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# Factors Affecting Behavior for Preventing Covid-19 Infection When Working on Employees During A Pandemi at Puskesmas Balai Agung, Sekayu District in 2021

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ABSTRACT

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COVID-19 is a disease caused by the Novel Coronavirus (2019-nCov) or SARS-CoV-2. The highest cases were recorded in Sekayu District, where there were 811 positive confirmed cases, 14 deaths and 711 recovered cases. For an addition of 12 positive confirmed cases. Cases of COVID-19 infection in Indonesia, including cases of health workers and non-health workers exposed to COVID-19 infection, continue to increase in health care facilities. From this data, researchers are interested in researching "Factors Influencing Behavioral Prevention of COVID-19 Infection While Working for Employees During a Pandemic at the Balai Agung Health Center, Sekayu District in 2021". This study is an analytic study using a cross sectional approach, which involves the independent variables (knowledge, attitudes, gender, availability of hygiene facilities and availability of PPE) and the dependent variable (COVID-19 infection prevention behavior) collected at the same time. The sample research in this study used a non-random sampling method with a total sampling technique of 91 respondents. There is a relationship between knowledge and availability of cleaning facilities with COVID-19 infection prevention behavior while working for employees during the pandemic at the Balai Agung Health Center, Sekayu Subdistrict in 2021. It is expected to improve the quality and quantity of facilities and infrastructure that can protect employees working in health care facilities from exposure to the COVID-19 virus and can determine programs and policies to improve the quality of preventing COVID-19 infection for employees at the Puskesmas.

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## INTRODUCTION

COVID-19 is a disease caused by Novel Coronavirus or SARS-CoV-2 which is a new type of virus that has never been identified before in humans. Until now it is still believed that the transmission of COVID-19 transmission is through droplets and direct contact. Cases of COVID-19 infection in

Indonesia, including cases of health workers and non-health workers exposed to COVID-19 infection, continue to increase. Sources of infection transmission can come from the community/community or from health care facilities. Efforts to break the chain of spread of COVID-19 require good understanding and knowledge from all elements, including the community (1). The higher the public's knowledge, the better the COVID-19 prevention behavior shown (2). Knowledge and attitudes together will support each other towards behavior in dealing with the corona virus. This shows that knowledge and attitudes about the spread of the corona virus encourage behavior to anticipate it by always using masks and hand sanitizers The higher the community's knowledge, the better the COVID-19 prevention behavior shown. Meanwhile, according to the results of previous research it was found that health workers who do not use PPE completely are officers who do not have sufficient PPE availability in their puskesmas (3). There were zero cases, but finally on April 15, 2020, Musi Banyuasin Regency reported that one of its residents was confirmed positive after two tests. The patient is known to have a history of travel to the red zone area. The addition and spread of COVID-19 cases is progressing quite quickly. As of July 8, 2021, Musi Banyuasin Regency has confirmed positive cases of COVID-19, with a total of 1,852 cases, 1,613 recoveries and 89 deaths. With the highest cases recorded in Sekayu District, there were 811 positive confirmed cases, 14 deaths and 711 recovered cases. For Balai Agung Health Center itself, on July 8, 2021, it was reported that there were an addition of 12 positive confirmed cases (4).

COVID-19 is an infectious disease caused by a virus (SARS-CoV-2). Based on the results of an epidemiological investigation, the case is suspected to be related to the Seafood Market in Wuhan. The coronavirus that is the etiology of COVID-19 is included in the betacoronavirus genus, generally circular in shape with some pleomorphism, and 60-140 nm in diameter (5). Transmission of SARS-CoV-2 from symptomatic patients occurs through droplets released when coughing or sneezing. Close contact with potential inhalation of virus-bearing droplets is the most common mode of transmission for SARS-CoV-2. Based on existing data, comorbid hypertension and diabetes mellitus, male gender, and active smokers are risk factors for SARS-CoV-2 infection. The symptoms experienced are usually mild and appear gradually. Some infected people do not show any symptoms and still feel that knowledge is the result of knowing and this happens after someone has sensed an object (6). Attitude is a reaction or response of a person who is still closed to a particular stimulus or object, which already involves the factors of opinion and emotion concerned (7). Behavior from the biological aspect is defined as an activity or activity of the organism or living thing concerned. To minimize the risk of SARS-CoV-2 virus exposure to health and non-health workers, patients and visitors in health care facilities, it is necessary to observe the principles of risk prevention and control. To minimize the risk of exposure to the SARS-CoV-2 virus to officers. The management of COVID-19 depends on the severity, it is necessary to pay attention to the principles of prevention and control of the risk of the disease (Kemenkes RI, 2020). Based on the severity of cases, COVID-19 is divided into asymptomatic, mild, moderate, severe and critical (1).

