



# Analysis Of The Relationship Between Knowledge and Nurse Compliance in The Use of Personal Protective Equipment (PPE) In The Treatment Room of Kindergarten Hospital. II Pelamonia Makassar

Ricky Perdana Poetra<sup>1</sup>, Achmad Rival Sangadji<sup>2</sup>, Hastuti<sup>3</sup>, Darmawati Junus<sup>4</sup>

<sup>1,2,3,4</sup> Department of Hospital Administration, Institut Pelamonia Makassar, Indonesia

Email : [pickyperdanapoetra@gmail.com](mailto:pickyperdanapoetra@gmail.com)

### Abstract:

*Background*, The proper use of Personal Protective Equipment (PPE) by nurses is an important part of ensuring occupational safety and preventing nosocomial infections in hospitals both for the safety of nurses and the safety of patients and visitors. *Research Objectives*, for the analysis of the relationship between knowledge and nurse compliance in the use of Personal Protective Equipment (PPE) in the Inpatient Room of Tk. II Pelamonia Makassar Hospital. *Method*, This study is a quantitative descriptive research with a cross-sectional approach. The determination of population and sample in this study uses the total sampling technique so that the population and sample in this study are 145 people. *Results and Conclusions*, This study was conducted in the Inpatient Room of Pelamonia Hospital Class II Makassar using univariate and bivariate analysis. The results of the bivariate test in this study showed that there was no influence between knowledge in the know dimension and the level of compliance with the use of Personal Protective Equipment (PPE) (p-value 0.098), there was an influence between knowledge in the comprehension dimension (p-value 0.003). *Suggestion*, Level II Hospital 14.05.01 Pelamonia Makassar, should increase supervision of nurses in the use of Personal Protective Equipment (PPE) in inpatient rooms, especially the use of masks and handscool when performing nursing actions.

**Keywords:** Knowledge, Compliance, Personal Protective Equipment (PPE)

### How to cite this article :

Poetra, R. P., Sangadji, A. R., Hastuti, H., Junus, D., (2025). Analysis Of The Relationship Between Knowledge and Nurse Compliance in The Use of Personal Protective Equipment (PPE) In The Treatment Room of Kindergarten Hospital. II Pelamonia Makassar. *Journal of Indonesian Army Medical and Health Science*, Vol 1 No (1). 16-29 doi: -

## INTRODUCTION

According to the World Health Organization (WHO) Precaution Standard is a simple infection control measure used by all health workers at all times at all places and service measures to reduce the risk of spreading infection. The importance of implementing precautionary standards as a basis for using Personal Protective Equipment (PPE) and the general basis of safety in the workplace. Personal protective equipment (PPE) can protect a person and isolate part or all of the body from potential dangers, which means personal protective equipment (PPE) includes: gloves, respiratory protection, eye protection, head coverings, laboratory coats, and protective shoes (Latarissa, 2022).

Based on data from the International Labour Organization (ILO), more than 2.3 million deaths are recorded each year due to work accidents and work-related diseases, of which more than 350,000 are caused by work accidents and nearly 2 million by work-related diseases. As a result, around 6,300 people are recorded to die every day. Based on data from the Centers for Disease Control and Prevention (CDC), there are 385,000 cases of stab wounds caused by sharp objects contaminated with blood in nurses in American hospitals every year

A hospital is a health service institution that provides individual health services in a complete manner that provides inpatient, outpatient, and emergency services (PERMENKES Number 3 of 2020). According to Health Law Number 17 of 2023, it states that a hospital is a Health Service Facility that provides individual health services in a complete manner through promotive, preventive, curative, rehabilitative, and palliative health services by providing inpatient, outpatient, and emergency services. According to (poetra, 2023) Occupational health and safety are all activities to ensure and protect the safety and health of hospital human resources, patients, patient companions, visitors, and the hospital environment with efforts to prevent work accidents and work-related diseases in hospitals. Taking care of yourself in doing work, especially in the health sector, greatly affects the safety and health of health workers. One of the efforts in order to provide labor protection for Occupational Safety and Health (K3) in hospitals is by providing Personal Protective Equipment (PPE) (Mariana 2018) in (Kamila, 2023).

Nurses have the duty to provide direct nursing care to patients as well as provide treatment. In providing services, nurses must also protect themselves first by using appropriate personal protective equipment when providing services, this is to prevent infections that can occur in hospitals, so that nurses are required to use personal protective equipment to avoid occupational safety and health risks in hospitals in providing nursing care (Kusumawardhani, 2020).

Nurse compliance is assessed through the use of Personal Protective Equipment (PPE) standards that require supervision from the hospital in accordance with Law Number 44 of 2010 concerning hospitals listed in article 54 concerning guidance and supervision (Bahri et al., 2015 in Kasumastuti et al., 2021).

