



THE RELATIONSHIP OF KNOWLEDGE ABOUT PPE (PERSONAL PROTECTIVE EQUIPMENT) AND THE BEHAVIOR OF USE OF PROTECTIVE EQUIPMENT SELF IN NURSE

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ABSTRACT

Personal protective equipment is a tool that has the ability to protect a person whose function is to isolate part or all of the human body from potential hazards in health care facilities. The purpose of this study was to find out the frequency distribution of knowledge about PPE (Personal Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 pandemic at Ciawi Hospital in 2022. The type of research used in this study was to use this research method using a non-standard design. -experimental with a Cross Sectional approach. The number of samples is 34 respondents. Sampling using. Researchers collected data using a questionnaire. The data analysis used is univariate and bivariate. Univariate results of the frequency distribution of Knowledge Level with a result of 82.4% as many as 28 people have a good level of knowledge, and for the frequency distribution of the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 Pandemic with a result of 82.4% as many as 28 people have Positive Behavior Using Personal Protective Equipment. Statistical test results using Kendal Tau, obtained a P value = 0.031, then Ho is rejected and Ha is accepted, meaning that there is a relationship between Knowledge about PPE (Personal Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 pandemic at Ciawi Hospital in 2022 .

Keywords: Knowledge of PPE, Behavior of Using Personal Protective Equipment

INTRODUCTION

According to the World Health Organization (WHO) Covid-19) which has been designated as a global pandemic since March 2020 is a respiratory disease caused by SARS CoronaVirus-2 (SARS CoV-2). The main transmission obtained is through the respiratory droplet route and contact that occurs from people who are pre-symptomatic or symptomatic to other people in close contact (direct or face-to-face physical contact with probable or confirmed cases within one meter for a long time), and when personal protective equipment (PPE) is not used properly.⁽¹⁾

On August 18, 2021, 3,908,247 cases were confirmed, 121,141 cases died, and 3,443,903 people recovered. Provinces with the most cases of COVID-19 are DKI Jakarta, Central Java and West Java (2021).⁽²⁾ Nurses as one of the health workers who provide services to patients in the hospital for 24 hours are at high risk of being infected with Covid-19 if they do not follow the applicable procedures.



Based on data from the Health Influence Index for Health Workers (IPKN) up to 21 July 2020, the ratio of deaths of medical personnel and health workers compared to the total confirmed deaths of Covid-19 in Indonesia has reached 2.4% and is one of the highest compared to other countries (Ginancar et al. ., 2020) ⁽³⁾ This is due to the lack of PPE provided by health service facilities for health workers, the low compliance of health workers in using PPE and carrying out Proper hand hygiene is also a determinant in the transmission of Covid-19 to health workers in hospitals.

Many factors influence the transmission of Covid-19 to nurses in hospitals. Effective use of Personal Protective Equipment (PPE) by healthcare workers is an integral part of Covid-19 prevention in healthcare settings. WHO recommendations stress the importance of proper use of PPE, which requires adherence from healthcare workers, especially when doffing (WHO, 2020). The results of Lim, Ahn, Son's research (2019) showed that only 17.9% of nurses wore gowns or aprons when exposed to blood, body fluids, or other patient excretions ⁽⁴⁾

The 2020 Center of Disease Control (CDC) states that health care providers must cultivate and implement hand hygiene in patient safety, especially before patient contact, after contact with body fluids/blood, after invasive procedures, after removing gloves and other PPE. Hand hygiene is considered the simplest way, but compliance is still a problem in the world ⁽⁵⁾

Personal protective equipment is a tool that has the ability to protect a person whose function is to isolate part or all of the human body from potential hazards in health care facilities. Personal protective equipment does not reduce exposure from the source, it only reduces the amount of exposure that enters the body.

