



The Influence Of Clinical Skills and Supervision Techniques On the Implementation Of Patient Safety Standards With Caring Behavior as An Intervening Variable in Inpatient Nurses at Rsau Soemitro

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Abstract. *The implementation of patient safety standards is a major challenge in healthcare services, particularly in hospitals such as RSAU Soemitro. Data indicates that there were 25 patient safety incidents in the Inpatient Installation in 2023, with falls being the most common case (9), followed by nosocomial infections, medication errors (4), and the absence of patient identification bracelets during surgery (7). This study aims to analyze the influence of clinical skills and supervisory techniques on the implementation of patient safety standards at RSAU Soemitro, with caring behavior as an intervening variable. This quantitative research employs a cross-sectional study design, using a sample of 110 nurses in the inpatient installation. Data collection was conducted using questionnaires, and data analysis was performed using SEM-PLS techniques. The results show that the implementation of patient safety standards is simultaneously influenced by clinical skills, supervisory techniques, and caring behavior. Caring behavior can be significantly influenced by both clinical skills and supervisory techniques. Additionally, the implementation of patient safety standards is influenced by clinical skills and supervisory techniques both directly and indirectly through caring behavior. Furthermore, caring behavior has been proven to be the most significant factor, contributing 53.1%. These findings suggest that hospital management should focus on interpersonal skills training to support better implementation of patient safety standards.*

Keywords: *Caring Behavior, Clinical Skills, Implementation of Patient Safety Standards, Supervisory Techniques*

Abstrak. Implementasi standar keselamatan pasien merupakan tantangan besar dalam pelayanan kesehatan, terutama di rumah sakit seperti RSAU Soemitro. Data menunjukkan bahwa terdapat 25 insiden keselamatan pasien di Instalasi Rawat Inap pada tahun 2023, dengan jatuh sebagai kasus yang paling umum (9), diikuti oleh infeksi nosokomial, kesalahan medikasi (4), dan tidak adanya gelang identifikasi pasien saat operasi (7). Penelitian ini bertujuan untuk menganalisis pengaruh keterampilan klinis dan teknik supervisi terhadap implementasi standar keselamatan pasien di RSAU Soemitro, dengan perilaku peduli sebagai variabel intervening. Penelitian kuantitatif ini menggunakan desain studi potong lintang dengan sampel 110 perawat di instalasi rawat inap. Pengumpulan data dilakukan dengan menggunakan kuesioner, dan analisis data dilakukan dengan teknik SEM-PLS. Hasil penelitian menunjukkan bahwa implementasi standar keselamatan pasien dipengaruhi secara simultan oleh keterampilan klinis, teknik supervisi, dan perilaku peduli. Perilaku peduli dapat dipengaruhi secara signifikan oleh keterampilan klinis dan teknik supervisi. Selain itu, implementasi standar keselamatan pasien dipengaruhi oleh keterampilan klinis dan teknik supervisi baik secara langsung maupun tidak langsung melalui perilaku peduli. Lebih lanjut, perilaku peduli terbukti menjadi faktor yang paling signifikan dengan kontribusi sebesar 53,1%. Temuan ini menyarankan agar manajemen rumah sakit lebih fokus pada pelatihan keterampilan interpersonal untuk mendukung implementasi standar keselamatan pasien yang lebih baik.

Kata kunci: Keterampilan Klinis, Penerapan Standar Keselamatan Pasien, Perilaku Peduli, Teknik Pengawasan

1. INTRODUCTION

RSAU Soemitro is a military hospital that carries out inpatient installation nursing services for both members of the TNI and general patients. While carrying out this practice in 2023 there were 5,035 patients who received inpatient services at that time, as informed by the nursing quality section on 29 May 2024 in the form of data secondary, that in 2023 there will be several patient safety incidents related to the lack of clinical skills of nurses, with the following data:

Table 1. Patient Safety Incidents in Inpatient Installations in 2023

Case	Amount
The patient falls	9
Nosocomial infections	5
High alert medication administration errors	4
Operation patient identification bracelet not attached	7
Total Cases	25

Source: Secondary data, 2024

Apart from that, in 2023, the nursing quality department also reported that there were several problems related to patient and family complaints related to the lack of technical skills of nurses.

Table 2. Patient Complaints Ranap in 2023

No	Complaint Type	Number of cases
1	Delay in replacing IV fluids	9 Case
2	Delay in patient discharge	9 Case
3	Patient complaints about unfriendly nurses	11 Case
4	Delay in patient delivery logistics	13 Case
5	Delay in information regarding the availability of inpatient rooms	8 Case
Number of Ranap complaints in 2023		50 Case

Secondary Data: Nursing Quality Department Report

Regarding these problems, the researcher wanted to dig deeper by conducting an interview with the Chair of the Quality and Patient Safety Committee by asking "Why in 2023, every incident and patient complaint occurs more than once in each category, is there no handling effort from the head of the room? to prevent the recurrence of such incidents"? The answer obtained was "Discussions and handling in the nursing work unit were of course carried out to minimize the recurrence of this incident, only after we carried out a study with several nurses, we received information that so far the person directly assigned to carry out supervision was the team leader, and the head of the room was not directly carry out supervision, and only rely on information from the team leader." "Apart from that, after we conducted a study of these cases, many of the incidents were carried out by junior nurses who were on duty. After we conducted interviews with these nurses, they explained that there were many difficulties that they had not been able to handle independently, while the senior nurses or heads room

when a junior nurse needed help, giving the impression of not caring about the difficulties they were experiencing”.

Referring to the information from the Chair of the Quality and Patient Safety Committee and the nursing service quality section, it appears that nurses have low levels of concern for providing safe services, and lack of support for achieving patient safety goals, for this reason a preliminary survey was conducted of 10 inpatient nurses on June 6 2024, to study patient safety standards, with the following conclusions; There are 70% of nurses who assess management's lack of seriousness in requiring doctors to explain to patients and families about treatment plans, and requiring doctors to convey to patients about the risks in the treatment process. There are 70% of nurses who assess that management lacks seriousness in requiring nurses to convey patient obligations in nursing care, and requiring nurses to convey patient and family responsibilities during nursing. 70% of nurses assessed management's lack of seriousness in establishing information culture principles in carrying out nursing care, and establishing the double cross check principle before administering medication. 70% of nurses assessed management's lack of seriousness in establishing the 5 correct principles when administering medication and establishing rules for documenting patient reactions to the medication administered. 70% of nurses assess the lack of seriousness of the head of the room in encouraging teamwork in nursing services, and encouraging nurses to uphold the principles of patient safety culture. 70% of nurses assess management's lack of seriousness in providing training opportunities for new nurses, and organizing training to improve nurse competency. 70% of nurses assess management's lack of seriousness in facilitating hospital information systems for quality services, and providing a means to discuss patient safety.

