Determinants That Affect Patient Safety At Work: A Literature Review

Sumiati[1*], Ratna Wardani[1], Yuly Peristiowati[1]
[1] Institut Ilmu Kesehatan STRADA Indonesia, Kediri, Indonesia
[*]**Corresponding author:** mia.mysista@gmail.com

ARTICLE INFO

Article history:
Received: 10th October 2023
Revised: 22nd November 2023
Accepted: 10th December 2023

Keywords:
Hospital
Patient
Safety

ABSTRACT

Nursing practice is sometimes found that patient safety is carried out by nurses at work so that this raises concerns for the public to seek treatment.To determine the determinants that affect patient safety at work.This systematic review begins with a literature review from various sources. Articles were collected using search engines such as PubMed, google schoolar, science direct, ProQuest and Elsevier. The articles used in the study were published from 2018-2023. Articles were searched using keywords that have been determined by the researcher then articles were extracted based on inclusion and exclusion criteria using the PRISMA protocol. Thus, 15 articles were found that matched the critical appraisal criteria for analysis.Based on the articles collected, it was found that patient safety is a topic that has been the subject of much discussion in recent decades. Patient safety is defined as failure to accomplish what was planned or achieving something using the wrong means. In brief, there are two elements to patient safety: a plan and an aim. This means that there are two possible causes of error: the medical provider made the wrong plan and the patient was injured, and the provider made the right plan but there was an error in execution that caused the patient to be injured. These errors can occur due to several things, such as work environment disorders, fatigue, lack of team coordination, and communication failures.Communication, environmental conditions, workload, distraction at work, and staff education are factors that significantly affect patient safety at work. It is expected that nurses in providing health services must improve quality which will be able to provide comfort and quality service to patients in terms of improving patient safety.

I. Introduction

Many patient safety issues are related to ineffective communication and lack of coordination between health professionals, which pivots on two main groups of health workers: doctors and nurses (Liu et al. 2020). Considering health as a very important thing, it is necessary to make efforts so that the fulfillment of the health of each individual can be carried out properly, where an example is the provision of health services without discrimination and not providing services carelessly or not in accordance with health procedures. Parties authorized to provide services in health are referred to as health workers. The implementation of health for each individual is carried out by health workers, one of which is a nurse. Law Number 38 of 2014 concerning nursing provides an understanding of nurses which explains that a nurse is a person who has completed higher education and graduated from universities in the country or abroad in the field of nursing whose standards are recognized by the government in accordance with applicable regulations (Rosyidi 2020).

Patient safety is a topic that has been the subject of much discussion in recent decades. Patient safety is defined as failure to accomplish what was planned or achieving

something using the wrong means (Doweri, Raoush, and Batiha 2015). In brief, there are two elements to patient safety: a plan and an aim. This means that there are two possible causes of error: the medical provider made the wrong plan and the patient was injured, and the provider made the right plan but there was an error in execution that caused the patient to be injured. These errors can occur due to several things, such as work environment disorders, fatigue, lack of team coordination, and communication failures (Lind, Andresen, and Williams 2020).

The Institute of Medicine (IOM) has summarized evidence on patient safety related to patient safety in the United States. The Institute of Medicine (IOM) states that nearly 100,000 patients in America die from medical injuries. This is more than cancer deaths or traffic accidents. Even incidents or accidents in the airplane industry only occur once in every 3 million flights. Compare this to medical incidents that occur in hospitals, which are 2-16 out of every 100 patients. This means that being on an airplane is 100,000 times safer than being in a hospital (Astini, 2016). The IOM has suggested that the biggest challenge to moving towards a safer healthcare system is changing the culture of patient safety (PSC) from one where people are blamed for mistakes to one where mistakes are treated as opportunities to improve the healthcare system and prevent harm (Dabi et al. 2021).

In the book Bartisiewicz in his book entitled "To Error is Human" says that the ineffectiveness of this communication affects the quality of patient care such as the extension of the hospitalization period, readmission of patients, and the occurrence of Unwanted Events (KTD) (Bartosiewicz 2019). Communication failures can also affect physician-nurse collaboration such as group commitment, job satisfaction and willingness to transfer. Conversely, a good doctor-nurse collaboration relationship also has a good impact on patients and organizations such as reducing hospitalization, reducing the cost of care without reducing functional levels or reducing patient satisfaction levels. In addition, it also results in good doctor patient relationships such as increased doctor-nurse satisfaction and increased nurse autonomy (Miller et al. 2020).

II. Methods

This study used literature review. The eligibility criteria are related to patient safety in hospitals. The study population was patient safety. The studies reviewed were studies conducted during 2018 to 2023. Articles excluded from the category were articles that were not published in any journal or published in book form.

