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The Relation Between Outside Patient Knowledge with Compliance Use of Mask COVID-19 Preventive Effort at Technical Implementation Unit Besiq Public Health Centre, West Kutai Regency

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Abstract
Introduction: *The COVID-19 pandemic has hit the world, including Indonesia. Knowledge and compliance with the use of masks is one way to prevent the spread of COVID-19.* ***Objective:*** *This study aims to determine the relationship between knowledge and ompliance to the use of masks at Besiq Public Health Centre, West Kutai.* ***Method:*** *Quantitative research with analytic study and cross-sectional design A sample of 97 people uses purposive sampling technique.* ***Results and Discussion:*** *Of the 97 respondents most of them have high knowledge of COVID-19, namely 83 respondents (85.6%), and a small proportion of low knowledge (14.4%), most of the respondents obeyed using masks, 80 respondents (82.5%) and small of proportion are not compliant 17 respondents (17.5%). Based of the Chi-Square test, the significance of p between the independent variables knowledge and the dependent variable compliance with the use of masks was 0.000 (p <0.05), the result that there is a relation relationship between knowledge and compliance use of masks.* ***Conclusion:*** *There is a relation between knowledge and compliance to the use of masks. It is recommended that the Public Health Centre continue to improve health services in making policy on COVID-19 prevention programs during the pandemic.*
Keyword: Knowledge; Compliance use of masks; COVID-19;

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Introduction

Corona Virus-19 (COVID-19) is a virus that attacks the human respiratory system. The World Health Organization has declared the COVID-19 pandemic a public health emergency of international concern (G ner et al., 2020). This virus became a pandemic when it hit the entire world, including Indonesia.

Based on data from the COVID-19 Task Force of the Republic of Indonesia, as of November 30, 2021, the total number of COVID-19 positive patients in the world reached 263 million people, accumulated from positive patients treated, positive patients recovered, and positive patients died. In Indonesia, the total number of COVID-19 positive patients is 4,256,409 people. East Kalimantan Province occupies the fifth highest position in Indonesia in the number of patients 158,232 people, while West Kutai Regency occupies the seventh position in East Kalimantan Province in the number of COVID-19 positive patients, which is 10,606 people (Gugus, 2020).

The spread of COVID-19 is caused by infected patients expelling droplets containing the SARS-CoV2 virus into the air when coughing or sneezing (Shereen et al., 2020). Then, other people around who are not infected with COVID-19 can inhale airborne droplets through their nose or mouth. Then droplets enter through the lungs, and the infection process in healthy people continues (Ni et al., 2020). The public is urged to implement several health protocols that must be followed to prevent transmission of COVID-19, such as using correct masks, washing hands with soap and water, drinking water, and maintaining hygiene. A minimum distance of one meter, avoiding crowds and reducing mobility (Global & Alert, 2020).

Efforts to determine the spread of COVID-19 require a good understanding and proper knowledge from all elements of society (Ministry of Health, 2020). The level of knowledge of COVID-19 patients can be described as the result of knowledge and understanding of the COVID-19 disease, how to prevent it, the treatment of COVID19 and complications arising from COVID-19 (Mona, 2020) (Mona, 2020)

Good behavior comes from good knowledge (Lestari, 2019). Compliance is a positive behavior shown by the community when wearing masks. One of the medical procedures that must be followed is the use of masks according to medical procedures. The use of masks has become an obligation that should apply to everyone when interacting. Based on research in the United States, it shows that using masks by 75% of the population is effective in suppressing the transmission of the coronavirus, even the use of cloth masks by 80% of the population will reduce 34% to 58% of additional cases of death due to COVID-19 (Eikenberry et al., 2020)

According to a survey by the Central Statistics Agency (2021) with 212,762 respondents, public compliance with the implementation of one of the medical procedures for wearing masks in Indonesia is still lacking, where the use of single layer masks in areas outside Java and Bali is 83.8%, while the use of double masks outside Java and Bali is only 37% (Statistics, 2021).

According to research by Sari and Atiqoh (2020) in (Amir, 2021) related to "The relationship between public awareness and compliance with mask use as an effort to prevent COVID-19 in Ngronggah", based on the results of the study, it was found that there was a relationship between public awareness and compliance with mask use. This is also supported by the results of research by Novia et al (2021). There is a significant difference between knowledge variables and compliance variables in the application of infection prevention behaviors.

