

The Effect of Nursing Documentation and Communication Practices on Patient Safety Practices in the Pematang Ashari Hospital

Herisiyanto^{1*}, Kohar Sulistyadi¹, Soehatman Ramli¹ and Syahfirin Abdullah¹

¹*School University of Shahid, Jakarta, Indonesia.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

Editor(s):

(1) Carla Maria Ferreira Guerreiro da Silva Mendes, Centro Hospitalar De Setúbal E.P.E, Portugal.

Reviewers:

- (1) Rudval Souza da Silva, State of Bahia University, Brazil.
 - (2) Gunnar Glauco De Cunto Taets, Federal University of Rio de Janeiro, Brazil.
 - (3) Nazan Karaoglu, Necmettin Erbakan University, Turkey.
 - (4) Kwasi Agyen-Mensah, University of Cape Coast, Ghana.
- Complete Peer review History: <http://www.sdiarticle4.com/review-history/55278>

Received 14 January 2020

Accepted 19 March 2020

Published 08 April 2020

Original Research Article

ABSTRACT

This study aims to analyze the practice of communication and documentation practices in nursing and the relationship of its influence with patient safety at Ashari Pematang Hospital. The scope of the research is on the practice of communication and documentation practices carried out in the nursing practice as well as the links and their effects on patient safety. This study uses a quantitative analytic approach with the instrument used i.e. questionnaire. Research data obtained by observation; library research and interviews. The population in this study were all nurses in the treatment room at Pematang Ashari Hospital as many as 200 nurses. The sample for the purpose of this study was taken using the Slovin Formula which was obtained as many as 133 nurses. Based on the results of this study note that nursing communication and documentation in the nursing process at this hospital has a positive and significant effect on patient safety practices. Simultaneously the two variables have a positive and significant effect on the safety practices of patients undertaking treatment. Generally nurses practice communication with patients, and carry out documentation of the nursing process undertaken by patients. Patients who obtain health services at this hospital obtain a good guarantee of safety. This study shows that the documentation variable in the nursing process has a positive and greatest influence on patient

*Corresponding author: Email: matkodaknikon@gmail.com;

safety practices with an estimated standard based on the results of the analysis with the SEM Model at 0.455. While the effect of nursing communication is only at 0.249. Results of this study, patient safety practices more influenced by the role of documentation in the nursing process.

Keywords: Nursing communication; nursing documentation; patient safety.

1. INTRODUCTION

Nursing process provides systematic guidance or methods to help nurses develop thinking styles that lead to appropriate clinical appraisal [1].

As proof of the scientific approach it must be able to be evaluated scientifically, one of which is the existence of evidence from the nursing process in the form of documentation of the nursing process.

Nursing documentation is very important for nurses in providing nursing care. This documentation is used as a reference for nursing services provided to patients who need records and reporting that can be used as responsibility and accountability of various possible problems experienced by patients both satisfaction and dissatisfaction with the services provided [2].

Nursing documentation is an absolute must for nursing development, especially the professionalization process of nursing and maintaining nursing as a noble and respected profession in society, because documentation can reflect the quality of a given nursing care. This is an important finding for nursing practitioners in documenting nursing care to patients.

On the other hand, Alvarado et al. [3] revealed that inaccuracy of information could have a serious impact on patients, almost 70% of sentinel events are events that result in death or serious injury in hospital due to poor communication. The researcher's statement above is in line with Angood's statement [4] which makes it clear that based on the results of the study of data on the existence of adverse events, near miss and sentinel events in hospitals, communication is often the main cause.

Information has a very big role in the nursing process. Legally, all client information records are mandatory for a professional and can be of legal value. In hospital health services, patients' records recorded and documented by nurses have legal force as authentic evidence. In this

case, the legal force always binds to the professionalism of the nursing profession wherever it is located and working. Information can then be a message in the communication process. Included in the nursing process at the hospital. The absence of complete, correct and objective information (messages) often has the potential to cause near miss. This will greatly jeopardize patient safety, especially in emergencies in both the emergency room and ICU. Inaccurate information between nurses and doctors, as well as with other health professionals in the hospital, often occurs due to reasons for serious patients.

According the Minister of Health Regulation No. 1691 of 2011 every hospital in Indonesia must have great attention to patients in terms of safety, rights and obligations of patients related to safety, and every incident to patients and health personnel that occurs both near miss and incident and accidents must be reported and written to prevent this from happening repeatedly.