Referring to the results of the preliminary survey, it can be predicted that patient safety incidents and patient complaints related to service quality in 2023 will be a form of poor quality service, and are related to issues of clinical skills, supervision techniques and nurses' ability to implement caring behavior. And supported by relevant research which concludes that patient safety standards are influenced by clinical skills (Hughes & Clancy, 2019), supervision techniques (Tomlinson, 2019), and caring behavior (Handayani & Kuntarti, 2022).

However, none of these studies have combined the variables of clinical skills, supervision techniques and caring behavior in influencing the implementation of patient safety standards in one complete study, so this research has the novelty of combining these variables in one complete study, so that on these grounds set the title "The Influence of Clinical Skills and Supervision Techniques on the Implementation of Patient Safety Standards with Caring Behavior as an Intervening Variable in Inpatient Nurses at RSAU Soemitro”.

Theoretical Framework

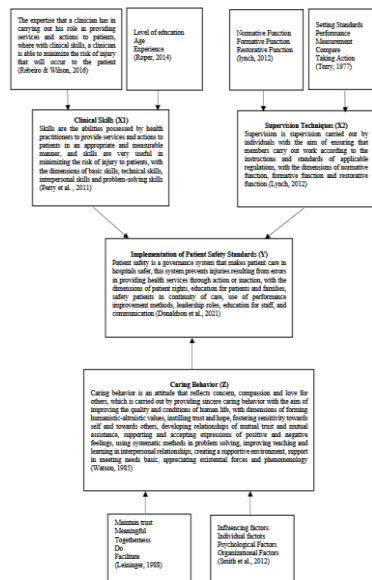


Figure 1. Theoretical Framework

Conceptual Framework

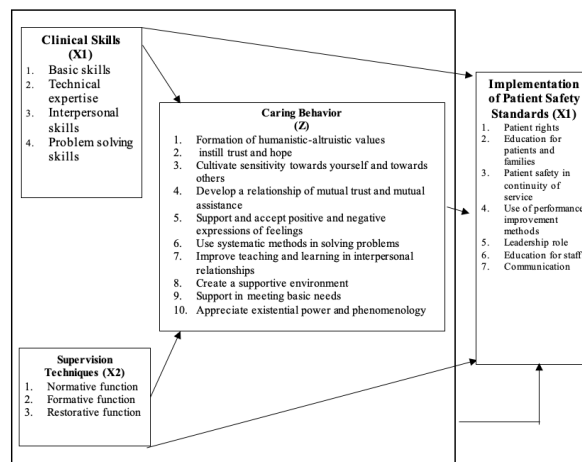


Figure 2. Conceptual Framework

Research Hypothesis

- H1: Simultaneously clinical skills, supervision techniques and caring behavior influence the implementation of patient safety standards.
- H2: Clinical skills influence caring behavior.
- H3: Supervision techniques influence caring behavior.
- H4: Clinical skills influence the implementation of patient safety standards.
- H5: Supervision techniques influence the implementation of patient safety standards.
- H6: Caring behavior influences the implementation of patient safety standards.

H7: Caring behavior intervenes in clinical skills towards the implementation of patient safety standards.

H8: Caring behavior intervenes in supervision techniques towards the implementation of patient safety standards.

Research Methods

This type of research is included in quantitative research with a cross sectional study design which functions to describe the relationship between risk-causing variables and the resulting effects. In this study, it consists of 2 independent variables, namely clinical skills (X1) and supervision techniques (X2), which will measure their influence on the dependent variable, namely the application of patient safety standards (Y) and also the existence of an intervening variable, namely caring behavior (Z). Below is a research constellation that describes the research flow:

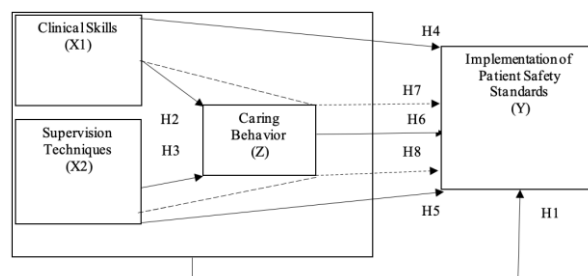


Figure 3. Research Constellation

Statistical Hypothesis

H1: $\rho \neq 0$ means that there is a significant simultaneous influence of clinical skills (X1), supervision techniques (X2) and caring behavior (Z) on the implementation of patient safety standards (Y).

H2: $\rho \neq 0$ means that there is a significant influence of clinical skills (X1) on caring behavior (Z).

H3: $\rho \neq 0$ means there is a significant influence of supervision (X2) on caring behavior (Z)

H4: $\rho \neq 0$ means that there is a significant influence of clinical skills (X1) on the implementation of patient safety standards (Y).

H5: $\rho \neq 0$ means that there is a significant influence of supervision techniques (X2) on the implementation of patient safety standards (Y).

H6: $\rho \neq 0$ means that there is a significant influence of caring behavior (Z) on the implementation of patient safety standards (Y).

H7: $\rho \neq 0$ means that caring behavior (Z) significantly intervenes in clinical skills (X1) in implementing patient safety standards (Y).

H8: $\rho \neq 0$ means that caring behavior (Z) significantly intervenes in supervision techniques (X1) in the implementation of patient safety standards (Y).

2. RESEARCH RESULTS AND DISCUSSION

Research result

Validity Test Results

The validity test was carried out on 30 respondents outside the research respondents using the product moment correlation technique. The rtable value for N=30 with a significance level of 5% = 0.361. The assumption for decision making is that if the value of rcount > rtable (0.361) then the instrument is said to be valid (Ghozali, 2018). The validation results for each variable are as follows:

Table 3. Validity Test Results for Clinical Skill Variables

Variable	Code	R count	R Table	Information
Clinical Skills (X1)	X1.1	,704**	0,361	Valid
	X1.2	,807**	0,361	Valid
	X1.3	,758**	0,361	Valid
	X1.4	,724**	0,361	Valid
	X1.5	,767**	0,361	Valid
	X1.6	,820**	0,361	Valid
	X1.7	,776**	0,361	Valid
	X1.8	,386*	0,361	Valid
	X1.9	,795**	0,361	Valid
	X1.10	,731**	0,361	Valid
	X1.11	,780**	0,361	Valid
	X1.12	,715**	0,361	Valid

Source: Primary Data, 2024

Table 3. shows that the 12 clinical skill variable statement items were calculated using Pearson's Product Moment correlation, it was obtained that r count > r table, so all clinical skill variable statement items were declared valid.

