



## Nurse Manager's Experience in Patient Safety Quality Control in Inpatient Wards: Systematic Review

Melisari<sup>1\*</sup>; Setiawan<sup>2</sup>; Bustami Syam<sup>3</sup>

<sup>1,2</sup> Faculty of Nursing, University North Sumatera

<sup>3</sup> Faculty of Engineering; University North Sumatera

### ARTICLE INFO

#### Article history:

Received 13 February 2021

Accepted 4 August 2021

Published 5 September 2021

#### Keyword:

Experience

Quality Control

Patient Safety

#### \*) corresponding author

Master Student, Faculty of Nursing,  
University North Sumatera  
Jl. Prof. Maas No. 3 Kampus USU Medan  
20155, Indonesia

Email: melisari2508@gmail.com

DOI: 10.30604/jika.v6iS1.779

### ABSTRACT

**Background:** In the inpatient setting, the estimated safety incidence varies in the range of 10% to 99%. Patient safety as part of the quality indicators of health services in hospitals must be quality controlled. Nurse managers in managing patient safety quality control to carry out their roles and functions to achieve patient safety. The purpose of this systematic review is to see a description of the experience of nurse managers in controlling the quality of patient safety in inpatient rooms. **Methods:** Systematic literature search through EBSCO, Pub-Med, Science Direct and ProQuest databases using relevant keywords based on research topics and titles. The selection of articles used the PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analyzes) diagram method, with a total of 2,692 articles. **Results:** From 5 articles revealing the efforts made by nurse managers, nurse managers faced, nurse managers are responsible for the work and nurse managers' expectations of patient safety quality control. The findings from this systematic show that nurse managers have unique experience in patient safety quality control, patient quality control in the ward has no effect on improving health services in hospitals.

This open access article is under the CC-BY-SA license.



### INTRODUCTION

In inpatient wards, patient safety incidence is estimated to vary in the range of 10% to 99%. Concerns about increasing patient safety incidents prompted the world health organization (WHO) to develop patient safety guidelines that highlight needs around the world. Patient safety guidelines give nurses a direction in pursuing quality patient safety and of course this cannot be separated from the role of nurse managers (Johnston et al, 2019).

Nurse managers as operational managers who lead directly and manage resources in the care unit are required to act as drivers in the inpatient room to produce quality services. The nurse manager manages the inpatient room through his professional ability in managing nurses and supervising the implementation of services in the inpatient room (Berit et al, 2018).

The nurse manager has a role in leading an inpatient room and is responsible for the course of activities in the

inpatient room. Nurse managers have an important role in controlling the activities of nurses in the inpatient room. The nurse manager as the first line manager is expected to be able to carry out the roles and functions of nursing management, one of which is to carry out the quality control function (Malmström et al, 2017).

Patient safety is the absence of danger to patients during the health care process and the prevention of errors and side effects in patients related to health services. Patient safety in clinical organizations is necessary because it can contribute to transformational progress in the quality of health care worldwide (Heckemann, et.al 2017).

Globally, as many as 4 in 10 patients are disadvantaged in primary and outpatient care. Up to 80% of damage can be prevented. The most expensive errors relate to diagnosis, prescription and use of drugs. Investing in reducing patient injuries can result in significant financial savings, and more importantly, better patient outcomes. One example of prevention involving patients, if done properly can reduce

the burden of danger by up to 15% (World Health Organization, 2020).

Nurse managers play a role in carrying out nursing management functions. Nurse Manager is a role model for nurses in the inpatient room. Nurse Manager plays a very important role in controlling the quality of patient safety in the inpatient room. Good control by nurse managers can have an impact on improving the quality of health services, especially on improving the quality of patient safety (Warshawsky et al, 2019).

Nurse managers in inpatient wards face complex challenges and expectations that are faced and felt in

carrying out patient safety quality control. Various efforts were also made by nurse managers in controlling the quality of patient safety in the hope of improving and maintaining the quality of patient safety (Komada & Fukahori, 2017).

Nurse managers in the inpatient room feel the very complex challenges that must be faced every day in carrying out quality control of patient safety. Various efforts are always made by managers in controlling the quality of patient safety which are expected to improve and maintain the quality of patient safety in hospitals.