Patient safety standards according to Regulation of the Minister of Health Number 1691/Menkes/Per/VIII/2011 concerning Hospital Patient Safety, in Article 7 paragraph (2) includes: Patient rights; Educate patients and families; Patient safety in the service continuity; Use of performance improvement methods for evaluating and improving patient safety programs; The leadership role in improving patient safety; Educate staff about patient safety; and Communication is the key for staff to achieve patient safety.

In a preliminary study with several ICU nurses at Pematang Ashari Hospital, researchers found that there were a number of things, including that the nurse documentation process in weighing patients and identifying patients had the potential to cause the possibility of sentinel. Of course this will greatly affect the hospital credibility and is not in line with the vision, mission, and duties of the hospital in organizing good patient care'. Prioritizing patient safety and satisfaction is the philosophy of the organization of health services at Pematang Ashari Hospital. Therefore, various

aspects must of course be carried out and implemented with excellent quality.

2. LITERATURE REVIEW

2.1 Patient Safety

Patient safety is a patient who is free from injuries that were not supposed to occur or free from potential injuries (illness, coma, physical / social psychological injury, disability and death) related to health services [5] Furthermore, the definition of Patient safety according to IOM (International of Medicine) is prevention from endangering patients, in this case emphasizing the prevention of mistakes, learning from mistakes that can occur and building a culture of safety, which includes professional health workers [6].

According to Article 43 of the Health Act Number 36 of 2009, patient safety is a process in a hospital that provides services to patients safely including a risk assessment, identification, risk management, reporting incident analysis, ability to learn of the incidents, and implement solutions.

In Article 1 Paragraph 1 of the Regulation of the Minister of Health of the Republic of Indonesia Number 1691, 2011 that hospital patient safety is a system where the hospital makes patient care safer.

Patient care safer program are included:

- (1) Risk assessment;
- (2) Identification and management of matters related to patients risk;
- (3) Reporting and analysis of incidents;
- (4) The ability to learn from incidents;
- (5) Implementation of solutions;
- (6) Prevention of injuries.

According to Hughes [7] in Sutanto [8] stated that patient safety is the prevention of injury to patients. Injury prevention is being free from hazards.

Patient safety practice is minimized a risk or unwanted during medical treatment.

To avoid misunderstanding of the understanding and the realm of patient safety, what we need to underline is that what is included in patient safety is all the mistakes that occur in hospitals made by all professions that deal with patients directly

in providing care. This includes risk assessment, identification and risk management for patients, incident reporting and analysis, the ability to learn and follow up on incidents, and implement solutions to reduce and minimize risks.

Minister of Health Regulation No. 1691, 2011 stated that hospitals and health workers working in hospitals are required to carry out the program by referring to the national policy of the National Hospital Patient Safety Committee.

Every hospital is obliged to establish a Hospital Patient Safety Team (HPST) determined by the Head of the hospital as the executor of patient safety activities. The referred HPST is responsible to the Head of the hospital. HPST membership consists of hospital management and elements of the healthcare profession at the hospital. TKPRS carries out its duties as follows:

1. Develop a patient safety program at the hospital according to the specifics of the hospital;
2. Develop policies and procedures related to hospital patient safety programs;
3. Perform the role of motivating, educating, consulting, monitoring and evaluating the implementation of hospital patient safety programs;
4. Collaborate with the hospital's education and training department to conduct internal hospital patient safety training;
5. Carry out notes, report incidents, analyze incidents and develop solutions for learning;
6. Provide input and consideration to the head of the hospital in order to make hospital patient safety policy;
7. Make an activity report to the Head of the hospital.

Every hospital must implement Hospital Patient Safety Standards. Hospital Patient Safety Standards issued by the Joint Commission on Accreditation of Health Organizations, Illionis, USA, in 2002. Indonesia Health Minister Regulation 1691, 2011 concerning the safety of hospital patients. Patient safety practice in hospital, will be assessed while the Hospital Accreditation.

The standards of patient safety are included:

- 1) Patient rights
- 2) Educating patients and families
- 3) Patient safety in the continuity of service

- 4) The use of performance improvement methods for evaluating and improving patient safety programs
- 5) The role of leadership in improving patient safety
- 6) Educating staff about patient safety
- 7) Communication is the key for staff to achieve patient safety.

contains data in the form of numbers and patient description notes.

