Factors related to the implementation of patient identification in hospitals: A literature review

Annisa Awip Alvionita *

Department of Health Policy and Administration, Faculty of Public Health, Airlangga University, Surabaya, Indonesia.

Abstract

Introduction: Patient safety is the basic and main principle in providing health care. Patient safety in hospitals begins with patient identification. Errors at the patient identification stage will have an impact on health care errors at the next stage. However, findings in the field show that the patient identification process has not been completely carried out properly by health workers.

Purpose: Analyze factors related to the implementation of patient identification in hospitals.

Method: This research uses a literature review method. Articles were collected from three database sources, namely ScienceDirect, Portal Garuda and Google Scholar, which were published between 2019 and 2023. Article searches used the keywords "related factors" AND "patient identification" AND "hospital".

Results: Research studies were conducted in three different countries and showed that there were various factors related to the implementation of patient identification in hospitals. The factors most frequently found were related to hospital facilities and supervision from superiors.

Conclusion: The implementation of patient identification in hospitals is related to three factors which are divided into predisposing factors, enabling factors and reinforcing factors.

Keywords: Related factors; Patient identification; Hospital

1. Introduction

Patient safety is the basic and main principle in providing health care. Patient safety refers to a system to make patient care safer [1]. According to the World Health Organization [2], in middle and developing countries there are 134 million patient safety incidents that occur every year. Most of these incidents were caused by unsafe medical care, resulting in 2.6 million deaths [2]. Meanwhile in Indonesia, the Directorate General of Health Services reported that there were 10,570 cases of patient safety incidents that occurred until 2019 [3].

Patient safety in hospitals begins with patient identification. Errors at the patient identification stage will have an impact on health care errors at the next stage [4]. The Department of Veterans Affairs (VA) National Center for Patient Safety in the United States found that from January 2000 to March 2003 there were more than 100 patient safety incidents with the root cause originating from patient identification errors [5]. The patient safety incident report in Indonesia based on 2012 Joint Commission International (JCI) data found that patient identification errors occurred in 68% of blood transfusion incidents and 13% of surgical errors [6].

* Corresponding author: Annisa Awip Alvionita

Based on this explanation, it can be seen that the patient identification process has not been completely carried out properly by health workers. In fact, correct patient identification can prevent failure of care provided by health workers at various levels of health care [7]. So, this article was written with the aim of analyzing factors related to the implementation of patient identification in hospitals.

2. Material and methods

This research uses a literature review method. The data collection process was carried out by collecting articles from three data base sources, namely ScienceDirect, Portal Garuda and Google Scholar. The keywords used in the article search were "related factors" AND "patient identification" AND "hospital". The inclusion criteria for article searches are articles published between 2019 and 2023, in the form of original articles, full text and open access, using quantitative research methods, and research not limited to certain regions or countries.

3. Results and discussion

Based on a search of the articles collected and the author's analysis, it was found that:

Table 1 Summary of research results

No	Author	Title	Method	Sample	Country	Result
1.	Usman et al. [8]	The Relationship between Nurses' Mental Workload and the Implementation of Patient Identification in Administering Medication during the Covid-19 Period in the Inpatient Room of RSUD Ajibarang	Cross-sectional	50 nurses in the inpatient room	Indonesia	There is a relationship between the mental workload of nurses and the application of patient identification in administering drugs during the Covid-19 period in the inpatient room at RSUD Ajibarang (p=0.005)
2.	Eliwarti. [9]	Analysis of Factors Associated with Nurse Compliance in Implementing Patient Identification in the Internal Medicine Inpatient Room at RSUP Dr. M. Djamil Padang	Cross-sectional	38 nurses in the internal medicine inpatient room	Indonesia	There is a relationship between facilities factors (p=0.000) and supervision (p=0.005) with nurses' adherence in applying for patient identification.
3.	Simamora et al. [10]	Analysis of Factors Related to the Accuracy of the Implementation of Patient Identification by Nurses in the ICU Rantauprapat Hospital 2021	Cross-sectional	64 nurses in the inpatient room	Indonesia	Variables related to the implementation of patient identification were age (p=0.001), education (p=0.007), length of service (p=0.026), hospital policy (p=0.006), and supervision (p=0.000).
4.	Herlina et al. [11]	The Relationship of Motivation with Compliance in Nurses Implementation of Patient Identification as part of Patient Safety in the Inpatient Room	Cross-sectional	26 nurses in the inpatient room	Indonesia	There is a relationship between nurse motivation and compliance with the implementation of patient identification (p=0.004)