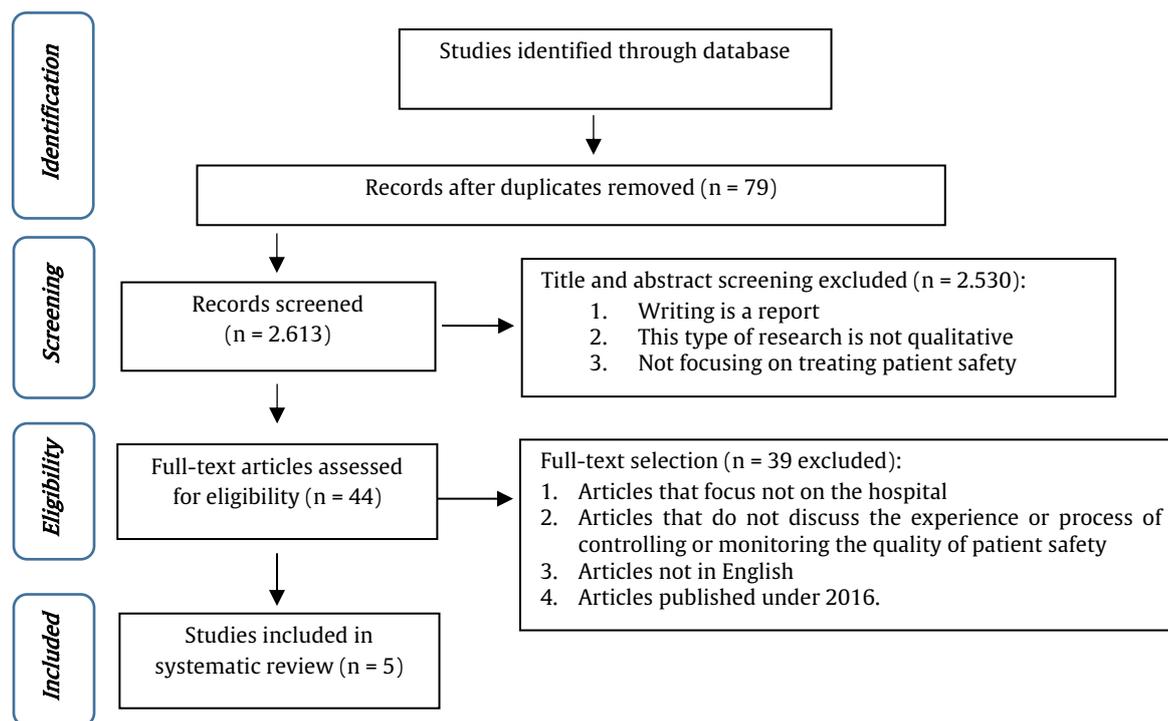


Figure 1: Flow diagram of the systematic review process

**METHOD**

**Study Design**

The author uses a systematic method using narrative descriptive analysis obtained from several main findings from research articles that focus on the encounter of nurse managers in patient safety. The author compiled this article using Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) where the PRISMA guideline is a form of instrument that aims to assist authors in improving the quality of article selection in a systematic review consisting of four stages and the author uses PRISMA as a standard. to review research articles.

**Selection Criteria**

The standard in conducting studies or analysis of research articles in this systematic review also uses the SPIDER model for qualitative research. Studies were included in this literature review if they met the following eligibility criteria: sample group focused on nurse managers who carried out patient safety quality control, type of research focused on qualitative research, published articles reporting original data, and in full text, articles in English and articles published in the last 5 years 2016-2021. The exclusion criteria were as follows: a group of nurse managers who did

not control the quality of patient safety, the type of research focused on quantitative research, not articles that were not published from the original source, articles not in English and research articles published before 2016. Consent and ethical clarity studies were not carried out in written systemic review.

**Instrument**

The methodological quality assessment of the articles in writing this systematic review used the Joanna Briggs Institute (JBI) Critical Assessment guidelines which were used to evaluate the nature of research articles. The JBI Guidelines are instruments used to assess the methodological nature of investigations as well as to determine the extent to which investigations have experienced potential trends in their plans and investigations. The JBI guideline instrument used for qualitative research is the Qualitative Research Checklist. The results obtained from the quality assessment using a predetermined 10 item checklist. With the JBI guidelines used, the risk of bias that occurs in writing this systematic review can be minimized. The assessment criteria are scored yes, no, unclear, not valid, and each criterion with a yes score is given 1 point and the other score is 0, each test score is

then determined and added up, then graded on a percentage basis.

