susceptible to contracting COVID-19, so it is more compliant to implement health protocols. Riyadi's research (2020) showed that female respondents are more compliant with health protocols [18]. In contrast, the results of the study showed no difference in the behavior of wearing masks based on gender. All healthcare workers use this mask because they have a high risk of exposure to COVID-19. The higher the level of education of respondents, the more obedient apply health protocols. Respondents who have higher education are expected to get the correct information and knowledge about COVID-19.

There was no difference between the behavior of social distancing and washing hands with soap or using a sanitizer based on age group, gender, or type of work. Compliance with social distancing is lower than compliance with wearing masks. Social distancing is not a needed cost but is sometimes hard to do especially in markets or other crowded places. While washing hands with soap or using a sanitizer depends on the public facilities provided in public places.

Respondents who have good knowledge and attitudes tend to adhere to all health protocols. On the other hand, respondents who have a good attitude will not necessarily keep social distancing. Yanti's research et al. [19] also state that the application of health behaviors is closely related to one's knowledge and attitudes. Research analyzing behavioral adherence to social distancing policies to prevent COVID-19 transmission in Indonesia shows that education and work levels influence positive attitudes in applying social distancing. Good knowledge of the effectiveness of social distancing and a positive attitude will increase the intention to behave according to government recommendations.

CONCLUSION

In this study, the respondents who used masks were 95.2%, social distancing 89.9%, and washed hands about 92.4%. The data is analyzed descriptively using the chi-square test. Some variables such as age groups, type of occupation, education level, level of knowledge, and positive attitude of respondents towards COVID-19 are related to the behavior of wearing a mask. Furthermore, the variables related to social distancing behavior are respondents' knowledge and attitude, while those associated with handwashing behavior are education and knowledge levels. The

use of masks is the primary choice in preventing COVID-19. The older the age, the more obedient the respondents using masks and washing their hands, but not social distancing.

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