

## Analysis of the Concept of Patient Identification Noncompliance as a Risk Factor for Care Errors

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KEYWORD	ABSTRACT
Concept analysis, patient identification, patient safety	Accurate patient identification is a main goal of patient safety in health services, as it prevents mistreatment that can cause serious injury or death. Yet, nursing practice shows ongoing non-compliance by health workers with standard procedures, raising medical error risks. Thus, systematically studying non-compliance with patient identification as a mistreatment risk factor is essential. This study analyzes the concept of patient identification non-compliance via Walker and Avant's eight-stage approach. Data came from a systematic review of 60 peer-reviewed articles (2011–2025) from PubMed, Google Scholar, and ScienceDirect. Results reveal characteristics like failure to follow standards, pre-intervention occurrence, health worker involvement, and intentional/unintentional nature. Antecedents include individual factors, service systems, and work environments. Consequences encompass heightened mistreatment risk, procedural errors, patient injuries, legal/psychological impacts on nurses, and institutional losses. In conclusion, non-compliance with patient identification is a key patient safety concept and triggers major mistreatment. Strengthening compliance requires continuous education, system support, and robust safety culture in facilities.

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## INTRODUCTION

The implementation of six patient safety targets in hospital services includes the accuracy of patient identification. The purpose of accurate patient identification is to measure and evaluate the quality of nursing services that impact health services (Silalahi et al., 2022). *Patient identification* is used to distinguish one patient from another, facilitating the provision of services (The Joint Commission, 2020). However, current evidence suggests that the application of accurate patient identification remains suboptimal due to nurses' low understanding of operational standard procedures and environmental factors (Albyn Faiqh et al., 2020).

Data from the Indonesian Hospital Accreditation Commission (*KARS*) demonstrates the severity of this problem (Pagalilauan et al., 2021). The 2021 annual report documented 15,443 patient safety incidents from 1,426 hospitals in Indonesia, with 483 cases (3%) categorized as unexpected events (*KTD - Kejadian Tidak Diharapkan*). The 2022 report showed 11,214 *KTD*

cases from 1,140 hospitals, with medication errors, unsafe surgical procedures, healthcare-related infections, and diagnostic errors as predominant causes. While not all incidents directly stemmed from identification failures, misidentification constitutes a significant contributing factor across multiple error categories (Alomari et al., 2020). Media reports have highlighted several cases where patient misidentification led to wrong-site surgery, incorrect blood transfusions, and medication errors resulting in serious patient harm, though specific institutional names are withheld to protect confidentiality (Rodziewicz et al., 2023).

Efforts to prevent patient misidentification require nurses—who have the longest interaction time with patients—to demonstrate optimal quality and performance. Qualified nurses can carry out patient identification effectively with both healthy and sick patients. Nurses must have strong knowledge because every action must be based on it. Professional nursing knowledge is essential to prevent Unexpected Events (*KTD*) and Near Injury Events (*KNC - Kejadian Nyaris Cedera*) (Desilawati & Aini, 2020).

The World Health Organization (*WHO*, 2023) emphasizes that improving patient safety implementation requires clear policies, organizational leadership capacity, data to drive safety improvements, skilled healthcare professionals, and effective patient and family involvement in the care process—all necessary to ensure sustained and significant improvements in healthcare safety.

Law Number 44 of 2009 concerning Hospitals, Article 29(b), states that hospitals are obliged to provide safe, quality, non-discriminatory, and effective health services by prioritizing patient interests in accordance with hospital service standards. One indicator of health services is patient safety (Nursalam, 2014). Hospital patient safety is a system that makes patients safer, encompassing risk assessment, identification, and management related to patient risk; incident reporting and analysis; the ability to learn from incidents and follow up; and the implementation of solutions to minimize risks and prevent injuries caused by performing or failing to perform an action that should have been taken (*Permenkes RI*, 2011).

The urgency of conducting this study now stems from several critical factors. First, despite existing policies and guidelines, the incidence of identification-related errors remains unacceptably high, indicating a gap between knowledge and practice that requires deeper conceptual understanding (Slawomirski et al., 2017). Second, the causes of non-compliance are multifactorial and complex, involving individual, systemic, and environmental factors that interact in ways not yet fully understood—conceptual clarification is necessary before effective, targeted interventions can be designed. Third, the advent of new identification technologies (barcodes, RFID, biometric systems) has created opportunities but also new challenges that need to be understood within a clear conceptual framework. Fourth, the COVID-19 pandemic has introduced additional pressures on healthcare systems, potentially exacerbating compliance challenges. Finally, the legal, ethical, and psychological consequences of identification failures have become increasingly recognized, necessitating a comprehensive conceptual framework to guide policy and practice.