Table 4. Validity Test Results of Supervision Technique Variables

Variable	Code	R count	R Table	Information
Supervision Techniques (X2)	X2.1	0,667	0,361	Valid
	X2.2	,737**	0,361	Valid
	X2.3	,619**	0,361	Valid
	X2.4	,820**	0,361	Valid
	X2.5	,758**	0,361	Valid
	X2.6	,821**	0,361	Valid
	X2.7	,781**	0,361	Valid
	X2.8	,574**	0,361	Valid
	X2.9	,710**	0,361	Valid

Source: Primary Data, 2024

Table 4. shows that the Supervision Technique variable statement items which consist of 9 statements are calculated using Pearson's Product Moment correlation. It is obtained that r count > r table, so all the Supervision Technique variable statement items are declared valid.

Table 5. Validity Test Results for Caring Behavior Variables

Variable	Code	R count	R Table	Information
Caring Behavior (Z)	Z1.1	,834**	0,361	Valid
	Z1.2	,774**	0,361	Valid
	Z1.3	,857**	0,361	Valid
	Z1.4	,813**	0,361	Valid
	Z1.5	,737**	0,361	Valid
	Z1.6	,860**	0,361	Valid
	Z1.7	,792**	0,361	Valid
	Z1.8	,649**	0,361	Valid
	Z1.9	,846**	0,361	Valid
	Z1.10	,830**	0,361	Valid
	Z1.11	,844**	0,361	Valid
	Z1.12	,848**	0,361	Valid
	Z1.13	,831**	0,361	Valid
	Z1.14	,769**	0,361	Valid
	Z1.15	,736**	0,361	Valid
	Z1.16	,745**	0,361	Valid
	Z1.17	,710**	0,361	Valid
	Z1.18	,733**	0,361	Valid
	Z1.19	,745**	0,361	Valid
	Z1.20	,872**	0,361	Valid

Source: Primary Data, 2024

Table 5. shows that the Caring Behavior variable statement items which consist of 20 statements are calculated using Pearson's Product Moment correlation, it is obtained that $r \text{ count} > r \text{ table}$, so all the Caring Behavior variable statement items are declared valid.

Table 6. Validity Test Results for Patient Safety Standard Variables

Variable	Code	R count	R Table	Information
Patient Safety Standards (Y)	Y1.1	,894**	0,361	Valid
	Y1.2	,618**	0,361	Valid
	Y1.3	,887**	0,361	Valid
	Y1.4	,873**	0,361	Valid
	Y1.5	,824**	0,361	Valid
	Y1.6	,670**	0,361	Valid
	Y1.7	,789**	0,361	Valid
	Y1.8	,773**	0,361	Valid
	Y1.9	,636**	0,361	Valid
	Y1.10	,750**	0,361	Valid
	Y1.11	,827**	0,361	Valid
	Y1.12	,809**	0,361	Valid
	Y1.13	,875**	0,361	Valid
	Y1.14	,873**	0,361	Valid

Source: Primary Data, 2024

Table 6. shows that the Patient Safety Standard variable statement items which consist of 14 statements were calculated using Pearson's Product Moment correlation. It was obtained that $r \text{ count} > r \text{ table}$, so all patient safety standard variable statement items were declared valid.

Reliability Test Results

Reliability test to measure the reliability of each indicator in the questionnaire. As for the decision making assumption, if the Cronbach's alpha value is > 0.60 , then the instrument is considered reliable (Ghozali, 2018). The results of the reliability test with the help of SPSS 25 software are as follows.

Table 7. Reliability Test Results

Variable	Cronbach's Alpha value	Critical Value	Information
Clinical Skills	0,922	0,60	Reliable
Supervision Techniques	0,891	0,60	Reliable
Caring Behavior	0,969	0,60	Reliable
Patient Safety Standards	0,954	0,60	Reliable

Source: Primary Data, 2024

Table 7. shows that overall all the variables in this study were declared reliable, because the Cronbach's Alpha value was greater than the critical value of 0.60. This shows that the measuring instrument used is reliable and provides consistent measurement results.

Table 8. Three Box Method Analysis Average Matrix

No	Variable	Score			Behavior
		R	S	T	
1	Clinical Skills		78,47		Adequate
2	Supervision Techniques		76,06		Directional
3	Caring Behavior		78,61		Care
4	Implementation of Patient Safety Standards		72,98		Safe

Source: Data Processing Results by Researchers, 2024

Based on the Three Box Method matrix Table 4.12, it can be explained that adequate clinical skills indicate that health practitioners have sufficient ability to provide services to patients in an appropriate and measurable manner but are still not optimal. In accordance with Perry et al. (2011), these skills include basic, technical, interpersonal, and problem-solving skills, all of which contribute to minimizing the risk of injury to patients. Directed supervision techniques mean that the supervision carried out by individuals on their members is running well, in accordance with the goals set but is not yet fully optimal.

Data analysis

Outer Model Test Results

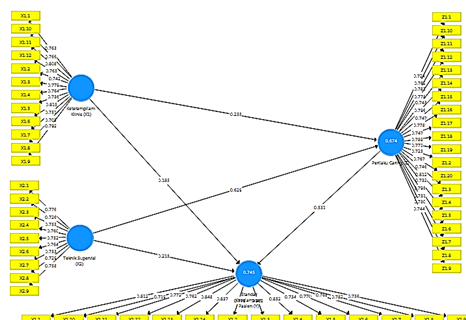


Figure 4. Outer Model Test Results

Structural model fit test

Table 9. Goodness of Fit (GoF) Assessment Results

SRMR	NFI
0,062	0,596

Source: SmartPLS 3.0 Processed Results (2024)

Table 9. shows that the SRMR value of 0.062 meets the fit criteria because it is less than 0.1. The NFI value of 0.596 meets the fit criteria because it is still below 0.9. It can be concluded that overall the model has a fairly good level of model fit (GoF).

Inner Model Test Results

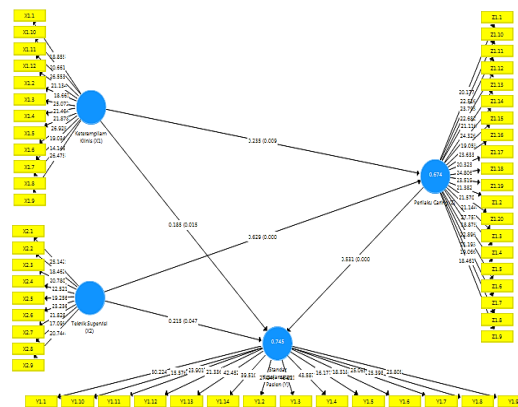


Figure 5. Inner Model Test Results

Evaluation of the Coefficient of Determination

Table 10 Coefficient of Determination Test Results

Variable	R-Square
Caring Behavior (Z)	0,674
Patient Safety Standards (Y)	0,745

Source: SmartPLS 3.0 Processed Results (2024)

Table 10. shows the R-Square value of Caring Behavior (Z) of 0.674 in the category ≥ 0.67 . This category is considered strong, which means that the model provides significant insight into the relationship between the variables studied. With an R-Square of 0.674, this shows that there is a significant relationship between the variables of clinical skills and supervision techniques on caring behavior with a contribution of 67.4%, the remaining 32.6% is influenced by variables outside the research.