5.	Kim & Se. [12]	Structural Empowerment and Nurses' Patient Identification Behaviors: a Cross-sectional Study	Cross-sectional	984 nurses who provided medication and transfusions to patients	South Korea	Nurse behavior in patient identification was related to information (p=0.001), training (p=0.001) and superior supervision (p=0.005).
6.	Pratiwi et al. [13]	Patient Identification Implementation in the Inpatient Unit Baesd on Nurses' Knowledge and Adherence	Cross-sectional	37 nurses in the inpatient room	Indonesia	There is a relationship between knowledge and care compliance in carrying out patient identification (p=0.049).
7.	Swastikarini et al. [14]	The Factors Related to the Implementation Accuracy of Patient Identification	Cross-sectional	164 nurses in the inpatient room	Indonesia	There is a relationship between knowledge (p=0.002), team factors (p=0.001), and management and organizational factors (p=0.018) with the implementation of accurate patient identification

Based on Table 1, all the factors that have been identified can be grouped into 3 categories. The grouping is carried out based on the theory of Lawrence Green (1980) [15], which classifies factors related to the occurrence of an action into three, namely predisposing factors, enabling factors and reinforcing factors. The results of grouping factors related to the implementation of patient identification in hospitals are listed in Table 2.

Table 2 Grouping of factors related to the implementation of patient identification in hospital

Predisposing Factors	Enabling Factors	Reinforcing Factors
Education	Hospital facilities	Supervision
Knowledge	Availability of information	Hospital policy
Age	Work team	
Length of service	Hospital management	
Workload		
Work motivation		

Based on the Table 2, the discussion section will discuss factors related to the implementation of patient identification in hospital which is divided into 3 factors according to the theory of Lawrence Green (1980) [15].

3.1. Predisposing Factors

Predisposing factors are factors that underlie a person's motivation to do something [15]. Predisposing factors identified from this research include nurses' education and knowledge, nurses' age and length of service, workload, and work motivation. In the patient identification process there is a relationship between knowledge and accuracy of patient identification [13, 14]. High knowledge will increase the accuracy of patient identification by 3,043 times [14]. Nurses' knowledge can be improved through education. Research from Simamora et al. [10] shows that the risk of inaccurate implementation of patient identification is 2,17 times greater in associate degree of nursing compared to bachelor of nursing.

Simamora et al. [10] states that correct patient identification is more common in nurses aged 32-45 years. Age has a relationship with comprehension power and mindset in carrying out tasks. Nurses with a young or productive age range are in optimal conditions to apply their competencies so they tend to provide optimal nursing care [16]. Research by Simamora et al [10] also shows that the accuracy of implementing patient identification is higher in nurses with > 5 years of service.

Workload is related to the job description that a person must complete within a certain time limit [17]. Research conducted by Usman et al. [8] found that high workloads can trigger work stress and lack of concentration among nurses. Then it will has an impact on patient safety incidents, especially in the patient identification process when administering medication.

Work motivation is a basic thing that functions as a driver of a person's behavior. Nurses with good work motivation will also have good compliance in carrying out patient identification [11]. The existence of work motivation encourages nurses to have high enthusiasm in carrying out their work responsibilities. Conversely, without motivation, nurses cannot meet work standards. This is because motivation leads to enjoyment in carrying out tasks and job satisfaction [18].

3.2. Enabling Factors

Enabling factors are factors that play a role in facilitating someone's behavior [15]. Enabling factors identified from this research include facilities, availability of information, work teams and hospital management. Hospital facilities are related to staff compliance in identifying patients [9, 12, 14]. Kim & Se [12] stated that the success of patient identification is related to the environment. These environmental factors are manifested in the form of facilities in hospitals, including the availability of identity bracelets, appropriate identity stickers, printing machines that function well, and report books [9]. Apart from that, environmental factors are also related to the work team and hospital management [14].

Sufficient available information is also related to the implementation of patient identification [12]. If officers know the importance of patient identification behavior before medical procedures are carried out, then they tend to be encouraged to follow existing guidelines or procedures [12]. Therefore, to provide understanding to officers, it is necessary to provide information through outreach and training [6].

3.3. Reinforcing Factors

Reinforcing factors are factors that play a role in strengthening someone's behavior [15]. Reinforcing factors identified from this research include supervision and hospital policies. Supervision is related to officer compliance in identifying patients. Supervision functions to direct and supervise all treatment actions related to medical care [9, 10]. This supervision from superiors causes nurses to become more disciplined in identifying patients. On the other hand, if there is no supervision, nurses will have less desire to implement patient identification according to existing procedures [9].

Simamora et al. [10] states that patient identification tends to be carried out correctly in hospitals with good policies. This policy is outlined in hospital regulations and standard operating procedures which are socialized to officers so that officers know the correct implementation of patient identification. Patient identification errors that conflict with procedures have the potential to endanger patient safety. If this is not addressed immediately, it can have an impact on ongoing health problems such as non-injury incidents, near-injury incidents, or unexpected incidents [18].