Researchers observed that from 13 visitors to the Technical Implementation Unit of the Besiq Public Health Center on December 23, 2021, it was found that 8 people did not use masks and 5 others used masks but did not follow mask wearing standards, such as placing masks on the chin and removing masks when talking to others. Meanwhile, the main reason visitors do not wear masks is because currently COVID-19 cases in Indonesia, especially in West Kutai, have begun to decrease and many people have beenvaccinated. Even some new cases have emerged of variants such as Delta and Omricon that are believed to be immune to vaccines and are particularly susceptible.

Method

The research was carried out in the service unit of the Technical Implementation Unit of the West Kutai Besiq Public Health Centre. The time for conductingthe research is in March 2022. The type of research used in this study is quantitative with *a cross sectional* design (cross sectional). The population in this study was all patients who visited the Besiq Public Health Centre during the last 1 year (2021) amounted to 2,896. A sample of 97 people used *purposive sampling* techniques.

The data collection method is in the form of filling out knowledge questionnaires and compliance with mask use. The data collected were analyzed univariately and bivariately using the *chi square* test to determine if there was a relationship between knowledge and adherence to mask use

Results and Discussion

Result

1. Analyzes Univariat

Table 1

Characteristics of Respondents based on Gender, Age, Occupation and Last Education in the Technical Implementation Unit of the Besiq Public Health Centre in 2022

Characteristics of Respondents	Frequency (n)	Presented (%)
Gender		
Man	32	33,0
Woman	65	67,0
Age (Years)		
18-25	18	18,6
26-35	25	25,8
36-45	24	23,7
46-55	18	19,6
>55	12	12,4
Work		
Civil Severant	2	2,1
Private	17	17.5
Palm Oil Employees	5	5,2
Housewife	50	51,5
TKK	9	9,3
DLL	14	14,4
Recent Education		
ES/equivalent	27	27,8
Junior High School / Equivalent	31	32,0
High School/Equivalent	29	29,9
Diploma III	4	4,1
Bachelor	6	6,2
Total	**97**	**100**

Source: Primary Data (2022)

Based on table 1 above, it shows the characteristics of respondents by gender are mostly women as much as 67.0% and almost half are men as much as 33.0%. The istic characteristics ofrespondents based on age mostly have an age group of 26-35 years as many as 25 people (25.8%). Meanwhile, a small percentage is the age group > 55 years as many as 12 people (12.4%).

Characteristically respondents based on occupation, most have housewife's jobs as many as 50 people (51.5%). Meanwhile, a small percentage have 2 Civil Servant jobs (2.1%). Based on the last education, most of the last education was junior high school (50 people (32%). Meanwhile, a small part of the last education is Diploma III as many as 4 people (4.1%).

2. Variable Distribution

Distribution of Respondents by Knowledge

Table 2
Distribution of Respondents by Knowledge

Knowledge Distribution	Frequency (n)	Percentage (%)
Tall	83	85,6
Low	14	14,4
Total	97	100

Source: Primary Data (2022)

Based on table 2 above, it shows that the distribution of respondents based on knowledge level is almost half low at 14 people (14.4%), and most are high at 83 people (85.6%).

Distribution of Respondents based on Mask Use Compliance

Table 3
Distribution of Respondents based on mask compliance

Distribution of Mask Use Compliance	Frequency (n)	Percentage (%)
Obedient	80	82,5
Disobedient	17	17,5
Total	97	100

Source: Primary Data (2022)

Based on table 3 above, it shows that the distribution of respondents based on compliance withmask use is a small part is non-compliance as many as 17 people (17.5%), and most are compliant as many as 80 people (82.5%).

