



Learning culture of nurse about patient safety in hospital: A qualitative study[☆]



Muliyadi, Budi Anna Keliat*, Mustikasari, Rr. Tutik Sri Hariyati

Faculty of Nursing Universitas Indonesia, Depok, West Java, Indonesia

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Abstract

Objectives: This study aims to critically appraise and synthesize nurses' learning culture of patient safety in the hospital.

Methods: A qualitative phenomenological approach was followed. The purposeful sampling method was employed. Eleven participants met the criteria's including seven staff nurses, one nurse team leader, one head nurse in the ward, one patient safety team and one head nurse. Data were collected using in-depth interview protocol and analyzed using Colaizzi's method.

Results: Four main themes described the nurses' learning culture of patient safety in the hospital: (1) the stages of developing a learning culture with categories awareness, preparedness, implementation and maintenance; (2) learning activities with categories training; group learning through discussion and reflection of cases; individual learning; (3) learning culture support with categories managers, peers, and individuals; (4) learning focus with categories patient safety goals and culture.

Conclusion: The learning culture of nurses was developed through 4 stages with a variation of learning methods with the focus on goals and safety culture through the support of managers, groups, and individuals.

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Introduction

Health services are provided to fulfill patient rights, namely the right to obtain quality health services by professional

standards and standard operating procedures, effective and efficient services, therefore patients avoid physical and material harm and obtain safety and security in hospital care.¹ Health services in hospitals are considered to be integrative, capital-intensive, technology and innovative and the challenge to improve the quality of multidimensional services related to cost-effectiveness which is raise-up in the various problems including patient safety issues.² Patients in health services have an impact on increasing recurrence, length of stay, death, and complications related to services.³ World Health Organization (WHO) reports 100 patients who experience undesirable events, seven people

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* Corresponding author.

E-mail address: ba_keliat@ui.ac.id (B.A. Keliat).

died, 17 people in total disability, 12 in severe disabilities and 64 in mild disability. There is sixty-three out of one hundred people added more day of care, eighteen people had to re-hospitalization and the only nineteen people who need more additional treatment.⁴

Fulfillment quality of service and patient safety requires the management of nurse resources in order to play an optimal role in the implementation of patient safety. The achievement of the patient safety program is influenced by the culture, practice habits, abilities and competencies of a health professional.⁵ Nursing services require professional learning in practice settings for the development of patient safety applications in order to provide outcomes, system and institutional performance. The capacity of nurses as an individual strengthening the achievement of quality of care and productivity. The use of knowledge related to organizational change, safety, and learning systems in nursing is one of the strengths to develop patient safety.⁶ Learning culture is used as a way too shape staff trust, value, and behavior so that it becomes personal learning that can benefit staff. and encourage the emergence of innovations that will affect the improvement of organizational performance.⁷ The learning culture that is formed in the clinical setting is needed in order to develop nursing services as a form of nurses' responsibility for practice.⁸⁻¹⁰

Service quality patient safety requires nurses who have a positive learning culture in order to form competent nurses. Qualitative study research in Swedish Hospital human resource factors that influence patient safety are nurse competencies formed through the capacity to learn from mistakes, recognize risks and are generally proactive toward work situations.¹¹ Patient safety competencies are formed when individuals learn from practical situations including learning from mistakes.¹² Some studies show that learning culture is not optimal. Japan shows organizational learning (55%) lower than Taiwan (81%) and the United States (72%).¹³ Research in Indonesia shows aspects of feedback, error information and discussion about safety that comes from error reports 31.5% negative response, while organizational aspects of learning include socialization, discussion; evaluation of service effectiveness of 5.56% responds negatively.¹⁴ The results of research at the Hospital in Palembang City have only 48% of nurses have a good learning culture about patient safety.¹⁵

Some of the studies above illustrated the undeveloped nursing learning culture about patient safety in service. Some theories explain the importance of learning culture in patient safety, but not many theories and studies have provided an overview of how nurse learning culture about patient safety can be explorable constructed. Based on this, this study aims to explore how the nurse's learning culture on patient safety is implemented in hospital services

