JURNAL CINTA NUSANTARA

Volume 01 Nomor 02 November 2023
E-ISSN: 3025-4469
https://jurnalbundaratu.org/journal/index.php/cintanusantarajournal

Hospital Incident Reporting Behaviour in Indonesia

Luxandre Agung (dr.luxandre@gmail.com)
Kemala Rita Wahidi(kemala.rita@esaunggul.ac.id)
Hasyim(hasyim.ahmad@esaunggul.ac.id)
Magister Administrasi Rumah Sakit, PPS Universitas Esa Unggul,Jakarta

ABSTRACT

Patient safety is of the main concern in global healthcare. To promote better patient safety, incident reporting is encouraging for future betterment. As the largest constituent in numbers of hospital healthcare professionals, nurses have major contribution in implementing patient safety. Nursing career ladder is implemented as an effort to advance nurses' professionalism in providing safer, more effective and efficient care, also to ensure work satisfaction, career and professional advancement in Indonesia. This research aims to analyze the effect of nurse career ladder and implementation of patient safety goals on incident reporting behavior at inpatient nurses of Hospital X. Survey was conducted by distributing questionnaires to 82 nurses. The results show that career ladder level with patient safety goals implementation have a significant positive effect on incident reporting behavior. Career ladder has a positive effect on patient safety goals implementation. Patient safety goals implementation has a positive effect on incident reporting behavior. Career ladder level has no significant effect on incident reporting behavior. The managerial implications, hospital are encouraged to ensure that assessments of nurse career ladder level advancement are followed by not only increasing level of competency, but also increasing consistency to implement patient safety goals and incident reporting behavior.

Keywords: *career ladder, patient safety, incident report, behaviour*

BACKGROUND

Patient safety is one of the main concern in global healthcare. Safety risk in global healthcare is approximated equal if not higher than risks in other high risk industry such as aviation and nuclear industry. As comparison, death risk in aviation ratio is 1 out of 3 million, whereas in healthcare, the risk of patient death occurring due to a preventable medical accident, while receiving health care, is estimated to be 1 in 300. (WHO, 2019). There has been increased awareness about patient safety by implementation of patient safety culture in Indonesia, especially since the national enforcing of hospital accreditation, by The Hospital Accreditation Commitee (Komite Akreditasi Rumah Sakit/KARS) in 2012. Medication error can be caused by inadequate system, human factors such as burnouts, bad working environment or inadequacy in human resources whether in numbers or skills. Combination of such factors contribute in patients harm, morbidity or even mortality. (WHO, 2017).

Patient safety goals is a guide to achieve an ideal level of patient safety in hospitals. It was adopted based on Nine Life Saving Patient Safety Solutions from WHO Patient Safety (2007) which then further adopted by Komite Keselamatan Pasien Rumah Sakit PERSI (KKPRS PERSI) and Joint Commision International (JCI). Six patient safety goals consist of (DepKes RI, 2017): Identify patients correctly, Improve effective communication , Improve the safety of high-alert medications, Ensure safe surgery, Reduce the risk of health care-associated infections and Reduce the risk of patient harm resulting from falls.

One manifestation of hospital's effort in achieving better patient safety, is to encourage incident reports. According to KKPRS, general functionality of incident report is to lower patient safety incidents, to increase the

quality of healthcare and specifically to find the root cause of the incidents, to be studied for future prevention of similar incidents (KKPRS, 2015).

All profession needs public acknowledgement of specific skills owned by the qualified professionals of the profession, including what could be expected of them(Watson, Stimpson, Topping, & Porock, 2002). Profession standards should include level of performance expected to achieve success in said profession (Storey, 1998). Nurse career ladder is a nursing theory, conceived by Dr. Patricia Benner in 1984, which is adopted from Dreyfus model of skill acquisition. According to Benner, in acquiring and mastering to new skills, a nurse will experience through five stages (Benner, 1984): Novice, Advanced Beginner, Competent, Proficient and Expert. Nurse professional career development in form of career ladder is a system to increase capabilities and professionalism through betterment of professional competencies. Nurse level of competency refers to skills needed to perform accountable and ethical nursing care within professional limit. Nurses with higher level of skill and competencies are awarded with advancement through the career ladder.