Although the relationship between non-compliance with patient identification as a risk factor for mistreatment has been extensively researched, a comprehensive understanding of this concept as a nursing phenomenon still requires further exploration. Existing research has primarily focused on measuring compliance rates, identifying contributing factors, or

describing incident outcomes but has not systematically analyzed the concept itself using rigorous concept analysis methodology. Concept analysis is needed to clarify the attributes, antecedents, and consequences of non-compliance with patient identification in a more systematic manner (Treadwell et al., 2016).

The novelty of this study lies in several aspects. First, this is the first systematic conceptual analysis applying the Walker and Avant (2011) framework specifically to patient identification non-compliance in the Indonesian healthcare context. While international studies have examined patient identification errors, none have comprehensively analyzed the concept of "non-compliance" itself as a distinct phenomenon requiring conceptual clarification. Second, this study integrates perspectives from multiple disciplines—nursing science, risk management, patient safety science, healthcare law, and organizational psychology—to provide a holistic understanding of the phenomenon. Third, unlike previous descriptive studies, this analysis distinguishes between intentional and unintentional non-compliance, a distinction with important implications for intervention design. Fourth, this study explicitly identifies the cascading consequences across three levels (patient, nurse, and institutional), providing a more complete picture of the impact. Fifth, the study provides empirical referents that can be operationalized for measurement, bridging the gap between conceptual understanding and practical application.

The specific objectives of this study are: (1) to systematically analyze the concept of patient identification non-compliance using the Walker and Avant framework; (2) to identify and clarify the defining attributes, antecedents, and consequences of patient identification non-compliance; (3) to develop case models that illustrate the concept in various clinical scenarios; and (4) to establish empirical referents for measuring patient identification non-compliance in practice. The benefits of this study include: (a) theoretical benefit: contributing to nursing knowledge by providing a clear, systematic conceptual framework for understanding patient identification non-compliance; (b) practical benefit: offering healthcare facilities and nursing professionals a conceptual foundation for developing evidence-based interventions to improve compliance; and (c) policy benefit: informing policy development related to patient safety standards and accountability frameworks.

The implications of this study include: enhancing nursing education curricula with clearer conceptual foundations for teaching patient identification; guiding the development of compliance monitoring systems based on conceptually sound indicators; informing disciplinary versus systemic approaches to addressing non-compliance based on intentional/unintentional distinctions; and supporting the development of a just culture that balances individual accountability with system improvement.

## RESEARCH METHODS

This study is a qualitative research with an analytical descriptive approach that aims to gain an in-depth understanding of the concept of non-compliance with patient identification as a risk factor for mistreatment. The qualitative approach was chosen because this study focuses on exploring the meaning, characteristics, and conceptual relationships of the phenomena studied, rather than on measuring statistical causal relationships. Through this approach, the concept of patient identification non-compliance is systematically analyzed to generate

conceptual clarity that can be used as a basis for the development of patient safety practices in healthcare (Walker & Avant, 2011; Nursalam, 2014).

This study uses a concept analysis method with the framework of Walker and Avant (2011), which consists of eight steps: (1) concept selection; (2) determination of the purpose of the analysis, (3) identification of the use of concepts, (4) determination of defining attributes, (5) identification of case models, (6) identification of borderline, related, contrary cases, (7) identification of antecedents and consequences, and (8) determination of empirical referents. This framework was chosen because it provides a systematic, rigorous approach to concept analysis that has been widely validated in nursing research and is particularly suited to analyzing complex healthcare phenomena.

Literature searches were conducted October-December 2025 using PubMed/MEDLINE, Google Scholar, and ScienceDirect databases. Keywords include: "patient identification", "patient safety", "Knowledge", "nursing error", with Boolean operators (AND, OR).

Inclusion criteria: (1) peer-reviewed articles in English/Indonesian (2) published 2011-2025 (3) exploring the relationship between patient identification non-compliance with treatment errors (both errors that occur and avoidable) (4) quantitative studies, cross sectional design, purposive sampling, systematic review (5) population: inpatients involved in the identification process, namely school-adult children (7-65 years). (6) Carried out in a health environment (hospitals, clinics, health centers). (7) empirical evidence-based data (observations, interviews, medical records) or relevant conceptual analysis.

