(REVIEW ARTICLE)

Factors influencing patient safety culture in hospitals: Literature review

Ghina Bayna Putri Bauty [1, *] and Inge Dhamanti [1, 2, 3]

[1] Department of Health Policy and Administration, Faculty of Public Health, Universitas Airlangga, Surabaya, Indonesia.
[2] School of Psychology and Public Health, La Trobe University, Victoria, Australia.
[3] Center for Patient Safety Research, Universitas Airlangga, Surabaya, Indonesia.

Abstract

Patient safety is a system that aims to enhance the safety of patient care and prevent injuries resulting from errors during the execution of action. According to the 2011 Minister of Health Regulation concerning Hospital Patient Safety, every hospital is required to undertake patient safety management because hospitals are the most likely locations for patient safety events to occur (Ministry of Health of the Republic of Indonesia, 2011). As a result, hospital culture and patient safety are intertwined. There are various factors that affect patient safety culture. Objectives: To determined the various factors that influence the culture of patient safety in a hospital. Methods: Article search is done through ScienceDirect database, Garuda Portal, and Google Scholar. The keywords entered use Indonesian and English, where for Indonesian keywords are "keselamatan pasien" DAN "rumah sakit", while for English are "patient safety" AND "factors" AND "hospital". From the articles found, the author took 5 articles whose articles were in accordance with inclusion criteria and considered relevant to the topic of discussion. Results: Factors that influence patient safety culture in hospitals include, 1) Economic Aspects; 2) Leadership; 3) Culture; 4) Risk Management System and Health Services; 5) Knowledge, Attitudes, and Actions; 6) Analysis of the Situation and Conditions of the Working Environment; 7) Stress Level and Workload of Nurses; 8) Mentoring Program; 9) Nursing Supervision and Evaluation of the Application of Patient Safety Goals; 10) Teamwork; and 11) Organizational Learning. Conclusions: There are various factors that influence the culture of patient safety in hospitals.

Keywords: Patient Safety Culture; Factors; Hospital; Management; Literature Review

1. Introduction

The definition of patient safety is a system that makes patient care safer, including several things, namely risk assessment, identification and management of patient risks, incident reporting and analysis, the ability to learn from incidents and follow-up, as well as implementing solutions to minimize the emergence of risks and also to prevent them. the occurrence of injuries caused by errors resulting from carrying out an action (Ministry of Health of the Republic of Indonesia, 2017). According to the Ministry of Health of the Republic of Indonesia in 2018, the definition of hospital patient safety is a system to ensure patients are safer (Ministry of Health of the Republic of Indonesia, 2018). There are six important points that belong to patient safety targets, including accurate patient identification, increasing effective communication, high-alert drug safety, ensuring the right location, the right patient for surgery, and the right procedure for the patient, reducing the risk of infection, and reducing the risk of patient falls. (Indonesian Ministry of Health, 2017).

Hospitals are the most vulnerable places for patient safety incidents to occur. Based on data from research related to patient safety in Indonesia conducted by Nurmalia & Nivalinda (2016) in hospitals, it was found that 56.2% of patient safety implementation mentoring was still not good, while in research conducted by Harus B.D. (2015), it was reported that data on unexpected events were 9 incidents (41%), near-miss events were 6 incidents (27%), potential injury events were 5 incidents (23%), and non-injury events were 2 incidents (9%). Abroad, namely in Europe (2014), patients

* Corresponding author: Ghina Bayna Putri Bauty

have a risk of infection of 83.5%, and there is evidence of medical errors showing a figure of 50–72.3%. There are still many patient safety incidents, which, of course, can have a negative impact on health services.

Based on the 2011 Minister of Health Regulation concerning Hospital Patient Safety, every hospital is required to implement patient safety management (Ministry of Health of the Republic of Indonesia, 2011). This makes patient safety embedded in the culture in the hospital. Patient safety culture in hospitals is very important and necessary because this culture has a big influence on the sustainability of the hospital. Hospital quality assessment is also closely related to patient safety.

Based on the explanation written above, the author is interested in knowing the factors that influence patient safety culture in hospitals. It is hoped that the results of this research will be useful for hospitals and the professions involved so that they can optimize various positive factors in improving patient safety in hospitals, as well as avoid various negative factors that can reduce patient safety in hospitals.

