



THE RELATIONSHIP OF NURSES' CARING BEHAVIORS AND THE IMPLEMENTATION OF PATIENT SAFETY IN EMERGENCY DEPARTMENT (ED)

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ABSTRACT

Introduction: Patient safety remains a primary concern in healthcare, focusing on the prevention of medical errors and adverse side effects affecting patients. Despite numerous efforts to improve patient safety, incidents continue to occur, resulting in significant harm to patients. One critical factor in addressing this issue is the role of caring behaviors. Nurses' caring behaviors can serve as a strategy to enhance patient safety. This study aimed to investigate the relationship between nurses' caring behaviors and the implementation of patient safety protocols in the Emergency Department (ED) of Dr. Soegiri Lamongan Hospital. **Methods:** A correlational research design was employed using a cross-sectional approach. The study involved 28 nurses working in the Emergency Room. The instruments used included the CBI-24 (Caring Behavior Inventory) and a patient safety implementation questionnaire based on the International Patient Safety Goals (IPSG). Data were analyzed using univariate analysis (frequency distribution and percentage) and bivariate analysis (Coefficient of Contingency, with a p -value < 0.05). **Results:** The results showed that most nurses exhibited caring behaviors, with 18 respondents (64.3%) demonstrating these behaviors, and the majority had implemented patient safety protocols, with 21 respondents (75%) adhering to these measures. The coefficient of contingency test yielded a p -value of 0.023. **Conclusions:** A significant relationship was found between nurses' caring behaviors and the implementation of patient safety in the Emergency Department. This study highlights the critical role that nurses' caring behaviors play in enhancing patient safety. It is recommended that nurses continue to improve their caring behaviors and implement patient safety measures effectively. This approach will contribute to providing professional and cautious services, thereby improving the overall quality and safety of patient care.

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INTRODUCTION

Patient safety is a system focused on preventing adverse events that harm patients. Despite various efforts to improve patient safety, incidents still frequently occur, significantly impacting patients, healthcare workers, and institutions (Hospital Accreditation Commission, 2018). In the United Kingdom, there was an 8% increase in safety incidents in 2022, with a total of 652,245 incidents (National Patient Safety Agency, 2022). This data reflects the high incidence of safety incidents, particularly in developing countries. According to the report by the Patient Safety Team at Dr. Soegiri Regional General Hospital (2021), patient safety standards at Dr. Soegiri Hospital have not yet met the requirements set by the Indonesian Ministry of Health. For

instance, there were 7 reported cases of patient falls, which do not meet the Ministry's standard of zero cases. These incidents highlight the ongoing challenges in achieving the patient safety standards outlined by the Indonesian Ministry of Health.

Based on the National Patient Safety Reporting and Learning System, Indonesia reported 7,465 patient safety incidents in 2019. This represents a 12% increase from the previous year, when incidents rose by 5% in 2018. This trend is expected to continue until 2024. Notably, 13% of these incidents were reported in East Java Province (Daud, 2020). A review of this data underscores that the implementation of patient safety remains a significant issue, which can lead to a decline in



hospital service quality. The high incidence of patient safety incidents, especially in the Emergency Department (ED), highlights the need for an effective patient safety system that emphasizes improving nurses' caring behavior.

Nurses' caring behavior is a critical factor in addressing patient safety issues in hospitals. This behavior encompasses the attitudes, actions, and behaviors of healthcare staff that demonstrate concern and empathy toward patients. Enhancing nurses' caring behavior can serve as a strategy to improve patient safety (Arifianto & Mariyati, 2024). Nurses who exhibit caring attitudes are more likely to pay attention to details, adhere to protocols, and provide high-quality care. Inconsistent application of patient safety principles by nurses can negatively affect the quality of care and overall patient safety (Yulistika Handayani & Etliawati, 2020).

One initiative by the Indonesian government to address this issue is the implementation of the Patient Safety Goals (Abdullah & Ruslan, 2024). The government enforces these goals through the Hospital Accreditation Commission, aiming to improve hospital services (Hospital Accreditation Commission, 2018).