Nurses commonly fill the largest manpower of hospital health professionals, as such the contribution of nurses in maintaning patient safety in hospitals are expectedly significant. In an attempt to boost nurse professionalism and capabilites to give safe, effective and efficient care, also to improve job satisfactions and provide career advancement, the government through the health ministry decided to adopt and implement the nurse career ladder in Indonesia. Implementation if nurse career ladder in Indonesia was formalized with the health ministerial decree (Peraturan Menteri Kesehatan) number 40 in 2017, with one of the expected end results of increasing service quality and patient safety culture among nurses. According to the decree, nurses in Indonesia can advance through stages of “clinical nurse” (Perawat Klinis/PK) levels

Hospital X is a B class private general hospital with 150 beds, which operates in Tangerang Regency, part of the Province of Banten. With state of the art facilities and array of expert staffs, Hopsital X housed several numbers of centers of excellence ,to provide modern healthcare to patients around the Greater Jakarta (Jabodetabek) area. Around the end of 2018 until early 2019, to ensure better healthcare services, the hospital performed changes in managerial composition along with new medical services director, which included the formation of new teams and unit comprised of more managers with medical backgrounds. One of the hospital improvement focus is the nursing team. With correct implementation of the nurse career ladder, the maangerial team is expected to have a better comprehension of nurses’ individual skills and knowledge. Improvements in the context of patient safety culture are also expected along with advancement of clinical nurse level, with more safety incident reports in terms of quantity and quality.

Incident reports at Hospital X are managed by the quality and risk management unit. Across 2018, there have been 68 patient safety incidents reported; the incidents reported consist of : Miscommunication incidents 33 cases (49%), clinical procedure errors 10 cases (15%),medication error 14 cases (21%), patient harm resulting from falls 4 cases (6%), documentation errors 2 cases (3%), Needle Stick Injury 2 cases (3%), equipment error 2 cases (3%), dan nosocomial infection 1 case (1%). Based on the health ministry incident criteria, incidents from the same incident reports of 2018 can be categorized as following: Reportable circumstances 43 cases, Near miss 7 cases, No harm incident 9 cases, adverse event 9 cases and no sentinel events reported.

One of the similarities found on root cause analysis and tracings of the incident reports, is the delay of reports. Incident reports are usually made based on orders from the management after findings either by the quality unit, costumer services or other managerial team. Findings of incidents are often initiated by oral reports or complains by patients or specialists, rarely by the teams involved in the incidents. Other traits found regarding the incident reports, they are usually initiated by or made by senior nurses. Junior nurses would need direct supervisions of senior nurses, for the lack of knowledge in terms of when and how to write incident reports according to the standards. These findings by the management are less than ideal, expectedly any medical staff regardless of units, positions or seniority, should be able to proactively participate in incident reporting, also has the ability and knowledge to write an adequate incident report.

Early survey performed by distributing questionnaire to the inpatient nursing team showed that only 40% of the respondents answered that they will constantly report any patient safety incident encountered. Early survey data on incident reporting, based on incident criterias: 50% respondents answered that they will always report near miss incidents, 45% will always report reportable circumstances, and only 30% will always report no harm incidents.

The first and foremost motivation for this study was to help the improvements of patient safety culture, especially in terms of safety incident reportings, either individually or systematically. The second motivation of the study, is to specifically find how advancement through clinical nurse level, affect the implementation of patient safety goals and patient safety incident reporting, especially among nurses in the inpatient unit.

Objective of the study is to analyze how clinical nurse level, and the implementation of patient safety goals effect patient safety incident reporting among nurses in the inpatient unit of Hospital X.

METHODS

The study used analitic causality method, a quantitative causality with survey approach. The study was conducted as an institution based cross sectional study, in the inpatient unit of Hospital "X" located in Tangerang City, Province of Banten, Indonesia. The sampling frame of the study was nurses of the said inpatient unit, with questionaire answered by the respondent nurses. Sample selected by purposive sampling , with total sample of 82. The data was analyzed with path analysis using the AMOS software.