Compliance with the use of Personal Protective Equipment (PPE) is a behavior that can be influenced by awareness factors or environmental factors. The use of Personal Protective Equipment (PPE) is included in environmental factors, which can affect compliance in the use of Personal Protective Equipment (PPE), in the use of Personal Protective Equipment (PPE) is a behavior in order to form a physical safety to avoid work accidents. Obedience begins with the person following directions without hesitation for fear of being

punished. After the identification stage, compliance occurs because you feel supervised. Therefore, compliance measurement through identification is temporary, and when someone feels no longer being supervised, they will no longer be compliant. In the internalization stage, individuals take actions because they understand their meaning and understand the importance of actions for the rational use of Personal Protective Equipment (PPE).

Knowledge is a factor that has a very important role in the use of Personal Protective Equipment (PPE) to avoid losses and work accidents. Knowledge is information obtained from previous experience, Knowledge is also one of the important roles in the formation of a person's actions in carrying out one action and behavior (Wasty, 2021) in (Kamila, 2023) Knowledge is a factor that has a very important role in the use of Personal Protective Equipment (PPE) to avoid losses and work accidents. The results of the study (Rahmayanti, 2020) at Dr. Rasidin Hospital in Padang City, concluded that nurses have low knowledge of compliance with the use of Personal Protective Equipment (PPE), which is 72.7% and nurses have high knowledge of compliance with the use of Personal Protective Equipment (PPE), which is 31.0%. It was found that there was a relationship between knowledge and nurse compliance in the use of PPE.

Nursing professions are contaminated with blood and fluids, which can lead to hepatitis and HIV infection. A report from the National Safety Council shows that the rate of work accidents in hospitals is 41% higher than in other sectors. Needle punctures, scratches, and infectious diseases are the most common cases, The number of work accident cases in Indonesia has continued to increase in the last five years, Based on data from the Manpower and Transmigration Office (DEPNAKERTRANS) in 2016, the number of work accidents that occurred in Indonesia was 95,624 cases of work accidents consisting of 4,973 cases of functional defects, 2,918 cases of partial disability, a total of 122 cases, 1,784 cases of deaths and 85,827 cases of recovery, then in 2017 there were 65,474 cases of work accidents and work-related diseases. This resulted in the fall of 1,451 people who died, 5,326 people were disabled, and 58,679 people recovered without disabilities (Wibowo, 2021) in (Azzahri, 2019)

Kindergarten Hospital. II 14. 05. 01 Pelamonia is an implementing institution under Kesda XIV/HSN, directly under the auspices of Kakesdam XIV/HSN. The main task of this hospital is to provide health services for soldiers, civil servants, and their families. In carrying out its functions and duties, this hospital follows the regulations of the TNI-AD as well as the regulations of the system above, including government policies and other professional institutions. In addition, Pelamonia Hospital also serves patients with BPJS, Social Security, Jamkesmas, patients from companies, and the general public, taking advantage of the existing additional capacity As a referral hospital, Pelamonia serves patients from the Eastern Region of Indonesia and has been placed as a type B hospital by the Ministry of Health of the Republic of Indonesia. Rumah Pelamonia Makassar has successfully passed the accreditation assessed by the Hospital Accreditation Commission (KARS) Number KARS - SERT/138/X/2022 and obtained the results of Parnipurna Accreditation on October 12, 2022, making it a referral hospital within the TNI and the general public in the Eastern Indonesia region.

Based on table 1.1 of the inpatient rooms at Pelamonia Kindergarten II Hospital, Makassar, it can be seen that in 2021 the percentage in the use of Personal Protective Equipment (PPE) reached 92.17% and in 2022 it reached 100%, where all inpatient rooms reached the target indicator determined by the hospital of 85%. then in 2023 Pelamonia Makassar Hospital will increase the target to 100%, where the percentage in the use of Personal Protective Equipment (PPE) in 2023 is 97.61%. It can be concluded that the Pelamonia Makassar Kindergarten II Hospital from 2022 has not implemented the quality indicators that have been determined by the Ministry of Health No. 30 of 2022 of 100%, but in 2023 the Pelamonia Makassar Kindergarten II Hospital will do in accordance with the rules of the Ministry of Health related to the stipulated standard of 100% for compliance with the use of Personal Protective Equipment (PPE), In the implementation of this standard, Pelamonia Makassar Kindergarten II Hospital Pelamonia can only achieve 97.61%.

Based on the author's background and observations, it was found that there are still several hospitals that have not reached the standard for the use of Personal Protective Equipment (PPE) so that there can be a high potential impact of nosocomial infections that can occur on patients, hospital visitors, workers, and nurses themselves which automatically have a negative impact on the quality of the hospital, which the researcher plans to carry out research on knowledge with the seniority of nurses in the use of Personal Protective Equipment (PPE) in the inpatient room at Pelamonia Makassar Kindergarten II Hospital from 2021 to 2024. It can be concluded that Pelamonia Makassar Kindergarten II Hospital can still have the potential for nosocomial infections, nurses' compliance in the use of personal protective equipment (PPE) in the inpatient room is still fluctuating. Therefore, the author chose to conduct a study on the analysis of the relationship between knowledge and nurse compliance in the use of Personal Protective Equipment (PPE) in the inpatient room of Kindergarten Hospital. II Pelamonia Makassar in 2024.