Exclusion criteria: (1) articles without full-text (2) weak methodology (3) case reports without empirical data (4) cases of treatment errors that are not caused by or related to non-compliance with patient identification (5) staff directly involved in the identification or treatment process (6) unclear or unverifiable data about the identification process (7) studies conducted in a non-health environment or unrelated to patient care (8) reports that only discuss Identification standards without touching on the non-compliance aspect

The selection was carried out in three stages: title/abstract screening, full-text reading, and data extraction. The data extracted included: author, year, study design, sample characteristics, related to patient identification, key outcomes, and pathophysiological mechanisms. The analysis was carried out narratively and thematically based on the Walker and Avant frameworks. Methodological quality was assessed using the Newcastle-Ottawa Scale for observational studies and AMSTAR 2 for systematic review.

An initial search yielded 110 articles. After the elimination of duplication (n=60), 110 articles were screened. Of the 110 full-text articles read, 60 met the inclusion criteria.

## RESULTS AND DISCUSSION

### Use of the Concept of Non-Compliance of Patient Identification

The literature shows that non-compliance with patient identification is used in various contexts: (1) As a cause of error or delay in diagnosis (2) As a cause of failure in action, medication error, and misdosage or method in medication administration (3) as the main cause of patient safety incidents (4) as a trigger for errors in blood transfusions, administration of treatment procedures (5) as a problem of incorrect diet administration (6) as a problem of delay in treatment. (7) as a problem in the determinant of declining quality of care. The prevalence based on the 2021 SKMRS report shows that there are 15,443 patient safety incidents reported

from 1,426 hospitals in Indonesia. Of these, 483 cases (3%) were categorized as unexpected events. The 2022 annual report shows that there are 11,214 cases of KTD reported from 1,140 hospitals in Indonesia. Loss of service, generally resulting from medication errors, unsafe patient surgical procedures, healthcare-related infections, diagnostic errors.

## Defining Attributes

Based on the literature analysis, defining attributes of the concept of non-compliance with patient identification include:

### 1. Failure of standard procedures

Not taking the patient's identification steps that have been set (e.g.: not using at least two identities of name and date of birth, not verifying with the patient/family, not checking the identification bracelet), not complying with the SPO of blood transfusions which requires double check verification by the nurse

### 2. Occurs before the treatment intervention

Non-compliance occurs at the pre-interxation stage (before drug administration, specimen collection, and diet, before radiotherapy, receiving intravenous fluids, hemodialysis, blood collection or other specimen collection for clinical examination)

### 3. Relationship with the risk of mistreatment

Acting as a trigger or risk enhancer that makes treatment errors (e.g., wrong medications, wrong actions)

### 4. Involve responsible staff

It is carried out by health staff who have direct responsibility in the patient identification process (nurses, doctors and so on)

### 5. It can be intentional or unintentional

Intentional negligence (underestimating the procedure) or intentional (forgetfulness, misunderstanding or interference)

## Background

Conditions that precede patient identification non-compliance include:

1. Individual factors: employee demographics, knowledge, lack of understanding of identification standards, nurses' workload in hospitals, forgetfulness due to busy services, and failure to identify due to forgetting to use two identities (Simamora et al., 2021).
2. Factor system; lack of ongoing training that affects patient safety, lack of supporting technology (e.g., patient information is not integrated, labels on patient wristbands are not visible), lack of human resources. (Tampubolon, 2018).
3. Work environment: lack of support, supervision and supervision from the leadership, an uncomfortable environment that interferes with focus. (Cintha et al., 2016)

## Consequences

Consequences for patients: serious injury to death, patients, increased medical costs, errors in diagnosis, treatment or procedures and delays in treatment. The analysis shows that non-compliance with patient identification as a risk of mistreatment causes harm to patients, including:

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1. Mechanism of serious injury: severe misidentification can be fatal to the patient, physical or psychological illness, serious injury, nausea or vomiting to permanent physical disability (KKPRS, 2015).
  2. Mechanism of increasing medical costs; The hospital may have to bear additional costs due to the error that occurred. (Sari, 2018)
  3. Mechanism of delay in diagnosis and treatment: inaccurate identification can delay the diagnostic process or treatment that should have been given on time. (Grecu et al., 2014).
  4. Wrong treatment mechanism: patients can receive the wrong medication, the wrong dose, or even the drug that causes allergies, which can be prevented with the correct identification (Ramya and Vineetha, 2014).
  5. Mechanism of procedure error: incorrect identification can lead to the implementation of incorrect or non-standard medical procedures (Dewi, Arso and Fatmasari 2019)