The successful implementation of these goals relies on nurses' effective application of patient safety measures. Caring nurses are more likely to engage in actions that benefit patient safety and reduce the risk of harm. This is commonly referred to as the caring behavior of nurses, which involves providing physical care while also addressing the patient's emotional needs to enhance their sense of safety and security (Arifianto & Mariyati, 2024). A lack of awareness or concern among nurses about the importance of patient safety can lead to negative outcomes for both hospitals and patients. For instance,

prolonged patient stays and extended treatment times can result in higher costs and increased drug resistance (Setiawan & Antonio, 2024). Therefore, it is essential that nurses exhibit caring behavior in order to effectively implement the Patient Safety Goals (IPSG). This underlines the need for research into the relationship between nurses' caring behavior and the application of patient safety in the Emergency Department (ED).

MATERIALS AND METHODS

The research method employed is a quantitative approach with a correlational research design using a cross-sectional approach. This study focuses on the caring behavior of nurses and the implementation of patient safety in the Emergency Department (ED) at Dr. Soegiri Regional General Hospital, Lamongan, in June 2024.

The study population consists of nurses working in the Emergency Department (ED) at Dr. Soegiri Regional General Hospital, Lamongan. The sampling technique used is total sampling, involving 28 nurses currently working in the ED. The independent variable is nurses' caring behavior, measured on a nominal scale, while the dependent variable is the application of patient safety, measured on an ordinal scale.

The instruments used in the study include the CBI-24 to measure nurses' caring behavior and a patient safety instrument based on international patient safety goals. After data collection, the data will undergo processing stages, including editing, coding, scoring, and tabulating. The data will then be analyzed using univariate analysis (frequency distribution and percentages) and bivariate analysis (Contingency Coefficient with a p-value < 0.05). This study has passed an ethical feasibility review at the hospital, with approval number 445/0054.23/413.209/KEPK/2024.

RESULTS

Table 1. Characteristics of Respondents based on Gender, Ages, Education Levels, Nurse Position, Length of Services, and Training History in the Emergency Department of Dr. Soegiri Lamongan Hospital, June 2024.

Gender	Frequency (F)	Percentage (%)
Male	16	57.1
Female	12	42.9
Ages (Years)	Frequency (F)	Percentage (%)
21-30	8	28.6
31-40	13	46.4
41-50	6	21.4
>50	1	3.6
Education Levels	Frequency (F)	Percentage (%)
Diploma	21	75.0
Professional Nurse (Ners)	7	25.0
Master's Degree	0	0

Education Levels	Frequency (F)	Percentage (%)
Specialist Master's Degree	0	0
Doctor of Nursing	0	0
Nurse Position	Frequency (F)	Percentage (%)
Head Nurse	1	3.6
Shift Coordinator / Team Leader	5	17.9
Implementing Nurse	21	75.0
Others	1	3.6
Length of Services	Frequency (F)	Percentage (%)
Working < 6 Months	0	0
Working >6 Months	28	100.0
Training History	Frequency (F)	Percentage (%)
Yes	28	100
No	0	0
Total	28	100

Based on Table 1, it was found that the majority of respondents were male, with 16 respondents (57.1%), while female respondents totaled 12 (42.9%). Nearly half of the respondents were in the age range of 31-40 years, with 13 respondents (46.4%). The majority of respondents had a diploma (D3) as their highest level of education, with 21 respondents (75%). Most respondents held positions as implementing nurses, totaling 21 respondents (75%). All respondents had worked for more than 6 months (100%). Additionally, all respondents had attended training (100%).

Table 2. Characteristics of Respondents based on Nurses' Caring Behavior, Indicators of Caring Behavior Assurance, Respect, Connectedness, and Knowledge and Skill in the Emergency Department of Dr. Soegiri Lamongan Regional General Hospital, June 2024.