Method

This study was a qualitative, phenomenological approach. This method used to describe essential qualitative data from the experience of awareness carried out in-depth and thoroughly to find meaning.¹⁶ The phenomenological approach is intended to explore information based on the respondent's perspective on the experience of shaping the

culture of learning about patient safety. Research Participants, using purposively sampling method, there were eleven nurses who worked at Ibnu Sutowo Hospital and met the criteria's, including seven staff nurses, one nurse team leader, one head nurse in the ward, one patient safety team and one head nurse with criteria: educated at least Nursing diploma III; have a minimum of 2 years experience; willing and able to provide research information. The number of participants in this study determined based on the saturation of data. Data collection was done through an in-depth interview with participants use interviews protocol, that helps participants to provide information about the learning culture of a nurse about patient safety perceived and experienced in nursing practice. Data collection need like 30-45 min each participant. Recording an interview to every participant made a transcript to the process of analysis. Validation of research data was conducted by researchers by validating data from different sources, as well as validating transcripts and matching analyzes made to participants and other researchers. Colaizzi method is used for data analysis. The steps to analyze the Colaizzi method are researcher to read the transcript repeatedly to get a general understanding; extraction of important statements from each transcript; interpreting each important statement and formulated into categories, theme groups and themes; complete description of the phenomenon under study and given an explanation; validation of research findings to participants to compare description results with experience.¹⁷ This study has been approved of conduct from ethics committee Faculty of Nursing, University Indonesia.

Results

The result of this study defined four themes, namely (1) stages of learning culture, (2) learning activities in shaping learning culture, (3) support in developing a learning culture and (4) learning focus patient safety.

1. Stages of learning culture about patient safety

The nurse's learning culture about patient safety is formed through 4 stage which is a category of stages of learning the culture. namely developing awareness, building readiness, implementing into practice activities and maintaining a learning culture

Developing awareness

Developing a learning culture is done through efforts to raise awareness such as the following interview:

"Workgroups provide enlightenment so that we are aware of and know patient safety such as our way of working, goals, and programs" (P1).

"In the beginning, we were informed about patient safety programs through morning apples, so we know and realize about patient safety" (P3)

"We provide information, the information that the patient safety program must be carried out". (P7)

Building readiness

Readiness to learn patient safety as a stage of building a learning culture as in the following interview:

“For our readiness to be conducted inhouse training, a kind of education/training is conducted from the hospital”. (P1)

“provide the training... provide material”. (P3)

“The readiness of nurses to implement patient safety, so at that time there was indeed inhouse training for patient safety”. (P7)

“In this hospital, there is inhouse training or training, so all nurses in the ward are included”. (P10)

Implementation into practical activities:

Cultural learning building activities require implementation in practice such as the following interview:

“Before we take action, morning and afternoon briefings, and approximately 0.5h, take turns giving input to Standard operating procedure, often discussed at the briefing”. (P1)

“... every shift exchange usually addresses the patient’s problems, especially patients with certain conditions such as low GCS”. (P4)

“Yes, special time, when we handover every morning, we discuss patients. we usually review again back to patient safety goals”. (P5)

Maintaining learning activities

“We try together with colleagues to remind each other, guidelines and standards to be studied together so that we continue to learn” (P4)

“We form a patient safety team, so we can continue to encourage patient safety learning to continue” (P11)

2. Learning activities about patient safety

The formation of nurse learning culture about patient safety is related to the use of learning activities carried out by nurses. Learning activities about patient safety with categories: (1) training (inhouse training); (2) discussion of cases/RCD (reflection case discussions); (3) discussion in the ward; (4) independent learning

Training (inhouse training)

Training is a patient safety learning activity that is needed in shaping nurse’s learning culture like the following interview:

“Yes, if yesterday with the inhouse training, provide training... provide learning program”. (P3)

“If from the hospital, we have training, the training is in this hospital; the source is from the hospital.” (P4)

“One of them, right? I gave a briefing through the seminar, training...” (P8)

“Eehh for the hospital... the training was done...” (P10)

Reflection case discussion

Reflection case discussion that discusses the application of patient safety as a learning activity such as the following statement:

“Discussion on cases, ward reports on special case meetings every month.” (P8)

“Reflection on case discussions is part of the routine patient quality and alignment improvement program.” (P10)