The R-Square value of Patient Safety Standards (Y) is 0.745 in the category ≥ 0.67 . This category is considered strong, which means that the model provides significant insight into the relationship between the variables studied. With an R-Square of 0.745, this shows that there is a significant relationship between the variables clinical skills, supervision techniques

and caring behavior towards patient safety standards with a contribution of 74.5%, the remaining 25.5% is influenced by variables outside the research.

Table 11. Summary of Hypothesis Test Results

H _a	Hipotesis	Original Sample (O)	F/T Statistik	P-Values	Keterangan
H ₁	There is a significant simultaneous influence of clinical skills (X1), supervision techniques (X2) and caring behavior (Z) on patient safety standards (Y)	-	103,22	< 0,05	Supported
H ₂	There is a significant influence of clinical skills (X1) on caring behavior (Z)	0,235	2,637	0,009	Supported
H ₃	There is a significant influence of supervision (X2) on caring behavior (Z)	0,629	7,832	0,000	Supported
H ₄	There is a significant influence of clinical skills (X1) on the implementation of patient safety standards (Y)	0,185	2,437	0,015	Supported
H ₅	There is a significant influence of supervision techniques (X2) on the implementation of patient safety standards (Y)	0,215	1,987	0,047	Supported
H ₆	there is a significant influence of caring behavior (Z) on the implementation of patient safety standards (Y)	0,531	5,902	0,000	Supported
H ₇	Caring behavior (Z) significantly mediates clinical skills (X1) on the implementation of patient safety standards (Y)	0,125	2,438	0,015	Mediate
H ₈	Caring behavior (Z) significantly mediates supervision techniques (X2) on the implementation of patient safety standards (Y)	0,334	4,447	0,000	Mediate

The hypothesis summary results in Table 11. are explained as follows:

The Influence of Clinical Skills, Supervision Techniques and Caring Behavior on the Implementation of Patient Safety Standards

The results of the statistical f test of the simultaneous influence of clinical skills (X1), supervision techniques (X2) and caring behavior (Z) on the implementation of patient safety standards (Y) obtained Fcount 103.22 > Ftable 2.69, which means that there is a significant simultaneous influence of clinical skills (X1), supervision techniques (X2) and caring behavior (Z) towards the implementation of patient safety standards (Y), so that H1 is accepted.

The influence of clinical skills on caring behavior

The statistical test results obtained a path coefficient value of 0.235 and a tcount value (2.637) > tTable (1.96) and a p-value of 0.009 (significant), thus H_a was accepted (p < 0.05) and H₀ was rejected, so it was concluded that There is a significant influence of clinical skills (X1) on caring behavior (Z), so H₂ is accepted.

The influence of supervision techniques on caring behavior

The statistical test results obtained a path coefficient value of 0.629 and a tcount value (7.832) > tTable (1.96) and a p-value of 0.000 (significant), thus H_a was accepted (p < 0.05) and H₀ was rejected, so it was concluded that There is a significant influence of supervision (X2) on caring behavior (Z), so H₃ is accepted.

The influence of clinical skills on the implementation of patient safety standards

The statistical test results obtained a path coefficient value of 0.185 and a tcount value (2.437) > tTable (1.96) and a p-value of 0.015 (significant), thus H_a was accepted ($p < 0.05$) and H_0 was rejected, so it was concluded that There is a significant influence of clinical skills (X1) on the implementation of patient safety standards (Y), so H_4 is accepted.

The influence of supervision techniques on the implementation of patient safety standards

The statistical test results obtained a path coefficient value of 0.215 and a tcount value (1.987) > tTable (1.96) and a p-value of 0.047 (significant), thus H_a was accepted ($p < 0.05$) and H_0 was rejected, so it was concluded that There is a significant influence of supervision techniques (X2) on the implementation of patient safety standards (Y), so H_5 is accepted.

The influence of caring behavior on the implementation of patient safety standards

The statistical test results obtained a path coefficient value of 0.531 and a tcount value (5.902) > tTable (1.96) and a p-value of 0.000 (significant), thus H_a was accepted ($p < 0.05$) and H_0 was rejected, so it was concluded that There is a significant influence of caring behavior (Z) on the implementation of patient safety standards (Y), so H_6 is accepted.

Caring behavior mediates the influence of clinical skills on the implementation of patient safety standards

The statistical test results obtained a path coefficient value of 0.125 and a tcount value (2.438) > tTable (1.96) and a p-value of 0.015 (significant), thus H_a was accepted ($p < 0.05$) and H_0 was rejected, so it was concluded that Caring behavior (Z) significantly mediates clinical clinical skills (X1) on the implementation of patient safety standards (Y), so that H_7 is accepted.

Caring behavior mediates the influence of supervision techniques on the implementation of patient safety standards

The statistical test results obtained a path coefficient value of 0.334 and a tcount value (4.447) > tTable (1.96) and a p-value of 0.000 (significant), thus H_a was accepted ($p < 0.05$) and H_0 was rejected, so it was concluded that Caring behavior (Z) significantly mediates supervision techniques (X1) on the implementation of patient safety standards (Y), so H_7 is accepted.

3. DISCUSSION

The Influence of Clinical Skills, Supervision Techniques and Caring Behavior on the Implementation of Patient Safety Standards

The results of statistical tests show that simultaneously clinical skills, supervision techniques and caring behavior influence the implementation of patient safety standards at the Soemitro Air Force Hospital. This emphasizes the importance of the interaction between these three variables in creating a safe and effective care environment. Good clinical skills allow nurses to perform medical procedures precisely, minimizing the risk of errors that could harm the patient. Meanwhile, effective supervision techniques serve as a bridge to ensure that these skills are applied consistently and in accordance with established standards. Good supervision also provides constructive feedback to nurses, so they can continue to improve their performance. On the other hand, caring behavior creates a positive relationship between nurses and patients, which is very important in increasing patient compliance with care and facilitating open communication. These three elements support and strengthen each other, so that when all three are present simultaneously, they create a synergy that can improve overall patient safety. In the hospital context, the integration of clinical skills, supervision techniques, and caring behavior contributes to strengthening workplace safety culture, which is essential for preventing adverse incidents in healthcare facilities.