### Procedure

The author searches for certain articles with titles through a database consisting of CINAHL (EBSCO), Scopus, Science Direct, ProQuest and PubMed with a time span of 2016–2021. The article search strategy is carried out using search keywords that match the research title using Standard Boolean Operators "and" and "or" as well as the appropriate words in Subject Healing (MeSH). The keywords used in the search strategy were "Experience" OR "Life Experience" AND "Quality Control" OR "Total Quality Management" AND (3) "Patient Safety" AND (4) "Inpatient Room" OR "Health Facilities". These keywords are then entered into the search box in the electronic database and filtered according to the criteria.

### Data Analysis

The article selection process uses the PRISMA diagram with four stages, namely: at the identification stage, where the author combines the number of articles from all searches in the database. The screening stage, where the author makes a selection based on the title and abstract of the article. Those who met the inclusion criteria were included while those who were not excluded. The feasibility stage, where the author makes a selection based on articles with full text. Articles that met the inclusion criteria were included while those that were not excluded. Furthermore, articles that have been reviewed in full text and meet the inclusion criteria are assessed for methodological quality. In the fourth stage, articles that are relevant to the topic and research title are reviewed systematically.

## RESULTS AND DISCUSSION

The 5 selected articles relate to the nurse manager's experience in patient safety quality control in the form of the nurse manager's challenges in patient safety quality control, the nurse manager's expectations in patient safety quality control, the nurse manager's obstacles in carrying out patient safety quality control, responsibilities during patient quality control safety.

This systematic review discusses the experience of nurse managers in conducting quality control of patient safety with 5 articles containing criteria based on the PRISMA diagram. Nurse managers play a very important role in the process of patient safety quality control, nurse managers in this case make various efforts to improve patient safety, in making various efforts to improve patient safety, nurse managers have many challenges that must be faced as managers in managing them to implement goals patient safety. Barriers faced by nurse managers make nurse managers have many ways to overcome the obstacles they must face in the inpatient room (Alingh et al, 2018).

### Patient safety quality control efforts

Nurse managers make various efforts to support patient safety. Nurse managers improve the application of patient safety goals, improve recording and reporting systems for patient safety incidents in inpatient rooms (Xie et al, 2017). Efforts made by nurse managers also help hospital management in setting service goals that support patient safety, make guidelines for knowing the right one in

preventing errors from occurring in patients with the same name, establishing effective communication standart, both verbal communication and instructions by telephone, the use of high alert drugs, increasing patient safety for surgery, preventing infection and prevent the patient from falling (Setiawan et al, 2020).

Efforts to control the implementing nurses that are carried out properly by the head of the room will be able to ensure that the inpatient nursing staff under his leadership implement patient safety goals in nursing care in accordance with the guidelines (Reis et al, 2019).

### Patient safety quality control challenges

Managers in quality control of patient safety certainly have a large role and responsibility for the nursing staff they lead and for the tasks they carry out in controlling the quality of patient safety in the ward. The challenges faced also stem from incidents due to errors in handling patient care. Studies from Europe explain that patient safety incidents pose a challenge for nurse managers in inpatient wards. The study showed that patients had an 83.5% risk of infection and evidence of medical errors showed 50-72.3%, this indicates that the incidence is not expected to be found in hospitals in various countries with a range of 3.2-16.6%. This shows that patient safety in developed countries is running fast and is a challenge for nurse managers in running a business (Sjølie et al, 2020).

The study of Heckemann, et.al (2017) identified three themes related to the attitude and behavior of nurse managers in responding to challenges in dealing with patient safety incidents, namely background factors, namely patient and visitor aggression felt through different lenses, determinant factors and intentions, namely good intentions. compete with harsh organizational realities and behavioral factors, namely preventing and managing aggressive behavior and relentlessly striving to create a low-aggression work environment. Nurse managers have difficulty dealing with patient aggression and support in patient incidents (Heckemann et al, 2017).