“If it’s the RCD, the reflection discussion case we discuss patients.” (P9)

Discussion/sharing in the ward

Group discussion of nurses in the treatment ward as learning activities such as the following interview:

“Ask friends, discuss with friends.” (P5)

“Ask friends or share with friends...” (P6)

“In the ward, we usually have discussions with the patient safety team; we discuss if there is something that has not been understood.” (P7)

Independent learning

Self-study as part of patient safety learning activities such as the following interview:

“With the existing source of learning, it can be through electronic media, sharing in what app and when hand over we usually remind the efforts of the patient safety.” (P3)

“Usually we attend seminars, a source of learning, training, reading from guides/books, standard operational procedure, leaflets.” (P5)

3. Support for learning culture about patient safety

The results showed that the culture of learning about patient safety requires the support with categories: Support of managers, groups of nurses and individual nurses.

Manager support

Manager support for the development of a learning culture about patient safety includes support for increasing competence, supervision, monitoring and evaluation as follows:

“Increasing competence through training, support such as seminar training two times per year”. (P4)

“Training carried out by the committee and improving the quality and safety of patients so that the form of activities from patient safety team.” (P10)

“Directly...they were in the ward, asking the patient or nurse how to implement it”. (P6)

“Every member of the patient safety, at least once a month evaluates and monitors those who are carried out in the ward for each ward” (P10)

“Guidance from supervisors, employees, the system of patient safety team.” (P5)

Peer support

Nurse peer support in shaping patient safety learning culture includes support for interaction, communication and role models, such as the following interview:

“Most provide direction in the implementation of safety, for example, if you meet again during morning service, during the preconference it will provide direction and input.” (P3)

“Yes, so for the supervision of safety patients, every day by the control nurse, the duty of the nurse is to control the whole, including patient safety,” (P11)

“the head of nursing ward provide direction, so we just followed what he does while we study” (P8)

“Every time we interview in the ward, we discuss with the head of the nurse, continue to be carried out directly to the patient as a direct implementation to be modeled.”(P6)

Individual nurse support

Support for the development of a learning culture about patient safety with individual support includes motivation and perception of patient safety as follows:

“I want to apply the knowledge to the right patient” (P1).

“So that there are no mistakes in treating patients so that you understand more about how to provide care” (P3)

“So that there is no mistake in treating patients so that you understand better in giving care” (P5)

“We must not miss our knowledge, because every year there are always additions and developments.” (P4)

“For nurses, so that they can build or understand SKP and can add knowledge.” (P3)

“Career paths will also increase, to better understand the case so that our mastery is better for the case.” (P2)

4. Learning focus of patient safety

The application of patient safety focuses includes two categories: safety goals and culture. Patient safety goal includes six patient safety goal, while culture includes reporting and learning like the following interviews:

Patient safety goal

Implementation of patient safety that is the focus of learning patient safety goal such as the following interview:

“Patient safety goal team leader explained six-goal from patient safety, then we discussed and directly implemented it into the ward, directly to the patient” (P5).

“The information is that the patient safety regulations should not be abolished, yes, there were six-goal for patient safety at the hospital” (P7).

“Patient safety, the focus is on the six goals of patient safety, according to what we got from the patient safety working group” (P8).

Patient safety culture

Focus on implementing patient safety on patient safety culture, namely reporting and learning the culture as follows:

“Yes, they are still monitoring, but it is less active, but if there are problems, they immediately respond, if for example there is reporting” (P9)

“We report that our patients adjust to the SPO (standard operating procedures).” (P10)

“We apply to culture, no name culture, no name reporting, so we will not name who is wrong” (P11)

“If there are obstacles such as an accident, we collect, and we look for the root of the problem to be made part of learning” (P8)

Discussion

Learning culture about patient safety is an important aspect that is needed in building patient safety in a hospital. Continuous learning activities carried out by nurses in the practice setting form a learning culture and improve nurse competence.

The stages of developing a culture of learning about patient safety.