The document will be used to determine the patient's initial condition and current condition of the patient so that it can be used by parties in the hospital such as doctors, pharmacy units, radiology units, or by nurses themselves.

2.2 Nursing Documentation

Documentation is an authentic record or all original files that can be proven or used as evidence in legal matters. Nursing documentation is evidence of recording and reporting that nurses have in carrying out care records that are useful for the benefit of clients, nurses and the health team in providing health services on the basis of accurate and complete written communication with nurse responsibilities [4].

Nursing documentation is a recording activity carried out by nurses every day. Documentation is necessary to avoid distorting facts, to prevent loss of information, and to be learned by other nurses. All stages in the nursing process must be documented. Recording activity is the implementation of activities carried out through documentation.

Nursing documentation is defined as a record of nursing care planned and provided to each patient and client by a qualified nurse or by another caregiver under the direction of a qualified nurse. Nursing documentation is an attempt to present problems that occur in the nursing process and information that leads to decision making including assessment, nursing diagnoses, interventions, implementation, and evaluation of progress and results.

Nursing documentation is important indicator for developing nursing care. According to patient safety law, nurses must document nursing process. Proper nursing documentation has various principles including objectivity, specificity, clearing and consistency, comprehensive, respecting confidentiality and recording errors.

Documentation is a process in producing a document or record that contains data about the patient's condition [4].

Documents play an important role as evidence of the whole process of handling patients and health services in general. In the document

The data in the nursing document is the legal evidence, it can be used as authentic evidence in handling legal problems that arise in the nursing process and health services.

According to Potter and Perry [9] purpose of the recording is a useful source of data used by all members of the health team including communication, financial bills, education, studies, research, audits, and legal documentation.

1. **Communication:** Recording is a way for health team members to communicate their contribution to client care, including individual therapy, client education and the use of referrals for discharge planning.
2. **Financial bills:** A client's care record is a document that showed the extent to which the health care institution must be valued with the services provided, it is about the client's bill.
3. **Education:** Client records contain a variety of information including medical and nursing diagnoses, signs and symptoms of the disease, successful and unsuccessful therapies, diagnostic findings and client behavior, so these records are a source of education.
4. **Assessment:** Records provide data that nurses use to identify and support nursing diagnoses and plan interventions that are appropriate for the client.
5. **Research:** Records are a valuable resource for describing the characteristics of the client population in health care institutions.
6. **Audit and monitoring:** Regular reviews of information on client records provide a basis for evaluating the quality and accuracy of care provided in an institution.
7. **Legal documentation:** Records must be accurate because they are legal documentation.

Nurses need a standard of documentation to strengthen the pattern of recording and as a guideline or practice documentation in providing

nursing actions. Facts about nurses' ability in documenting are shown in their writing skills in accordance with consistent documentation standards, effective, complete, and accurate patterns [Error! Reference source not found.]

Nurses need a skill to be able to meet the appropriate standards [100] Standard documentation is a statement about quality and quantity document. Documentation must follow established standards to maintain accreditation, to reduce accountability, and to adjust the needs of nursing services [9]

2.3 Nursing Communication

Communication plays an important role and is carried out intensively in nursing practice. To improve the quality of nursing services, a nurse needs to understand the correct communication techniques. Documentation is a method and media used in written communication practices. In communication terms, the contents of the notes in the documentation are referred to as messages. In the practice of nursing services, nurses are required to be able to document medical records and records correctly, so that he also has the correct data/message to be communicated with other health workers.

Communication is a way of sending, receiving, and exchanging information between two or a group of health professionals and patients. This pattern of communication can be a gain or loss depending on how you send and receive information. For this reason, communication can support health care services to patients and help exchange information between health professionals McCorry, & Mason [111] Flicek [12].

Communication can be verbal and non-verbal. Verbal communication is a way of sending information to other people in person or by phone. Verbal communication is the main and clear method for communicating with others. Non-verbal communication is a way of sending information to others without talking; can be in the form of written words, or body language such as facial expressions and hand movements. Verbal and non-verbal communication are both used in the field of health care between nurses, doctors and patients [11].

Verbal communication is the main means to express our thoughts, feelings, and intentions.