The results of the Three Box Method analysis show that the clinical skills scores of inpatient nurses at the Soemitro Air Force Hospital are in the "Medium" category. While there are no extreme values indicating very low or very high skill, there is variation in scores between skill categories that reflects conditions in the field. For example, in basic skills, nurses demonstrate a good understanding of the principles of nursing ethics and infection control, but there is still room for improvement in terms of data analysis and documentation. This shows that even though nurses understand the theory, practical application in the field may still need improvement, especially in accurate documentation, which is very important for patient safety. In the technical skills category, although nurses were able to implement ways to facilitate oxygen requirements and administer medications safely, lower scores on electrolyte and fluid requirements indicated potential deficiencies in knowledge or practice that could pose a risk to the patient. The interpersonal skills category indicated that nurses were quite good at creating a safe environment, with one statement even being in the "High" category. However, interpersonal communication to prevent patient safety incidents was still rated "Fair," indicating a need for improvement in this communication skill to more effectively support patient safety. Problem-solving skills also show consistent scores, but statements regarding

injury prevention and wound care measures indicate that although nurses understand the importance of these measures, implementation in the field may still face challenges. Overall, these results paint a complex picture in which nurses have good basic knowledge, but the implementation of clinical skills in daily practice still needs to be improved to ensure safety and better quality of patient care. Limitations in training, time available to implement procedures, and high workload can be factors that influence these results, so more attention is needed in professional development and ongoing training for nurses.

The Influence of Clinical Skills on Caring Behavior

The results of statistical tests show that clinical skills influence the caring behavior of Soemitro Air Force Hospital nurses. This means that improving nurses' clinical skills can contribute to improving caring behavior. Nurses who have good clinical skills tend to be better able to show a caring and attentive attitude towards patients. These skills include the technical, communication, and problem-solving abilities necessary to provide effective and empathetic care. When nurses feel confident in their skills, they are more likely to engage emotionally with patients, provide necessary support, and improve the overall patient experience.

The statistical test results are in line with the three box method analysis which shows that the statement with the highest index comes from the dimension of interpersonal skills, especially regarding the nurse's ability to implement and maintain a safe nursing environment. With a relatively high score, this shows that nurses have good abilities in creating an environment that supports quality care, which is very important in interactions with patients. Good interpersonal skills enable nurses to communicate effectively, understand patient needs, and provide emotional support. All of these aspects strongly support caring behavior, which is a vital element in providing quality care. In other words, when nurses feel comfortable interacting with patients and have the ability to create a safe environment, they are more likely to demonstrate greater caring behavior. On the other hand, the item with the lowest index is in the technical expertise dimension, especially in statements regarding the application of ways to quickly facilitate electrolyte and fluid needs, which is included in the medium category. This indicates a challenge in the technical skills required to provide fast and efficient care. These limitations in technical expertise can negatively impact nurses' ability to provide optimal care, which in turn can influence caring behavior when interacting with patients. Overall, high interpersonal skills support caring behavior, while less than optimal technical skills can hinder the nurse's ability to provide comprehensive care. Therefore, it is important for hospital management to focus on developing both types of skills in a balanced manner. By improving

technical skills, nurses will not only be able to provide more efficient care, but will also be better able to demonstrate caring behavior, which will ultimately improve patient safety and satisfaction.

The Influence of Supervision Techniques on Caring Behavior

The results of statistical tests show that supervision techniques influence the caring behavior of Soemitro Air Force Hospital nurses. This means that the method of supervision implemented by hospital management or the head of the room can influence nurses' caring attitude towards patients. If supervision techniques are carried out well, such as providing clear directions, constructive feedback, and necessary support, nurses will be more motivated to demonstrate caring behavior. Good supervision creates a positive work environment, where nurses feel valued and supported in carrying out their duties.

The results of the three box method analysis show that the item with the highest index comes from the Normative Function dimension, namely the statement "The head of the room and the Team Leader ensures infection control and prevention according to nursing SOPs," and is included in the Medium category. This shows that the room leader and team leader are quite effective in ensuring that infection prevention procedures are followed. Good supervision in this aspect can give nurses confidence that they are working in a safe and standardized environment, which supports caring behavior. When nurses feel that safety procedures are being followed, they are more likely to focus on caring for the patient. while the lowest index is in the Formative Function and Restorative Function dimensions: There are two items with the lowest index. The first item is the statement "The head of the room and the Team Leader encourage nurses to carry out transcultural nursing." This reflects the challenges in encouraging nurses to implement culturally sensitive nursing practices. The inability to implement transcultural nursing can reduce the effectiveness of caring behavior, because nurses may not fully understand the needs and values of patients from different cultural backgrounds. The second item is the statement "The head of the room and the Team Leader encourage nurses to exchange information regarding patient progress." If supervision does not encourage good communication between nurses, this can hinder collaboration and emotional support between nurses, which is an important part of caring behavior. Overall, the results of the analysis show that effective supervision techniques, especially in terms of infection control and prevention, can improve nurses' caring behavior. However, there are still areas that need improvement, such as encouraging transcultural nursing and information exchange between nurses.

The Influence of Clinical Skills on the Implementation of Patient Safety Standards

Statistical test results show that clinical skills influence the implementation of patient safety standards at the Soemitro Air Force Hospital. This means that improving nurses' clinical skills can contribute to improving patient safety. Nurses who have good clinical skills tend to be better able to perform medical procedures correctly and safely. This includes the ability to perform assessments, manage care, and identify potential risks that could harm the patient. Additionally, high clinical skills help minimize errors in care delivery, which can reduce the risk of injury or complications to patients. With good skills, nurses can avoid common mistakes, thereby creating a safer environment for patients.

A path coefficient of 0.185 indicates that every one unit increase in clinical skills will be associated with a 0.185 unit increase in patient safety standards. This shows that clinical skills not only serve as an important element in providing effective care, but also play a direct role in reducing the risk of errors that can harm patients. These results indicate that clinical skills contribute 18.5% to improving patient safety standards. This means that every increase in nurses' clinical skills will have a positive effect in increasing patient safety standards by 18.5%. This percentage illustrates the importance of clinical skills in the context of patient safety. With a contribution of 18.5%, clinical skills can be considered a significant factor that must be considered in efforts to improve the quality of care. Therefore, training and skills development programs for nurses are essential to optimize the positive impact on patient safety.

The Influence of Supervision Techniques on the Implementation of Patient Safety Standards

The statistical test results show a path coefficient of 0.215 (21.5%). This analysis shows that supervision techniques contribute 21.5% to improving patient safety standards. This emphasizes the importance of the role of supervision in the healthcare environment, where good supervision not only ensures that procedures and standards are followed, but also provides the necessary support for nurses to carry out their duties with more confidence. When nurses feel supported by an effective supervision system, they tend to focus more on patient needs and are better able to identify and address potential risks that could threaten patient safety. This significant contribution highlights the need for investment in training programs and the development of supervision techniques for health managers to improve the effectiveness of services and ensure greater patient safety. Thus, these results provide a strong basis for encouraging improved supervision practices in an effort to achieve optimal patient safety standards.