Patient safety learning to shape the nurse’s learning culture is carried out through stages of awareness, readiness, implementation and maintaining a learning culture. The continuous learning process in the service of forming a learning nurse is an important part of the culture of learning about patient safety. The application of patient safety learning outcomes can improve positive learning culture based on the stage of learning approaches. There are five stages of learning in behavioral changing, namely the lack of awareness of behavior (Precontemplation), realizing the need for behavioral changes (contemplation), preparing changes (preparation), carrying out new behaviors (actions) and maintaining new behavior (maintenance).¹⁸

Awareness of the importance of learning about patient safety needs to be fostered in building a patient safety

learning culture. Learning culture about patient safety fosters staff awareness and improves the learning environment through educational opportunities.^{12,19} Awareness of the perception of health service providers is related to improving patient safety and quality of care and satisfaction.²⁰ Readiness in building a patient safety learning culture through learning efforts so that nurses have the competence to be implemented in practice. Education and training is an effort to build a basic understanding of the implementation of patient safety. Through education, training builds knowledge, reliability, and safety culture values as well as a process of improving work performance.²¹ The implementation of patient safety learning in the work environment provides an opportunity to understand the problem in real terms and contribute to the development of continuous patient safety learning. Patient safety learning implementation in the work environment encourages the active growth of individuals, applies knowledge and skills, develops continuous learning, increases autonomy, responsibility, and independence and develops communication skills.²² Efforts to maintain a continuous learning process for patient safety are carried out through monitoring, and evaluation providing appreciation for staff learning on new knowledge and skills acquired and evaluation of training and development programs; form information sharing.²³ Learning safety of patients needs to consider the stages, methods, and strategies of learning to form a learning culture that can produce competent nurses.

Learning activities about patient safety

The results of the study illustrate patient safety learning including training activities, group discussions through team discussions and reflection case discussions and independent learning. Management of nursing in developing a model of learning culture for nurses to develop design and learning strategies both material, method and time of learning. Analysis of needs, objectives, materials, methods, strategies, learning media is a component that must be developed to form effective learning.²⁴ Patient safety learning is built through conscious learning efforts through analysis of adverse event (errors), as well as proactive efforts through increasing and identifying potential risks of errors. Hospitals can use patient safety data as an opportunity to learn not only from mistakes but also from success in managing patient safety.¹⁹ Hospitals can develop a learning culture by using cause analysis to identify errors or near misses.²⁵ Failure mode, and effect analysis (FMEA) is a form of proactive learning in patient safety that can be developed for the development of the nurse's learning culture. Evaluation and learning process of patient safety provides opportunities for nurses to share knowledge and is also a continuing and developing educational process.²⁶

Patient safety learning for nurses in the clinical setting requires a variety of methods and approaches. Training is a proactive method to help nurses have awareness and readiness to implement patient safety. Training is a formal learning activity designed to develop the knowledge, attitudes, and behavior of nursing professionals in patient safety. The purpose of patient safety training is to build abilities, where learning is acquired with new knowledge

and skills that can be implemented to improve patient safety.²² Learning through planned training encourages the active involvement of participants because learning is seen as relevant.²³ Safety training patients can improve nurses' understanding of the implementation of patient safety.²⁷

The learning activities of nurse groups in service activities as interpersonal learning can be done through planned discussions through case reflection discussions or a discussion process on service activities such as nursing shifts. Reflection discussion Case is effective in-service training in fostering competence. Through reflection cases, the study nurse develops the application of patient safety competencies through sharing and sharing experiences to meet service standards.²⁸ The implementation of case-based learning such as adverse events developed through discussion is a form of problem-based learning (PBL) in patient safety.²² Learning in groups is a learning activity where everyone can share through learning activities and work together. Group learning has the advantage of helping clarify concepts and ideas through discussion, developing critical thinking, providing opportunities for learning and sharing information and ideas, developing communication skills, and affirming that learning can be a control for them in a social context. As nursing professionals have responsibility for their practice by continuing to improve their competence through learning efforts.^{8,10} Individual responsibility is built through learning efforts of both groups and individuals. Independent learning efforts through learning resources can be implemented to improve knowledge and skills in patient safety. Learning activities can be carried out through literature sources in the form of guidelines, standards, patient safety material or can also use e-learning resources through internet facilities. Health professionals including nurse learners are needed to build patient safety competencies.²⁹ Patient safety learning for increasing knowledge, attitudes and skills in patient safety requires a combination of various learning approaches. An approach that encourages the active involvement of nurses is more effective in building patient safety competencies.