The higher the public knowledge, the better the COVID-19 prevention behavior shown (8). Most people have implemented several health protocols such as: using masks, applying social distancing or physical distancing and applying coughing and sneezing etiquette properly. However, the application of health protocols such as maintaining hand hygiene has not been carried out properly (9). Knowledge and attitudes together will support each other's behavior in dealing with the corona virus. This shows that knowledge and attitudes about the spread of the corona virus encourage them to behave in anticipation of it by always using masks and hand sanitizers (10). According to the results of previous research conducted (11) it was found that officers who did not use PPE completely were officers who did not have sufficient PPE availability at their puskesmas. Furthermore, gender also affects the behavior of preventing COVID-19 infection where female students tend to apply physical distancing behavior well 3.4 times compared to men. This is because women generally emphasize the notion of health related to relaxation, rest, feeling healthy, and nutrition, while men emphasize the state of not being sick (12).

## **RESEARCH METHOD**

This type of research is analytical research, namely research that aims to find a causal relationship between two or more research variables. This study uses a cross sectional approach, namely research that aims to determine cause and effect where the cause and effect variables are observed at the same time or time (13). This study was conducted to analyze the relationship between knowledge, attitudes, gender, availability of cleaning facilities and the availability of PPE with COVID-19 infection prevention behavior while working for employees during the pandemic. This research was conducted in the working area of the Balai Agung Health Center, Sekayu District, using a cross sectional approach. The population in this study were 91 employees. The sample in this study used a non-random sampling method with a total sampling technique of 91 respondens. The data analysis used in this study was univariate data analysis, namely to determine the distribution of respondents' independent variables (knowledge, attitudes, gender, availability of hygiene facilities and availability of personal protective equipment (PPE)) and the dependent variable (covid-19 infection prevention behavior). studied, and bivariate analysis was conducted to test the significance of the relationship between the independent variables (knowledge, attitudes, gender, availability of hygiene facilities and availability of personal protective equipment (PPE)) and the dependent variable (COVID-19 infection prevention behavior). To be able to make a decision whether a hypothesis is accepted or not, the statistical test analysis and the results of this analysis are presented in the form of a frequency distribution table. The statistical test used is the Chi Square Test  $\alpha = 0.05$ .

## **RESEARCH RESULTS**

The independent variables in this study consisted of knowledge, attitudes, gender, availability of cleaning facilities and availability of PPE. The dependent variable of COVID-19 infection prevention behavior at work can be seen in the table below:

No	Variables	Frekuensi	Persentase (%)
	COVID-19 Infection Prevention Behavior at Work		
1.	Low	40	44
	Good	51	56
	Knowledge		
2.	Low	37	40,7
	Good	54	59,3
	Attitudes		
3.	Negative	35	38,5
	Positive	56	61,5
	Gender		
4.	Male	9	9,9
	Female	82	90,1
	Availability of cleaning facilities		
5.	Low	39	42,9
	Good	52	57,1
	Availability of PPE		
6.	Low	45	49,5
	Good	46	50,5

Table 1. Distribution of Respondents Based on Independent Variables and Dependent Variables

Based on table I above, the distribution of respondents with poor infection prevention behavior was 40 respondents (44%) and 51 respondents (56%). The distribution of respondents with low knowledge was 37 respondents (40.7%) and 54 respondents (59.3%) had good knowledge. The distribution of respondents with a negative attitude was 35 respondents (38.5%) and 56 respondents with a positive attitude (61.5%). The distribution of male respondents was 9 respondents (9.9%) and female respondents were 82 respondents (90.1%). The distribution of respondents with low sanitation facilities was 39 respondents (42.9%) and 52 respondents (57.1%). The distribution of respondents with low PPE availability was 45 respondents (49.5%) and 46 respondents (50.5%).

**Table 2.** Distribution of Respondents Based on Knowledge and Behavior of Preventing COVID-19 Infection

 while Working for Employees During a Pandemic at the Balai Agung Health Center, Sekayu District in 2021

No	Knowledge	-	OVID-19 evention E Wor	Behavior		То	otal	OR 95%	<i>p</i> _value
		Low		Good				CI	r –
		n	%	n	%	Ν	%	-	
1.	Low	23	62,2	14	37,8	37	100	3,576	
2.	Good	17	31,5	37	68,5	54	100	1,486-	0,007
	Jumlah	40		51		91		- 8,605	

Based on table II above, it can be concluded that the proportion of respondents whose behavior in preventing COVID-19 infection at work is not good is more in the group with low knowledge, namely 62.2% compared to the group with good knowledge, which is 31.5%. Based on the Chi Square Test statistical test,  $p_value = 0.007$  means < (0.05) with Odd Ratio (OR) value: 3.576.

