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ANALYSIS OF CAUSES OF PATIENT SAFETY BY NURSES IN THE INSTALLATION UNIT

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ABSTRACT
Patient safety in hospitals is a system where hospitals make patient care more comfortable. The system includes an assessment of effects, identification and management of related effects of sufferers, reporting and analysis of incidents, the ability to learn from incidents and their follow-up and implementation of solutions to minimize the occurrence of effects. The purpose of this study was to identify the factors that influence patient safety incidents. This research method is carried out with an analytical survey with a quantitative approach using a cross sectional design. The sample used was 30 respondents in July-August 2021. The results of this study were that there was a relationship between age, experience, competence, cooperation, communication, interference, and SOPs on patient safety incidents. There is no relationship between education and workplace comfort with patient safety. The conclusion is that nursing services based on patient safety must be carried out by nurses without being influenced by anything.

Keywords: hospitalization; patient safety incidents; nurses

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INTRODUCTION

Patient safety is an obligation that hospitals have to provide better service. Patient safety is a system in a hospital that makes patient care more comfortable. This system includes risk assessment, identification and management of problems related to patient risk, reporting and analysis incidents, the ability to learn from incidents and follow up and implement solutions to minimize the emergence of risk. This system is expected to avoid the formation of injuries due to errors (KKPRS, 2015). Events that cause discomfort This is called a patient safety incident.

A patient safety incident is any event or situation that can cause or potential to cause harm, illness, injury, disability, death) which should not occur (KKPRS, 2015). These safety incidents include Unexpected Events, Near Injury Events, Non-Injury Events, Potential Injury Conditions, Sentinel Events (KKPRS, 2015). The results of Mulyana's research (2013), that the trigger for the occurrence of patient safety in hospitals is the age of nurses who continue to grow old, experience nursing work, and the competence of nurses (Mulyana DS, 2013).

Nurses are the main actors in patient safety incidents. This is because during 24 hours a nurse always accompanies the patient. This patient safety culture must be owned by nurses.

Research (Must, 2015) nurses' knowledge in the application of safety activities patients greatly affect the incidence of patient safety. According to Salih (2021), there are statistically significant relationship between nurse behavior on patient safety, age and marital status, between behavior and level of education, experience, andtraining patient safety. Patient safety incidents affect the quality of care provided by the hospital (Salih et al., 2021).

The quality of service provided by the hospital will build a good hospital image so that it gains the trust of its residents. As an effort to improve quality hospital health services through the Patient Safety Program which was initiated by the World Health Organization (World Health Organization) in 2004. Movement Hospital Patient Safety is a system that avoids the formation of injuries caused by mistakes for doing something (commission) or not doing actions that should be taken (omission) (Ulumiyah, 2018). Nurses should improve nursing care, especially reassessment of at-risk patients according to standard operating procedures. Nurses always apply patient safety in nursing care (Widiasari et al., 2019). Another impact is a decrease in the level of public trust in health services. The purpose of this research is to identify factors that influence patient safety incidents in the outpatient unit stay.

METHODS

This study uses a quantitative approach with an analytical survey using a design cross sectional with a sample of 30 respondents with purposive sampling. This research was conducted at the Hospital Charlie Semarang, especially in the inpatient unit with the time of collecting information from July to August 2021. The main source of information comes from a questionnaire taken from Mulyana DS (2013) and Validity and reliability tests were obtained from the comparison of the result value and the value of r table (0.4132). The data analysis used is chi square.