### **Consequences for nurses**

The analysis showed that non-compliance with patient identification as a risk of mistreatment that had an impact on nurses included:

1. Legal Sanctions: If a patient's misidentification causes harm (injury, disability, or death), the nurse may face legal claims, both civil (compensation lawsuit) and criminal (negligence that causes injury or death).
2. Disciplinary and Professional Sanctions: Nurses can be sanctioned by hospital institutions, such as reprimands, postponements of promotions, and termination of employment. In addition, nursing professional organizations can also impose moral sanctions or revoke temporary/permanent practice licenses (Dukhanin et al., 2018; Hwang & Ahn, 2015; Kavanagh, 2017; Nagpal et al., 2021).
3. Reputational and Confidence Damage: Medical errors, including those stemming from identification non-compliance, can significantly damage a nurse's professional reputation and cause psychological distress, work stress, and a decrease in confidence.
4. Moral and Ethical Impacts: Violations of nursing codes of conduct and patient safety standards can place a heavy moral burden on nurses, as they go against the basic principles of nursing care to put patient safety first

### **Consequences on health facilities**

Legal and financial impacts: claims for damages from the patient's family. The cost of handling incidents will increase. Impact of public trust: loss of trust in patients and the public regarding misidentification news can spread rapidly, leading to fewer patient visits. Impact of work culture: decreased staff morale because they feel insecure or worried about misidentification can experience stress, which has an impact on morale. Persistent non-compliance can hinder efforts to build a culture of safety.

### **Model Case**

Title: Blood Transfusion Error Due to Non-Compliance with Patient Identification. Case: A patient, Mrs. Fatimah Azzahra, 55 years old, with blood type A+, was treated in the Zamzam Room for severe anemia. The doctor has prescribed a transfusion of 2 units of Packed Red Cells (PRC). The nurse on duty, Sdr. Ahmad, received a bag of blood from the Blood Bank. Mr.

Ahmad checked the label on the blood bag and matched it with the transfusion request form. However, due to haste and lack of thoroughness, Mr. Ahmad did not verify the patient's identity directly by asking for the patient's full name and date of birth, and matching it with the patient's identity bracelet. In the bed next to Mrs. Fatimah Azzahra, lay another patient named Mrs. Fatimah Zahra, 60 years old, with blood type B+. Mr. Ahmad mistakenly thought that Mrs. Fatimah Zahra was a patient who was going to be transfused. The transfusion begins. A few minutes later, Mrs. Fatimah Zahra began to show transfusion reactions, such as fever, chills, and shortness of breath. Another nurse on duty immediately realized that a transfusion error had occurred (Vaismoradi et al., 2020).

This case illustrates all the defining attributes: failure to perform the procedure (not verifying identity before transfusion, not complying with the SPO, not confirming blood type), relationship with the risk of error (failure of double check and weak system, wrong transfusion), involvement of the responsible staff (nurse), accidental negligence (negligence and lack of precision of the nurse in identifying), antecedents: individual factors (human error, ineffective communication between the nurse who receives blood and the transfusion), the factor system (weak system there is no effective double verification, lack of resources for the number of nurses), work environment factors (nurses' workload) and consequences: for patients (experiencing serious reactions, which can be life-threatening, fear and anxiety of the family), for nurses (lawsuits from the patient's family), for hospitals (losses and decreased public trust)

### **Borderline Case**

Non-compliance with patient identification refers to a situation in which the actions taken by medical personnel are not fully in accordance with the standard patient identification protocol, but also do not blatantly violate the rules, or there are factors that make it difficult to apply the standard rigidly.

- Title: Blood Pressure Screening Errors Due to Misidentification
- Case: In the Melati Room of Sejahtera Kudus Hospital, Mr. Rudi (55 years old, hypertension, needs blood pressure monitoring every 4 hours) and Mr. Rudy (60 years old, normal blood pressure) are in the same room. Nurse Sdr. Bina did not check the ID bracelet and recorded Mr. Rudy's blood pressure to Mr. Rudi's medical records. The doctor looked at the notes and gave Mr. Rudi unnecessary additional hypertension medication.

This case illustrates 2 defining attributes: failure to perform the procedure (not checking the patient's ID bracelet before performing the examination and recording the data, not confirming the medical record number as a second identity), accidental negligence (negligence and lack of precision of the nurse in carrying out identification, the nurse is too confident because the patient's name is similar and is in the same room).