A search for research articles relevant to the topic of this study was conducted using keywords: patient and hospital safety from PubMed, Scopus, Science Direct, Springer link, and BMC with a time span of 2018-2023 was taken to assess its eligibility. The article search was conducted online in April-June 2023 using keywords in the search that were used including "apsien safety" AND (patient OR) AND hospital". The authors assessed the articles based on the criteria by checking and confirming, and discussing with the second and third authors. The synthesis process of this research: 1) extracting relevant research themes and concepts, 2) organizing the extracted articles into key (primary) findings, 3) creating group categories from the findings, and 4) synthesizing the categories into themes (based on the research conceptual framework).

III. Results and Discussion

Based on the results of searching for articles with the keywords mentioned above, it shows that there are 117 articles from PubMed, 57 articles from Science Direct, and 3 articles from Proquest. The next step is abstract review. After reviewing the abstracts of the 177 articles reviewed, 20 were excluded because they were the same. Then, 50 articles were excluded because they did not focus on patient safety in hospitals. 107 articles were entered into the next step, which was full text review. From the full text search, 54 articles were

excluded because they were not appropriate. 53 articles were reviewed for completeness of information provided, and 38 were excluded. 15 articles were selected for inclusion in the analysis (Figure 1).

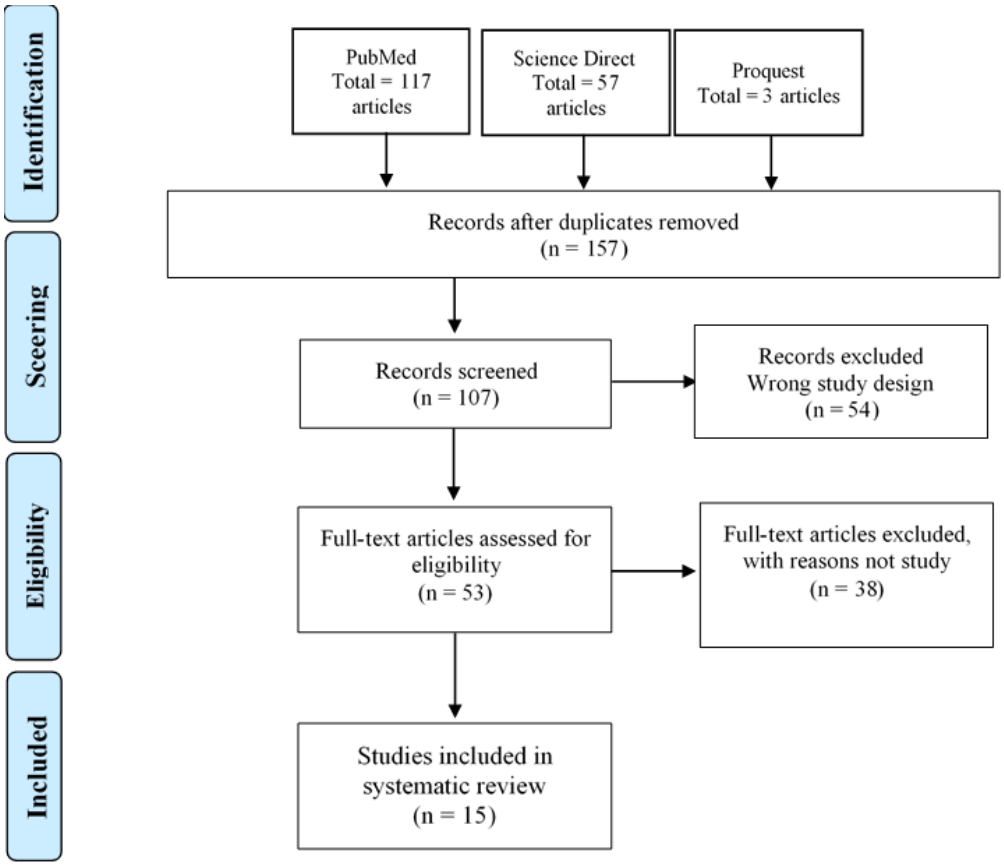

Figure 1. Flow diagram based on PRISMA guideline

15 articles were found from about 6 years (2018-2023). A summary table is provided for quick reference
(Table 1).