The results of a preliminary study conducted on January 14 2022 at the Ciawi Hospital located at Jalan Tegar Beriman No.9F, Bojong Baru, Kec.Bojong Gede, Bogor West Java 16920 for 10 nurses in the inpatient room divided into morning, afternoon and shift shifts At night, the results showed that 5 nurses had good knowledge and behavior, and there were also 5 nurses who had poor knowledge and behavior regarding the use of PPE, such as rarely using masks and handscoons, washing hands after action, etc. .

Based on this background, the authors are interested in conducting research entitled "The relationship between knowledge about PPE (personal protective equipment) and the behavior of using personal protective equipment in nurses during the Covid 19 pandemic at Ciawi Hospital 2021.

RESEARCH METHODS

This type of research used in this study is to use quantitative research methods with correlational descriptive design through a cross sectional approach.

This research was conducted inat the Ciawi Hospital held on January 12-14 2022. In this study with 34 nurses. Researchers collected data by distributing questionnaires to outpatient rooms, emergency rooms, and hospitalization.

The variables in this study consisted of 2 variables, namely the independent variable was knowledge about PPE and the dependent variable was the behavior of using personal protective equipment in nurses. Data processing and data analysis using the SPSS 17.0 program. The data analysis used is univariate and bivariate.

RESEARCH RESULT

Table 1 Frequency Distribution of Respondent Characteristics Based on Respondent's Age

No	Usia	Frekuensi	Presentase (%)
1.	21 – 24 Tahun	10	29,4
2.	25 – 28 Tahun	24	70,6
Total		34	100

Based on the results of Table 1. Frequency Distribution of Respondent Characteristics by Age Respondents by Age, the results obtained from 34 respondents showed that the majority of respondents aged 25-28 years were 24 people (70.6%).

Table 2 Frequency Distribution of Respondent Characteristics Based on Respondent's Gender

No	Jenis Kelamin	Frekuensi	Presentase (%)
1.	Perempuan	24	70,6
2.	Laki-laki	10	29,4
Total		34	100

Based on the results of Table 2. Frequency Distribution of Respondent Characteristics Based on Gender, the results obtained from 34 respondents indicated that the majority of respondents were female, with 24 people (70.6%) respondents.

Table 3 Frequency Distribution of Respondents' Characteristics Based on Respondent's Last Education

No	Tingkat Pendidikan	Frekuensi	Presentase (%)
1.	D3 Keperawatan	20	58,8
2.	Profesi Ners	14	41,2
Total		34	100

Based on the results of Table 3 Frequency Distribution of Respondents' Characteristics Based on education level, the results obtained from 34 respondents indicated that most of the respondents had a Diploma in Nursing education with a total of 20 people (58.8%).

DISCUSSION

Univariate analysis

Based on the results of Table 4 Frequency Distribution of Respondents Frequency Distribution Based on Knowledge Level.

No	Pengetahuan	Frekuensi	Persentase (%)
1.	Baik	28	82,4
2.	Cukup	6	17,6
3.	Kurang	0	0
Total		34	100,0

Based on table 4 Frequency Distribution of Respondents Based on Knowledge Level, the results obtained from 34 respondents showed that most of the respondents had a good level of knowledge as many as 28 people (82.4%)

Based on the results of Table 5 Frequency Distribution of Respondents' Behavior of Use of Personal Protective Equipment in Nurses

No	Perilaku	Frekuensi	Persentase (%)
1.	Positif	28	82,4
2.	Negatif	6	17,6
Total		34	100,0

Based on table 5 Frequency Distribution of Respondents Based on the Behavior of Use of Personal Protective Equipment in Nurses during the Covid-19 Pandemic, the results obtained from 34 respondents showed that the majority of respondents had positive behavior using Personal Protective Equipment as many as 28 people (82.4%)

Bivariate Analysis

Analysis of the Relationship between Knowledge about PPE (Personal Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 Pandemic Covid-19 Pandemic at Ciawi Hospital in 2022

