



## The Relationship Between Nurses' Attitudes and Motivation with Compliance The Use of Personal Protective Equipment at RSUD Ngimbang Lamongan

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### **Abstract**

Nurses in providing nursing care to patients must refer to the SOP that has been implemented by the hospital, including adherence to the use of Personal Protective Equipment (PPE) in treating patients with a positive attitude and high motivation. It is expected that a nurse has good behavior in using PPE. The purpose of this study was to determine the relationship between attitude and motivation for using personal protective equipment (PPE) at Ngimbang Hospital. This study used a correlational analytic design with the cross-sectional method and used a random sampling technique to obtain 88 respondents. Research data was collected using a questionnaire consisting of a nurse's attitude questionnaire, motivation scale, and compliance with the use of personal protective equipment (PPE) questionnaire. All questionnaires were declared valid and reliable. The results showed a positive attitude with high adherence of 46 nurses (53.3%). The data were analyzed using the Spearman rho test and obtained a value of  $p= 0.000$  and a value of 0,516, meaning that there is a relationship between attitudes and adherence to the use of Personal Protective Equipment (PPE) in Ngimbang Hospital. The result showed the nurses who had high motivation and high compliance were 46 nurses (52.3%). The research data were analyzed using the Spearman rho test and obtained a value of  $p= 0.000$  and a value of 0,508, maintaining the health and comfort of nurses in any type of work environment, especially in a hospital.

## **INTRODUCTION**

Nurse safety has become a global issue in all sectors, including the healthcare sector (Harmano, 2017). Hospitals are one of the health service providers that are required to improve service quality, by building safer health safety and security to increase customer trust. Safety in hospitals is an important aspect and basic principle of Health services, besides being a critical component of quality management and one of the indicators in hospital accreditation assessment (Joko Pitoyo, 2017 & Zhou et al., 2015).

Prevention efforts against disease incidence need to be suppressed, to minimize the risk of health fulfillment in hospitals, including by using Personal Protective Equipment (hereinafter abbreviated as PPE). PPE is an alternative preventive measure for health workers to protect themselves from the risk of disease transmission while interacting with patients (Rahmi, 2021). At the same time, PPE can protect patients from potential pathogen transmission from the hands or clothing of health workers (Brown et al., 2019). Low PPE compliance rates among nurses pose a significant challenge to infection control (Morioka et al., 2020).

The results of research conducted in Japanese tertiary care hospitals on nurses and nursing assistants who were not compliant in using PPE were 28% (Morioka et al., 2020). Research conducted in the Teratai room at Dr. Soegiri Lamongan Hospital, on October 22-23, 2016, nurses who were compliant in wearing PPE were 20%, nurses who were not compliant were 30%, while in the Seroja room which was observed to be compliant in wearing PPE as much as 10% and as much as 40% who were not compliant in wearing

PPE such as not wearing masks in the patient's environment, not wearing handscoons when in contact with patients (Siti Nikmatul Mahmudah, 2017). The results of a preliminary study in 2022 conducted by researchers at Ngimbang Lamongan Hospital showed that the level of compliance with the use of PPE in the last three months in July was 74%, August 84%, and September 85% while the targeted achievement of PPE use was 100%.

Factors that influence compliance with PPE use are knowledge, attitudes, beliefs, values, traditions, and culture. Attitude is an expression of a person's feelings that reflect his likes and dislikes towards an object. In addition, there are also factors of tenure, education level, motivation, level of knowledge, policies, training and supervision, and other factors that can influence the use of PPE (Saliha, 2018).

The impact of non-compliance with the use of PPE causes an increase in the number of work accidents (Heryawan, 2018). The impact that will arise from the use of imperfect personal protective equipment will result in the risk of contracting diseases, and being exposed to cytostatic fluids will affect the quality of nursing services provided (Susi Rinawati, 2021). Another impact that can occur in hospitals is the risk of transmission of infectious diseases suffered by patients to health workers and vice versa (Lira Mufti Azzahri, 2019).