Table 1: Summary of selected studies

No	Study	Research topic	Methods	Results
1	(A. M. de Oliveira et al. 2023)	Analysis of relationship of psychosocial factors with patient safety culture in a Brazilian hospital: Study with structural equation modelling analysis	Structural equation modeling	Patient safety culture is related to job satisfaction and burnout among hospital professionals. These findings suggest that the psychosocial work environment influences the quality of care provided
2	(Alipour et al. 2023)	Security, confidentiality, privacy and patient safety in the hospital information systems from the users' perspective: A cross-sectional study	Analytic descriptive study with cross sectional design	A given HIS is at a relatively desirable level in terms of information privacy, security, and patient safety and at an undesirable level regarding confidentiality from a user perspective. Developing guidelines and regulations

No	Study	Research topic	Methods	Results
				regarding HIS privacy, confidentiality, security, and patient safety, overseeing their implementation by responsible agencies and departments, and educating and training healthcare professionals on these concepts are essential to improving the existing situation in the HIS of the evaluated hospitals
3	(Ha et al. 2023)	Nurses' perceptions about patient safety culture in public hospital in Vietnam	Desain cross sectional	Initiatives are needed to improve error response, staffing and error reporting. Nurse managers can develop and implement interventions and programs to improve patient safety, including providing education related to patient safety culture, encouraging staff to notify incidents and avoid punitive responses
4	(Azyabi, Karwowski, and Davahli 2021)	Assessing patient safety culture in hospital settings	Qualitative analysis (survey and exploration methods)	Reporting errors and security awareness, gender and demographics, work experience, and staffing level have also been identified as important factors. Therefore, these factors need to be considered in future work to improve PSC. Finally, the results revealed strong evidence of increasing interest among individuals in the healthcare industry to assess hospitals' general patient safety culture
5	(Müller et al. 2018)	Impact of the communication and patient hand-off tool SBAR on patient safety: a systematic review	Systematic review	This review found sufficient evidence for improved patient safety through the implementation of SBAR, especially when used to structure communication via Mobile Phone. However, there is a lack of high-quality research on this widely used communication tool

No	Study	Research topic	Methods	Results
6	(Hata et al. 2022)	Factors affecting patient safety culture in a university hospital under the universal health insurance system	Desain cross sectional	Working hours are the factor that has the most negative impact on patient safety culture. Under a universal health insurance system, workload and human resources may have a significant impact on patient safety culture. It is important to continue to regularly monitor and maintain the patient safety culture
7	(Dalla Nora and Beghetto 2020)	Patient safety challenges in primary health care: a scoping review	Systematic review	Patient safety challenges for Primary Care professionals are diverse and complex. This study provides insight into resources to improve patient safety for healthcare professionals, patients, administrators, policy makers, educators, and researchers
8	(Alsofyani, Alraqi, and Desouky 2019)	Assessment of patient safety culture in tertiary health care settings in Taif City, Saudi Arabia	Desain cross sectional	The study calls for increased attention to patient safety and efforts to improve performance and quality of care
9	(Ali et al. 2018)	Baseline assessment of patient safety culture in public hospitals in Kuwait	Desain cross sectional	Improving the culture of patient safety is essential if hospitals are to improve the quality and safety of medical services. Learning findings can inform country-level strategies to further improve systems governing patient safety
10	(Olsen and Leonardsen 2021)	Use of the hospital survey of patient safety culture in Norwegian Hospitals	Systematic review	Our findings suggest that comprehensive improvement of patient safety culture in hospitals is challenging and may require several years of systematic work. In addition, the experience from Norway suggests that broader strategic safety initiatives at various levels are needed to improve safety culture more substantially. Research should aim for a more methodologically rigorous

No	Study	Research topic	Methods	Results
				approach
11	(Zhang et al. 2019)	From organisational support to second victim-related distress: Role of patient safety culture	Cross sectional	About half (45.3%) of nurses experienced psychological distress, and 26.6% of nurses intended to leave. The model showed that the 6 dimensions of patient safety culture have contributed to decreased absenteeism and turnover intention through increased organizational support and decreased second victim-related distress
12	(Anderson et al. 2019)	Exploring the relationship between contact frequency, leader-member relationships, and patient safety culture	Cross sectional	A significant relationship was found between relationship strength and patient safety culture
13	(Fujita et al. 2019)	Patient safety management systems, activities and work environments related to hospital-level patient safety culture	Cross sectional	The level of participation in in-house patient safety workshops may be a key factor in creating a good patient safety culture in individual hospitals
14	(Wang et al. 2020)	Job satisfaction, burnout, and turnover intention among primary care providers in rural China: results from structural equation modeling	Cross sectional	Job satisfaction not only has a negative direct effect on burnout and turnover intention, but also an indirect effect on turnover intention through burnout as a mediator. Targeted strategies should be taken to motivate and retain PCPs
15	(Alan Maicon De Oliveira et al. 2018)	The relationship between job satisfaction, burnout syndrome and depressive symptoms	Cross sectional	Hospital workers' personal and work factors were associated with job satisfaction, burnout syndromes, and depression. Absence of fatigue was identified as a predictive aspect for job satisfaction, and depressive symptoms as a predictor for professional burnout

Many studies explain that doctors and nurses understand the importance of communication between doctors and nurses. Both understand that effective communication can improve patient safety, patient satisfaction, faster recovery and reduced mortality. It has been proven from several studies in various work areas in hospitals, such as the Intensive Care Unit (ICU), operating room, emergency room, and nursing homes that good

communication can improve patient safety. Clear and complete communication between healthcare professionals is key to patient safety management and a key component of the Joint Commission's National Patient Safety goals.(Tawfik et al. 2018). Factors causing patient safety at work include: Communication, Environmental Conditions, Disruptions or interruptions during work, Workload, Staff Education. Errors that occur due to interprofessional communication failures lead to an increase in adverse events (Dabi et al. 2021).