Verbal language is words that present various aspects of our individual reality [13].

According to Samovar and Porter, non-verbal communication includes all stimuli (except verbal stimuli) in a communication setting, produced by individuals and the use of individual environments, which have potential message value for senders or recipients, so this definition includes intentional or unintentional behavior as a part of the overall communication event, we send many nonverbal messages without realizing that they are meaningful to others [133].

Alvarado, et al. [3] states that communication that occurs or is carried out using information provided by nurses in shifts exchange, better known as handovers, is very helpful in patient care. A well-done balance can help identify errors and facilitate continuity of patient care. Accurate and complete information will greatly assist in the implementation of handovers between nurses and other health professionals involved in patient management.

Alvarado, at al. [3] also revealed that inaccurate information can have a serious impact on patients. Nearly 70% of sentinel events, ie events that result in death or serious injury in hospital, are caused by poor communication. The researcher's statement above is in line with the statement of Angood [4] which revealed that based on the results of the study, the data play an important role in the presence of adverse events, near miss and sentinel events in hospitals. That the problems that occur in hospitals turn out to be the main cause is communication.

Smith, et al. [14] also revealed that hospitals are professionally dense organizations with various characteristics. Communication on handovers has a very important relationship in ensuring continuity, quality and safety in health care for patients. Weigh the patient's acceptance is one form of communication nurses in implementing nursing care to patients. Weighing the patient is designed as one method to provide relevant information to the nurse team at each shift, as a practice guide to provide information about the patient's current condition, treatment goals, treatment plan and determine service priorities [15].

Consequently, communication skills for professions in hospitals are very important.

Additionally, what they handle is humans whose main risks are safety and life. This is in line with the opinion of Reisenberg [16] which says that communication of various information regarding patient development between health professions in hospitals is a fundamental component in patient care.

Communication is a complex process that involves behavior and allows individuals to connect with others and the world around them. According to Potter and Perry communication occurs at three levels, i.e.: intrapersonal interpersonal, and public.

Good interpersonal communication will be solved the problem, created the ideas, decision making, and personal growth. In the process of communication involves an internal and external environment wherever communication occurs. The internal environment includes a value, beliefs, temperament, and the stress level of the sender of the message and the recipient of the message. While external factors include weather, conditions, temperature, power factor and time. Both parties (senders and recipients of messages) must be sensitive to internal and

external factors, such as the perception of communication that is determined by the existing external environment.

2.4 Framework

The conceptual framework is given in Fig. 1 which depicts the relation between the patient and the hospital, patient's recovery and effect of diagnosis. Communication skills for professions in hospitals are very important. Verbal communication is the main and clear method for communicating with others.

2.5 Research Hypothesis

- a. There is an effect of the nursing process documentation on patient safety practices.
- b. There is an effect of nursing communication on patient safety practices.

3. RESEARCH METHODS

This study uses a quantitative analytic approach that is testing the relationship between the independent variables with the dependent variable. The independent variable is

