

**Original Research Article: Quantitative Research**

**THE RELATIONSHIP BETWEEN KNOWLEDGE AND THE READINESS OF COMMUNITY HEALTH NURSES IN EFFORT OF PREVENTION OF COVID 19 TRANSMISSION**

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**Abstract**

**Background:** The death of nurses due to exposed COVID-19 Virus is the problem all of the country around the world now. The effort to decrease the number of transmissions, death and exposed by the virus is cutting the chain of infection and transmission of the virus.

**Objectives:** The study aims to know the relationship between knowledge and the Readiness of Community Health Nurses in Effort of Prevention of COVID-19 Transmission in Primary Health Center, Bengkulu City.

**Methods:** The design of this study used survey analytics by cross-sectional approach. Samples were taken by purposive sampling techniques that were the community health nurses in Primary Health Center in Bengkulu City as many as 195 respondents. Research Instrument used the knowledge instrument and the readiness instrument and the data that were collected tested by Chi-Square Test.

**Results:** From 110 respondents were good knowledge there were 76 persons (38.98%) were ready and 34 persons (17.43%) were not ready. From 59 respondents were fair there were 27 persons (13.85%) were ready and 32 persons (16.41%) were not ready. From 26 respondents were poor there were 10 persons 5.13% were ready and 16 persons 8.20% were not ready. The result from Chi-Square Test obtained that the value of person Chi-Square is 13.251 by P-Value  $0.001 < \alpha 0.05$ , so the result  $H_0$  is rejected and  $H_a$  is accepted.

**Conclusion:** The conclusion is there is significant relationship between Knowledge, and the Readiness of Community Health Nurses in Effort of Prevention of COVID-19 transmission in Primary Health Center, Bengkulu City.

**Keywords:** *Readiness, Knowledge, Attitude, Experience, COVID-19.*

**INTRODUCTION**

Years 2020 were crisis times that experienced people around the world due to spreading of COVID-19 Virus. Coronavirus Diseases 2019 is lung infection diseases due to

Severe Acute Respiratory Syndrome Coronavirus. The increasing of the number of cases going pretty fast and spreading to many of country in short time. WHO reported that 11 million more cases of infection in around the

world and until now still increasing even in Indonesia, the number of cases were confirmed still pretty high (Kemenkes RI, 2020). COVID-19 is infectious disease that potential to make public health emergency. Therefore, the act of prevention toward the kind of that infectious diseases must be conducted as soon as possible. (Talaumbanua, 2020). Health worker having the important role in cutting the chain of infection and transmission of COVID-19 viruses so that does not cause new source of infection. Keep in mind that the way of transmission based on droplet infection from individual to individual, so the transmission be able to occurred in home, travelling, workplace, prayer room, vacation, or where people could be social interaction. (Kemenkes RI, 2020).

The highest risk health worker exposed or infected by COVID-19 due to long exposed to virus and the number of virus. That factor is aggravated by lack of knowledge, attitude, and experienced in handling COVID-19 patient and scarcity the Personal protective equipment. (Saputra, 2020). The death of health workers due to COVID-19 transmission is still serious in around the world now. The first correct assessment and respond able to prevent occurred the transmission of diseases, exposed, and death. The effort to decrease the number of transmissions, death and exposed by COVID-19 is cutting the chain of virus spreading from patient to patient. The knowledge on the way of this covid-19 virus prevention is still considered not serious so that many of nurses still exposed by COVID-19 Virus. The number of health worker in Indonesia is continue to increase, in the last 2 years in Bengkulu province there were 69 nurses exposed to COVID-19 virus. Nurses are front liner in conducting health services to patients, the readiness of community health nurses in effort to prevent have important role in minimize the transmission and spreading of COVID-19 virus (Kemenkes RI, 2020)

Based on the background of this study, so the researcher interested to conduct study on this problem. The purposed of this study is to know the relationship between knowledge and

readiness community health nurses in effort to prevent the transmission of COVID-19 virus in primary health center, Bengkulu city. This study aimed to analyze the relationship between knowledge and readiness community health nurses in effort to prevent the transmission of COVID-19 virus in primary health center, Bengkulu city.

## **METHODS**

### *Study Design*

Method of research that used by researcher was analytic survey by cross-sectional design where independent variable that were knowledge and the dependent variable was the readiness of community health nurses in effort to prevent the transmission of COVID-19. These variables were measured simultaneously.

### *Setting*

This research was conducted in primary health center, Bengkulu City from July to October 2021.

### *Research Subject*

The population of this study as many as 297 persons and samples of this study taken by purposive sampling technique and respondent must be appropriate to inclusion and exclusion criteria of the respondent. The inclusion criteria are the patient were not infected by coronavirus diseases, attend on research, able to sign the approval letter as a respondent. The exclusion criteria are the respondent are not attended on research, infected by coronavirus diseases and not able to sign the approval letter as a respondent. The number of samples in this study was as many as 195 respondents.