The work environment is the comfort of the workplace and the availability of various facilities needed in carrying out work. Comfort can be related to adequate lighting, ventilation that provides freshness, cleanliness of the workplace, and it is easy to see that the above aspects are a source of job satisfaction because in addition to making it easier to carry out tasks, it is also a non-material award for someone (Hartawan et al. 2021). The number of patients who use services in this hospital in general certainly requires reliable nurses so as to produce maximum output. So that disturbances that can hinder service should be avoided. These disturbances can be caused by various reasons, including an uncomfortable work environment and job satisfaction of nurses who are less considered by management (Tawfik et al. 2018).

Workload in nurses includes quantitative workload, qualitative workload, physical workload, psychological workload, social workload and nurse fatigue is the main cause of infection due to work errors. In carrying out their profession, there are so many roles and obligations that must be carried out by nurses, all of these activities are the workload of nurses. In the input component, the number of nurses, client dependence and shift length determine the workload in the nursing service unit (Kusumaningsih et al. 2020).The higher the level of formal education, the higher the expectations in terms of career and employment and income. On the other hand, however, available jobs do not always match the level and type of knowledge and skills possessed by job seekers (Swastikarini et al. 2019).

Nursing practice is sometimes found that the occurrence of patient safety carried out by nurses at work so that this raises concerns for the community to seek treatment. Because of the errors or omissions that occur in each nurse's actions, this causes a decrease in public trust in them. Because of the errors or omissions caused, in practice this is a dangerous thing for the safety of a patient. So that supervision is needed both from nurses and the hospital where they work. Staff education is also considered one of the factors included in human error in patient safety. Education or also known as education is all planned efforts to influence other people, individuals, groups, or communities so that they do what is expected by the perpetrators of education (Notoatmodjo 2014). This educational level consists of the educational background possessed by nurses in carrying out nursing practice consisting of formal education and training that has been owned.

IV. Conclusion

Nurses as part of professional service providers in hospitals have a role in maintaining the quality of hospital services related to patient safety. In providing nursing care, nurses must be able to implement patient safety. Judging from the importance of reducing the number of patient safety at work carried out by nurses.

V. References

Cholid Narbuko, A. A. (2009). Metodologi Penelitian. Jakarta: PT Bumi Aksara.

Haryadi, P. & Andarwulan, N. (2018). Peningkatan Penjaminan Keamanan dan Mutu Pangan untuk Pencegahan Stunting dan Peningkatan Mutu SDM Bangsa dalam Rangka Mencapai Tujuan Pembangunan Berkelanjutan, Makalah Utama Kelompok Kerja 3 Widyakarya Nasional Pangan dan Gizi XI 2018, Jakarta, July 3–4, 2018.

Hura, D. L., Njatrijani, R., & Mahmudah, S. (2016). Perlindungan Bagi Konsumen Terhadap Makanan Olahan Mengandung Bahan Berbahaya Di Jawa Tengah. Diponegoro Law Journal, 5(4), 1–18.

Kesehatan, D. B. (2011). Keputusan. Jakarta: Menteri Kesehatan.

Notoatmodjo, S. (2012b). Promosi Kesehatan Dan Perilaku Kesehatan (1st ed.). Jakarta: Rineka Cipta.

Nurmawati, S., Prodjosoewojo, S., Chairunnisa, N. H., Djauhari, H., & Alisjahbana, B. (2019). Faktor Risiko Penyebab Foodborne Disease pada Siswa SD. JSK, 180-184.

RI, D. (2010). Modul Kursus Higiene Dan Sanitasi Makanan dan Minuman. Jakarta: Dirjen PPM dan PL.

Surono, S., Sudibyo, A., & Waspodo, P. (2018). Pengantar Keamanan Pangan Untuk Industri Pangan. Yogyakarta: Deepublish.

Yuliana, E. (2017). Analisis Pengetahuan Siswa Tentang Makanan yang Sehat dan Bergizi Terhadap Pemilihan Jajanan di Sekolah. Retrieved from http://repository.ump.ac.id/4114/3/Erlin Yuliana_BAB II.pdf.

Yulianto, Hadi, W., & Nurcahyo, J. R. (2020). Hygiene, Sanitasi dan K3. Yogyakarta: Graha Ilmu.