Variables in the study includes clinical nurse level (X) as independent variable, Implementation of patient safety goals (Z) as intervening variable and safety incident reporting (Y) as dependent variable.

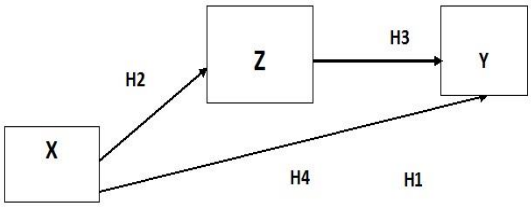


Figure 1 Study Variables

RESULTS AND DISCUSSIONS

Table 1. Respondent Demography

No.	Variables	Frequency	Percentage(%)
1.	**Sex**		
	Female	77	94
	Male	5	6
2.	**Age**		
	21-30 y.o	49	59
	31-40 y.o	30	37
	41-50 y.o	3	4
3.	**Service Years**		
	< 1 year	13	16
	1 – 5 years	49	59
	6 – 10 years	20	25
4.	**Education Level**		
	Diploma	59	72
	College/NERS	23	28
5.	**Clinical Nurse Level**		
	Pre-CN/ CN 0	28	35
	CN I	18	22
	CN II	18	22
	CN III	16	19
	CN IV	1	1
	CN V	1	1

Behaviour in hospital environment

Responses in the study on the intervening and dependent variabels are analyzed using Three Box Method, which can be interpreted as low, medium or high behavioural level, depending on average scores. Behavioural level and average score can be interpreted as: low (16,4-38,3) , medium (39,3 -60,2) , and high (61,2- 82).

Table 2. Three Box Method Matrix

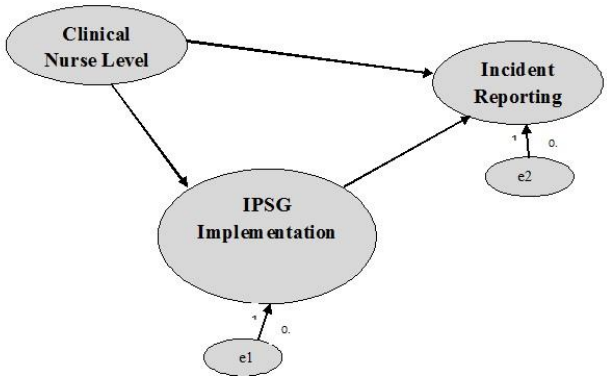
Variable	Three Box Method Score and Position		
	Low	**Medium**	**High**
IPSG Implementation			**74,8**
Incident Reporting			**74,9**

Additional findings from the utilization of Three Box Method, regarding the implementation of patient safety goals, showed that the highest score (78,6) found in indicators that represent behaviour of hospital infection risk reductions, and lowest average score (72,6) found in indicators that represents behaviour of high alert medications control. Additional findings from the utilization of Three Box Method, regarding incident

reporting showed that the highest score (75,9) found in indicators that represent reporting of sentinel type incidents, and lowest average score (72,9) found in indicators that represents reporting of no-harm incidents.

Hypotesis Testing

Figure 2. Structural Equation Model



Hasil Uji Parsial dengan *Struktural Equation Modeling* terdapat pada table 4 sebagai berikut :

Table 3. Path Analysis Regression Weight

Variables	Estimate	S.E.	C.R	P	Label	Concl.
CN→IPSG	.103	.024	4.295	***	par_2	H2 Accepted
CN→IR	-.046	.050	-.920	.357	par_1	H4 Rejected
IPSG→IR	.434	.209	2.072	.038	par_3	H3 Accepted

Minimum was achieved **Chi-square = .000** **Degrees of freedom = 0**	***Squared Multiple Correlation (*R^2*)*** **SKP = 0,186** **Pelaporan Insiden = 0,50**

Table 4. Standardized Direct & Indirect Effects

Variable	Clinical Nurse Level	
	Direct effect	Indirect effect
IPSG Implementation	0,431	0,000
Incident Reporting	-0,110	0,107

Hypotesis Discussions

1st Hypotesis: Clinical nurse level significantly affects incident reporting through implementation of patient safety goals as intervening factor.