The results of the box method analysis show that the average index of supervision techniques is categorized as "Medium." Although generally in the adequate category, several items indicate potential challenges that need to be addressed. There are two items with the lowest index in the Formative Function and Restorative Function dimensions that need attention. The first item is the statement "The head of the room and the Team Leader encourage nurses to practice transcultural nursing," which reflects the challenges in encouraging nurses to implement culturally sensitive nursing practices. A low index indicates difficulties in integrating cultural sensitivity into care practices. This can affect patient safety, especially for those who come from diverse cultural backgrounds and have special needs. If supervision does not sufficiently encourage the implementation of transcultural nursing, nurses may not fully understand or meet patient needs, which in turn may increase the risk of errors in care..

The Influence of Caring Behavior on the Implementation of Patient Safety Standards

The results of statistical tests show that caring behavior influences the implementation of patient safety standards at the Soemitro Air Force Hospital. This means that the attitudes and actions of nurses who care about patients can contribute significantly to patient safety and well-being. Caring behaviors, which include empathy, attention, and emotional support, help create better relationships between nurses and patients. When nurses demonstrate a caring attitude, patients feel more comfortable expressing their needs and concerns, which can lead to better management of health conditions.

The results of the three box method analysis show that the average index of nurses' caring behavior is in the "Medium" category. However, there is an item with the lowest index in the dimension "Supporting and Accepting Expressions of Positive and Negative Feelings," especially in the statement "I treat patient complaints as normal". This shows that there are challenges in nurses' attitudes towards patient complaints, which should be taken seriously and become a major concern in nursing practice. This statement reflects that not all nurses have the same understanding of the importance of handling patient complaints appropriately. An attitude that considers complaints to be normal can potentially ignore the real problems faced by patients, which can have an impact on the quality of care and patient safety. When patient complaints are not taken seriously, there is a risk that more serious health problems may be overlooked, which could lead to patient safety incidents. With almost 45.45% of respondents feeling they "never" take patient complaints seriously, this shows a potential risk to patient safety. It is important for hospitals to provide more in-depth development regarding the importance of taking patient complaints seriously. Improvements in this area will not only help

in meeting patient needs but will also contribute to overall patient safety. Efforts to change nurses' attitudes towards patient complaints to be more responsive and empathetic must be a priority in nursing development programs.

Caring Behavior Mediates the Effect of Clinical Skills on the Implementation of Patient Safety Standards

The results of statistical tests show that caring behavior mediates the influence of clinical skills on patient safety standards. This means that caring behavior serves as a link between clinical skills and patient safety. This suggests that good clinical skills may not directly improve patient safety standards, but through caring behavior demonstrated by nurses. High clinical skills are essential to provide appropriate and safe care. However, these skills need to be complemented with caring behavior in order to contribute optimally to patient safety. This shows that just having technical skills is not enough; Humane and empathetic behavior is also very important.

The results of the three box method analysis show that the average index of caring behavior among nurses is in the "Medium" category. Although this reflects awareness of the importance of caring behavior, there is still room for improvement. In several statements, such as "I treat patient complaints as a matter of course", it can be seen that there are challenges in dealing with patient complaints in an empathetic way. This suggests that better caring behavior is needed to support clinical skills in improving patient safety. The ability to demonstrate empathy and concern may be suboptimal hampering the positive influence of clinical skills on patient safety. If caring behavior is perceived as inadequate, the positive impact of clinical skills may be reduced.

Caring Behavior Mediates the Effect of Supervision Techniques on the Implementation of Patient Safety Standards

The results of statistical tests show that caring behavior mediates the influence of supervision techniques on the implementation of patient safety standards. This means that caring behavior functions as a link between supervision techniques and patient safety. In other words, good supervision techniques will increase nurses' caring behavior, which in turn will contribute to improving patient safety standards. Effective supervision techniques can create a supportive work environment for nurses. When the head of the room and the supervision team provide good support and guidance, nurses tend to feel more appreciated and motivated to show caring behavior towards patients. This shows that the quality of supervision is very important

in shaping nurses' attitudes. By strengthening supervision techniques and improving caring behaviors, hospitals can be more effective in ensuring the safety and quality of care provided to patients.

The results of the three box method analysis show that the average index for supervision techniques is in the "Medium" category. This shows that although there are efforts to implement good supervision techniques, there are still challenges in implementation. Several statements, such as "The head of the room and the team leader encourage nurses to carry out safe services for patients" and "The head of the room and the team leader encourage nurses to carry out nursing based on a culture of patient safety", indicate that there is a need to increase motivation and support for nurses to implement safe practices. . On the other hand, caring behavior has an average of being in the "Medium" category. Although this shows awareness of the importance of caring behavior, there are several areas that need improvement, such as "I treat patient complaints as a matter of course". This shows that nurses' attitudes towards patient complaints can influence the safety and quality of care provided. This analysis confirms the importance of a mutually supportive relationship between technical skills and interpersonal behavior in nursing practice. While supervision techniques are in the "Moderate" category, there are opportunities to increase their effectiveness through strengthening caring behaviors. Thus, the development of training programs that pay attention to the integration of supervision techniques and caring behavior is crucial to achieving better patient safety standards.

Research Findings

These findings show that clinical skills, supervision techniques and caring behavior simultaneously influence the implementation of patient safety standards. The research results also found that supervision techniques influence nurses' caring behavior with the highest coefficient and t statistical values compared to other influences with a contribution of 62.9%. These findings emphasize the importance of supervision techniques as a key factor in creating a supportive work environment. When supervision is carried out well, nurses are more likely to feel supported and motivated to show a caring attitude towards patients. This suggests that effective supervision can strengthen nurses' commitment to empathetic and caring care.

Research Limitations

This study used self-report, so reliance on respondents' perceptions in assessing caring behavior and supervision techniques could be biased. These perceptions can be influenced by personal experiences, work environments, or even emotional factors that can influence results.

Some items in the questionnaire used may not fully cover the complexity of each variable being measured. For example, items related to clinical skills, especially interpersonal communication, have the lowest loading factor values, so it is recommended that questionnaire items be reviewed and revised to ensure that all important aspects of clinical skills, especially interpersonal communication, are covered properly.

CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

Conclusion

Implementation of patient safety standards is simultaneously influenced by clinical skills, supervision techniques and caring behavior. This means that nurses who have high skills and are supported by effective supervision techniques and good caring behavior can contribute to patient safety.

Caring behavior can be significantly influenced by clinical skills. This means that improving nurses' clinical skills can contribute to improving caring behavior.

Caring behavior can be significantly influenced by supervision techniques. This means that improving nurses' clinical skills can contribute to improving caring behavior. This means that if supervision techniques are carried out well, such as providing clear directions, constructive feedback, and necessary support, nurses will be more motivated to demonstrate caring behavior.