Learning support

Patient safety learning requires the support of individuals, groups, and organizations. Nurses' positive perceptions and motivations are individual aspects of patient safety learning; group aspects include interaction, communication and role models in learning while organizational elements include manager support through increased competence, supervision, monitoring and evaluation. Patient safety is a fundamental principle of health service institutions, the responsibility of managers and health professionals because patients are in an environment that has risks due to complex situations and service pressures.³⁰

Health care systems that develop patient safety require active individual involvement in group and organizational learning activities. Particular aspects play a role in forming a learning culture is perception and motivation. Perception is a personal aspect that is owned by each who describes an assessment of the object of concern.³¹ Perception of the value of the benefits of learning or training can give effect to the participants of learning. Self-motivation is needed

to build a consistent learning effort.³² Interpersonal support (peer) related to a learning culture that can directly influence the formation of nurse competencies include communication, interaction, roles, transactions.³¹ Interaction, communication affects culture, a culture formed because of communication.³³ The interaction among nurses and involvement and role and active modeling/role models play a role in the formation of a learning culture. The existence of role models that become examples in the application of learning activities in safety is a source of support as well as a source of motivation for individuals. Institutional or situational which is a supra system of individual and interpersonal influences on the achievement of learning goals such as aspects of authority, decision making, organizing, power and policies that are built in the health system. Learning, not only from internal sources but also from sources outside the health system and demonstrating the success of safety culture.³⁴

Health care institutions need a system and framework to develop patient safety which is communication, teamwork, and leadership to support an organizational culture that can improve safety.³⁵ Definite safety improvement is built through an open learning environment that enhances team collaboration, communication, sharing values and respect for professional skills and leadership is key for changing organizational culture.³⁶ Nurses as health professionals need personal, interpersonal and institutional support in developing learning about patient safety.

Learning focus of patient safety

Patient safety learning is focused on the application of patient safety goals and safety culture. Patient safety goals include identification, nursing communication, safe management of drugs, the accuracy of location, procedure and patient, reduction of risk of infection and falls. Safety culture includes reporting and learning the culture. The implementation of patient safety is carried out by setting standards of service, patient safety goals, and seven safety measures.³⁷ The goals of patient safety in Indonesia include proper identification, effective communication, safe drug management, the accuracy of location, procedure and patient surgery, risk reduction of infection and the risk of injury due to falls. Some patient safety targets in Indonesia are the same as targets according to the Joint Commission International (JCI). Safety focus according to JCI includes accuracy in patient identification, improving communication effectiveness, increasing the safety of drug use, increasing safety related to clinical alarm system, reducing service risk associated with infection, reducing the risk of injury due to falls, prevention of ulcer pressure, identification of safety risks in the population patient, prevention of location errors and procedures.³⁸ Implementation of patient safety in service requires a safety culture. Reporting culture is an important dimension in patient safety. The Hospital Survey on Patient Culture Safety (HSOPSC) imposes a culture of reporting carried out on every mistake that causes injury, potential injury or not injury must be recorded and reported as an effort to develop a patient safety. The dimension of learning cultures related to patient safety is developed by creating active efforts to develop a learning culture,

evaluating the effectiveness of safety applications and learning from mistakes.³⁹ Implementation of patient safety goals and strengthening safety culture is the focus of learning patient safety, and both are important aspect patient safety in the hospital.

Conclusion

Nurse learning culture about patient safety is developed through efforts to build awareness, readiness, implementation, and maintenance. Patient safety learning activities involve a variety of strategies and methods including training, group discussions, independent learning with a focus on learning safety goals and patient safety culture with the support of managers, peer groups, and individual nurses.

Conflict of interests

The authors declare no conflict of interest.