The 1st hypotesis is proven, chi-square number 0.000 ,proving that the independent variable nurse career advancement/ clinical nurse level significantly affects the dependent variable of safety incident reporting through the intervening variable implementation of patient safety goals.

Analysis from the study shows that advancement in clinical nurse level along with increased consistency of implementation of patient safety goals will affect incident reporting among nurses positively. This result aligns with the nursing theory: from novice to expert by Patricia Benner,which stated expert nurses develop skills and understanding of patient care over time through a proper educational background as well as a multitude of experiences (Benner, 1984).; in this case,education and experience of nurses are culminated by the bestowed clinical nurse level.

This findings aligns with the implementation of Patient Safety Standards guide by The Joint Commision on Accreditions of Health Organizations (JCI); which stated that leader or management of hospitals should promote betterment of competency and implementation of patient safety by implementation of incident report mechanism. This finding is consistent with another study by Pakpahan, which found that willingness to record and report incidents are affected by skill, education and implementation of patient safety at the hospital (Pakpahan, 2015). Another study by Timmons et al found that competency positively affects patient safety and incident reporting, while also dependent on organizational culture (Timmons et al., 2015).

Another study by Jahromi et al also concluded that nurses knowledge of patient safety which improved by competency increasing efforts such as education and trainings, including knowledge of types of safety incidents, will improve incident reporting numbers. Another supplemental factors is the willingness of hospital managers to help the individual or units associated with the incidents and focus in mitigation of future incidents (Jahromi, Parandavar, & Rahmanian, 2014).

2nd Hypotesis: Clinical nurse level significantly affects implementation of patient safety goals.

The 2nd hypotesis is proven, considering significance number 0.038 (less than 0.05), proving that the independent variable nurse career advancement/ clinical nurse level significantly affects the intervening variable implementation of patient safety goals. Consistency to maintain implementation of patient safety goals will improve along with nurse competency and work ethics. According to standards utilized by American Association

of Occupational Health Nurses (AAOHN) regarding nurse career level advancement, qualification factors included are strong work ethics, confidence in self owned skill, vision to achieve goals, decentralization skills, including decision making and delegation skills; eagerness (Lang, 2010). One of the studies supported this finding shows that overall nursing performance, will benefit from trainings to increase nursing skills, technical or non-technical. Better skills will results in better clinical nurse level and better productivity including patient safety culture improvement (Gultom, 2019). Another study finding shows that nurse competency and behaviour affects the implementation of patient safety goals, especially in better communications, safety of high-alert medications, and reduction of patient harm resulting from falls (Hia, 2018).

3rd Hypotesis: Implementation of patient safety goals significantly affects incident reporting.

The 3rd hypotesis is proven, considering significance number 0.000 (less than 0.05), proving that the dependent variable of safety incident reporting is significantly affected by the intervening variable implementation of patient safety goals. Improvement of incident reporting, following better implementation consistency of patient safety as a broadly accepted standard ;aligns with the critical incident technique methodology by Flanagan. The methodology also involves setting and knowing the aim of the object of the report. Interpretation and reporting of data preceeded by four steps: (a) the determination of the general aim, (b) the specification of observers, groups to be observed, and observations to be made, (c) the data collection, and (d) the data analysis (Flanagan, 1954). The critical incident technique also mention the importance of Measures of typical performance (criteria) and measures of proficiency (standard samples). Incident reporting would be ineffective without adequate knowledge of the safety standards, because the nurses wouldn't know exactly which events can be considered as an "incident". The finding on a study by Tristantia showed that the biggest obstacle of incident reporting, is the nurses ability to recognize incidents to report (Tristantia, 2018). Another study shows that expanding the knowledge and skill of patient safety among nurses, will also improve incident reporting; in this particular study the means to achieve afromentioned goals are socialization and in-house trainings (Syahrul, Majid, & Harsul, 2018).

4th Hypotesis: Clinical nurse level significantly affects incident reporting.