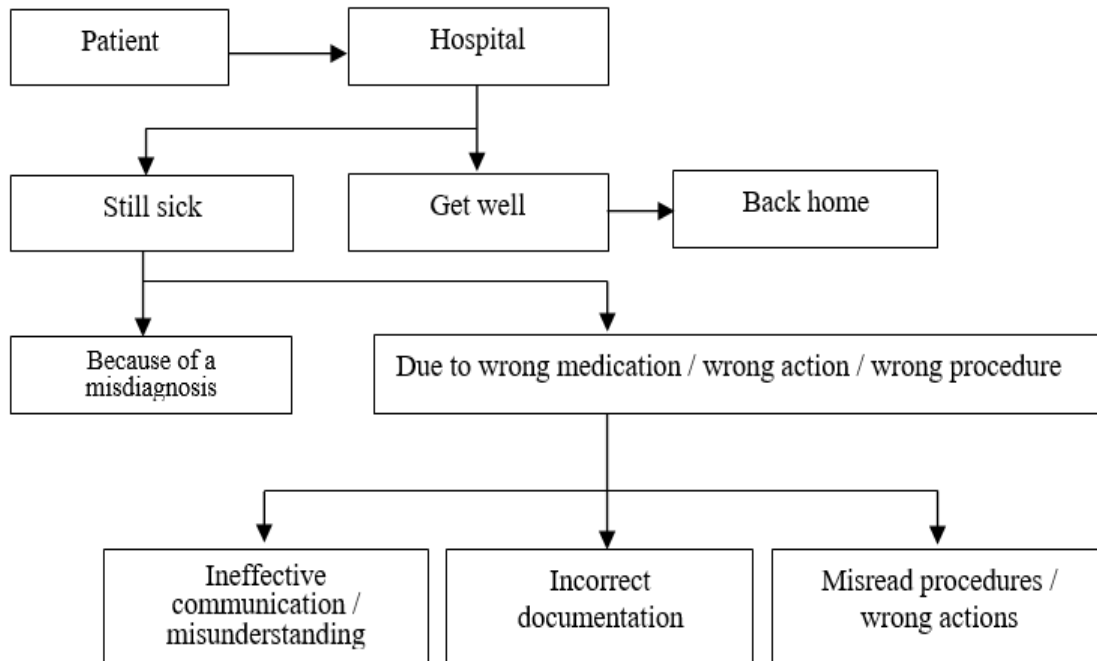


Fig. 1. Framework

communication practice variable and the nursing documentation practice variable. While those included in the dependent variable are patient safety practice variables. The approach in this study is cross sectional, i.e. data collection is done at one time or once during the study [17].

3.1 Population and Sample

Population in this study were all treatment room nurses at Pemalang Ashari Hospital as many as 200 nurses. This amount is in accordance with data provided by the hospital in July 2019.

The sample taken is based on the Slovin formula Riduan, 2018 [2], so that a total sample of 100 people is obtained.

3.2 Data Analysis Method

Data analysis method is a method used to process the results of research in order to obtain

a conclusion. Referring to the theoretical framework, then the data analysis technique used in this study is a quantitative analysis using the SEM (Structural Equation Modeling) model or the Structural Equation Model with the AMOS 4 program.

4. RESULTS OF RESEARCH

4.1 Test of Goodness of Fit

The purpose of the model fit or goodness of fit test is to find out how precisely these indicators can explain the existing latent variables. The results of Structural Equation Model analyzed, showed in Fig. 2.

Results of Goodness of fit Test presented in Table 1.

Based on results in Table 1 and path diagram in Fig. 2, can be seen that research model can be said as a fit model.

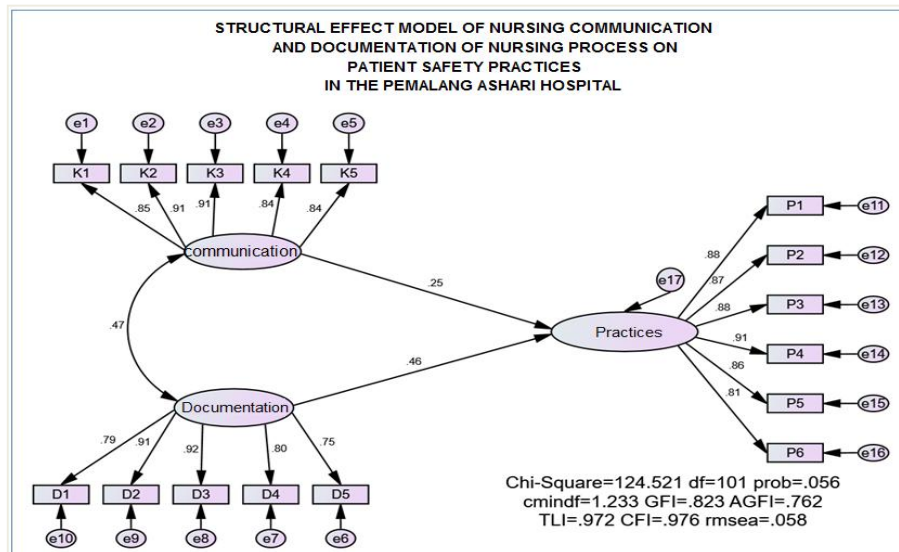


Fig. 2. Full model

Table 1. Goodness of fit

Goodness of fit	Cut of value	Result	Criteria
Ratio Chi Square/df	Hoped small (<3)	124.521:101=1.23	Fit
Probability	≥ 0.05	0.056	Fit
CMINDF	≤ 2.00	1.233	Fit
GFI	≥ 0.90	0.823	Marginal
AGFI	≥ 0.90	0.762	Marginal
TLI	≥ 0.90	0.972	Fit
CFI	≥ 0.90	0.976	Fit
RMSEA	≤ 0.08	0.058	Fit