2. Material and methods

This article was written using a literature review method with a descriptive approach, namely a method carried out by collecting, evaluating, and synthesizing library sources related to the topic. Using the literature review method allows the author to gain a comprehensive understanding of complex and contextual research topics and to see an overview of theories, findings, methods, and research topics related to these topics. This literature review process begins with a search and collection of literature, which is carried out by selecting an appropriate topic and then limiting the search to the articles or journals used. This article was searched using the ScienceDirect, Portal Garuda, and Google Scholar databases. The keywords entered are in Indonesian and English, where the Indonesian keywords are "patient safety" and "hospital", while for English they are "patient safety" and "factors" and "hospital". The time limit for the articles used is within the last 5 years, starting from 2018 to 2023. Other criteria in determining articles are that they are available for free access, in full text form, and in both Indonesian and English, as well as articles that examine the factors that influence patient safety in hospitals. After getting an article that meets these criteria, the author will read the article until it is finished. From the articles that had been reviewed by the author, the author finally decided to select five research articles that were considered relevant to the topic of discussion and combine them to be reviewed and concluded in a literature review.

3. Results and discussion

Table 1 List of Articles and Analysis Results

Author (Year)	Title	Method	Sample/Research Population	Research Location	Result
Kalsum, Ummi dkk (2022)	FAKTOR – FAKTOR YANG BERPENGARUH TERHADAP PENERAPAN KESELAMATAN PASIEN DI RUANGAN RAWAT INAP RSU PERMATA MADINA PANYABUNGAN	Analytical survey method with cross sectional design	35 executive nurses who are permanent employees and work in inpatient rooms	Permata Madina Panyabungan Hospital	There is a significant influence between knowledge and supervision on the implementation of patient safety in the inpatient room at Permata Madina Panyabungan Hospital, while there is no influence of attitude and workload on the implementation of patient safety in the inpatient room at Permata Madina Panyabungan Hospital.
Mastuty, Amalia dkk (2021)	Analisis Faktor Penerapan Budaya Sasaran	Using the literature	16 articles that meet the criteria, namely: 1) have the	Using journals and articles from databases,	There are several factors that influence the implementation of

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Tarigan, Tiara Valentina Br (2020)	Faktor-Faktor yang Mempengaruhi Penerapan Keselamatan Pasien di Rumah Sakit	Using the literature review method	6 articles that meet the criteria, namely: 1) The keywords entered are in Indonesian, namely "patient safety" AND "nurse" AND "hospital"; 2) original research articles published within the last 5 years starting from 2017 to 2022; 3) articles are available free access; 4) in full text form; 5) speak Indonesian; and 6) examine the factors that influence nurses in implementing patient safety in hospitals.	Using journals and articles from the Indonesia One Search database and Google Scholar	There are several factors that influence the achievement of patient safety targets, namely the level of knowledge of nurses, attitudes of nurses, and facilities in the hospital.
Yanriatuti, Ida dkk (2020)	Faktor Pendukung dan Penghambat Budaya Keselamatan Pasien di Rumah Sakit: A Systematic Review	Using the systematic review method	15 articles that meet the criteria, namely: (1) the article contains factors that support the implementation of patient safety culture in hospitals, factors that hinder the implementation of patient safety	Using articles with database searches including Google Scholar, Science Direct, Pub Med, and Proquest	There are 4 main factors that support and hinder the implementation of patient safety culture, namely team work, organizational learning, stress levels and nurse workload, and communication.

			culture in hospitals, and uses the same research instrument, namely the Hospital Survey on Patient Safety Culture questionnaire (HSOPSC) as the main instrument and other instruments as supporting instruments; (2) articles that use qualitative research methods; (3) articles about patient safety culture implemented in the community		
Yasmi, Yulia dan Hasbullah Thabrany (2018)	Faktor-Faktor yang Berhubungan dengan Budaya Keselamatan Pasien di Rumah Sakit Karya Bhakti Pratiwi Bogor Tahun 2015	Sequential explanatory research design. Data analysis was carried out using logistic regression.	Using 115 samples	Karya Bhakti Pratiwi Bogor Hospital	Factors related to patient safety culture at RSKBP are incident report feedback (p=0.021 α=0.05, OR= 15.516) no-blame culture (p=0.019 α=0.05, OR= 14.396) and learning culture (p=0.006 α=0.05, OR= 0.096).