Based on the description above, it is necessary to identify several reasons that affect compliance with the use of PPE, and no one has connected the attitudes and motivation of nurses with compliance with the use of PPE. Therefore, researchers are interested in conducting research with the title "The Relationship between Attitudes and Motivation of Nurses with Compliance with the Use of Personal Protective Equipment (PPE) at Ngimbang Lamongan Hospital".

## RESEARCH METHODS

This research design uses a cross-sectional approach at Ngimbang Hospital to determine the relationship between attitude and motivation for using personal protective equipment (PPE). The research was conducted in May 2023. All Nurses in the Flamboyant Room, Orchid, IBS, ICU, Emergency Room, and Poly in Ngimbang Hospital as many as 114 Nurses. Sample: 88 nurses using random sampling. The independent variable is the attitude and motivation of nurses and the dependent variable is compliance with the use of PPE. Research data was collected using a questionnaire consisting of a nurse attitude questionnaire developed by Herdiana Ningsih 2018, a motivation scale developed by Susi Rinawati 2021, and a questionnaire for compliance with the use of personal protective equipment (PPE). All questionnaires were declared valid and reliable, with reliability test results of Cronbach's alpha value  $>0.7$ . Data analysis method using SPSS 26.0 of Spearman Rank test.

## RESULT

Based on the data table 1 showed that the characteristics of respondents in this study for age in this study were mostly aged  $<20-40$  years as many as 57 (64.8%), for gender in this study most were female as many as 56 (63.6%), for rooms/units in this study were in the inpatient room as many as 45 (51.1%), and a small portion in the ICU as many as 9 (10.2%), for the length of work in this study most worked  $<5-10$  years as many as 53 (65.9%), for employee status in this study most of the permanent employees as many as 58 (65.9%) and most nurses have Ners education as many as 41 (46.6%).

**Table 1. Characteristics of Nurse Respondents at Ngimbang Lamongan Hospital**

No	Age	Frequency	Percentage (%)
1	<20-40 Years	57	64.8
	40-60 Years	31	35.5
<b>Gender</b>			
2	Man	32	36.4
	Woman	56	63.6
<b>Room/Unit</b>			
3	Hospitalization	45	51.5
	IBS	10	11.4
	ICU	9	10.2
	IGD	14	15.9
	Poly	10	11.4
4	<5-10 Years	53	65.9
	>10 Years	35	34.1
<b>Employee Status</b>			
5	Permanent Employees	58	65.9
	Contract	30	34.1
	On Job Training	0	0
<b>Final Education</b>			
6	D3 Nursing	11	12.5
	S1 Nursing	36	40.9
	News	41	46.6
	Total Respondents	88	

**Table 2. Analysis of the Relationship between Attitude and Compliance with the Use of PPE on Nurses at Ngimbang Hospital in May 2023**

No	Attitude	Compliance						Total	
		High		Medium		Low			
		N	%	N	%	N	%	N	%
1	Positive	46	52.3%	12	13.6%	4	4.5%	62	70.5%
2	Negative	5	5.7%	13	14.8%	8	9.1%	26	29.5%
	Total	51	58.0%	25	28.4%	12	13.6%	88	100.0%
Spearman r: 0.516					p: 0.000				

Table 2 shows that nurses who have a positive attitude will follow the provisions that have been implemented by the hospital regarding the steps or procedures that have been set. With the Spearman Rho test value obtained  $p=0.000$  ( $p<0.05$ ) and  $r=0.516$ , then H1 is accepted so that there is a relationship between attitude and compliance with the use of PPE.

Table 3 shows that nurses who have high motivation can encourage someone to work with a sense of responsibility for their work. With the Spearman Rho Test value, the  $p$ -value = 0.000 ( $p < 0.5$ ), and the  $r$  correlation= 0.508 value, then H1 is accepted so that there is a relationship between motivation and compliance with the use of PPE.