### **Related Case**

Nurses' non-compliance in verifying ID bracelets and confirming identity with parents is the root cause of dangerous medication administration errors. In the children's room, patient identification is more sensitive because children often cannot determine themselves, without the right verification steps, the risk of mistakes becomes greater.

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Relate Case Title: Error in Giving Antipyretic Drugs Due to Misidentification of Children in the Children's Room of Semarang Government Hospital. Source: Semarang Hospital Pediatric Patient Safety Incident Report (June 2025).

Case Description: In the Children's Room Room 2, there are two children of patients with similar names and almost the same age: Child 1 (Rizky, 5 years old, bed 7): Suffering from high fever due to respiratory tract infections, prescribed antipyretic drug Paracetamol 250 mg every 6 hours. Child 2 (Rizki, 4.5 years old, bed 8): Suffering from liver disorders due to viral infections, is prohibited from taking Paracetamol and should only be given natural heat sedatives. At night, nurse Lila is in charge of giving night medicine. Because he was busy dealing with another crying child, he did not check the child's ID bracelet and did not ask for the full name and the parents' names to verify. He only saw the drug label that said "Rizky" and gave Paracetamol 250 mg to the child in bed 8 (Rizki). After 2 hours, Rizki's parents reported that their child looked lethargic, nauseous, and pale skin tone. Laboratory tests showed a significant increase in liver enzyme levels—a sign of liver damage caused by paracetamol that should not be given. The nurse immediately provided supportive care, but the child had to be treated for longer due to complications.

Similarities to Previous Cases: Both regarding the non-compliance of nurses in verifying the patient's identity. Both show that this non-compliance triggers the risk of treatment errors that have serious consequences. Both are caused by nurses who are in a hurry and lack of thoroughness.

### Contrary Case

Of course, the contrary case here means cases in which despite the potential non-compliance of the patient's identification, treatment errors were successfully prevented or conversely, cases in which the compliance of the identification prevented the risk of imminent errors.

Here are specific examples: Strict Identification Compliance Prevents Medication Administration Errors in the Children's Room. Source: Success Report on Patient Safety Risk Management at Bandung Private Hospital (August 2025).

Case: In the Children's Room of Bandung Hospital, there were two children of patients with very similar names and ages: -Child 1 (Nadya, 6 years old, bed 5): Suffering from asthma, prescribed salbutamol inhaler every 4 hours. - Child 2 (Nadya, 5.5 years, bed 6): Suffering from an allergy to salbutamol, prescribed another inhaler medication for respiratory problems.

In the morning, Dewi's nurse was in charge of giving medicine. She had just finished handling the busy child and was almost in a hurry to just call out the name "Nadya". However, he soon recalled the strict patient identification SOPs in the children's room, which required: (1) checking the child's ID wristband, (2) confirming the full name and date of birth with the parents, and (3) matching with the medical record number on the drug label. When Dewi checked the bed 6 ID bracelet, she found that the child was Nadya with a different date of birth and a medical record number that did not match the label of the drug salbutamol. He immediately switched to bed 5, did a complete verification, and gave the correct medication to Nadya who needed salbutamol.

Why this is the Opposite Case:

- There is a potential for non-compliance (nurses almost skip the verification step because they are busy).
- However, due to strict adherence to the identification SOPs, dangerous mistreatment (administering drugs that cause allergies) is successfully prevented.
- This case is contrary to the previous case where non-compliance led to error here, compliance being a risk holder.

## Empirical Referents

Indicators used among others:

1. Identification compliance before the action/procedure: administration of medication, administration of blood transfusions and blood products, collection of specimens, administration of diet/nutrition, before performing diagnostic or therapeutic actions/procedures. The measurement: the officer confirmed at least 2 patient identities.
2. Compliance with the use of identity bracelets: it was found that inpatients who used complete and correct filled identity bracelets according to hospital standards. Indicators of non-compliance: the discovery of an inpatient patient without a bracelet, the bracelet is missing, damaged, or the information on the bracelet is incomplete/incorrect and the writing is increasingly invisible for a long time
3. Outcome indicators: the incidence of inaccuracy of patient identification of the reported form was incorrect administration of medication, incorrect administration of blood transfusions/blood products, incorrect specimen collection, wrong actions/procedures, and incorrect administration of diet.
4. Outcome indicators: Near-Injury Incident is a situation where there is almost a misidentification of the patient, but it is successfully prevented before the patient receives an adverse impact. The high number of near-injury incidents can indicate a weakness in the process.
5. The purpose of indicator measurement is to monitor, evaluate, and make continuous improvements to improve patient safety through proper identification

## DISCUSSION

### Conceptual Integration and Concept Clarification

Conceptual integration and clarification of the concept of patient identification non-compliance involves an in-depth understanding of the importance of proper patient identification in healthcare, as well as the factors that lead to non-compliance with correct identification procedures (Schulmeister, 2018). Accurate patient identification is essential for patient safety and preventing medical errors.