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References

1. President of the Republic of Indonesia. Law number 44 of 2009 concerning Hospitals [document on the internet]. c2009. Available from: <http://www.birohukur.depkes.go.id>.
2. Cahyono JBSB. *Building a culture of patient safety in medical practice*. Yogyakarta: Kanisius Publisher; 2007.
3. The Health Foundation. Does improving safety culture affect patient outcomes? [document on the internet]. c2011. Available from: <https://www.health.org.uk/sites/default/files/DoesImprovingSafetyCultureAffectPatientOutcomes.pdf>.
4. World Health Organization. *IBEAS: a pioneer study on patient safety in Latin America: towards safer hospital care*. Geneva: World Health Organization; 2011.
5. Royal College of Nursing. Human factors in patient safety [document on the internet]. c2015. Available from: <http://www.rcn.org.uk/development/practice/cpd> [cited 06.04.18].
6. Morath J. Nurses create a culture of patient safety: it takes more than projects. *OJIN Online J Iss Nurs*. 2011;16. <http://dx.doi.org/10.3912/OJIN.Vol16No03Man02>.
7. Dymock D, McCarthy C. Towards a learning organization? Employee perceptions. *Learn Organ*. 2006;13:525–37. <http://dx.doi.org/10.1108/09696470610680017>.
8. ICN. Nurses: a force for change: improving health systems' resilience [document on the internet]. Available from: <http://www.icn.ch/publications/2016> [cited 05.08.18].
9. Indonesian National Nurse Association. Ethics for nurses code [document on the internet]. c2015. Available from: <http://www.ana-org> [cited 09.06.17].
10. Yetti K, Ely A, Sumijatun. *Code of conduct as a translation of the nursing code of ethics*. Jakarta: PPNI DPP; 2017.
11. Ridberg M, Roback K, Nilsson P. Facilitators and barriers influencing patient safety in Swedish hospitals: a qualitative study of nurses' perceptions. *BMC Nurs*. 2014;13:23. <http://dx.doi.org/10.1186/1472-6955-13-23>.
12. Reiling JG. *Creating a culture of patient safety through innovative hospital design*. In: Henriksen K, Battles JB, Marks ES, Lewin DI, editors. *Advances in patient safety: from research to*