From the results obtained, it can be seen that there are various factors that influence the culture of patient safety in hospitals. From these results, it can also be seen that health workers play a very important role in implementing a patient safety culture, especially nurses. This is because nurses are health workers who often have direct contact with patients. Therefore, very often, nurses are associated with patient safety. The following will discuss in more detail the factors that influence patient safety culture in hospitals.

3.1. Economic Aspect

The research by Mastuty, Amalia, et al. in 2021 found that economic aspects appear to have an influence on patient safety culture in hospitals, particularly in relation to nosocomial infections. The fact that 17.1% of patients from the lower middle economic class experienced nosocomial infections highlights the significance of economic factors in patient safety. The economic class of patients can be related to the availability of facilities and services in hospitals. Patients from different economic backgrounds may have varying access to healthcare resources and may experience differences in the quality of care and the risk of hospital-acquired infections. This underscores the importance of addressing economic disparities in healthcare to improve patient safety and outcomes.

3.2. Leadership

In the article that was used as a source for the literature review, there was a study in which the influence of leadership style on the patient safety culture in the hospital was clearly visible. Therefore, leadership has a large and important influence on patient safety in hospitals. With a good and correct leader, the leader will become a role model for his subordinates so that this can clearly improve the quality of health services.

3.3. Culture

In implementing patient safety in hospitals, of course, patient safety must become a culture in the hospital. This is because patient safety is closely linked to culture. There are many cases where patient safety has become a culture, but the implementation of patient safety culture is still not good. Thus, good management and cooperation between fellow staff at the hospital are needed, and efforts are made to disseminate information related to patient safety programs in the hospital to all hospital residents so that the patient safety culture in the hospital can run well and correctly.

3.4. Risk Management System and Health Services

Based on the research results that have been obtained, it is known that an appropriate risk management system and health services can have a positive influence on optimizing the implementation of patient safety targets. Equipped with complete facilities and well-trained staff, it will, of course, support socialization and ease in implementing patient safety targets in hospitals.

3.5. Knowledge, Attitudes, and Actions

Good knowledge, attitudes, and actions of health workers are, of course, very necessary and greatly influence the implementation of patient safety. With health workers who have good knowledge, attitudes, and actions, the aim is to avoid errors or malpractice in providing health services. The communication skills and accuracy of the health workers' actions will also support the achievement of optimizing the implementation of patient safety targets, which can improve health.

3.6. Analysis of the Situation and Conditions of the Work Environment

In the research contained in the article used as a source for the literature review, it is known that there is a relationship between the nurse's work environment and the implementation of patient safety targets. Thus, from this research, it can be stated that a positive work environment with workload calculations in accordance with human resources and the educational level of health workers at the bachelor's level can support the optimization of the implementation of patient safety targets.

3.7. Stress Level and Nurse Workload

The workload placed on nurses, namely from their working hours and so on, can result in work stress felt by the nurse. With the heavy workload and level of stress felt, it is very clear that this can have a negative impact on patient safety and the quality of health services provided. This also applies to all other health workers. Thus, workload and stress levels need to be monitored so as not to cause undesirable things.

3.8. Mentoring Program

In the research in the article used as a source for the literature review, it was found that mentoring is a method that can optimize the implementation of patient safety targets. This is because the research found that the group of staff who did not participate in mentoring had a risk of experiencing a decrease in implementing a patient health safety culture compared to those who participated in the mentoring program. This decline could be up to 2.5 times greater.

3.9. Nursing Supervision and Evaluation of Implementation of Patient Safety Goals

From the research results contained in this article, it can be seen that nursing supervision and evaluation of the implementation of patient safety targets have a positive impact on the implementation of patient safety targets in hospitals. This supervision aims to supervise and accompany all actions carried out by nurses on patients. The evaluation that will later be carried out aims to determine the achievement of implementing patient safety targets in the hospital so that if there are aspects that have not been met, better strategies can be implemented so that the implementation can run smoothly and improve the quality of health services in the hospital.