Table 4. Distribution of Respondents Based on Attitudes and Behaviors for Preventing COVID-19 Infection
while Working for Employees During a Pandemic at the Balai Agung Health Center, Sekayu District in 2021

No	Attitudes		-19 Infec Behavior	at Worl		Total		OR 95%	<i>p</i> _value
		n	%	n	%	Ν	N % CI		
1.	Negative	19	54,3	16	45,7	35	100	1,979	
2.	Positif	21	37,5	35	62,5	56	100	0,840- 4,664	0,176
	Jumlah	40		51		91			

Based on table III above, it can be concluded that the proportion of respondents whose behavior in preventing COVID-19 infection at work is not good is more in the group with a negative attitude, namely 54.3% compared to the group with a positive attitude, which is 37.5%. Based on the Chi Square Test statistical test,  $p_value = 0.176$  means > (0.05).

Table 4. Distribution of Respondents Based on Gender and COVID-19 Infection Prevention Behavior while
Working for Employees During a Pandemic at the Balai Agung Health Center, Sekayu District in 2021

COVID-19 Infection Prevention Behavior at Work OR										
No	Gender	Low		Good	Good		l	95% CI	<i>p</i> _value	
110		n	%	n	%	Ν	%			
1.	Male	4	44,4	5	55,6	9	100	- 1,022 0,256-	1,000	
2.	Female	36	43,9	46	56,1	82	100	0,238- 4,085	1,000	
	Total	40		51		91				

Rizka Muliani, et al, Factors Affecting Behavior for Preventing Covid-19 Infection When Working on Employees During A Pandemi at Puskesmas Balai Agung, Sekayu District in 2021 Based on table IV above, it can be concluded that the proportion of respondents whose behavior to prevent COVID-19 infection at work is not good is more in the male sex group, namely 44.4% compared to the female group, which is 43.9%. Based on the Chi Square Test statistical test, p\_value = 1,000 means > (0.05).

Table 5. Distribution of Respondents Based on Availability of Hygiene Facilities and
COVID-19 Infection Prevention Behavior while Working for Employees During a
Pandemic at the Balai Agung Health Center, Sekayu District in 2021

	Pandemic at the balai Agung Health Center, Sekayu District in 2021										
			COVID	-19 Inf	ection						
	Prevention Behavior at Work OR										
No	Availability of No Hygiene Facilities		Low		Good		al	95% CI	<i>p</i> _value		
INU			%	Ν	%	Ν	%				
1.	Low	21	53,8	18	46,2	39	100	2,026 0,870- 4,720			
2.	Good	19	36,5	33	63,5	52	100		0,152		
	Total	40		51		91					

Based on table V above, it can be concluded that the proportion of respondents whose behavior to prevent COVID-19 infection at work is not good is more in the group with poor availability of hygiene facilities, namely 53.8% compared to the group with good availability of hygiene facilities, which is 36.5%. Based on the Chi Square Test statistical test,  $p_value = 0.152$  means > (0.05).

		CC	OVID-19	Infecti	ion Preventi	on			
	Vatariadiaari	Low		<u>avior a</u> Goo	<u>t Work</u> d	 	-1	OR	
No	Ketersediaan APD	n	%	N	%	Tota N	ai %	95% CI	<i>p</i> _value
1.	Low	21	53,8	18	46,2	39	100	2,026 0,870- 4,720	
2.	Good	19	36,5	33	63,5	52	100		0,152
	Total	40		51		91		4,720	

**Table 6**. Distribution of Respondents Based on Availability of PPE and COVID-19 Infection Prevention Behavior while Working for Employees During a Pandemic at the Balai Agung Health Center, Sekayu District in 2021

Based on table VI above, it can be concluded that the proportion of respondents whose behavior to prevent COVID-19 infection at work is not good is more in the group with poor PPE availability, namely 57.8% compared to the group with good PPE availability, which is 30.4%. Based on the Chi Square Test statistical test,  $p_value = 0.016$  means < (0.05) with Odd Ratio (OR) value: 3.128.

#### Discussion

#### a. Relationship between Knowledge and Behavior to Prevent COVID-19 Infection at Work

The results of the study show that the proportion of respondents whose behavior in preventing COVID-19 infection at work is not good is more in the group with poor knowledge, namely 62.2% compared to the group with good knowledge, which is 31.5%. Based on the Chi Square Test statistical test, p\_value = 0.007 means < (0.05), then Ho is rejected and Ha is accepted which means there is a significant (significant) relationship between knowledge and behavior to prevent COVID-19 infection while working statistically. From the results of the analysis, it was also obtained that the Odd Ratio (OR): 3.576 means that respondents with poor knowledge have 3,576 times the opportunity to have COVID-19 infection prevention behavior when working less well than respondents with good knowledge. Knowledge of COVID-19 patients can be interpreted as the result of knowing from the patient about their illness, understanding the disease, how to prevent it, treat it and its complications (14). The higher the public knowledge, the better the COVID-19 prevention behavior shown (2). The conclusion or opinion that can be drawn is that good knowledge is closely

related to good behavior and can encourage a person to have good infection prevention behavior against the COVID-19 virus.