**Table 3. Analysis of the Relationship between Motivation and Compliance with the Use of PPE on Nurses at Ngimbang Hospital in May 2023.**

No	Motivation	Compliance						Total	
		High		Medium		Low			
		N	%	N	%	N	%	N	%
1	High	46	52.3%	8	9.1%	6	6.8%	60	68.2%
2	Medium	4	4.5%	11	12.5%	4	4.5%	19	21.6%
3	Low	1	1.1%	6	6.8%	2	2.3%	9	10.2%
Total		51	58.0%	25	28.4%	12	13.6%	88	100.0%
Uji Spearman, r: 0.508						p: 0.000			

## DISCUSSION

### Relationship between Attitude and Compliance with PPE Use

The results of research conducted by researchers at Ngimbang Hospital show that if nurses have a positive attitude, they will have high compliance. Conversely, if nurses have a negative attitude, they will have low compliance. With the Spearman Rho test, the value of  $p = 0.000$ ,  $(r) = + 0.516$ , so there is a relationship between attitude and compliance with the use of PPE at Ngimbang Hospital.

Attitude can affect a person in using PPE because a person's attitude is the beginning of the formation of behavior, so nurses who have a very good attitude will tend to comply with the use of PPE, while nurses who have a poor attitude will tend to disobey and ignore the use of PPE, this high attitude is the basis for the formation of behavior that makes nurses' PPE compliance increase (Dewi et al, 2019). Attitude is a regularity of feelings, and thoughts of one's behavior in social interaction, and also an evaluation of various aspects of the social world. Social psychology researchers place attitudes as important in social interactions, because attitudes can influence many things about behavior and as a central issue that can influence a person's behavior (Elisa, 2017).

This is in line with research conducted by Nadia Ernanda (2020), where the results of her research showed a relationship between nurses' attitudes and compliance with the use of PPE. The results of this study are by the attitude theory in Notoadmodjo (2016), which explains that behavior is a function and predisposing factors, namely factors that exist within the individual in which there are attitudes and individuals. Nurses' attitudes influence actions in using PPE in the workplace. Attitudes towards compliance with the use of PPE in this study were more positive. Attitude is a view or feeling accompanied by a tendency to act according to the attitude of the object.

Attitude in a job is important to consider making good decisions that will result in a positive attitude and then become good behavior. This positive attitude also shows that nurses at Ngimbang Hospital use PPE because they know the risks that will arise if they do not use PPE completely and avoid the risk of transmission of infectious diseases that can occur.

### Relationship between Attitude and Compliance with PPE Use

The results of research conducted by researchers at Ngimbang Hospital show that if nurses have high motivation, nurses will have high compliance. Conversely, if nurses have low motivation, they will have low compliance. With the Spearman Rho test, the value of  $p=0.000$  was obtained  $(rs)=+0.508$ , so there is a relationship between motivation and compliance with the use of PPE at Ngimbang Hospital.

Motivation is something that drives a person to fulfill goals and needs to move people to work with enthusiasm and willingness to show their abilities to achieve goals by the role of function for success. Motivation is an important measure in evaluating nurses' responses to increasing demands and challenges, motivation creates a source of energy that can inspire people and initiate the behavior needed to achieve the desired goals (Baljoon et al, 2018).

This is by research conducted by Kasim (2016) which shows that there is a significant relationship between motivation and compliance with the use of PPE. This research is supported by the theory in Yuliana (2018) that motivation and compliance are directly proportional in the sense that the higher the motivation in nurses, the higher the compliance in the use of PPE.

High motivation plays a very important role in influencing one's behavior, including one's behavior in using personal protective equipment by hospital SOPs. In addition to self-motivation, supervisor motivation is also very necessary to give attention and encouragement to someone to wear PPE while working.

## CONCLUSION

Nurses who have a positive attitude have high compliance, as well as nurses who have high motivation, have high compliance as well. Suggestions for hospital agencies are that the results obtained in this study can be an evaluation and reference related to attitudes and motivation in nurses regarding compliance with the use of PPE, and can be data in making improvements to occupational health and safety management. For future researchers, It is hoped that future researchers can research unused PPE that has not been studied by researchers such as headgear, with far more varied variables so that perfect research results will be obtained.

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