## **METHODS**

The author uses Quantitative Research with a Cross Sectional design. This research was carried out in the inpatient room of the Kindergarten II Hospital 14.05.01 Pelamonia Makassar which is located at Jl. Jendral Sudirman No.27, Pisang Utara, kec. Ujung Pandang, Makassar City, South Sulawesi. The research has been carried out from April 21 to April 26, 2025. In this study, the population is all implementing nurses who are hospitalized in the inpatient room of the Kindergarten II Hospital 14.05.01 Pelamonia Makassar with a total of 229. Meanwhile, the number of samples using the sample slovin formula used in this study was 146 implementing nurses.

Data collection in this study consists of two types, namely primary data (questionnaire distribution) and secondary data (number of implementing nurses in the inpatient room of TK II Hospital 14.05.01 Pelamonia Makassar in 2024. The data processing technique was carried out using the SPSS (Statistical Package for Social Science) for windows version 16.0 application. The stages of data processing in this study are carried out by means of Editing, Coding, Scoring, Data Entry, and Cleaning. The data analysis carried out in this study is Univariate Analysis, Bivariate Analysis, etc. The data obtained and processed is then displayed in the form of tabular tables/data presentations, then integrated in the form of explanations/textual data presentations.

## **RESULTS AND DISCUSSION**

## RESULTS

**Table 1. Distribution of respondent characteristics based on age in nurses in the inpatient room of kindergarten hospitals. II 14.05.01 Pelamonia Makassar Year 2025.**

<b>NO</b>	<b>Age</b>	<b>n</b>	<b>(%)</b>
1	17-25 years old	3	2,1
2	26-35 years old	70	47,9
3	36-45 years old	65	45,5
4	46-55 years old	8	5,5
	Total	146	100
<b>No</b>	<b>Gender</b>	<b>n</b>	<b>(%)</b>
1	Man	23	15,8
2	Woman	123	84,2
	Total	146	100
<b>No</b>	<b>Tenure</b>	<b>n</b>	<b>(%)</b>
1	>5	110	75,3
2	<5	36	24,7
	Total	146	100
<b>No</b>	<b>Education</b>	<b>n</b>	<b>(%)</b>
1	D3	82	56,2
2	S1	42	28,8
3	S2	6	4,1
4	Profession	16	11,0
	Total	146	100
<b>No</b>	<b>Employment Status</b>	<b>n</b>	<b>(%)</b>
1	ASN	45	30,8
2	Non-ASN	100	68,5
3	TNI-AD	1	0,7
	Total	146	100

Based on table 1. It shows that the distribution of respondent characteristics is based on the age of nurses in kindergarten hospitals. II 14.05.01 Pelamonia Makassar In 2025, out of a total of 146 respondents, the results were obtained with the most age category aged 26-35 years as many as 70 (48.3%) respondents and a small number of nurses aged 17-25 as many as 3 (2.1%) respondents. For the distribution of respondent characteristics based on the gender of nurses in Kindergarten Hospitals. II 14.05.01 Pelamonia Makassar In 2025, out of a total of 146 respondents, the results were obtained with the most female gender category as many as 123 (84.2%) respondents and a small number of male gender as many as 23 (15.8%) respondents. distribution of respondent characteristics based on the length of service of nurses in kindergarten hospitals. II 14.05.01 Makassar Pelamonia In 2025 from a total of 146 respondents, the results were obtained with the category of the most working period > 5 years as many as 110 (75.3%) respondents and a small part of the 5-year < working period as many as 36 (24.7%) respondents. The distribution of respondent characteristics is based on nurse education in kindergarten hospitals. II 14.05.01 Pelamonia Makassar In 2025 out of a total of 146 respondents, the results were obtained with the most educated education category D3 as many as 82 (56.2%) respondents and a small number of the last education of S2 respondents as many as 6 (4.1%) respondents. Meanwhile, the distribution of respondent characteristics is based on the job status of nurses at Kindergarten Hospitals. II 14.05.01 Makassar Pelamonia In 2025 out of a total of 146, results were obtained with the most job status category, 100 (68.5%) Non-ASN job status as many as 100 (68.5%) respondents and a small part of TNI-AD employment status as many as 1 (0.7%) respondents.

**Table 2. Distribution of respondents based on knowledge at the level of know, comprehension, application (*Application*), Analysis (*Analysis*), Sintesis (*Synthesis*), Evaluation (*Evaluation*) Nurse in the inpatient room of a kindergarten hospital. II 14.05.01 Pelamonia Makassar Year 2025.**

No	Tahu	n	(%)
1	Good	137	93,8
2	Not Good	9	6,2
	Total	146	100

Based on table 9. The distribution of respondents was based on knowledge variables in kindergarten hospitals. II 14.05.01 Pelamonia Makassar Year 2025 at *the level of Know* out of a total of 146 respondents, the most are in the good category, namely 137 (93.8%) respondents and a small number of poor knowledge as many as 9 (6.2%) respondents. .