Indicator of *goodness* of fit of the model were acceptable following as bellow:

- Probability values 0.056 (>0.05)
- Root Mean Square Error of Approximation (RMSEA) value is 0.058 (≤ 0.08);
- Tucker-Lewis Index (TLI) is 0.972 and Comparative Fit Index (CFI) is 0.976 (≥ 0.90);
- *cmindf* value is 1.233 (has smaller of 2);
- GFI value is 0.823 is marginal.
- AGFI value 0.762 (has approach or marginal to 0.90).

4.2 Discussion of Research Results

4.2.1 Effect of nursing communication on patient safety practices

Correlation between nursing communication practice and patient safety practices in the Pemalang Ashari Hospital measure r 0.25. We concluded that the nursing communication has positive effect to the patient safety practices in the Pemalang Ashari Hospital Treatment Room has been supported.

Generally nurses in the Pemalang Ashari Hospital:

85% agreed, before handling the patients, they received fully information while handover within previous shift guard.

91% agreed, write about explanations of nursing actions and reassure the patient's name, type and time of action.

91% agreed, to conducted verification drugs name, dosages and how to give them even during an emergency.

84% agreed, communicating by telephone to be repeat for verification regarding orders for action on patients.

84% agreed, to verified all information from previous shift.

The actions of the nurses in recording, verifying and communicating all activities related to the identity and history of the action against the patient are a description of nursing communication patterns that greatly affect patient safety.

The situation is also described by L Smith, et al, [14] that hospitals are professionally dense organizations with various characteristics, communication on hand over has a very

important relationship in ensuring continuity, quality and safety in health care for patients. These practices are also efforts to maintain the continuity of valid information to avoid serious injury among patients as revealed by Alvarado, et al. [18] that inaccurate information can have a serious impact on patients, nearly 70% of sentinel events are events that result in death or serious injury in hospital due to poor communication.

The findings in this study are in line with the results of Hamad Al Qattan, et. al. [19]; Rachmah [7]; Müller et al [1]; Nadzam [13] which shows that nursing communication practices is affected to patient safety.

4.2.2 Effect of nursing process documentation on patient safety practices

Correlation between nursing process documentation and patient safety practices measure in the Pemalang Ashari Hospital r 0.46. We concluded the nursing process documentation has a positive effect to patient safety practices in the Pemalang Ashari Hospital.

Generally the nurses in The Pemalang Ashari Hospital when handling patients:

79% agreed, to write data about the patient's identity.

91% agreed, to record patient problems or complaints.

92% agreed, to record the results of physical observations of patients treated.

80% agreed, to record nursing actions to be performed and instructed by the doctor.

85% agreed, the actions of the nurses are important points in documenting the nursing process, which has a great potential in influencing patient safety.

Documentation is very necessary to avoid distorting facts, as authentic evidence to prevent loss of information and to be studied by other nurses/the next. Related to this, Brady et al. [7] states that documentation includes a great deal and supports a justification of the situation in the future, so that it can be used as a justification tool and the documentation must be formed appropriately. Justification is included in the legal system and can be in the form of justification of tools, justification of staff or personnel, and certainty in service quality.

The findings in this study are in line with the results of research by Marten et al. [20] Al-etreby et al. [18] Jylhä et al. [21] McCarthy [11] Which shows that nursing documentation influences patient safety.

5. CONCLUSION AND SUGGESTION

5.1 Conclusion

1. Nursing documentation has a positive correlated and significant effect on patient safety practices at Pernalang Ashari Hospital.
2. Nursing communication has a positive correlated and significant effect on patient safety practices at Pernalang Ashari Hospital.
3. Patient safety practices is 45% influenced by the role of documentation in the nursing process and 25% influenced by nursing communication.

5.2 Suggestion

1. It is important for the Hospital to continue to accompany and provide direction for nurses, especially young nurses, to continue to improve communication skills and documentation techniques in the nursing process so that the action taken to the patient is right and true and is continuous and finally it can guarantee the patient's safety.
2. Hospital can carry out education, outreach, and re-evaluate the operational standard procedures used by nurses in documentation practices and communication practices that must be carried out in carrying out nursing work and health services in general.
3. For further research, can add other variables that influence patient safety practices or add intervening variables as intermediate variables that might also influence patient safety.