The 4th hypotesis is not proven, considering significance number 0.357 (greater than 0.05), proving that the dependent variable of safety incident reporting is not significantly affected by the independent variable nurse career advancement/ clinical nurse level. As proven in the 1st hypotesis, clinical nurse level need supplementation of patient safety goals implementation consistency to affect incident reporting in a significant level. A study found that nurse competency is not the main factor of low incident reporting behaviour among nurses. The study found that the most significant factors of low incident reporting are hospital managerial model and the nature of the incident, as in the type and severity of the incident (Jahromi, Parandavar, & Rahmanian, 2014).

CONCLUSION

Findings of this study concluded that advancement of nurse career or clinical nurse status, has significant effects on initiative to report patient safety incidents, through implementation of patient safety goals as intervening variable. It can also be concluded that the effect of clinical nurse level as a single variable would not affect initiative to report patient safety incidents significantly, without consistent paralel improvement in patient safety goals implementation.

IMPLICATIONS

The result shows that clinical nurse level is useful as a standard for the hospital management, inclining nurses incident reporting behaviour, as long as the management can also ensure the consistency of patient safety goals implementation in the nurses daily practice. Reliance on nurse clinical level as a single indicator without appropriate level of patient safety goals implementation will not give a clear inclination on the incident reporting behaviour.

SUGGESTIONS

Advancement in career ladder/clinical nurse level does not guarantee a better initiative to report safety incidents, the advancement must be followed by consistency to apply patient safety goals in daily practice. Regarding this foundings of the study, hospital management and nurse commitee should maintain and evaluate assesments of clinical nurse level, to ensure that when a nurse earned higher clinical nurse level, individual consistency of patient safety goals application and safety incident reporting initiative also reach a higher level accordingly. The management should also regularly organize trainings to refresh knowledge and motivations of hospital staffs regarding daily implementations of patient safety goals and safety

incident reporting.

Daftar Pustaka

Ajri-Khameslou, M., Aliyari, S., Hosein Pishgooie, A., Jafari-Golestan, N., & Farokhnezhad Afshar, P. (2018). Factors Affecting Reporting of Nursing Errors: A Qualitative Content Analysis Study. *Ann Med Health Sci Res*, *8*, 215–219.

Benn, J., Koutantji, M., Wallace, L., Spurgeon, P., Rejman, M., Healey, A., & Vincent, C. (2009). Feedback from incident reporting: Information and action to improve patient safety. *Quality and Safety in Health Care*, *18*(1), 11–21. https://doi.org/10.1136/qshc.2007.024166

Benner, P. (1984). *From Novice to Expert: Excellence and power in clinical nursing practice*. Menlo Park: Addison-Wesley.

Depkes RI. (2017). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 40 Tahun 2017 tentang Pengembangan Jenjang Karir Profesional Perawat Klinis*.

Engeda, E. H. (2016). Incident Reporting Behaviours and Associated Factors among Nurses Working in Gondar University Comprehensive Specialized Hospital, Northwest Ethiopia. *Scientifica*, *2016*. https://doi.org/10.1155/2016/6748301

Evans, S. M., Berry, J. G., Smith, B. J., Esterman, A., Selim, P., O'Shaughnessy, J., & DeWit, M. (2006). Attitudes and barriers to incident reporting: A collaborative hospital study. *Quality and Safety in Health Care*, *15*(1), 39–43. https://doi.org/10.1136/qshc.2004.012559

Feronica, W. (2013). Hubungan Pengetahuan Dan Sikap Perawat Dengan Pelaksanaaan Keselamatan Pasien (Patient Safety) Di Ruang Rawat Inap Rsud Liun Kendage Tahuna. *Jurnal Keperawatan*, *1*(1).

Flanagan, J. (1954). Psychological bulletin. The critical incident technique. *Psychological Bulletin*, *59*(4), 257–272. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/13586159

Fukada, M. (2018). Nursing competency: Definition, structure and development. *Yonago Acta Medica*, *61*(1), 1–7. https://doi.org/10.33160/yam.2018.03.001

Gruendemann, B. J. (2006). *Buku Ajar Keperawatan Perioperatif (vol. 2)* (2nd ed.). Retrieved from http://kin.perpusnas.go.id/DisplayData.aspx?pId=447&pRegionCode=JIPKMAL&pClientId=111

Gultom, J. A. (2019). Pengaruh Pelatihan , Pengembangan Karir dan Kompensasi Terhadap Produktivitas Kerja Perawat Rumah Sakit Royal Prima. *Repository Institusi Universitas Sumatera Utara*.