**Table 3. The distribution of respondents is based on knowledge at the level of comprehension, the level of application, and nurses in the inpatient room of kindergarten hospitals. II 14.05.01 Pelamonia Makassar Year 2025.**

No	Understand	n	(%)
1	Good	126	86,3
2	Not Good	20	13,8
	Total	146	100

Based on table 10. The distribution of respondents was based on knowledge variables in kindergarten hospitals. II 14.05.01 Makassar Pelamonia Year 2025 at the level *of comprehension* from a total of 146 respondents with the most good category, namely 126 (86.3%) respondents and a small number of poor knowledge as many as 20 (13.8%) respondents.

**Table 4. The relationship between knowledge at the Know level and nurses' compliance in the use of personal protective equipment (PPE) for nurses in the inpatient room of kindergarten hospitals. II 14.05.01Makassar Pelamonia Year 2025**

Knowledge	Patient Satisfaction				Sum		P
	Obedient		Less Compliant				
	n	%	n	%	N	%	
Good	130	94,9	7	5,1	137	100,0	0,097
Not Good	7	77,8	2	22,2	9	100,0	
<b>Total</b>	<b>137</b>	<b>93,6</b>	<b>9</b>	<b>6,2</b>	<b>146</b>	<b>100,0</b>	

Based on table 16. showed that out of a total of 146 respondents, 130 (94.9%) respondents expressed knowledge of the level of know about nurses' compliance in the use of Personal Protective Equipment (PPE) from 137 respondents who had good knowledge of compliance with the use of Personal Protective Equipment (PPE), the most in the compliance category as many as 130 (94.9%) respondents and those who did not comply with nurses' compliance in the use of Personal Protective Equipment (PPE) 7 (5.1%) respondents. Of the 9 respondents who had less knowledge at the level of know about compliance with the use of Personal Protective Equipment (PPE), the most in the category of compliance with the use of Personal Protective Equipment (PPE) was 7 (77.8%) respondents and those who did not comply with the compliance with the use of Personal Protective Equipment (PPE) as many as 2 (22.2%) respondents.

The results of *the chi-square test* obtained a value of  $p = 0.097$ , because the value of  $p < \alpha = 0.097 < 0.05$  then  $H_0$  was accepted and  $H_a$  was rejected, this means that there was no relationship between knowledge at

the level of *know* and nurse compliance in the use of Personal Protective Equipment (PPE) in the inpatient room of TK II Hospital 14.05.01 Pelamonia Makassar.

**Table 17. The relationship between knowledge at the level of *comprehension* and nurses' compliance in the use of personal protective equipment (PPE) for nurses in the inpatient room of kindergarten hospitals. II 14.05.01 Pelamonia Makassar Year 2025**

Knowledge	Patient Satisfaction				Sum		P
	Obedient		Less Compliant		N	%	
	n	%	n	%			
Good	122	96,8	4	3,2	126	100,0	0,003
Not Good	15	75,0	5	25,0	20	100,0	
<b>Total</b>	<b>137</b>	<b>93,6</b>	<b>9</b>	<b>6,2</b>	<b>146</b>	<b>100,0</b>	

Based on table 17. shows that out of a total of 146 respondents expressed knowledge at the level of understanding (*comprehension*) of nurses in the use of Personal Protective Equipment (PPE) from 126 respondents who had good knowledge of compliance with the use of Personal Protective Equipment (PPE), the most in the compliance category as many as 122 (96.8%) respondents and those who did not comply with nurses' compliance in the use of Personal Protective Equipment (PPE) 4 (3.2%) Respondents. Of the 20 respondents who had less knowledge at the level of understanding (*comprehension*) of compliance with the use of Personal Protective Equipment (PPE), the most in the category of compliance with the use of Personal Protective Equipment (PPE) was 15 (75.0%) respondents and those who did not comply with the compliance with the use of Personal Protective Equipment (PPE) as many as 5 (25.0%) respondents.

The results of the *chi-square test* obtained a value of  $p = 0.003$ , because the value of  $p < \alpha = 0.003 < 0.05$  then  $H_0$  was rejected and  $H_a$  was accepted, this means that there is a relationship between knowledge at the level of *comprehension* and nurse compliance in the use of Personal Protective Equipment (PPE) in the inpatient room of TK II Hospital 14.05.01 Pelamonia Makassar.

## DISCUSSION

**The relationship of knowledge at the level of nurses' knowledge in the use of personal protective equipment (PPE) in the inpatient room of kindergarten hospitals. II 14.05.01 Pelamonia Makassar Year 2025.**

Knowledge at the level of *know* can be interpreted as a reminder of a material that has been studied before, including in this level of knowledge is the recollection of a specific thing from all the material studied or the stimuli received. It can be concluded that knowledge is a factor that has a very important role in the use of Personal Protective Equipment (PPE) to avoid losses and work accidents. Knowledge is information obtained from experience and is a factor that has a very important role in the use of Personal Protective Equipment (PPE) to avoid losses and work accidents (kamila 2023).

In the results of the hypothesis that has been carried out, it is known that there is no relationship between the variable of knowledge in the level of know and the compliance of nurses in the use of Self-Protective Equipment (PPE). This is shown from the results of the bivariate test in the Chi-square test where the result of this test produces a score of 0.097 and the score  $> 0.05$  so that it can be concluded that  $H_a$  is accepted by  $H_o$  in rejection which means that the knowledge variable at the level of know has no relation to nurse compliance in the use of Personal Protective Equipment (PPE).