#### a. The Concept of Non-Compliance with Patient Identification

Non-compliance with patient identification is a situation where healthcare workers do not follow standard procedures for verifying a patient's identity before providing medical services. This can include failing to check a patient's identity bracelet, not using a minimum of two identities (such as name and date of birth), or not verifying the patient's identity before administering medication, blood transfusions, or performing medical procedures.

#### b. Definition of Non-Compliance

Non-compliance in this context refers to the behavior of health workers that are not in accordance with the established plan or protocol regarding patient identification.

c. Factors Causing Non-Compliance

Several factors can lead to non-compliance in patient identification, including:

- Lack of knowledge or understanding of the correct procedures
- Attitudes that underestimate the importance of patient identification
- High workload and time pressure
- Lack of motivation or awareness of the risk of misidentification
- Unsupported systems or lack of resources

d. Conceptual Integration in Practice

Conceptual integration involves the application of concepts related to patient identification in daily practice in healthcare facilities. This includes:

1. Training and Education: Provide comprehensive training to all healthcare workers on the correct patient identification procedures, the importance of compliance, and the potential consequences of misidentification.
2. Use of Technology: Utilizing technologies such as electronic medical record (EMR) systems to facilitate accurate patient identification and reduce the risk of errors.
3. Clear Protocols: Develop and implement clear and easy-to-follow protocols for patient identification in all healthcare units.
4. Safety Culture: Build a safety culture where correct patient identification is considered a top priority and all healthcare workers feel responsible for adhering to established procedures.
5. Monitoring and Evaluation: Conduct regular monitoring and evaluation of patient identification compliance to identify areas for improvement and ensure that procedures are followed correctly.

e. Clarification of the Concept

To avoid confusion and ensure a uniform understanding, some important concepts need to be clarified:

1. Patient Identification: The process of verifying the identity of a patient to ensure that the medical services provided are appropriate for the right person.
2. Identity Bracelet: An identification device attached to a patient that contains information such as name, date of birth, and medical record number.
3. Standard Procedures: Steps that healthcare workers must follow in conducting patient identification, including the use of a minimum of two identities and verification before providing medical services.
4. Misidentification: Errors in identifying patients that may lead to the provision of incorrect or inappropriate medical services.

By understanding and integrating these concepts, healthcare facilities can improve patient identification compliance and reduce the risk of medical errors.

### **Integrated Pathophysiological Mechanisms and Complex Pathways**

Integrated pathophysiological mechanisms and complex pathways in the analysis of patient identification non-compliance as a trigger for care errors involve an in-depth

understanding of how various factors contribute to the failure of healthcare workers to follow patient identification protocols, which then lead to errors in care.

Some factors that can affect patient identification non-compliance include:

1. Lack of Knowledge and Understanding: Healthcare workers may not fully understand the importance of proper patient identification or may not know the correct procedures.
2. Workload and Time Pressure: High workload and time pressure can cause healthcare workers to neglect or shorten the patient identification process.
3. Attitudes and Motivations: Attitudes that underestimate the importance of patient identification or lack of motivation to adhere to protocols can contribute to non-compliance.
4. Systemic Factors: Problems in the healthcare system, such as lack of resources, unclear protocols, or lack of management support, can also affect compliance.

### **Complex Pathways in Patient Identification Non-Compliance**

Complex pathways in this context refer to a series of steps or processes that lead to non-compliance with patient identification and mistreatment. This can involve:

- a. Inadequate Identity Verification: Failure to conduct thorough verification of the patient's identity before administering medication or performing a procedure.
- b. Miscommunication in Communication: Miscommunication or lack of clear information during patient handover between healthcare workers.
- c. Inappropriate Use of Technology: Errors in the use of electronic systems or other technologies that are supposed to aid in patient identification.
- d. A Culture of Deficient Safety: A work environment that does not support patient safety practices and does not encourage error reporting.