### Be responsible while on duty

The nurse manager as the manager in the inpatient room is the key holder of change, the leader has the responsibility to lead and move all components of the organization towards change. In addition, to build awareness of the value of patient safety, nurse managers are also responsible for creating an open and fair culture which is the first step in implementing patient safety in hospitals (Udod et al, 2019).

In supervising the nurse manager, the nurse manager must understand the behavior of certain people in order to influence them to work in accordance with what the hospital wants. Nurse managers in an effort to control patient safety quality plan, organize, lead and evaluate available facilities and infrastructure to be able to provide nursing care as effectively and efficiently as possible (Pelzang et al, 2020). The nurse manager has a great responsibility for nursing activities in the room. The nurse manager is the spearhead who determines whether or not health service goals are achieved (Quenon et al, 2020).

The nurse manager is responsible for all the work carried out by the implementing nurse in the inpatient room. In carrying out this supervision, the nurse manager plays a key role in meeting patient safety goals. The quality of nursing services is very dependent on the nurse manager. With the responsibility on duty, the nurse manager contributes to improving the quality of safety (Gunawan et al, 2020).

**Table 1. Summary of data extraction results**

No	Author	Title	Objective	Study Design	Participant	Method	Data Analysis	Results	Country
1.	Heckemann, et.al (2017)  <b>Journal of Advanced Nursing</b>	Nurse managers: Determinants and behaviours in relation to patient and visitor aggression in general hospitals. A qualitative study.	To explore nurse managers' behaviours, attitudes, perceived social norms, and behavioural control in the prevention and management of patient and visitor aggression in general hospitals.	A qualitative descriptive study underpinned by the Reasoned Action Approach.	13 individual interviews	The semi-structured interviews and focus groups were recorded, transcribed, and analysed in a qualitative content analysis.	analysed in a qualitative content analysis.	Identified three main themes: 1. Background factors: "Patient and visitor aggression is perceived through different lenses"; 2. Determinants and intention: "Good intentions competing with harsh organizational reality" 3. Behaviours: "Preventing and managing aggressive behaviour and relentlessly striving to create low-aggression work environments. Nurse managers have had a difficult time dealing with patient aggression and support in patient incidents.	Switzerland
2.	<u>Berit Viken</u> , et.al (2018)  <b>Nursing Open</b>	Foreign educated nurses' work experiences and patient safety-A systematic review of qualitative studies	The aim of this systematic review was to identify the evidence contributed by qualitative research studies of foreign educated nurses' work experiences in a new country and to link the results to patient safety competencies.	A systematic literature review of qualitative studies.	17 participants	Electronic searches in the Ovid MEDLINE, Embase, PsycINFO, Cochrane Library and Cinahl databases and additional manual searches in five scientific journals	A content analysis of 17 qualitative articles was conducted.	The analysis revealed one main theme: "Being an outsider at work" and two themes: "Cultural dissonance and Unfamiliar nursing practice. Two sub-themes emerged from the first theme: Loneliness and discrimination" and "Communication barriers". The second theme was based on the following two sub-themes: "Handling work-related stress" and "Role uncertainty and difficulties in decision-making". A better prepared and longer orientation period with continual clinical supervision including systematic reflection on practice experiences is needed to support foreign educated nurses in the transition period and strengthen their Patient Safety Competencies. Nurse Managers have an important role in ensuring the inclusion of foreign educated nurses and providing desirable working conditions.	Norway
3.	Sjølie, et.al (2020) <b>BMC Health Services Research</b>	Navigation to prioritizing the patient" – first-line nurse managers'	Aim of this study was to gain understanding of first line nurse managers'	A qualitative descriptive study	26 participants	focus group interviews.	The analysis followed Graneheim and Lundman's qualitative	Navigation to prioritizing the patient" emerged as an overarching metaphor to describe the first-line nurse managers experiences of leading quality improvement work, based on three	Norway