The results of the secondary data obtained by the researcher were in accordance with the respondents' answers through filling out questionnaires that had been filled out by 146 nurses in the inpatient room of the Kindergarten Hospital. II 14.05.01 Pelamonia Makassar. That if the knowledge of nurses at the level of know is good, the level of compliance of nurses in the use of Personal Protective Equipment (PPE) is also good, then the knowledge of nurses at the level of know also tends to be considered good. However, there were 9 respondents whose level of knowledge in the level of knowledge was lacking, so 2 of them could affect their level of compliance in using Personal Protective Equipment (PPE). This shows that knowledge at the level of know has no relationship with nurses' compliance in using Personal Protective Equipment (PPE).

This is supported by the results of observations that I have made during the research. There are still some nurses who do not fully comply with the use of Personal Protective Equipment (PPE), which can increase disease transmission, for example when in direct contact with patients, nurses must know in advance whether the patient has a history of infectious diseases or not. Lack of knowledge at the know level can affect the awareness of some nurses may still not know the importance of using Personal Protective Equipment (PPE) or are not aware of the risks posed if Personal Protective Equipment (PPE) is not used correctly. This can happen due to a lack of awareness among nurses to comply with Standard Operating Procedures (SOP) when taking action on patients, so that patients and nurses can reduce the number of work accidents in hospitals.

The results of this study are in line with the results of the study (Sayuti 2021) which shows that there is no relationship between knowledge and nurse compliance in Personal Protective Equipment (PPE) with the p value obtained which is 0.210 ( $p > 0.05$ ) and states that good knowledge does not guarantee that the workforce is compliant with the use of Personal Protective Equipment (PPE). There is no guarantee that workers who have high knowledge will be compliant with the use of Personal Protective Equipment (PPE) because the knowledge possessed by the workforce only reaches the first level of knowledge. The results of the continued research (Ekawaty, et al. 2023) with the Chi-Square test obtained a p-value = 0.529 where the p value is 0.05. showed that there was no effect of knowledge on the dimension of knowledge with the level of compliance with the use of Personal Protective Equipment (PPE).

### **The relationship of knowledge at the level of understanding of nurses in the use of personal protective equipment (PPE) in the inpatient room of kindergarten hospitals. II 14.05.01 Pelamonia Makassar Year 2025.**

Knowledge in comprehension is the ability to correctly explain the object that is known and to be able to interpret the material correctly. People who already understand the object or material must be able to explain, cite examples, conclude, and so on the object that is studied and understood. Knowledge is a factor

that has a very important role in the use of Personal Protective Equipment (PPE) to avoid losses and work accidents.

In the results of the hypothesis that has been carried out, it is known that there is a relationship between the knowledge variable in the level of comprehension and nurses' compliance in the use of Self-Protective Equipment (PPE). This is shown from the results of the bivariate test in the Chi-square test where the results of this test produce a score of 0.003 and the score is  $< 0.05$  so that it can be concluded that  $H_a$  minus  $H_o$  is accepted which means that the knowledge variable at the level of comprehension is related to the compliance of nurses in using Personal Protective Equipment (PPE). The results of the secondary data obtained by the researcher were in accordance with the respondents' answers through filling out questionnaires that had been filled out by 146 nurses in the inpatient room of the Kindergarten Hospital. II 14.05.01 Pelamonia Makassar. That if the nurse's knowledge at the level of understanding (comprehension) is good, then the level of nurses' compliance in the use of Personal Protective Equipment (PPE) is also good, then the knowledge of nurses at the level of understanding (comprehension) also tends to be considered good. However, there were 20 respondents whose level of knowledge in the level of understanding (comprehension) was lacking, so 5 of them could affect their level of compliance in using Personal Protective Equipment. This shows that knowledge at the level of comprehension is related to nurses' compliance in using Personal Protective Equipment (PPE).

This is supported by the results of observations that I have made during the research. There are still some nurses who do not fully comply with the use of Personal Protective Equipment (PPE), which can increase disease transmission, for example when in direct contact with patients, nurses must know in advance whether the patient has a history of infectious diseases or lack of knowledge at the level of understanding can affect the awareness of some nurses may still not know the importance of using Personal Protective Equipment (PPE) or are not aware of the risks posed if Personal Protective Equipment (PPE) is not used correctly. This can happen due to a lack of understanding of the importance of Personal Protective Equipment (PPE) for yourself and patients.

The results of this study are in line with the results of the study (Salcha, 2022) which shows the relationship between knowledge and the level of compliance in using PPE with a p value obtained of 0.000 where the p value is  $< 0.05$  and states that with good knowledge, workers can know about work safety measures for themselves. As for the results of the research that are in line, the research conducted by (Mangindara, et al. 2023) with the Chi-Square test value obtained a p-value = 0.003 where the p value  $< 0.05$ . shows that there is an influence of knowledge on the dimension of understanding (comprehension) with the level of compliance in using Personal Protective Equipment (PPE).