Nurses' Caring Behavior	Frequency (F)	Percentage (%)
Caring	18	64.3
Not caring	10	35.7
Indicators of Caring Behavior Assurance	Frequency (F)	Percentage (%)
Caring	21	75
Not caring	7	25
Respect	Frequency (F)	Percentage (%)
Caring	21	75
Not caring	7	25
Connectedness	Frequency (F)	Percentage (%)
Caring	17	60.7
Not caring	11	39.3
Knowledge and Skill	Frequency (F)	Percentage (%)
Caring	17	60.7
Not caring	11	39.3
Total	28	100

Based on Table 2, it shows that, out of 28 respondents, the majority demonstrated caring behavior, with 18 respondents (64.3%). A total of 21 respondents (75%) stated that nurses exhibited caring behavior in the indicators of Assurance and Respect.

Table 3. Characteristics of Respondents Based on the Implementation of Patient Safety, Patient Safety Goals, Accuracy of Patient Identification, Improving Effective Communication, Improving Drug Safety, Right-site, Right-procedure, Right-patient Surgical Certainty, and Reducing the Risk of Injury in the Emergency Department of Dr. Soegiri Lamongan Regional General Hospital, June 2024.

Implementation of Patient Safety	Frequency (F)	Percentage (%)
Good	21	75.0
Fair	7	25.0
Poor	0	0
Patient Safety Goals: Accuracy of Patient Identification	Frequency (F)	Percentage (%)
Good	21	75.0
Fair	7	25.0
Poor	0	0
Improving Effective Communication	Frequency (F)	Percentage (%)
Good	21	75.0
Fair	7	25.0

Improving Effective Communication	Frequency (F)	Percentage (%)
Poor	0	0
Improving Drug Safety	Frequency (F)	Percentage (%)
Good	21	75.0
Fair	7	25.0
Poor	0	0
Right-site, right-procedure, right-patient surgical certainty	Frequency (F)	Percentage (%)
Good	21	75.0
Fair	7	25.0
Poor	0	0
Reducing the Risk of Injury	Frequency (F)	Percentage (%)
Good	21	75.0
Fair	7	25.0
Poor	0	0
Total	28	100

Based on Table 3, it shows that, out of 28 respondents, the majority have effectively implemented patient safety, with 21 respondents (75.0%). Additionally, 21 respondents (75.0%) have effectively implemented patient safety in areas such as accuracy of patient identification, ensuring correct-site, correct-procedure, and correct-patient surgery, as well as reducing infection and injury risks.

Table 4. Cross-Tabulation of the Relationship Between Nurses' Caring Behavior and the Implementation of Patient Safety in the Emergency Department of Dr. Soegiri Lamongan Regional General Hospital, 2024

Nurses' Caring Behavior	Patient Safety Implementation						Total	
	Good		Fair		Poor			
	F	%	F	%	F	%	F	%
Caring	16	88,9	2	11,1	0	0	18	100
Not Caring	5	50,0	5	50,0	0	0	10	100
Total	21	75,0	7	25,0	0	0	28	100

C=0,395 p=0,023

The data was tested using the non-parametric statistical test for the contingency coefficient (C)

Based on Table 4, it can be seen that almost all respondents demonstrated both caring behavior and good implementation of patient safety, totaling 16 respondents (88.9%). Meanwhile, a small number of respondents who did not exhibit caring behavior still implemented patient safety effectively, amounting to 5 respondents (50.0%).

The results of the test using the non-parametric statistical contingency coefficient, conducted with the help of SPSS 16.0 for Windows, yielded a contingency coefficient (C) of 0.395 and a significance p-value of 0.023. It can be concluded that H₁ is accepted, meaning there is a relationship between nurses' caring behavior and the implementation of patient safety in the Emergency Department of RSUD Dr. Soegiri Lamongan.

DISCUSSION

Nurses' Caring Behavior in the Emergency Department (ED) of Dr. Soegiri Lamongan Regional General Hospital

The research results indicate that most nurses exhibit caring behavior, meaning they apply caring behaviors towards patients in the Emergency Department of Dr. Soegiri Regional General Hospital in Lamongan.

This finding is consistent with the research by Hidayati et al. (2023), where nearly all nurse respondents working in the Emergency Department demonstrated caring behavior in the "good" category. Caring behavior enables nurses to communicate clearly and effectively, reducing patient and family anxiety and fostering cooperation in the care process. In emergency situations, good teamwork among healthcare

providers is essential, allowing them to deliver holistic and comprehensive care to patients (Hidayati et al., 2023)

Nurses' caring behavior is driven by values that prioritize holistic care, which forms the foundation of nursing philosophy. Caring attitudes can reduce anxiety and stress in patients, improve relationships among healthcare team members, and ultimately create a more positive and collaborative work environment.