3.10. Teamwork

Collaboration and good teamwork are the keys to providing safe and quality health services. When health team members work synergistically, they can support each other, share knowledge, and complement each other in efforts to maintain patient safety. Effective communication and collaboration between team members helps prevent disputes or conflicts that can disrupt teamwork and have a negative impact on the quality of health services provided. Teamwork that is not solid or disharmony within the team can be a factor that contributes to human error. Human error is a mistake made by individuals that can occur in various contexts, including health services. Therefore, it is important for team members to try to minimize human error by working together to improve the implementation of a patient safety culture

in the hospital. It is important for team members to have an open attitude, respect each other, and prioritize the common goal of patient safety. This involves valuing each team member's contribution, establishing open and effective communication, and committing to learning from incidents or mistakes that occur. In this way, patient safety culture can be strengthened, and its implementation can be optimized in hospitals. Solid team collaboration in the context of patient safety does not only involve health team members but also involves various other stakeholders in the hospital, including hospital management, support staff, and patients and their families. All parties need to work together to create a strong safety culture and prioritize safe, quality health services. In this case, it is important for hospitals to facilitate training, education, and activities that encourage solid teamwork and the implementation of a strong patient safety culture. This can include team development programs, learning from incidents, performance monitoring, and sharing best practices. With a patient safety culture that is well integrated into the health care system, it is hoped that human error can be reduced, patient risks can be minimized, and quality health services can be provided more effectively and safely.

3.11. Organizational Learning

Organizational learning is an approach taken by organizations, including hospitals, to increase the insight, knowledge, and ability of team members to carry out tasks and deal with change quickly and precisely. The goal of organizational learning is to improve overall organizational performance. In the context of health services in hospitals, organizational learning plays an important role in improving the health services provided. Through organizational learning, team members can learn from both positive and negative experiences that occur in their clinical practice and work processes. By learning from these experiences, team members can identify opportunities for improvement, develop better understanding, and improve their ability to provide quality health care.

4. Conclusion

The results of this literature review show that there are various factors that influence patient safety culture in hospitals. It should be remembered that there are six important points that belong to patient safety targets, including accurate patient identification, increasing effective communication, high vigilance drug safety, ensuring the right location, the right patient for surgery, and the right procedure for the patient, reducing the risk of infection, and reducing the risk of patient falls (Ministry of Health of the Republic of Indonesia, 2017). Various factors that influence patient safety culture in hospitals include, namely: 1) economic aspects; 2) leadership; 3) culture; 4) risk management systems and health services; 5) knowledge, attitudes, and actions; 6) analysis of the situation and conditions of the work environment; 7) nurses' stress levels and workload; 8) mentoring programs; 9) nursing supervision and evaluation of the implementation of patient safety goals; 10) teamwork; and 11) organizational learning.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

[1] Saleh Aboufour MA, Subbarayalu AV. Perceptions of patient safety culture among healthcare professionals in Ministry of Health hospitals in Eastern Province of Saudi Arabia. Informatics in Medicine Unlocked. 2022;28:100858.

[2] Salsabila Nurislami, Bayu Anggileo Pramesona, Risal Wintoko, Rasmi Zakiah Oktarlina. Faktor-faktor yang Memengaruhi Pelaporan Insiden Keselamatan Pasien: Literature Review. Jurnal Penelitian Perawat Profesional. 2023 Feb 27;5(2):551–8.

[3] Bukhari B. BUDAYA KESELAMATAN PASIEN RUMAH SAKIT PEMERINTAH DAN RUMAH SAKIT SWASTA DI KOTA JAMBI. Jurnal 'Aisyiyah Medika. 2019 Mar 28;3(1).

[4] Cheng HC, Yen AMF, Lee YH. Factors affecting patient safety culture among dental healthcare workers: A nationwide cross-sectional survey. Journal of Dental Sciences. 2019 Mar;

[5] Fitrianarti R, Angesti D. ANALISIS FAKTOR PENYEBAB INSIDEN KESELAMATAN PASIEN DI RAWAT INAP (SKRIPSI LITERATURE REVIEW) [Internet]. repository.stikes-yrsds.ac.id. 2021 [cited 2023 Nov 2]. Available from: https://repository.stikes-yrsds.ac.id/id/eprint/315/

[6]   Habibah T, Dhamanti I. Faktor yang Menghambat Pelaporan Insiden Keselamatan Pasien di Rumah Sakit: Literature Review. Jurnal Kesehatan Andalas. 2021 Feb 24;9(4):449.