The results of this study are in line with the results of the study (Ariyanto, 2023) which shows the relationship between knowledge and the level of compliance in using PPE with a p value obtained of 0.004 where the p value is  $< 0.05$  and states that to increase respondents' knowledge, it is necessary to conduct socialization and training on the importance of using Personal Protective Equipment (PPE) while working or entering the work environment. As for the results of the study, the research conducted by (Samad, et al. 2023)

with the Chi-Square test value obtained a p-value = 0.007 where the p-value < 0.05 shows that there is an influence of knowledge on the application dimension with the level of compliance in using Personal Protective Equipment (PPE).

The results of the study (Zahara, 2017) show that there is a relationship between knowledge and the level of compliance in using Personal Protective Equipment (PPE) with a p value obtained of 0.001 where the p value is < 0.05 and states that to form a safe culture there are three components that are interconnected with each other and must be achieved, namely people, behavior, and environment called the safety triad. There are several factors that include knowledge, abilities, skills, intelligence, motivation and personality of the workforce. As for the results of the study, the research conducted by (Kamila et al, 2023) with the Chi-Square test value was obtained with a p-value = 0.004 where the p-value < 0.05 shows that there is an influence of knowledge on the analysis dimension with the level of compliance in using Personal Protective Equipment (PPE).

The results of this study are in line with the results of the study (Prarona, 2024) which shows that there is a relationship between knowledge and the level of compliance in using PPE with the obtained p value of 0.000 where the p value is < 0.05 and states that it is caused by many factors, including the cause of nurses not complying in using Personal Protective Equipment (PPE) because they understand that Personal Protective Equipment (PPE) is used only in emergencies, such as in infectious disease patients and so on, as well as the possibility of limited use of PPE provided by hospital management. As for the results of the study, the research conducted by (Mangindara et al., 2023) with the Chi-Square test value obtained a p-value = 0.012 where the p-value < 0.05 shows that there is an influence of knowledge on the synthesis dimension with the level of compliance in using Personal Protective Equipment (PPE). Good knowledge is an important basis for nurses to understand the risk of infection and the importance of PPE in protecting patients as well as themselves. As for the results of the study, the research conducted by Ekawaty et al, 2023) with the Chi-Square test value was obtained with a p-value = 0.002 where the p-value < 0.05 shows that there is an influence of knowledge on the evaluation dimension with the level of compliance in using Personal Protective Equipment (PPE).

## CONCLUSIONS

From the results of research conducted in the inpatient room of nurses at Kindergarten Hospital. II 14.05.01 Makassar Pelamonia Year 2025 can be concluded that there is no relationship between knowledge at the level of know and nurses' compliance in the use of Personal Protective Equipment (PPE) in the inpatient room of the Kindergarten Hospital. II 14.05.01 Pelamonia Makassar. Meanwhile, at the level of comprehension, there is a significant relationship with nurses' compliance in the use of Personal Protective Equipment (PPE) in the inpatient room of the Kindergarten Hospital. II 14.05.01 Pelamonia Makassar. Based on the research on "Analysis of the Relationship between Knowledge and Nurse Compliance in the Use of Personal Protective Equipment (PPE) in the Inpatient Room of Kindergarten Hospital. II 14.05.01 Pelamonia Makassar" can be used as input for hospitals, the community, and researchers, the following are as follows:

1. Kindergarten Hospital. II 14.05.01 Makassar Pelamonia, should increase supervision of nurses in the use of Personal Protective Equipment (PPE) in the inpatient room, especially the use of masks and handscool when performing nursing actions.
2. It is better for the Head of the Kindergarten Hospital. II 14.05.01 Pelamonia Makassar or the head of the inpatient installation and the head of the nurse in each inpatient room, give awards or good responses to nurses who have complied with the use of Personal Protective Equipment (PPE), so that they can be more motivated and can motivate other colleagues as well.
3. It is expected that the next researcher will add other variables that are not included in this research model so that it can contribute to the influence of nurses' compliance with the use of Personal Protective Equipment (PPE) in kindergarten hospitals. II 14.05.01 Pelamonia Makassar.