CONSENT

As per international standard, patient's written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Christensen and Kenney. Nursing process: Application of conceptual models/edited by Paula J. Christensen, Janet W. Kenney. 4th ed. Physical Description. 1 online resource: illustrations. Published St. Louis : Mosby. 1995;335.
2. Hidayat A, Aziz Alimul. Introduction to the nursing process documentation. Jakarta: EGC; 2002.
3. Alvarado K, Lee RE, Fram N, Boblin S, Poole N. Transfer of accountability: Transforming shift handover to enhance patient safety. *Health Care Quarterly*. 2006;(9):75–79.
4. Angood. Why the joint commission cares about handoffs strategy. *Forum: Reducing Risk during Handoffs*. 2007;25(1):5–7.
5. KKP-RS: Pedoman Pelaporan Keselamatan Pasien. Jakarta: KKP-RS. Mukti AG; 2007.
6. Mitchell Pamela. Defining patient safety and quality care. In: Hughes RG, editor. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008. Available: <https://www.ncbi.nlm.nih.gov/books/NBK2681/>
7. Brady PW, Goldenhar LM. A qualitative study examining the influences on situation awareness and the identification, mitigation and escalation of recognized patient risk. *BMJ Quality and Safety*. 2009;23(2):153-161. DOI:2406247310.1136/bmjqs-2012-001747
8. Sutanto H. Analysis of implementation of patient safety in Deli Medan General Hospital. University of Northern Sumatra. Field; 2014.
9. Patricia Potter, Anne Perry, Patricia Stockert. *Fundamentals of nursing*. 10th edition. Amy Hall. ISBN: 9780323677738
10. MB Dunning III, Fischbach FT. *Nurses'quick reference to common laboratory & diagnostic tests /*. – 5th ed. Copyright © 2011 Wolters Kluwer Health | Lippincott Williams & Wilkins; 2011.

11. McCorry, Mason. Communication skills for the healthcare professional. Copyright © 2011 Wolters Kluwer Health | Lippincott Williams & Wilkins; 2011.
12. Flicek CL. Communication: A dynamic between nurses and physicians. MED-Surg Nursing. 2012;21(6).
13. Mulyana. Health and therapeutic communication: An Intercultural Perspective. Jakarta: PT Remaja Rosdakarya; 2016.
14. Smith L, Mounter P. Effective Internal Communication. GB and US Published by Kogan Page Limited; 2008.
15. Rushton R. The power of connection: How to become a master communicator in your workplace, your head space and at your place. First published in 2018 by John Wiley & Sons Australia Ltd; 2018.
16. Rosenberg MB. Nonviolent communication: A language of Life. Puddle Dancer Press. California; 2015.
17. Alqattan H, Cleland J, Morrison Z. An evaluation of patient safety culture in a secondary care setting in Kuwait. J Taibah Univ Med Sci. 2018;13(3):272–280. DOI: 10.1016/j.jtumed.2018.02.002
18. Al-etreby, Waleed, Al-Harthy, Abdulrahman, Karim, Shabir, Al-Jabry, Mahmoud, Dumlao, Lori, Taisy, Joy, Stephen, Ma, Barraquias, Ahmed, Dudin, Eman, Abdullah. Impact of improved critical lab results documentation on patients' safety in ICU, A prospective study. International Journal of Health Sciences and Research. 2015;675.
19. Ali Z. Dasar-Dasar Dokumentasi Keperawatan. Jakarta: EGC. Allen, Carol Vastel; 2009.
20. Martin, Guy, Khajuria, Ankur, King, Dominic, Arora, Sonal, Ashrafian, Hutan, Darzi Ara. The impact of mobile technology on teamwork and communication in hospitals: A systematic review. Journal of the American Medical Informatics Association. 2018;26. DOI: 10.1093/jamia/ocy175
21. Jylhä Virpi, Oikarainen Ashlee, Perälä Marja-Leena, Holopainen Arja. Facilitating evidence-based practice in nursing and midwifery in the WHO European Region; 2017.

© 2020 Herisiyanto et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

*The peer review history for this paper can be accessed here:
<http://www.sdiarticle4.com/review-history/55278>*