### *Instruments*

Instruments used in this study were knowledge questionnaire and readiness questionnaire designed by the author. Item questions of the knowledge questionnaire that valid were 17 questions and the readiness questionnaire as many as 16 questions.

*Data Analysis*

Data were analyzed using SPSS version 21 software. Univariate analysis was performed to describe each variable (knowledge and readiness). Bivariate analysis was carried out to see the relationship between knowledge and the readiness community health nurses in effort to prevent the transmission of COVID-19 virus in primary health center, Bengkulu city using the Chi Square statistical test.

*Ethical Consideration*

This study was get the permission from Department of Health Bengkulu City No 070/869/D.Kes/2021, Recommendation from Institution of Research and Community Services No.062/K.P/LPPM-STIKES TMS/VII/2021.

**RESULTS**

*Analysis of the Relationship between Knowledge and the Readiness of Community Health Nurses in Effort of Prevention of COVID-19 Transmission using Chi-Square Test.*

**Table 1.** Crosstabulation between Knowledge and the Readiness of Community Health Nurses in Effort of Prevention of COVID-19 Transmission by using Chi Square Test in primary Health Center, Bengkulu City from July to October 2021 (n=195).

Knowledge	Readiness				Total	p-value	C <sub>max</sub>	Approx. Sig
	Ready		Not ready					
	F	%	F	%				
Good	76	38.98	34	17.43	110	0.001	0.225	0.005
Fair	27	13.85	32	16.41	59			
Poor	10	5.13	16	8.20	26			
Total	113	57.96	82	42.04	195			

Sources: Primary Data of Questionnaires, 2021.

From table 1 obtained that from 110 respondents were good knowledge there were 76 persons 38.98% ready category and 34 persons 17.43% not ready category. From 59 respondents were fair there were 27 persons 13.85% ready category and 32 persons 16.41% not ready category. From 26 respondents were poor there were 10 persons 5.13% ready and 16 persons 8.20% not ready category.

The result from Chi-Square Test obtained that the value of person Chi-Square is 13.251 by p-value  $0.001 < \alpha < 0.05$ , there is significant relationship between knowledge and the Readiness of Community Health Nurses in Effort of Prevention of COVID-19 transmission in Primary Health Center, Bengkulu City. The result of contingency coefficient obtained 0.252 and the Approx. Sig Value  $0.001 < \alpha < 0.05$  meaning significant and

the value of Contingency compered to  $C_{max} = 0.225/0/707$  equal to 0.31, so the conclusion is low category.

**DISCUSSION**

Readiness is condition where somebody who make ready to respond and answer in the way to face a situation (Retno, et all, 2021). One of factor able to affect that is knowledge. Knowledge is the important thing in making decision, because of knowledge able to make believe and then will become a foundation a person to making a behavior. (Sudarajat, et all.2014) In facing COVID-19 pandemic is indispensible the readiness of nurse so that cutting the chain of transmission and infection. (Siahaan, 2020)

The result of this study showed that the majority of nurses in public health center

Bengkulu province have good knowledge on COVID-19. This thing is proved that from 76 respondents were good knowledge and 59 respondents were fair and ready in effort of prevention of COVID-19 transmission in Primary Health Center. This is in accordance to theory convey that the more of knowledge a person, the more information that obtained, so that create the positive readiness on his self. (Yanti, 2014) There were 34 respondents were good knowledge and 32 respondents were fair and not ready in Effort of Prevention of COVID-19 transmission in Primary Health Center. This is because these respondents don't have many experienced and involved directly in handling COVID-19 patient and having negative attitude toward COVID-19 patient. This thing in accordance with the research conducted by Erika Emmina Sembiring et al (2020) where the majority of the respondents having good knowledge (95.5%).

There were 10 respondents in poor category and ready in Effort of Prevention of COVID-19 transmission in Primary Health Center. This is because they have positive attitude and high experience in handling COVID-19 patients. There were 16 respondents were not ready in Effort of Prevention of COVID-19 transmission in Primary Health Center this is because they lack of information about COVID-19, they have stigmatized that COVID-19 is extremely infectious diseases, and low experience in handling COVID-19 patient directly.

Attitude is important thing because attitude able to influence of thinking to make decision though attitude is not always showed in behavior (Yanti, et all. 2020).

## CONCLUSION

From 195 respondents there were 110 or 56.41% good category, 59 or 30.25% fair category and 26 or 13.33% poor category. From 195 respondents there were 113 or 57.94% ready category, 82 or 42.05% not ready category. There is significant Relationship between knowledge and the Readiness of Community Health Nurses in Effort of

Prevention of COVID-19 transmission in Primary Health Center, Bengkulu City. Suggestion for the Community Health Nurses in primary health center is able to provide the PPE for the nurses and improve their knowledge attitude and increasing their experience on COVID-19 Patient Services.

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## DECLARATION OF CONFLICTING INTEREST

There is no conflict of interest in this research.

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## AUTHOR CONTRIBUTION

**Loren Juksen:** Contribute to the completion of the article.

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None.

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