[7]   Kalsum U, Asriwati A, Moriza T. FAKTOR - FAKTOR YANG BERPENGARUH TERHADAP PENERAPAN KESELAMATAN PASIEN DI RUANGAN RAWAT INAP RSU PERMATA MADINA PANYABUNGAN. MIRACLE Journal. 2022 Jan 31;2(1):210–26.

[8]   Larasati A, Dhamanti I. Literature Review: Implementation of Patient Safety Goals in Hospitals in Indonesia. Media Gizi Kesmas. 2021 Jun 1;10(1):138.

[9]   Lee SE, Dahinten VS, Seo JK, Park I, Lee MY, Han HS. Patient safety culture and speaking up among healthcare workers. Asian Nursing Research. 2023 Jan;17(1).

[10]   Mahrous MS. Patient safety culture as a quality indicator for a safe health system: Experience from Almadinah Almunawwarah, KSA. Journal of Taibah University Medical Sciences [Internet]. 2018 Aug 1 [cited 2021 Nov 16];13(4):377–83. Available from: https://www.sciencedirect.com/science/article/pii/S1658361218300362

[11]   Mastuty A, Suhamdani H, Yulandasari V, Achmalona T. Analisis Faktor Penerapan Budaya Sasaran Keselamatan Pasien di Rumah Sakit : A Literature Review. Jurnal Kesehatan Qamarul Huda. 2021 Jun 30;9(1):71–7.

[12]   Nabila L, Drastyana SF. ANALISIS PENYEBAB INSIDEN KESELAMATAN PASIEN DI RUMAH SAKIT [Internet]. repository.stikes-yrsds.ac.id. 2020 [cited 2023 Nov 2]. Available from: https://repository.stikes-yrsds.ac.id/id/eprint/104/

[13]   Najihah. BUDAYA KESELAMATAN PASIEN DAN INSIDEN KESELAMATAN PASIEN DI RUMAH SAKIT: LITERATURE REVIEW. Journal of Islamic nursing. 2018 Jul 28;3(1):1–8.

[14]   Nisfu. "PENTINGNYA BUDAYA KESELAMATAN PASIEN DI RUMAH SAKIT." OSF Preprints (OSF Preprints). 2020 Oct 23;

[15]   Adinda Nur Salsabila, Dhamanti I. FAKTOR-FAKTOR YANG MEMPENGARUHI PERAWAT DALAM PENERAPAN KESELAMATAN PASIEN DI RUMAH SAKIT: Literature Review. Jurnal Ners. 2023 Apr 14;7(1):524–30.

[16]   Valentina T. Faktor faktor yang Mempengaruhi Penerapan Keselamatan Pasien di Rumah Sakit. OSF Preprints (OSF Preprints). 2020 Oct 2;

[17]   Wianti A, Setiawan A, Murtiningsih M, Budiman B, Rohayani L. Karakteristik dan Budaya Keselamatan Pasien terhadap Insiden Keselamatan Pasien. Jurnal Keperawatan Silampari. 2021 Sep 10;5(1):96–102.

[18]   Yanriatuti I, Nursalam Nursalam, Rr. Soenarnatalina M. Faktor Pendukung dan Penghambat Budaya Keselamatan Pasien di Rumah Sakit: A Systematic Review. Jurnal Penelitian Kesehatan Suara Forikes. 2020 Jun 1;

[19]   Yulia Yasmi dan Hasbullah Thabrany. Faktor-Faktor Yang Berhubungan Dengan Budaya Keselamatan Pasien Di Rumah Sakit Karya Bhakti Pratiwi Bogor Tahun 2015. Jurnal Administrasi Rumah Sakit Indonesia. 2018 Jun 26;4(2).

[20]   Yoon S, Lee T. Factors Influencing Military Nurses' Reporting of Patient Safety Events in South Korea: A Structural Equation Modeling Approach. Asian Nursing Research. 2022 Jun;