The Implementation of Patient Safety in the Emergency Department (ED) of Dr. Soegiri Lamongan Regional General Hospital

The research results indicate that most respondents rated the implementation of patient safety as falling into the "good" category. This

suggests that most nurses have effectively applied patient safety measures in the Emergency Department of Dr. Soegiri General Hospital in Lamongan.

According to the research findings, most respondents have successfully implemented the dimension of accurate patient identification. Based on the questionnaire provided by the researcher, respondents adhered to the established Standard Operating Procedures (SOPs). In the dimension of improving effective communication, this was well executed, although some nurses still fail to communicate examination results to patients and families or explain the purpose and benefits of procedures. In the dimension of enhancing medication safety, this was well managed, with nurses consistently increasing their vigilance regarding medication administration. Most respondents also implemented the dimensions of correct location, correct procedure, and correct patient for surgery. According to the questionnaire, respondents followed the SOPs in these areas. The dimension of reducing infection risk was also well managed, though the questionnaire results indicated that sometimes nurses do not wash their hands according to WHO guidelines before performing procedures. The dimension of reducing injury risk was similarly well implemented.

These findings are consistent with the study, which shows that respondents have implemented patient safety measures. However, the study noted that certain patient safety aspects were not fully optimal, particularly regarding the dimension of fall risk.

Patient safety in hospitals has become a major focus of health research in recent years. The implementation of patient safety measures in hospitals is an ongoing process that requires commitment from all healthcare staff and management. Understanding this is crucial for management to design more effective training and communication programs, which, in turn, enable healthcare providers to improve the quality of care, enhance patient safety, and build trust in the healthcare system (Mariyati, 2025; Rahayu & Sansuwito, 2023).

The Relationship Between Nurses' Caring Behavior and the Implementation of Patient Safety in the Emergency Department of Dr. Soegiri Lamongan Regional General Hospital

The research results show that almost all respondents who exhibit caring behavior as nurses have also implemented patient safety measures for patients. In contrast, only a small proportion of respondents who do not exhibit caring behavior

still apply patient safety measures. Based on the bivariate analysis with the contingency coefficient test, it can be concluded that there is a significant relationship between caring behavior and the implementation of patient safety in the Emergency Department of Dr. Soegiri General Hospital, Lamongan. The caring behavior of ED nurses has a positive impact on achieving patient safety in the ED. This means that respondents who exhibit caring behavior are more consistent in applying patient safety measures compared to those who do not display caring behavior.

This study is supported by research conducted by Djalil & Katuuk (2020), which found a relationship between caring behavior and nurses' ability to implement patient safety. Nurses' behavior plays a crucial role in patient safety practices. Unsafe behavior, lack of attention, carelessness, inattention, and insufficient concern for patient safety can lead to errors. These errors can be minimized if nurses engage both cognitive and affective functions and prioritize actions that emphasize patient safety.

The application of caring behavior in the Emergency Department (ED) can enhance patient safety and the quality of nursing care. Caring behavior in the ED is crucial for providing effective care and reducing the risk of injury or errors. By integrating caring behavior with patient safety efforts, ED nurses can ensure they deliver care that is not only safe and effective but also attentive and empathetic to the needs and well-being of patients (Mistri & Sahu, 2023; Setiawan & Antonio, 2024).

CONCLUSIONS

Caring is the essence of nursing. With a good, caring attitude, nurses will naturally implement patient safety correctly and responsibly. Therefore, hospitals need to focus on enhancing nurses' caring behaviors. It is hoped that future research will further explore the role of caring in improving the quality of nursing services from various perspectives.

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AUTHORS' CONTRIBUTIONS

IL is the author of the manuscript, PIP was responsible for data collection, CRP handled data processing, and APMT and JS contributed as translators.

CONFLICT OF INTEREST

There are no conflicts of interest in the research or the preparation of this article for publication.

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