Application of patient safety standards can be significantly influenced by clinical skills. This means that when nurses are highly skilled, they are better able to perform medical procedures correctly and avoid mistakes that could harm patients.

Implementation of patient safety standards can be significantly influenced by supervision techniques. This means that with good supervision, care practices can be monitored and improved as needed, which has a positive impact on patient safety.

Implementation of patient safety standards can be significantly influenced by nurses' caring behavior. This means that when nurses demonstrate a high level of caring attitude, they are better able to understand and meet patient needs, which has a positive impact on patient safety.

Caring behavior mediates the influence of clinical skills on the implementation of patient safety standards. High technical skills alone are not enough; Caring behavior is also needed to ensure that patients receive safe and quality care. This suggests that to achieve high standards of patient safety, it is important for nurses to develop good clinical skills and also demonstrate caring behavior.

Caring behavior mediates the influence of supervision techniques on the implementation of patient safety standards. This means that although the supervision techniques applied by the head of the room or nursing manager play an important role, the caring behavior of nurses is the factor that connects these supervision techniques with patient safety outcomes. To improve patient safety, nurses need to receive adequate support and also be trained to interact with patients with empathy.

Research Implications

Theoretical Implications

This research supports the interaction model in nursing which explains that the quality of care is not only influenced by technical skills and supervision techniques, but also by interpersonal factors such as caring behavior. This emphasizes the importance of viewing nursing as a discipline that involves human interaction, where emotional and technical aspects are interrelated in achieving optimal results.

These findings strengthen the technical skills theory proposed by Perry et al. (2011) which states the ability of health practitioners to provide services and actions to patients in an appropriate and measurable manner, and skills are very useful in minimizing the risk of injury to patients

These findings reinforce caring theory, as proposed by Jean Watson, which states that a caring relationship between nurses and patients is essential for providing quality care. By demonstrating that caring behavior mediates the relationship between clinical skills and patient safety standards, this study emphasizes that caring behavior is not simply an add-on, but is a fundamental element in effective nursing practice.

The results of this study also support the proposed supervision theory (Lynch, 2012), showing that good supervision techniques play an important role in improving the quality of care. By strengthening the link between supervision, caring behavior, and patient safety, this research confirms that effective supervision must include the development of interpersonal skills, not just focus on technical aspects.

This research expands understanding of Donaldson et al.'s patient safety theory. (2020). By showing that caring behavior and supervision techniques play a role in improving patient safety, the results of this study strengthen the argument that patient safety is the result of a complex interaction between various factors, including technical skills and interpersonal attitudes.

Managerial Implications

Based on the three box method analysis of the technical skills variable in the statement with the lowest index value is implementing ways to facilitate electrolyte and fluid needs quickly, so the managerial implications for hospital management need to improve the HR Training and Development System.

Based on the three box method analysis, the lowest dimension in supervision techniques is the formative function, especially in the statement "The head of the room and the Team Leader encourage nurses to exchange information regarding patient progress", the suggestion for hospital management is to improve the internal communication system.

Based on the three box method analysis of the caring behavior variable, the statement with the lowest index value is the behavior of nurses in responding to patient complaints, so the suggestion for hospital management is to improve the system for handling patient complaints.

Suggestion

The items from the clinical skills variable with the lowest index are in the technical skills dimension, especially in statements regarding the application of ways to facilitate electrolyte and fluid needs quickly, which are classified in the medium category. Suggestions for hospital management are to develop more comprehensive learning modules regarding handling electrolyte and fluid needs. fluids, including step-by-step guidance on proper technique, indications, and contraindications.

Based on the two items with the lowest index that have been identified in the supervision technique variable, namely encouraging transcultural nursing and encouraging the exchange of information between nurses, the suggestion for hospital management is to hold training that focuses on transcultural nursing, including an understanding of values, practices and needs. patients from various cultural backgrounds. This training should include case studies and simulations to enhance practical understanding. In addition, encouraging a culture of support where nurses feel comfortable sharing information and discussing problems encountered, as well as providing emotional support to colleagues.

Based on the findings that there is the lowest index in the dimension "Supporting and Accepting Positive and Negative Expressions of Feelings," as well as statements indicating that nurses do not take patient complaints seriously, the suggestion for hospital management is to develop a training program that focuses on communication skills and empathy in handle patient complaints.

Future research could consider other variables that can influence the relationship between supervision techniques, caring behaviour, and patient safety, such as nurse workload, team support, or job satisfaction. These variables may contribute to the results obtained.

REFERENCE

- Agbar, F., Zhang, S., Wu, Y., & Mustafa, M. (2023). Effect of patient safety education interventions on patient safety culture of health care professionals: Systematic review and meta-analysis. *Nurse Education in Practice*, 67, 103565. <https://doi.org/10.1016/j.nepr.2023.103565>
- Aini, Q. (2020). Model of caring behavior influenced by culture and cognitive attitudes of safety patients: Case study of PKU Muhammadiyah Hospital in Bantul. *Enfermería Clínica*, 30, 272–275. <https://doi.org/10.1016/j.enfcli.2020.06.062>
- Alikari, V., Fradelos, E., Zartaloudi, A., Kolovos, P., & Zyga, S. (2024). Nurses' skill factors affecting nurses' caring behaviors: A study in Greece. <https://doi.org/10.20944/preprints202401.0464.v1>
- Amsrud, K., Lyberg, A., & Severinsson, E. (2019). The influence of clinical supervision and its potential for enhancing patient safety: Undergraduate nursing students' views. *Journal of Nursing Education and Practice*, 5. <https://doi.org/10.5430/jnep.v5n6p87>
- Ariani, K. R., & Putri, G. A. (2016). Pengaruh Belanja Modal Dan Dana Alokasi Umum Terhadap Kemandirian Daerah. Seminar Nasional dan The 3rd Call for Syariah Paper, 364–369.
- Ashagere, M., Yeheyis, T., Addisu, D., Abera, W., Amlaku, T., Tadesse, F., Beyene, B., Samuel, T., & Daba, A. K. (2023). Caring behaviour and its associated factors among nurses organizational commitment working at public hospitals in Gamo zone, southern Ethiopia: A cross-sectional study. *BMJ Open*, 13(10), e072183. <https://doi.org/10.1136/bmjopen-2023-072183>
- Biresaw, H., Asfaw, N., & Zewdu, F. (2020). Knowledge and skill of nurses towards patient safety and its associated factors. *International Journal of Africa Nursing Sciences*, 13, 100229. <https://doi.org/10.1016/j.ijans.2020.100229>
- Bougie, R., & Sekaran, U. (2019). *Research Methods For Business: A Skill Building Approach*. Wiley.
- Boyd, C. (2022). *Clinical Skills for Nurses*. Wiley.
- Burnard, P., & Morrison, P. (1997). *Caring and Communicating: Facilitators' Manual: The Interpersonal Relationship in Nursing*. Macmillan Education UK.
- Byers, J. F., & White, S. V. (2004). *Patient Safety: Principles and Practice*. Springer Publishing Company.
- Donaldson, L., Ricciardi, W., Sheridan, S., & Tartaglia, R. (2020). *Textbook of Patient Safety and Clinical Risk Management*. Springer International Publishing.
- Donaldson, L., Ricciardi, W., Sheridan, S., & Tartaglia, R. (2021). *Textbook of Patient Safety and Clinical Risk Management*. Springer International Publishing.
- Fayol, H. (2013). *General and Industrial Management*. Martino Publishing.
- Ferdinand, A. (2014). *Metode Penelitian Manajemen*. BP Undip.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25 (9th ed.)*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis (8th ed.)*. Cengage Learning EMEA.