## REFERENCES

- Akuba, H. H., Rahman, A., & Situmorang, W. (2025). Hubungan Tingkat Pengetahuan dengan Kepatuhan Perawat dalam Penggunaan APD Pemasangan Infus di IGD dan Ruang Durian UPT RSUD Madani Provinsi Sulawesi Tengah. 9, 9812–9819.
- Alini, T. (2021). Hubungan pengetahuan dengan sikap ibu hamil tentang pemanfaatan buku KIA. *Jurnal Ilmiah Maksitek*, 6(3), 18-25.
- Angin, L. P., Fitri, A. A., & Hidayati, M. (2021). Faktor-Faktor Yang Mempengaruhi Duplikasi Penomoran Berkas Rekam Medis Di Rsau Lanud Sulaiman. *Media Bina Ilmiah*, 16(7), 7407-7412.
- Astuti, Yuliwar, & Dewi. (2018). Hubungan Tingkat Pengetahuan Dan Sikap Perawat Dengan Tingkat Kepatuhan Penggunaan Alat Pelindung Diri Di Ruang Icu, Igd Dan Irna Imam Bonjol Rsud “Kanjuruhan” Kepanjen Kabupaten Malang. *Jurnal Ilmiah Keperawatan*, 3(3), 663-669.
- Azzahri, L. M., & Ikhwan, K. I. (2019). Hubungan Pengetahuan Tentang Penggunaan Alat Pelindung Diri (APD) dengan Kepatuhan Penggunaan APD pada Perawat di Puskesmas Kuok. *PREPOTIF: Jurnal Kesehatan Masyarakat*, 3(1), 50-57.
- Bahri, S., Besperi, B., & Puspita, L. M. N. (2015). Pengembangan Penyuluhan Urgensi Keselamatan Dan Kesehatan Kerja (K3) Serta Pelatihan Penggunaan Alat Pelindung Diri (Apd) Bagi Persatuan Tukang Mandiri. *Dharma Raflesia: Jurnal Ilmiah Pengembangan dan Penerapan IPTEKS*, 13(1).
- Edy Ariyanto. (2023). Hubungan Pengetahuan dan Sikap Terhadap Kepatuhan Penggunaan Alat Pelindung Diri (APD) di PT. Bima Trisakti Kota Banjarmasin. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 6(4), 714–719. <https://doi.org/10.56338/mppki.v6i4.3411>
- Darah, D. U. T. (2022). Peraturan Menteri Kesehatan Republik Indonesia Nomor 30 Tahun 2022 Tentang Indikator Nasional Mutu Pelayanan Kesehatan Tempat Praktik Mandiri Dokter Dan Dokter Gigi, Klinik, Pusat Kesehatan.
- Darwin, M. et al, (2021). Metode penelitian pendekatan kuantitatif. *Media Sains Indonesia*.
- Indonesia, R. (2009). Undang-undang nomor 44 tahun 2009 tentang rumah sakit. Jakarta: Republik Indonesia.

- Jumriati, J., Satrianegara, M. F., & Habibi, H. (2020). Pemanfaatan Kembali Pelayanan Kesehatan Oleh Pasien Umum Rawat Inap di Rumah Sakit Syekh Yusuf Tahun 2019. *HIGIENE: Jurnal Kesehatan Lingkungan*, 6(1), 1-7.
- Kamila, F. I., Mangindara, M., Samad, M. A., & Ekawaty, D. (2023). Hubungan Pengetahuan Dengan Tingkat Kepatuhan Penggunaan Alat Pelindung Diri (APD) Pada Petugas Kesehatan Di Bidang Pelayanan Medik Rsia Sitti Khadijah 1 Muhammadiyah Makassar Tahun 2022. *Public Health And Medicine Journal*, 1(1), 13-23.
- Kasumastuti, R. et al, (2021). Faktor-Faktor Yang Berhubungan Dengan Kepatuhan Penggunaan Alat Pelindung Diri Pada Petugas Kesehatan Di Rsud Muara Teweh Tahun 2020. (Doctoral dissertation, Universitas Islam Kalimantan MAB),1-8.
- Kementerian Kesehatan Republik Indonesia. (2020). Peraturan Menteri Kesehatan Republik Indonesia Nomor 3 Tahun 2020 tentang Klasifikasi dan Perizinan Rumah Sakit. *Berita Negara Republik Indonesia Tahun 2020 Nomor 21*.
- Latarisa, Nur Ardianty., B, Nurul Hikmah., Sulolipu, Andi Mansur. (2022). Faktor Yang Berhubungan Dengan Penggunaan APD Pada Perawat di Rumah Sakit Umum Daerah Masohi. *Window of Public Health Journal*. 3(5), 911-922.
- Lukman, Baiti Nazhira. (2023). Analisis Hubungan Pengetahuan, Sikap, Motivasi, Dan Ketersediaan APD Dengan Kepatuhan Perawat Terhadap Penggunaan APD Di Ruang Rawat Inap Rumah Sakit Bhayangkara Makassar.
- Muliawati, N. K., Puspawati, N. L. P. D., & Dewi, P. S. M. (2022). Hubungan Pengetahuan dengan Kepatuhan Masyarakat dalam Adaptasi Kebiasaan Baru Masa Pandemi Covid-19 di Tempat Kerja. *Jurnal Keperawatan*, 14(S1), 19-26.
- Pagala, I., Shaluhiah, Z., & Widjasena, B. (2017). Perilaku Kepatuhan Perawat Melaksanakan SOP Terhadap Kejadian Keselamatan Pasien di Rumah Sakit X Kendari. *Jurnal Promosi Kesehatan Indonesia*, 12(1), 138-149.
- Pangerapan, D. T., Palandeng, O. E. L. I., & Rattu, A. J. M. (2018). Hubungan antara mutu pelayanan dengan kepuasan pasien di poliklinik penyakit dalam rumah sakit umum GMIM Pancaran Kasih Manado. *JKK (Jurnal Kedokteran Klinik)*, 2(1), 9-18.
- Peraturan Menti Kesehatan Republik Indonesia Nomor 30 Tahun 2022 Tentang Indikator Nasional Mutu Pelayanan Kesehatan
- Poetra, R. P. (2023). Penyuluhan Dan Sosialisasi Kesehatan Pelaksanaan K3 Dalam Pelayanan Kesehatan. 1(2), 21-26.
- Prarona, M. K., Sutinbuk, D., & Edi, M. (2024). Faktor-faktor yang Berhubungan dengan Kepatuhan Penggunaan Alat Pelindung Diri (APD) pada Perawat di Instalasi Rawat Inap. *Jurnal Penelitian Perawat Profesional*, 6(3), 1251-1262.