4. Conclusion

The results of the literature review show that there are factors related to the implementation of patient identification in hospitals. These factors can be grouped into 3 factors based on behavioral theory by Lawrence Green [15] which include predisposing factors, enabling factors and reinforcing factors. Predisposing factors relate to the nurses' education and knowledge, the nurses' age and length of service, the nurses' workload, and the nurses' work motivation. Enabling factors or enabling factors are related to hospital facilities that support the implementation of patient identification such as the availability of identity bracelets, identity stickers, printing machines and report books, good work teams and hospital management, as well as the availability of information regarding patient identification obtained by officers through outreach and training. Meanwhile, reinforcing factors are related to supervision from superiors and hospital policies regarding patient identification.

Compliance with ethical standards

References

[1] Ministry of Health of Indonesia. Regulation of the Minister of Health of the Republic of Indonesia Number 11 of 2017 concerning Patient Safety. Jakarta: Kemenkes RI; 2017.

[2] WHO. Patient Safety [Internet]. 2019 [cited 2023 Sep 16]. Available from https://www.who.int/news-room/fact-sheets/detail/patient-safety

[3] Adriansyah AA, Budhi S, Indah L, Pinky AMA, Wahyu EK, Nikmatus S. Incident Analysis of Patient Safety in Hospital: Based on Feedback and Supervision Concept. *Bali Medical Journal*. 2022 Jul; 11(2): 665-670.

[4] Nursery S, Lucia AC, Mariani. Factors that Influence the Implementation of Accurate Patient Identification by Nurses Before Administering Medication in the Inpatient Installation of Tamiang Layang Regional Hospital. *Keperawatan Suaka Insan*. 2021 Jun; 6(1): 67-75.

[5] Anggraeni D, Lukman H, Cecilia WI. Evaluation of the Implementation of the Patient Identification System in Hospital Inpatient Installations. *Kedokteran Brawijaya*. 2014 Aug; 28(1), 99–104.

[6] Rahmawati TW, Dwi RS, Devita RR, Mafrurrochim H. Patient Identification in Wards: What Influences Nurses' Compliances. *Medicoeticolegal dan Manajemen Rumah Sakit*. 2020 Aug; 9(2): 110-120.

[7] Honorato PEO, Tania MT. Correct Patient Identification: Experience with the Implementation of a Patient Safety Core. *Human Exposome and Infectious Diseases Network.* 2019; 5: 1-8.

[8] Usman H, Rahmaya NH, Wasis EK. The Relationship between Nurses' Mental Workload and the Implementation of Patient Identification in Administering Medication during the Covid-19 Period in the Inpatient Room of RSUD Ajibarang. *Seminar Nasional Penelitian dan Pengabdian Kepada Masyarakat.* 2021 Oct.

[9] Eliwarti. Analysis of Factors Associated with Nurse Compliance in Implementing Patient Identification in the Internal Medicine Inpatient Room at RSUP Dr. M. Djamil Padang. *Akademika Baiturrahim Jambi*. 2021 Sep; 10(2): 344-354.

[10] Simamora DP, Daniel G, Janno S. Analysis of Factors Related to the Accuracy of the Implementation of Patient Identification by Nurses in the ICU Rantauprapat Hospital 2021. *Healthcare Technology and Medicine*. 2021 Oct; 7(2): 1352-1363.

[11] Herlina L. The Relationship of Motivation with Compliance in Nurses Implementation of Patient Identification as part of Patient Safety in the Inpatient Room. *Kesehatan.* 2019; 10(1): 19-24.

[12] Kim YM, Se YK. Structural Empowerment and Nurses' Patient Identification Behaviors: a Cross-sectional Study. *Healthcare Quality Assurance.* 2019 Sep; 32(5): 832-843.

[13] Pratiwi BRD, Elisa N, Immaria VT, Renata K. Patient Identification Implementation in the Inpatient Unit Based on Nurses' Knowledge and Adherence. *Nursing Current*. 2019 Jan; 7(1): 42-51.

[14] Swastikarini S, Yulihasri, Susanti M. The Factors Related to the Implementation Accuracy of Patient Identification. *Jurnal Ilmiah Permas*. 2019 Apr; 9(2): 125-134.

[15] Green L. Health Education Planning, A Diagnostic Approach. California: Mayfield Publishing; 1980.

[16] Wihardja H, Rr. Tutik SH, Dewi G. Analysis of Factors Related to the Mental Workload of Nurses During Interaction through Nursing Care in the Intensive Care Unit. *Enferm Clin.* 2019 Jan; 29(52): 262-269.

[17] Sulastri T, Hilda, Arsyawina. Relationship between Nurse Motivation and Workload with Completeness of Nursing Care Documentation. *Interdisciplinary Research in Science and Technology*. 2023 Apr; 1(3): 137-150.

[18] Departement of Health of Indonesia. National Guide to Hospital Patient Safety. Jakarta: Depkes RI; 2011.