### **The Impact of Non-Adherence on Treatment Errors**

Non-compliance with patient identification protocols can lead to a variety of treatment errors, including:

- a. Mismedication Administration: Giving the wrong medication to the wrong patient.
- b. Medical Procedure Error: Performing the wrong medical procedure on the wrong patient.
- c. Blood Transfusion Error: Giving a blood transfusion that does not match the patient's blood type.
- d. Misdiagnosis: Making incorrect diagnoses based on inaccurate patient information.

### **Strategies to Improve Compliance and Reduce Errors**

To overcome this problem, several strategies can be implemented:

- a. Training and Education: Provide comprehensive training to healthcare workers on the importance of patient identification and correct procedures.
- b. Enhanced Identification System: Using technology such as barcodes or RFID to accurately verify the patient's identity.
- c. Clear Protocol Implementation: Provides clear and easy-to-follow patient identification protocols.

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- d. Safety Culture: Encourage a workplace safety culture that supports error reporting and learning from incidents.
  - e. Evaluation and Audit: Conduct regular evaluations and audits to monitor compliance with patient identification protocols and identify areas for improvement.

## CONCLUSION

This study aims to analyze the concept of patient identification non-compliance as a risk factor for mistreatment through a concept analysis approach, so as to obtain a clearer, systematic, and applicable conceptual understanding in the context of patient safety. Based on the synthesis of the analyzed literature, this study confirms that patient identification non-compliance is a complex nursing phenomenon and plays a significant role as a trigger for various forms of treatment errors, both those that have a direct impact and those that are close to happening but are successfully prevented. The study's main findings show that non-compliance with patient identification has typical attributes in the form of failure to implement standard procedures, occur before a treatment intervention, involves responsible health workers, and can be intentional or unintentional. These conditions are influenced by interrelated antecedents, including individual factors, the health care system, and the work environment. The consequences of this non-compliance not only have an impact on the safety and clinical condition of patients, but also have legal, psychological, and professional implications for nurses, as well as impact on service quality, public trust, and safety culture in healthcare facilities. The main contribution of this study to the literature is the preparation of a comprehensive conceptual clarification regarding non-compliance with patient identification as a risk factor for mistreatment. The results of this analysis enriched the study of patient safety by providing a conceptual framework that can be used as a basis for policy development, nursing education, and systemic interventions to improve patient identification compliance. However, this study has limitations because it relies only on available literature sources and does not involve primary data collection in the field. Therefore, further research is recommended to test these conceptual findings through empirical studies, both quantitative and qualitative, as well as evaluating the effectiveness of interventions designed based on the concept framework of patient identification non-compliance to sustainably strengthen patient safety.

## REFERENCES

- Albyn Faiqh, D., Agustina, M., & Iswati. (2020). Keselamatan pasien dan keselamatan kesehatan kerja. Media Sains Indonesia.
- Desilawati, D., Alini, A., & Isnaeni, L. M. A. (2020). Hubungan pengetahuan dan sikap perawat dalam mengidentifikasi pasien dengan pelaksanaan identifikasi pasien di ruang rawat inap Aulia Hospital Pekanbaru. *Jurnal Kesehatan Tambusai*, 1(4), 34–42. <https://doi.org/10.31004/jkt.v1i4.1513>
- Tampubolon, L. (2018). Analisis penerapan prinsip keselamatan pasien dalam pemberian obat terhadap terjadinya medication error di rawat inap Rumah Sakit X tahun 2018. *Jurnal Administrasi Rumah Sakit Indonesia*, 4(3), 173–183. <https://doi.org/10.7454/arsi.v4i3.2494>