#### b. Relationship between Attitude and Behavior to Prevent COVID-19 Infection at Work

The results showed that the proportion of respondents whose behavior in preventing COVID-19 infection at work was not good was more in the group with a negative attitude, namely 54.3% compared to the group with a positive attitude, which was 37.5%. Based on the Chi Square Test statistical test, p\_value = 0.176 means > (0.05), then Ho is accepted and Ha is rejected, which means there is no significant (not significant) relationship between attitudes and behavior to prevent COVID-19 infection while working statistically. Attitude is a reaction or response of a person who is still closed to a particular stimulus or object. Attitude is a factor contained in the individual that is able to have an impact on the behavior to be carried out (6). The conclusion or opinion that can be drawn is that this research is not in line with the above theory because attitude itself is a predisposing factor for a behavior to occur because attitude is still a closed response to an object or stimulus

#### c. The Relationship between Gender and COVID-19 Infection Prevention Behavior at Work

The results showed that the proportion of respondents whose behavior in preventing COVID-19 infection at work was not good was more in the male group, namely 44.4% compared to the female group, which was 43.9%. Based on the Chi Square Test statistical test,  $p_value = 1,000$  means > (0.05 then Ho is accepted and Ha is rejected, which means there is no significant (not significant) relationship between gender and the behavior of preventing COVID-19 infection while working statistically. Gender is a predisposing or enabling factor that contributes to a person's health behavior (8).This study is not in line with (9), where gender is associated with COVID-19 prevention behavior. environment and health.The conclusion or opinion that can be drawn is that the cause of this discrepancy is possible because the ratio of the number of respondents is not the same.

#### d. Relationship between Availability of Hygiene Facilities and COVID-19 Infection Prevention Behavior at Work

The results showed that the proportion of respondents whose behavior in preventing COVID-19 infection at work was not good was more in the group with the availability of poor hygiene facilities, namely 53.8% compared to the group with the availability of good hygiene facilities, which was 36.5%. Based on the Chi Square Test statistical test, p\_value = 0.152 means > (0.05), then Ho is accepted and Ha is rejected, which means there is no significant (not significant) relationship between the availability of cleaning facilities and the behavior of preventing COVID-19 infection while working regularly. statistics. This study is not in line with the literature review study conducted by (16) which states that many health workers have difficulty implementing infection prevention behaviors due to the lack of availability of hygiene facilities. The conclusion or opinion that can be drawn is that most of the cleaning facilities such as hand sanitizers, hand soap and disinfectants are already owned personally by the respondents as a response to the recommendation that health protocols be implemented.

# e. Relationship between Availability of PPE with COVID-19 Infection Prevention Behavior at Work

The results showed that the proportion of respondents whose behavior to prevent COVID-19 infection at work was not good was more in the group with poor PPE availability, namely 57.8% compared to the group with good PPE availability, which was 30.4%. Based on the Chi Square Test statistical test, p\_value = 0.016 means < (0.05), then Ho is rejected and Ha is accepted which means there is a significant (significant) relationship between the availability of PPE and the behavior of preventing COVID-19 infection while working statistically. From the results of the analysis, the Odd Ratio (OR): 3.128 means that respondents with poor PPE availability have 3,128 times the opportunity to have less good COVID-19 infection prevention behavior when working compared to respondents with good PPE availability. The occurrence of changes in behavior to be good can be influenced by the completeness of the infrastructure that supports the behavior, so that the availability of facilities is an important factor in supporting one's behavior (17). The conclusion or

opinion that can be drawn is that the availability of facilities is one of the factors that will enable a person to behave. Without good facilities or lack of availability of facilities and infrastructure, it can make it difficult for someone to behave well. The availability of good facilities and infrastructure can encourage someone to use them, so that good behavior will emerge and start to become a habit

## CONCLUSION

From the results of research conducted on the factors that influence the behavior of preventing COVID-19 infection while working for employees at the Balai Agung Health Center, Sekayu District in 2021, it can be concluded that there is no relationship between attitudes, gender and availability of hygiene facilities with the behavior of preventing COVID-19 infection. 19 while working for employees at the Balai Agung Health Center, Sekayu District in 2021. There is a relationship between knowledge and availability of PPE with the behavior of preventing COVID-19 infection while working for employees at the Balai Agung Health Center, Sekayu District in 2021. There is a relationship between knowledge and availability of PPE with the behavior of preventing COVID-19 infection while working for employees at the Balai Agung Health Center, Sekayu District in 2021.

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