



# The Effect of nurses' knowledge and attitudes on the implementation of patient safety in the inpatient installation of RSU Mitra Medika Amplas

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## ABSTRACT

*The purpose of this study was to determine the effect of nurses' knowledge and attitudes on the implementation of patient safety in the inpatient installation of RSU Mitra Medika Amplas. This type of research uses quantitative research in the form of an analytic survey using a cross sectional approach. The population in this study were all 57 inpatient nurses. Sampling in this study using total sampling technique, namely the entire population of inpatient nurses. Data analysis techniques using univariate analysis and bivariate analysis. The results of the study were the influence of nurses' knowledge and attitudes on the implementation of patient safety in the inpatient installation of RSU Mitra Medika Amplas. Suggestions from researchers are expected to hospital management to be able to provide material on patient safety goals to increase nurses' knowledge and attitudes through socialization / training on the implementation of patient safety.*

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## Introduction

Hospital, according to WHO (World Health Organization), is an integral part of a social and health organization with the function of providing comprehensive services, curing diseases (curative), and preventing diseases (preventive) in the community (Mathematics, 2016). Hospitals, as one of the health care institutions, have an essential function in improving public health, so they are required to continuously improve the quality of services provided, including implementing patient safety goals (Pambudi, 2018).

Permenkes No. 11/2017 article 5 on patient safety states that every healthcare facility must organize patient safety, patient safety goals, and seven steps towards patient safety. Patient safety is a system by which hospitals make patient care safer, preventing injuries caused by errors due to acting or not taking an action that should be taken. The system includes risk recognition, identifying and managing patient risk, incident reporting and analysis, learning from incidents, follow-up, and implementing solutions to minimize risk (Adventus et al., 2019).

Patient safety is also one of the indicators in assessing the accreditation of healthcare institutions. Therefore, patient safety is paramount. However, when viewed from patient safety incidents, patient safety at various levels of health care is still poor, both globally and nationally. The

hospital patient safety standards compiled here refer to the "Hospital Patient Safety Standards" issued by the Joint Commission on Accreditation of Health Organizations in Illinois, USA, in 2002, which were adjusted to the situation and conditions of hospitals in Indonesia. The hospital must implement patient safety standards, and the assessment is carried out using the Hospital Accreditation Instrument issued by Starkes in 2022. The issue of patient safety is significant in health care. Health services prioritize patient safety. In hospitals, patient safety is needed in all service areas with the handling of patients in the inpatient room, emergency room, and outpatient care that prioritizes patient safety and can minimize medical errors.

A patient safety incident is any unintentional event and condition that results in or has the potential to result in preventable injury to a patient, consisting of adverse events, near-injury events, non-injury events, and potential injury events. Unexpected Events are events that result in injury to the patient as a result of performing an action (commission) or not taking an action (omission) and not due to the underlying disease or condition of the patient. A *Near Injury* is an incident that has not yet been exposed to the patient. A Non-Injury Event results from performing an action (commission) or not taking an action entirely (omission) that could injure the patient. However, injury does not occur, and a Potential Injury Condition is a condition that has the potential to cause injury but has not yet occurred.

Reporting of patient safety incidents is done internally and externally. Internal reporting is a report on incidents that occur in the hospital, while external reporting is reporting done by the hospital to the National Hospital Patient Safety Committee (KKPRS). The types of incidents reported are medical errors that have occurred but have been corrected before affecting the patient, medical errors that have the potential to harm the patient, and medical errors that can injure the patient but no injury occurs to the patient (Sofi Fitriani Eka Putri, 2019). Nurses' knowledge and attitudes greatly influence the implementation of patient safety by nurses in hospitals. Increasing nurses' knowledge about patient safety can be improved in various ways, one of which is by attending various trainings related to patient safety. Knowledge development and training are efforts for nurses to provide appropriate and safe patient care (ardiansyah, 2020). Patient Safety Incident Reporting (PSI) is made to correct the system to improve patient safety.

In providing services in a hospital, a nurse must always show a positive attitude toward patients to support the principles of patient safety. The attitude of nurses towards patient safety is critical to providing information and references for health installations to make policies related to patient safety. Thus, nurses are required to always prioritize patient safety in providing nursing care, and this can increase nurses' awareness in implementing steps toward patient safety in hospitals (Sari, 2019). According to the Institute of Medicine (IOM), in 2020, the United States experienced 98,000 cases of death due to preventable medical errors. Some research results in Joint Commission International (JCI) accredited hospitals explained that 52 incidents were found in 11 hospitals in 5 countries. The highest cases were in Hong Kong, with 31% of cases, followed by Australia, 25% of cases; India, with 23% of cases. America with 12% of cases, and Canada with 10% of cases (Toyo et al., 2022).