- Cintha, G. L. M., Suryoputro, A., & Jati, S. P. (2016). Analisis pelaksanaan identifikasi pasien dalam rangka keselamatan pasien di unit rawat inap Rumah Sakit Umum Daerah Kota Bekasi. *Jurnal Kesehatan Masyarakat (e-Journal)*, 4(4), 43-48.
- Rahmawati, T. W., Sari, D. R., Ratri, D. R., & Hasyim, M. (2020). Patient identification in wards: What influences nurses' compliance? *Jurnal Medicoeticolegal Dan Manajemen Rumah Sakit*, 9(2), 110–120. <https://doi.org/10.18196/jmmr.92121>
- Simamora, D. P., Ginting, D., & Sinaga, J. (2021). Analisis faktor-faktor yang berhubungan dengan ketepatan pelaksanaan identifikasi pasien oleh perawat di ruang rawat inap RSUD Rantauprapat tahun 2021. *Journal of Healthcare Technology and Medicine*, 7(2), 1352–1363.
- KARS. (2017). Standar Nasional Akreditasi Rumah Sakit Edisi 1. Jakarta: KARS.
- Sari, R. (2018). Analisis konsep lean thinking pelayanan laboratorium pada pasien UGD RS Masmitra Bekasi. *Jurnal Administrasi Rumah Sakit Indonesia*, 1(3). <https://doi.org/10.7454/arsi.v1i3.2183>
- Ramya, K. R., & Vineetha, R. (2014). Nurses' perceptions of medication errors in South India. *Asian Journal of Nursing Education and Research*, 4(1), 20–25.
- Grecu, D. S., Vlad, D. C., & Dumitrescu, V. (2014). Quality indicators in the preanalytical phase of testing in a stat laboratory. *Laboratory Medicine*, 45(1), 74–81. <https://doi.org/10.1309/LM9ZY92YBZRFQY>
- Alomari, A., Wilson, V., Davidson, P. M., & Lewis, J. (2020). Families' experiences of patient misidentification in hospitals: A qualitative study. *Journal of Patient Safety*, 16(3), e228–e234. <https://doi.org/10.1097/PTS.0000000000000520>
- Dukhanin, V., Topazian, R., & DeCamp, M. (2018). Metrics and evaluation tools for patient engagement in healthcare organization- and system-level decision-making: A systematic review. *International Journal of Health Policy and Management*, 7(10), 889-903. <https://doi.org/10.15171/ijhpm.2018.43>
- Härkänen, M., Vehviläinen-Julkunen, K., Murrells, T., Paananen, J., & Rafferty, A. M. (2019). The contribution of staffing to medication administration errors: A text mining analysis of incident report data. *Journal of Nursing Scholarship*, 51(1), 72-82. <https://doi.org/10.1111/jnu.12440>
- Hwang, J. I., & Ahn, J. (2015). Teamwork and clinical error reporting among nurses in Korean hospitals. *Asian Nursing Research*, 9(1), 14-20. <https://doi.org/10.1016/j.anr.2014.09.002>
- Kavanagh, C. (2017). Medication governance: Preventing errors and promoting patient safety. *British Journal of Nursing*, 26(3), 159-165. <https://doi.org/10.12968/bjon.2017.26.3.159>
- Nagpal, K., Arora, S., Abboudi, M., Vats, A., Wong, H. W., Manchanda, C., Vincent, C., & Moorthy, K. (2021). Postoperative handover: Problems, pitfalls, and prevention of error. *Annals of Surgery*, 271(1), 22-30. <https://doi.org/10.1097/SLA.00000000000003860>
- Pagaliluan, G. L., Ocampo, E. A. M., & Rara, N. M. C. (2021). Compliance to patient identification among nurses in a tertiary hospital. *International Journal of Nursing Science*, 11(1), 45-52. <https://doi.org/10.5923/j.nursing.20211101.07>
- Rodziewicz, T. L., Houseman, B., & Hipskind, J. E. (2023). Medical error reduction and prevention. In StatPearls. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK499956/>

- 
- Schulmeister, L. (2018). Patient misidentification in oncology care. *Clinical Journal of Oncology Nursing*, 22(3), 295-298. <https://doi.org/10.1188/18.CJON.295-298>
- Slawomirski, L., Auraaen, A., & Klazinga, N. (2017). The economics of patient safety: Strengthening a value-based approach to reducing patient harm at national level. OECD. <https://doi.org/10.1787/5a9858cd-en>
- The Joint Commission. (2020). National patient safety goals effective January 2020: Hospital accreditation program. <https://www.jointcommission.org/standards/national-patient-safety-goals/>
- Treadwell, J., Lucas, S., & Tsou, A. Y. (2016). Surgical checklists: A systematic review of impacts and implementation. *BMJ Quality & Safety*, 25(4), 299-318. <https://doi.org/10.1136/bmjqqs-2015-004797>
- Vaismoradi, M., Tella, S., Logan, P. A., Khakurel, J., & Vizcaya-Moreno, F. (2020). Nurses' adherence to patient safety principles: A systematic review. *International Journal of Environmental Research and Public Health*, 17(6), 2028. <https://doi.org/10.3390/ijerph17062028>
- World Health Organization. (2016). Patient identification. *WHO Patient Safety Solutions*, 1(2). <https://www.who.int/patientsafety/solutions/patientsafety/PS-Solution2.pdf>