- Handayani, E. T., & Kuntarti, K. (2022). Nurses' caring behavior on patient safety goals. *Journal of Public Health Research*, 11(2), jphr.2021.2741. <https://doi.org/10.4081/jphr.2021.2741>
- Hi Ukum, M. (2021). Nurse caring behavior analysis with fall risk patient safety in surgical care of Mokoyurli Hospital Buol District. *Journal of Applied Nursing and Health*, 3(1), 28–33. <https://doi.org/10.55018/janh.v3i1.22>
- Hughes, R. G., & Clancy, C. M. (2019). Nurses' skill in patient safety. *Journal of Nursing Care Quality*, 24(1).
- Inocian, E. P., Hill, M. B., Felicilda-Reynaldo, R. F. D., Kelly, S. H., Paragas, E. D., & Turk, M. T. (2022). Supervision techniques that influence caring behaviors of undergraduate nursing students: An integrative review. *Nurse Education in Practice*, 63, 103391. <https://doi.org/10.1016/j.nepr.2022.103391>
- Julita, D., Putra, A., Satria, B., Kamil, H., & Yuswardi, Y. (2020). Head nurses' supervision and its correlation with patient safety in Aceh hospital setting, Indonesia. <https://doi.org/10.5220/0008395401290135>
- Kalsoom, Z., Victor, G., Virtanen, H., & Sultana, N. (2023). What really matters for patient safety: Correlation of nurse skill with international patient safety goals. *Journal of Patient Safety and Risk Management*, 28(3), 108–115. <https://doi.org/10.1177/25160435221133955>
- Kasmiaty, Baharuddin, Fattah, M. N., Mulfiyanti, D., Ermawati, Umanailo, M. C. B., & Hadi, I. (2021). The influence of supervision of heads of rooms and knowledge of implementing nurses on patient safety through the quality of nursing services at the regional hospital. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 3214–3222. <https://doi.org/10.46254/sa02.20210876>
- Kelsey, R. (2016). *Patient Safety: Investigating and Reporting Serious Clinical Incidents*. CRC Press.
- Khodiyatussolihah, K., Rita, K., & Hilmy, R. (2022). Analysis of nurse workload on implementation of patient safety and teamwork with caring behavior as mediation variables at Metro Hospitals Cikupa. *Jurnal Health Sains*, 3, 1610–1624. <https://doi.org/10.46799/jhs.v3i11.644>
- Leininger, M. M. (1988). *Caring: An Essential Human Need*. Wayne State University Press.
- Li, Z.-Y., Yang, Y.-P., Wang, Q., Zhang, M.-X., Luo, C.-W., Zhu, L.-F., Tung, T.-H., & Chen, H.-X. (2024). Association between abusive supervision and nurses' withholding voice about patient safety: The roles of impression management motivation and speak-up-related climate. *BMC Nursing*, 23(1), 256. <https://doi.org/10.1186/s12912-024-01921-0>
- Luciani, M., Ardenghi, S., Rampoldi, G., Russo, S., Bani, M., Strepparava, M. G., Di Mauro, S., & Ausili, D. (2024). The influence of supervision techniques on caring behavior. *Nurse Education Today*, 137, 106154. <https://doi.org/10.1016/j.nedt.2024.106154>
- Lynch, R. L. (2012). *Strategic Management*. Pearson.
- Nisa, E. Z., Aulia, D., & Nasution, S. S. (2021). Effect of supervision on the actions of implementing nurses in the implementation of patient safety at PTPN IV Kebun Laras Hospital, Simalungun Regency. *International Journal of Science and Healthcare Research*, 6(49), 244–250.
- Oktavia, R., & Rismawati, R. (2022). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan. In *Jurnal Ilmu dan Riset....* Alfabeta.
- Panesar, S., Carson-Stevens, A., Salvilla, S., & Sheikh, A. (2014). *Patient Safety and Healthcare Improvement at a Glance*. Wiley.

- Perry, A. G., Potter, P. A., & Elkin, M. K. (2011). *Nursing Interventions & Clinical Skills*. Elsevier Health Sciences.
- Potter, P. A., Perry, A. G., Stockert, P., & Hall, A. (2016). *Fundamentals of Nursing - E-Book*. Elsevier Health Sciences.
- Rebeiro, G., & Wilson, D. (2016). *Fundamentals of Nursing: Clinical Skills Workbook eBook* ePub. Elsevier Health Sciences.
- Richardson, R., & Keeling, J. (2021). *Clinical Skills: An Introduction for Nursing and Healthcare*. Scion Publishing.
- Robbins, S. P., & Judge, T. A. (2017). *Organizational Behavior*. Pearson Education Limited.
- Roper, T. A. (2014). *Clinical Skills*. OUP Oxford.
- Ruswanti, E., & Januarko, M. U. (2015). *Panduan Penulisan Laporan Ilmiah: Atensi, Kredibilitas Perusahaan, Iklan Dua Sisi Terhadap Niat Beli Jasa Penerbangan Elang Air*. CV. Andi Offset. Yogyakarta.
- Seo, J.-K., & Lee, S. E. (2022). Mediating roles of patient safety knowledge and caring behavior in the relationship between supervision techniques and patient safety goal: A structural equation modeling analysis. *BMC Nursing*, 21(1), 335. <https://doi.org/10.1186/s12912-022-01123-6>
- Smith, M. C., Turkel, M. C., & Wolf, Z. R. (2012). *Caring in Nursing Classics: An Essential Resource*. Springer Publishing Company.
- Sutrisno, H., Susanto, D. S., & Haryadi, H. (2019). An analysis of nurse leadership, patient safety culture and nurses' caring behavior: The role of work engagement. *Nursing and Health Sciences*, 21(1), 70–77. <https://doi.org/10.1111/nhs.12528>
- Zohar, D. (2008). *Safety Climate in Health Care Organizations: The Case of the Surgical Environment*. The Society for the Advancement of Management Studies.