Patient safety incidents in Indonesia are known. There were 7,465 cases in 2019, consisting of 171 deaths, 80 severe injuries, 372 moderate injuries, 1183 minor injuries, and 5659 no injuries. In Indonesia, there are 2,877 accredited hospitals, but only 12% of patient safety incidents with a total of 7,465 reports, consisting of 38% near misses (KNC), 31% non-injuries (NTC), and 31% adverse events (AE) (Toyo et al., 2022).

Based on the initial survey at Mitra Medika Amplas Hospital from the results of Patient Safety Incident Reporting Data in 2022, it is known that for Near Injury Events (KNC) and Non-Injury Events (KTC), there were 7 cases. The results of interviews that researchers have conducted with seven nurses in the inpatient room. Three nurses said they already understood patient safety in their duties when dealing with patients and rarely made mistakes in patient safety goals when providing services to patients in inpatients. Then four nurses said they still did not understand patient safety and there was still a lack of accuracy in the implementation of patient safety goals both in re-identifying patients,

applying 6 (six) steps to wash hands properly and correctly, not implementing good communication when handing over patients during shift changes to coworkers.

### Method

This research method uses quantitative research as an analytic survey using a cross-sectional approach. *The analytic survey* is a survey or research exploring how and why health phenomena occur. Cross-sectional approach design, where the independent variable and the dependent variable are observed at the same time (Andhini, 2017). The population in this study were all research subjects, namely all nurses in the inpatient room of Mitra Medika Amplas General Hospital, consisting of four inpatient nurse station sections. The population in this study was 57 people. In this study, sampling used a total sampling technique. The total sampling technique is a way of sampling by taking all population members as respondents or samples. So, the number of samples in this study is the same as the population of 57 people.

Primary data is obtained directly from the source, observed, and recorded for the first time. Primary data in this study are observations, interviews, and questionnaires with nurses (respondents). Secondary data is data obtained through second parties, not obtained directly from the research subject. Secondary data in this study are data obtained from records and, books and reports in Mitra Medika Amplas Hospital. Tertiary data is supporting data from the two data above, namely primary data and secondary data. Tertiary data in this study include journals, textbooks, and electronic sources (websites). This study was analyzed with univariate and bivariate data analysis. Univariate analysis aims to explain or describe the characteristics of each variable studied. Data analysis is carried out to determine the frequency distribution and presentation of each variable to be studied, namely nurse knowledge, nurse attitudes, and implementation of patient safety. Bivariate analysis is to determine the relationship (correlation) between the independent variable and the dependent variable.

### Result and discussion

#### Respondent Characteristics

The characteristics of respondents in this study are out of 57 respondents, whose ages are 21-33 years, namely 51 respondents (89.5%), and ages 34-45 years, namely six respondents (10.5%). In the female gender category, there were 57 respondents (100%). In the category of Diploma-III last education, there were 42 respondents (73.7%), the last Bachelor's education 12 respondents (21.1%), and the last Ners education three respondents (5.3%). For the category of the length of work <5 years, as many as 32 respondents (56.1%), length of work 5 - 10 years, as many as 16 respondents (28.1), and length of work > 10 years, as many as nine respondents (15.8%). Furthermore, in the category of patient safety training socialization, there were 40 respondents (70.2%) and patient safety training socialization had never been as many as 17 respondents (29.8%).

#### Univariate Analysis

Table 1.

Frequency Distribution of Respondents According to Nurse Knowledge Categories at Mitra Medik Amplas Hospital

No.	Nurse Knowledge		
	Category	Frequency (n)	Percentage (%)
1.	Good	29	50,9
2.	Simply	12	21,1
3.	Less	16	28,1
	<b>Total</b>	<b>57</b>	<b>100</b>

(Source: SPSS Output)

The table above shows that the respondents' opinions about Nurse Knowledge based on the Category "Good" were 29 respondents (50.9%), for Category "Simply" were 12 respondents (21.1%), and Category "Less" were 16 respondents (28.1%).

Table 2.

Frequency distribution of respondents according to the attitude category of nurses at Mitra Medika Amplas Hospital

No.	Nurse's Attitude		
	Categories	Frequency (n)	Percentage %
1.	Negative	29	50.9
2.	Positive	28	49.1
	<b>Total</b>	<b>57</b>	<b>100</b>

(Source: SPSS Output)

The table above shows that respondents' opinions about nurses' attitudes are based on the "Negative" Category, namely 29 respondents (50.9%) and for the "Positive" Category, namely 28 respondents (49.1%).

Table 3.

Frequency Distribution of Respondents According to Patient Safety Implementation Category at RSU Mitra Medika Amplas

No.	Implementation of Patient Safety ( <i>Patient Safety</i> )		
	Categories	Frequency (n)	Percentage %
1.	No	14	24.6
2.	Yes	43	75.4
	<b>Total</b>	<b>57</b>	<b>100</b>

(Source: SPSS Output)

Table above shows that the respondents' opinions regarding the implementation of patient safety are based on the "No" Category, namely 14 respondents (24.6%) and for the "Yes" Category, there are 43 respondents (75.4%).