Hynes, J. E. (2009). Don't be intimidated by incident reports. *Licensed Practical Nurse Journals*, *5*(2), 4–5.

Jahromi, Z. B., Parandavar, N., & Rahmanian, S. (2014). *Investigating Factors Associated With not Reporting Medical Errors From the Medical Team ' S Point of View in Jahrom , Iran*. *6*(6), 96–104. https://doi.org/10.5539/gjhs.v6n6p96

Jenita, A., Arief, Y. S., & Has, E. M. M. (2019). Analisis Faktor yang Berhubungan dengan Pelaporan Insiden Keselamatan Pasien pada Perawat (Factor Analysis retaled to the Incident Reporting of Patient Safety Incident). *Fundamental And Management*, *2*(1), 7–15.

Keykha, R., Mazlum, S., Varasteh, S., Arbabisarjou, A., Nursing, C., & Health, P. (2016). *Clinical Competency and Its Related Factors in Nurses*. *8*(3), 18368–18377.

Kohn, L. T., Corrigan, J. M., & Molla, S. (2000). *To Err Is Human*. Washington, D.C.: National Academies Press.

Komite Keselamatan Pasien Rumah Sakit. (2015). *Pedoman Pelaporan Insiden Keselamatan Pasien (IKP)*.

Lang, Y. C. (2010). A clinical ladder for occupational health nurses. *AAOHN Journal : Official Journal of the American Association of Occupational Health Nurses*,*58*(6),239–244. https://doi.org/10.3928/08910162-20100526-01

Mahajan, R. P. (2010). Critical incident reporting and learning. *British Journal of Anaesthesia*, *105*(1), 69–75. https://doi.org/10.1093/bja/aeq133

Mulyana, D. S. (2013). Analisis Penyebab Insiden Keselamatan Pasien oleh Perawat Di Unit Rawat Inap RS X Jakarta. *Kesehatan Masyarakat*, *1*(April), 13–68.

Nakamura, N., Yamashita, Y., Tanihara, S., & Maeda, C. (2014). Effectiveness and sustainability of education about incident reporting at a university hospital in Japan. *Healthcare Informatics Research*, *20*(3), 209–215. https://doi.org/10.4258/hir.2014.20.3.209

Pakpahan, D. (2015). Analisa Faktor-Faktor yang Berhubungan dengan Kesadaran Pencatatan dan Pelaporan Insiden Keselamatan Pasien di RS Omni Alam Sutera Tahun 2015. Universitas Indonesia.

Pamela H. Mitchell. (2008). Section I: Patient Safety and Quality. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*, 1–8.

Pertiwi, B., & Hariyati, R. T. S. (2019). The impacts of career ladder system for nurses in hospital. *Enfermeria Clinica*, *29 Suppl 2*,106–110. https://doi.org/10.1016/j.enfcli.2019.04.016

Slawomirski, L., Auraaen, A., & Klazinga, N. (2017). *The Economics of Patient Safety*. Bonn: OECD.

Sukesi, I., Soeharto, S., & Ahsan. (2015). Analisi Faktor Yang Berhubungan Dengan Kinerja Perawat Melaksanakan Keselamatan Pasien. *Http://Ejournal.Umm.Ac.Id/Index.Php/Keperawatan/Issue/View*, *6*, 34–42.

Syahrul, S., Majid, A., & Harsul, W. (2018). Penerapan Budaya Pelaporan Insiden Keselamatan Pasien Di Rumah Sakit Umum Daerah Tipe B Provinsi Sulawesi Selatan. *Jurnal Pengabdian Kepada Masyarakat*, *2*(2), 119–126.

WHO. (2019). Patient Safety Fact File. *Patient Safety and Risk Management Service Delivery and Safety*.