- implementation (vol. 2: concepts and methodology). Rockville (MD): Agency for Healthcare Research and Quality (US); 2005.
13. Fujita S, Seto K, Ito S, Wu Y, Huang CC, Hasegawa T. The characteristics of patient safety culture in Japan Taiwan and the United States. *BMC Health Serv Res.* 2013;13:20, <http://dx.doi.org/10.1186/472-6963-13-20>.
 14. Rosyada SD [unpublished thesis] *Gambaran budaya keselamatan pasien pada perawat unit rawat inap kelas III Rumah Sakit Umum Daerah Pasar Rebo Juni 2014*. Jakarta: Universitas Islam Negeri; 2014.
 15. Eatough V, Smith JA. Interpretative phenomenological analysis. *The Sage handbook of qualitative research in psychology*. 2nd ed. London: Sagepub; 2008.
 16. Speziale HS, Streubert HJ, Carpenter DR. *Qualitative research in nursing: advancing the humanistic imperative*. 4th ed. Philadelphia: Lippincott Williams and Wilkins; 2007.
 17. Prochaska JO, Velicer WF. The transtheoretical model of health behavior change. *Am J Health Promot.* 1997;12:38–48, <http://dx.doi.org/10.4278/0890-1171-12.1.38>.
 18. Blake SC, Kohler S, Rask K, Davis A, Naylor DV. Facilitators and barriers to 10 National Quality Forum safe practices. *Am J Med Qual.* 2006;21:323–34, <http://dx.doi.org/10.1177/1062860606291781>.
 19. Rosbahan B, Dehghanzadeh SH. *Principles of nursing*. 1st ed. Tehran: Gamenejar Publisher; 2010.
 20. Johnson K, Maulsby CC. A plan for achieving significant improvement in patient safety. *J Nurs Care Qual.* 2007;22:164–71, <http://dx.doi.org/10.1097/01.NCQ.0000263107.92848.4b>.
 21. WHO. Patient safety research, a guide for developing training programs [document on the internet]. c2012. Available from: <http://apps.who.int/iris/bitstream/handle/>.
 22. Gierke T. Four steps to building a learning culture [internet]; 2018. Available from: <https://www.syspro.com/education-training-and-certification/four-steps-building-learning-culture> [cited 05.08.18].
 23. Burke LA, Hutchins HM. A study of best practices in training transfer and proposed model of transfer. *Hum Resour Dev Quart.* 2008;19:107–28, <http://dx.doi.org/10.1002/hrdq.1230>.
 24. Farrell VE, Davies KA. Shaping and cultivating a peri-operative culture of safety. *AORN J.* 2006;84:857–61, [http://dx.doi.org/10.1016/S0001-2092\(06\)63972-0](http://dx.doi.org/10.1016/S0001-2092(06)63972-0).
 25. Apold J, Daniels T, Sonneborn M. Promoting collaboration and transparency in patient safety. *Joint Comm J Qual Patient Saf.* 2006;32:672–5, [http://dx.doi.org/10.1016/S1553-7250\(06\)32088-0](http://dx.doi.org/10.1016/S1553-7250(06)32088-0).
 26. Yulia S, Hamid AY, Mustikasari M. Peningkatan pemahaman perawat pelaksana dalam penerapan keselamatan pasien melalui pelatihan keselamatan pasien. *J Keperaw Indonesia.* 2012;15:185–92, <http://dx.doi.org/10.7454/jki.v15i3.26>.
 27. Hennessy D, Hicks C, Hilan A, Kawonag Y. The training and development needs of nurses in Indonesia: paper 3 of 3. *Hum Resour Health.* 2006;4:10.
 28. WHO. WHO patient safety curriculum guide: multi-professional edition; 2011 [document on the internet] c2011. Available from: <http://www.who.int/patientsafety/education/curriculum/PSP> [cited 02.08.18].
 29. Department of Health Republic of Indonesia. *Panduan nasional keselamatan pasien rumah sakit*. 2nd ed. Jakarta: KKP-RS; 2008.
 30. Alligood MR. *Nursing theorists and their work*. 8th ed. New York: Elsevier; 2014.
 31. Coffield F, Moseley D, Hall E, Ecclestone K. Learning styles and pedagogy in post-16 learning. A systematic and critical review. [document on the internet] c2009. Available from <http://hdl.voced.edu.au/10707/69027> [cited 05.08.18].
 32. Martin JN, Nakayama T. *Intercultural communication in contexts*. 5th ed. New York: McGraw-Hill; 2015.
 33. Whittington J, Cohen H. OSF healthcare's journey in patient safety. *Qual Manag Healthc.* 2004;13:53–9.
 34. Burnett S, Benn J, Pinto A, Parand A, Iskander S, Vincent C. Organisational readiness: exploring the preconditions for success in organisation-wide patient safety improvement programmes. *BMJ Qual Saf.* 2010;19:313–7, <http://dx.doi.org/10.1136/qshc.2008.03075>.
 35. Flin R, Yule S. Leadership and safety in health care. Lessons from industry. *Qual Saf Health Care.* 2004;13 Suppl. 1:i80–4.
 36. Minister of Health. Keputusan Menteri Nomor 11 tahun 2017 tentang Keselamatan Pasien. [document on the internet] c2017. Available from: <https://jdih.baliprov.go.id/uploads/produk-hukum/peraturan/2017/PERMENKES/permenkes-11-2017.pdf>.
 37. Jones KJ, Skinner A, Xu L, Sun J, Mueller K. The AHRQ hospital survey on patient safety culture: a tool to plan and evaluate patient safety programs. In: Henriksen K, Battles JB, Keyes MA, et al, editors. *Advances in patient safety: new directions and alternative approaches (vol. 2: culture and redesign)*. Rockville (MD): Agency for Healthcare Research and Quality; 2008.
 38. Tabrizi JS, Gharibi F, Wilson AJ. Advantages and disadvantages of health care accreditation models. *Health Promot Perspect.* 2011;1:1–31, <http://dx.doi.org/10.5681/hpp.2011.001>.
 39. Kirk S, Parker D, Claridge T, Esmail A, Marshall M. Patient safety culture in primary care: developing a theoretical framework for practical use. *BMJ Qual Saf.* 2007;16:313–20, <http://dx.doi.org/10.1136/qshc.2006.018366>.