		experiences of participating in a quality improvement collaborative	experiences in leading quality improvement work in their own organization when participating in a quality improvement collaborative.			content analysis.	themes: 1. fellowship for critical thinking and prioritizing the patient 2. mastering the processes in quality improvement work 3. the everyday reality of leadership as a complex context.		
4.	Udod, S. A, et.al (2019) <b>Journal of Nursing Management</b>	Nurse Managers Implementing the Lean Management System: A Qualitative Study in Western Canada	This study explores the perceptions and experiences of nurse managers involved in implementing the Lean management system in a Western Canadian province.	A qualitative exploratory study	14 nurse managers	This qualitative exploratory study employed semi-structured interviews with 14 nurse managers in urban and rural health regions in one Canadian province.	Data analysis was based on Braun and Clarke's (2006) framework for thematic analysis, which involved the search for, and identification of, common threads across all the data.	Six themes outline the difficulties nurse managers experienced in juggling role responsibilities alongside a poorly implemented change system with scarce resources. The results showed tensions in the implementation of a Lean model adapted in the context of health care organisations. The expectations for nurse managers to be pivotal players in the implementation of transformative health care practices that promote and sustain strategies to reduce waste, improve coordination and increase patient safety require investment in leadership development.	Canada
5.	Reis, et.al (2019) <b>Revista Gaucha de Enfermagem / EENFURGS</b>	Difficulties to Implement Patient Safety Strategies: Perspectives of Management Nurses	To understand the difficulties to implement patient safety strategies in the hospital environment from the perspective of nurse managers.	Descriptive, exploratory and qualitative study	The sample was of 72 participants	Using a semi-structured interview script, from January to March 2015	Content analysis was carried out, in the thematic modality.	The following categories were identified: Inadequate sizing of nursing staff; Lack of support of the top management: from policies to concrete actions and; Lack of adherence of the professionals to patient safety strategies. In order for the institution to succeed in the implementation of patient safety strategies, it is necessary to have a continuous and permanent education policy, to raise awareness and to involve professionals from the top management to the front line employees.	Brasil

## Expectations on duty

For institutions to be successful in implementing patient safety strategies, a continuing and permanent education policy is needed, to raise awareness and involve professionals from top management to nursing staff who are on the front lines. Nurse managers hope that all parties in the hospital can be involved in strategies to improve the quality of patient safety (Amiri et al, 2018).

Nurse managers have hope that while on duty the nurse manager feels the need to increase control over the implementing nurses by conducting regular assessments of the nurse's performance in carrying out safe and injury-free nursing care for patients. Nurse managers also hope that implementing nurses can carry out safe nursing care for patients, increase knowledge about patient safety through training and strive to improve continuous nursing education and cultivate patient safety in inpatient units (Lawati et al, 2018).

## Limitation of The Study

Time and energy constraints in researchers in writing this article and currently there are still few articles that have qualitative research designs that discuss the variables of manager's experience in controlling the quality of patient safety which consist of the accuracy of patient communication, increasing effective communication, improving drugs. security. need alertness (high vigilance), certainty of the right location, the right procedure, the right patient operation and risks associated with health services, reduction of the risk of falls and patient safety incidents

## CONCLUSIONS AND RECOMMENDATION

Nurse managers have an important role in controlling the quality of patients in inpatient rooms because good control can improve the quality of services in hospitals. Nurse managers in carrying out quality control of patient safety use leadership in service quality and patient safety so that they can meet the goals of providing high quality and safe services to patients and service users and to develop a culture of continuous improvement.