### Bivariate Analysis

Nurse Knowledge regarding the Implementation of Patient Safety (*Patient Safety*)

Table 4.

Cross tabulation between the influence of nurse knowledge on the implementation of patient safety at RSU Mitra Medika Amplas

No.	Nurse Knowledge	Implementation of Patient Safety				Total		Mark <i>p-value</i>
		Yes		No				
		f	%	f	%	f	%	
1.	Good	16	28.1	13	22.8	29	50.9	0.001 < $\alpha$ 0.05
2.	Simply	11	19.3	1	1.8	12	21.1	
3.	Less	16	28.1	0	0	16	28.1	
	<b>Total</b>	<b>43</b>	<b>75.4</b>	<b>14</b>	<b>24.6</b>	<b>57</b>	<b>100</b>	

(Source: SPSS Output)

Nurses' Attitudes towards Implementing Patient Safety (*Patient Safety*)

Table 5. Cross-bulation between the influence of nurses' attitudes on the implementation of patient safety at RSU Mitra Medika Amplas

No.	Nurse's Attitude	Implementation of Patient Safety				Total		Mark <i>p-value</i>
		Yes		No		f	%	
		f	%	f	%			
1.	Positive	14	24.6	14	24.6	28	49.1	0.000 < $\alpha$ 0.05
2.	Negative	29	50.9	0	0	29	50.9	
<b>Total</b>		<b>43</b>	<b>75.4</b>	<b>14</b>	<b>24.6</b>	<b>57</b>	<b>100</b>	

(Source: SPSS Output)

### Knowledge

Based on the results of the Chi-square test, there is an influence between the Nurse Knowledge variable and the implementation of patient safety with a  $p$ -value of  $0.001 < \alpha 0.05$ . This shows the influence of the Nurse Knowledge variable on the implementation of patient safety in carrying out their duties when providing services to patients in the inpatient installation at Mitra Medika Amplas Hospital. This research is in line with research conducted by Aprilia Roswati on the Relationship between Nurses' Knowledge and Attitudes with the Implementation of Patient Safety at Pusri Palembang Hospital in 2019. Based on related research and theory, researchers argue that knowledge has a relationship with the implementation of patient safety carried out by nurses. Good knowledge will provide a Good understanding for nurses regarding the importance of implementing patient safety in the hospital. With Good knowledge, nurses will quickly implement patient safety without risk so that patients can be provided with Good service (Aprilia Rosmawati, 2019).

### Attitude

From the Chi-square test results, there is an influence between the nurse attitude variable and the implementation of patient safety with a  $p$ -value of  $0.000 < \alpha 0.05$ . This shows the influence of the nurse's attitude variable on the implementation of patient safety in carrying out their duties when providing services to patients in the inpatient installation at Mitra Medika Amplas Hospital. This research is in line with research conducted by Nora Aminayanti, Rokiah Kusumapradja, and Muhammad Arrozi with the title "The Influence of Knowledge, Attitudes, and Motivation of Nurses on the Implementation of Patient Safety in the Inpatient Unit of the Sekayu Regional General Hospital" in 2021. The results of this study state that the Attitude Variable (X2) has a positive influence on Patient Safety Implementation (Y). The effect of attitude on patient safety implementation is significant, as evidenced by a  $p$ -value of 0.000, which means that H3 is accepted. The results of this study also state that the higher the attitude value, the higher the Patient Safety Implementation. (Aminayanti et al., 2021).

### Conclusion and implication

There is an influence of Nurse Knowledge on the implementation of patient safety in the inpatient installation at RSU Mitra Medika Amplas with a  $p$ -value of  $0.001 (< \alpha 0.05)$ . Suggestion: Develop a knowledge improvement program regarding patient safety goals consisting of correctly identifying patients, improving effective communication, increasing the safety of drugs that must be watched out for, ensuring the correct surgical site, correct procedure, surgery on the right patient, reducing the risk of health care infections, and reducing the risk of patient injury due to falls by conducting training on patient safety regularly. As well as in training/socialization, a pretest or posttest should be given to medical officers/nurses to determine the extent to which medical officers/nurses understand the material in the socialization. There is an effect of nurses' attitudes on the implementation of patient safety in the inpatient installation at Mitra Medika Amplas with a  $p$ -value of  $0.000 (< \alpha 0.05)$ . Suggestion: Evaluate the form of a nursing service quality audit of implementing patient safety

standards. Moreover, it is necessary to increase efforts to improve the quality of hospital work, especially the attitude of nurses in the implementation of patient safety goals consisting of identifying patients correctly, improving effective communication, increasing the safety of drugs that must be watched out for, ensuring the correct surgical location; correct procedure; surgery on the correct patient, reducing the risk of health care infections, and reducing the risk of patient injury due to falls. The evaluation/audit of the quality of nursing services should be done periodically or once a quarter to see the extent to which the implementation of patient safety is running well.

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