Bivariate Analysis

Based on the results of the chi-square test, the following results are obtained:

Table 4
Results of *Chi Square* Test Analysis the Relationship of Knowledge with Mask Use Compliance at the Besiq Public Health Centre, West Kutai in 2022

Knowledge	Mask Compliance				Total		P-value
	Obedient		Disobedient				
	n	%	n	%	n	%	
Tall	78	94,0	5	6,0	83	100	0,000
Low	2	14,3	12	85,7	14	100	

Source: Primary Data (2022)

Based on data analysis in table 4, bivariate test results showed that high knowledge of outpatients obediently using masks was 78 people (94%), and non-compliant as many as 5 people (6%) with a total of 83 respondents. While the knowledge of outpatients who are low in compliance with wearing masks is 2 people

(14.3%) and those who are non-compliant as many as 12 people (85.7%) witha total of 14 respondents. The results of the analysis using the *chi square* test obtained a p-value=0.000 which means that statistically there is a relationship between outpatient knowledge variables and compliance with mask use at the Besiq West Kutai Public Health Centre

Discussion

In the knowledge variable, it was found that most respondents as many as 83 respondents (85.6%) entered thehigh category. While a small percentage of respondents as many as 14 people (14.4%) fall into the low category. In line with research by Yanti B, et al (2020) which states that 99% of Indonesians have good knowledge of COVID-19 prevention efforts in Indonesia. People who have good knowledge also have good attitudes and behaviors.

Researchers assume that public knowledge about COVID-19 is a very important aspect in a pandemic like today, which includes the causes of covid and the characteristics of the virus, signs and symptoms, terms related to covid, necessary examinations and transmission processes and efforts to prevent the disease. Good knowledge can be supported by acceptance of information circulating in the community about COVID-19 (Purnamasari &; Raharyani, 2020)

In the variable of compliance with the use of masks, it was found that most respondents as many as 80 people (82.5%) were in the compliance category. While a small percentage of respondents as many as 17 people (17.5%) fall into the category of non-compliant. This is also in line with research conducted by Sari (2020) where the level of public knowledge affects compliance with wearing masks as an effort to prevent the spread of the coronavirus.

Researchers assume complianceis a positive behavior from society. Obedience is a positive behavior of society. Conversely, bad community behavior will increase the number of cases and death rates due to COVID-19 transmission (Simbolon, 2020).

The *Chi Square* test results obtained a p *value* of 0.000 (p <0.05), which means that Ha is accepted and H0 is rejected. So statistically there is a significant relationship between knowledge and compliance with mask use at the Besiq Public Health Centre, West Kutai.

Mushidah (2021) also proves that where there is a relationship between the level of knowledge and attitudes about COVID-19 towards the level of compliance with wearing masks, respondents who have a high level of knowledge will also have a high level of compliance with the use of masks and vice versa.

Knowledge that must be possessed by the community properly and correctly at this time in reducing the spread or transmission of COVID-19 includes knowledge about the understanding, causes, signs and symptoms as well as ways of transmission and prevention, and treatment of COVID-19 (Wahyuni, 2021).

Obedience is the willingness of individuals to do something expected or requested by the holder of authority or power which is characterized by submission with willingness, yielding, making a desire of conformity with the expectations or will of others so that they can adjust. When viewed from the health aspect, it is intended that individuals are willing to take treatment with support from family or relatives. Self-awareness, understanding, personality become the most important components in the formation of adherence to a particular system of treatment (Saifunurmazah, 2013)

The assumption of researchers is that the higher the knowledge, the more a person is able to know, understand something so that someone will behave towards compliance with a rule. This is supported because knowledge plays an important role in determining complete behavior because knowledge will form beliefs that subsequently perceive reality, provide a basis for decision making and determine behavior towards a specific situation (Mujiburrahman et al., 2020)

Community compliance in implementing health protocols, namely 3M, is very important to control the pandemic. In addition, health protocols also encourage the public to be able to behave predictively safely (Puspitaningsih &; Rachmah, 2021)

The use of masks is very important against the risk of transmission of COVID-19 disease. The risk of transmission for someone who does not use a mask in an environment that uses a mask has a greater risk of transmission.

Conclusion

The conclusion of this study is that theresult of analysis using the *Chi Square* test obtained a *p value* = 0.000 ($p < 0.05$), so statistically there is a significant relationship between knowledge and compliance with mask use at the Besiq Public Health Centre, West Kutai. The results of this study are expected to improve health services in policy making on COVID-19 prevention programs during the pandemic.

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