## REFERENCES

- Alingh, C. W., van Wijngaarden, J. D. H., van de Voorde, K., Paauwe, J., & Huijsman, R. (2018). Speaking up about patient safety concerns: the influence of safety management approaches and climate on nurses' willingness to speak up. *BMJ Quality & Safety, bmjqs-2017-007163*.doi:10.1136/bmjqs-2017-007163
- Amiri M, Khademian Z, Nikandish R (2018). The Effect of Nurse Empowerment Educational Program on Patient Safety Culture: A Randomized Controlled Trial. *BMC Medical Education, 18*(1): 1–8. doi: 10.1186/s12909-018- 12556
- Gunawan, J., Aunguroch, Y., Fisher, M. L., McDaniel, A. M., & Marzilli, C. (2020). Managerial Competence of First-Line Nurse Managers in Public Hospitals in Indonesia. *Journal of Multidisciplinary Healthcare, Volume 13*, 1017–1025.doi:10.2147/jmdh.s269150.
- Gunawan, J., Aunguroch, Y., Nazliansyah & Sukarna, A. (2018). The Lived Experiences of Becoming First-line Nurse Managers: A Phenomenological Study. *Iran J Nurs Midwifery Res.* 23(1), 66–70. doi: [10.4103/ijnmr.IJNMR\\_1\\_17](https://doi.org/10.4103/ijnmr.IJNMR_1_17)
- Heckemann, B., Peter, K. A., Halfens, R. J., Schols, J. M., Kok, G., & Hahn, S. (2017). Nurse managers: Determinants and behaviours in relation to patient and visitor aggression in general hospitals. A qualitative study. *Journal of Advanced Nursing, 73*(12), 3050–3060.doi:10.1111/jan.13366
- Johnston BE, Lou-Meda R, Mendez S, Frush K, Milne J, Fitzgerald T, et al. (2019). Teaching Patient Safety in Global Health: Lessons from the Duke Global Health Patient Safety Fellowship. *BMJ Global Health, 4*(1):1220. DOI: 10.1136/bmjgh-2018-001220.
- Kodama, Y., & Fukahori, H. (2017). Nurse managers' attributes to promote Change in their wards: a qualitative study. *Nursing Open, 4*(4), 209–217. Doi:10.1002/nop2.87
- Lawati, M. H. A., Dennis, S., Short, S. D., & Abdulhadi, N. N. (2018). Patient safety and safety culture in primary health care: a systematic review. *BMC Family Practice, 19*(1). doi:10.1186/s12875-018-0793-7.
- Malmström, T., Harjola, V.-P., Torkki, P., Kumpulainen, S., & Malmström, R. (2017). Triage Quality Control is Missing Tools—A New Observation Technique for ED Quality Improvement. *International Journal for Quality in Health Care, 29*(2): 295–300. doi:10.1093/intqhc/mxz017.
- Pelzang, R., & Hutchinson, A. M. (2020). Perceived Roles of Bhutanese Health Care Professionals in Improving Patient Safety: A Qualitative Exploratory Descriptive Study. *Quality Management in Health Care, 29*(3), 142–149. doi:10.1097/qmh.0000000000000254
- Quenon, J.-L., Vacher, A., Faget, M., Levif-Lecourt, M., Roberts, T., Fucks, I., ... Pourin, C. (2020). Exploring the role of managers in the development of a safety culture in seven French healthcare facilities: a qualitative study. *BMC Health Services Research, 20*(1).doi:10.1186/s12913-020-05331-1
- Reis, G. A. X. dos, Oliveira, J. L. C., Ferreira, A. M. D., Vituri, D. W., Marcon, S. S., & Matsuda, L. M. (2019). *Dificuldades para implantar estratégias de segurança do paciente: perspectivas de enfermeiros gestores. Revista Gaúcha de Enfermagem, 40*(spe).doi:10.1590/1983-1447.2019.20180366
- Roney, L., Sumpio, C., Beauvais, A. M., & O'Shea, E. R. (2017). *Describing Clinical Faculty Experiences With Patient Safety and Quality Care in Acute Care Settings: A Mixed Methods Study. Nurse Education Today, 49*, 45–50. doi:10.1016/j.nedt.2016.11.014.
- Setiawan, S., Elizadiani Suza, D., Arruum, D. (2020). Development of a Patient Safety Round Guideline for Nurse Managers: Action Research Study in Indonesia. *Journal of Nursing and Social Sciences Related to Health and Illness.* DOI: 10.32725/kont.2020.025
- Viken, B., Solum, E. M., & Lyberg, A. (2018). Foreign educated nurses' work experiences and patient safety-A systematic review of qualitative studies. *Nursing Open*.doi:10.1002/nop2.146
- Warshawsky, N., & Cramer, E. (2019). Describing Nurse Manager Role Preparation and Competency. *JONA: The Journal of Nursing Administration, 49*(5): 249–255. DOI:10.1097/nna.0000000000000746.
- World Health Organization (2020). *Patient Safety Incident Reporting And Learning Systems: Technical Report And Guidance.* [online] [cit. 2021-04-10]. Available at: <https://www.who.int/publications/i/item/9789240010338>
- Xie, J., Ding, S., Zhong, Z., Zeng, S., Qin, C., Yi, Q., Zhou, J. (2017). A Safety Culture Training Program Enhanced The Perceptions of Patient Safety Culture of Nurse Managers. *Nurse Education in Practice, 27*, 128–133. doi: 10.1016/j.nepr.2017.08.00.