- Purwanza, S. W., Aditya, W., Ainul, M., Yuniarti, R. R., Adrianus, K. H., Jan, S., Darwin, Atik, B., Siskha, P. S., Maya, F., Rambu, L. K. R. N., Amruddin, Gazi, S., Tati, H., Sentalia, B. T., Rento, D. P., & Rasinus. (2022). Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi. In *Media Sains Indonesia (Issue March)*.
- Ramadhani, R., & Kusumawardhani, O. B. (2023, June). Analisis Pengetahuan Dan Kepatuhan Perawat Menggunakan APD Dalam Mendukung Akreditasi Rumah Sakit. In *Prosiding Seminar Informasi Kesehatan Nasional* (pp. 137-142).
- RI, D. P. R. (2023). Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 Tentang Kesehatan. *Undang-Undang*, 187315, 1-300.
- Sayuti, M., Al-Muqsith, A.-M., & Nashirah, A. (2021). Hubungan Pengetahuan dan Sikap dengan penggunaan Alat Pelindung Diri Pada Mahasiswa yang Melakukan Praktikum Anatomi di Fakultas Kedokteran Universitas Malikussaleh. *AVERROUS: Jurnal Kedokteran Dan Kesehatan Malikussaleh*, 7(2),34 <https://doi.org/10.29103/averrous.v7i2.2751>
- Salcha, M. A., Juliani, A., & Pangande, J. M. H. (2022). Kepatuhan Penggunaan Alat Pelindung Diri (Apd) Pada Pekerja Di Sorowako Sulawesi Selatan. *PREPOTIF :Jurnal Kesehatan Masyarakat*, 6(2), 18381845.<https://doi.org/10.31004/prepotif.v6i2.5600>
- Sulastina, N. A., & Lestari, I. (2023). Analisis Karakteristik Pekerja Terhadap Kepatuhan Penggunaan Apd Dibeberapa Unit Pt. X Kota Palembang. *Jurnal Kesehatan Tambusai*, 4(2), 2544-2550.
- Sulfiah, A., Mappamiring, M., & Mone, A. (2020). Kualitas Pelayanan Rawat Inap Rumah Sakit Umum Batara Siang Kabupaten Pangkep. *Kajian Ilmiah Mahasiswa Administrasi Publik (KIMAP)*, 1(2), 469-482.
- Susilawati, R., Pratiwi, F., & Adhistry, Y. (2022). Pengaruh Pendidikan Kesehatan Tentang Dismenorhoe Terhadap Tingkat Pengetahuan Remaja Putri Mengenai Disminorhoe Di Kelas Xi Sma N 2 Banguntapan. *Jurnal Ilmu Kesehatan Mulia Madani Yogyakarta*, 3(2), 37-54.
- Ulfa, M., & Sarzuli, T. (2016). Pengaruh faktor internal dan eksternal terhadap kepatuhan perawat dalam melaksanakan standar prosedur operasional pemasangan kateter di Rumah Sakit PKU Muhammadiyah Yogyakarta Unit II. *JMMR (Jurnal Medicoeticolegal Dan Manajemen Rumah Sakit)*, 5(1), 49-55.
- Wahyuni, W. (2020). Hubungan Pengetahuan Dengan Kepatuhan Perawat Dalam Penggunaan Alat Pelindung Diri Pada Ruang Sindur Dan Akasia Rsud Sultan Imanuddin Pangkalan Bun Kalimantan Tengah.
- Yuliantika, V., Bahari, Y., & Alhidayah, R. (2018). Pengaruh Aktivitas Belajar Terhadap Hasil Belajar Siswa Dalam Pembelajaran Sosiologi Kelas Xi Ips Man 2 Pontianak. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa (JPPK)*, 7(12).
- Zahara, R. A., Effendi, S. U., & Khairani, N. (2017). Kepatuhan Menggunakan Alat Pelindung Diri (APD) Ditinjau dari Pengetahuan dan Perilaku pada Petugas Instalasi Pemeliharaan Sarana Dan Prasarana Rumah Sakit (IPSRS). *Jurnal Aisyah: Jurnal Ilmu Kesehatan*, 2(2), 153-158. <https://doi.org/10.30604/jika.v2i2.60>

Zulkifli, Z., Paharuddin, Z., & Azizah, N. (2023). Hubungan Pengetahuan Dengan Tingkat Kepatuhan Penggunaan Alat Pelindung Diri (Apd) Petugas Kesehatan Di Bidang Pelayanan Medik Rsia Sitti Khadijah 1 Muhammadiyah Makassar. *Jurnal Penelitian Kesehatan Pelamonia Indonesia*, 6(1), 116-124.