Pengetahuan	Perilaku				Jumlah		<i>p-value</i>
	Positif		Negatif		N	%	
	N	%	N	%			
Baik	22	64,7	6	17,6	28	82,4%	0,031
Cukup	6	17,6	0	0	6	17,6	
Kurang	0	0	0	0	0	0	
Total	28	82,4	6	17,6	34	100,0	

Based on Table 6. The Relationship between Knowledge about PPE (Personal Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 Pandemic at Ciawi Hospital shows that out of 34 respondents, there were 22 respondents (64.7%) with positive knowledge and behavior. Statistical test results using Kendal Tau, obtained a P value = 0.031, then Ho is rejected and Ha is accepted, meaning that there is a relationship between Knowledge about PPE (Personal Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 pandemic at Ciawi Hospital in 2022 .

DISCUSSION

Knowledge of nurses' PPE at Ciawi Hospital

Based on table 4 Frequency Distribution of Respondents Based on Knowledge Level, the results obtained from 34 respondents indicated that the majority of respondents had a good level of knowledge, 28 people (82.4%).

Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 Pandemic at Ciawi Hospital

Based on table 5 Frequency Distribution of Respondents Based on the Behavior of Use of Personal Protective Equipment in nurses, the results obtained from 34 respondents indicated that the majority of respondents had positive behavior as many as 28 respondents (82.4%).

Relationship between knowledge about PPE and the behavior of using personal protective equipment for nurses during the Covid-19 pandemic at Ciawi Hospital, Bogor Regency

Based on table 6 Analysis of the Relationship between Knowledge about PPE (Personal Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 pandemic at the Ciawi Hospital, Bogor Regency in March 2022, it is known that based on Table 4.8 the Relationship of Knowledge about PPE (Personal Protective Equipment)) with the behavior of using personal protective equipment in nurses during the Covid-19 pandemic at Ciawi Hospital. It shows that out of 34 respondents, 22 respondents (64.7%) had positive knowledge and behavior. Statistical test results using Kendal Tau, obtained a P value = 0.031, then Ho is rejected and Ha is accepted, meaning that there is a relationship between Knowledge about PPE (Personal Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 pandemic at Ciawi Hospital in 2022 .The relationship is quite strong. Judging from the value of the correlation coefficient which has a positive value, it indicates that the direction of the relationship is not in the same direction or in the opposite direction, meaning that the greater the value of one variable, the smaller the value of the other variable.

CONCLUSION

1. knowledge about PPE among nurses during the Covid-19 pandemic at Ciawi Hospital, Bogor Regency, showed that 28 nurses (82.4%) had good knowledge regarding COVID-19 out of a total of 34 respondents.
2. The behavior of using personal protective equipment for nurses during the Covid-19 pandemic at the Ciawi Hospital, Bogor Regency, showed that 34 respondents showed that the majority of respondents had positive behavior using personal protective equipment, as many as 28 people (82.4%)
3. Statistical test results using Kendal Tau, obtained a P value = 0.031, then Ho is rejected and Ha is accepted, meaning that there is a relationship between Knowledge about PPE (Personal



Protective Equipment) and the Behavior of Using Personal Protective Equipment in Nurses during the Covid-19 pandemic at Ciawi Hospital in 2022 .Based on the research results, the bivariate selection results showed that there was a knowledge variable with a p value of $0.033 < 0.25$, meaning that it was included in the candidate and an attitude variable with a p value of $0.390 > 0.25$, meaning that it was not included in the candidate.

SUGGESTION

1. For STIKES Wijaya Husada Bogor

As an educational institution in the health sector, it is suggested that STIKES Wijaya Husada can develop this research even more broadly so that it can become a source of reference and information that has an impact on the progress of students and the community from STIKES Wijaya Husada Bogor

2. For Ciawi Hospital

It is recommended that the Ciawi Hospital routinely evaluate both in terms of human resources and facilities and infrastructure regarding the flow of handling COVID-19 patients to minimize the existence of things that can hinder the performance of the community at the hospital, especially the health workers

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