RESULTS

Table 1.
Distribution of Respondents Frequency by at Charlie Hospital, August 2021 (n=30)

Charateristic	f	%
Age		
< 27 years	17	57
>27 years	13	43
Last education		
Nursing diploma	22	73
Bachelor Degree in nursing	1	3
Nurse	7	24
Work Experience		
< 18 months	11	34
> 18 months	19	66
Competence		
No Competence	19	63
Competence	11	37
Coorporation		
Not good	14	47
Good	16	53
Communication		

Charateristic	f	%
Ineffective	12	40
Effective	18	60
Disturbance		
High disturbance	4	13
Low disturbance	26	87
Implementation of Standard Operating Procedures		
Perception is not good	3	10
Perception is good	27	90
Comfortable		
Discomfort	9	30
Comfortable	21	70
Patient Safety Incident		
Positive	10	33
Negative	20	67

Table 2.
Distribution of Nurse Age Respondents with Patient Safety Incidents (n=30)

Age	IKP				Total		P Value
	Positive		Negative				
	f	%	f	%	f	%	
< 27 years	10	58	7	42	17	100	0.01
>27 years	0	0	13	100	13	100	

Based on table 2 that the relationship between nurse age and patient safety incidents, it is shown that the age of less than 27 years which causes positive patient safety incidents is more than the age of more than 27 years. The difference in proportion is reinforced by a p-value of 0.01 which means that there is a significant relationship between age and patient safety incidents.

Table 3
Distribution of Nurse Education Respondents with Patient Safety Incidents at Charlie Hospital, August 2021 (n=30)

Education	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
Nursing diploma	10	45	12	55	22	100	
Bachelor Degree in Nursing	0	0	1	100	1	100	5.455
Nurses	0	0	7	100	7	100	

Based on table 12 that the relationship between nurse education and patient safety incidents, it is shown that undergraduate and nurse education that causes patient safety incidents all lead to negative. While the D3 nursing education leads more in a positive direction. The difference in proportion is reinforced by the calculated r number of 5,455 which is smaller than r table 5,991 which means that there is no significant relationship between education and patient safety incidents.

Table 4.
Distribution of Nurse Work Experience Respondents with Patient Safety Incidents (n=30)

Work Experience	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
< 18 months	10	90	1	10	11	100	0.00
> 18 months	0	0	19	100	19	100	

Based on table 4 that nurses' work experience of less than 18 months leads to more patient safety incidents That's a big positive and this is inversely proportional to the experience over 18 months that all lead to positives. There is a p value of 0.00 which means that there is a relationship between practical experience and patient safety incidents.

Table 5.
Distribution of Respondents Work Competence Nurses with Patient Safety Incidents (n=30)

Competence	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
Incompetent	10	90	1	10	11	100	0.04
Competent	0	0	19	100	19	100	

Based on table 5 that nurses who are competent 100% of patient safety incidents lead to negative, while those who are incompetent are related to patient safety incidents only 50% that lead to positive. There is a p value of 0.04 which means that there is a relationship between the competence of nurses and patient safety incidents.

Table 6.
Distribution of Nurse Cooperation with Patient Safety Incidents (n=30)

Cooperation	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
Less	10	72	4	28	14	100	0.00
Good	0	0	16	100	16	100	

Based on the table 6 Good nurse cooperation 100% leads to negative patient safety incidents, while 72% lack of cooperation leads to positive patient safety incidents. There is a p value of 0.00 which means there is a relationship between cooperation and patient safety incidents.

Table 7.
Distribution of Nurse Communication with Patient Safety Incidents (n=30)

Communication	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
Ineffective	10	83	2	17	12	100	0.00
Effective	0	0	18	100	18	100	

Based on Table 7 communications applied by nurses that are effective 100% lead to negative patient safety incidents, while those that are ineffective as much as 83% lead to positive patient safety incidents. There is a p value of 0.00 which means there is a relationship between communication and patient safety incidents.

Table 8.
Distribution of Nurse Disorders with Patient Safety Incidents (n=30)

Disorders	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
High	4	100	0	0	4	100	0.08
Low	6	23	20	67	26	100	

Based on table 8, disturbances experienced by nurses can lead to patient safety incidents leading to positive as much as 20% and leading to negative 67 %, while for high disturbances 100% leads to positive patient safety incidents. There is a p value of 0.080 which means that there is a relationship between disturbances and patient safety incidents.

Table 9.
Distribution of Standard Operating Procedures for Nurses with Patient Safety Incidents (n=30)

SOP	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
Perception is not good	3	100	0	0	3	100	0.00
Perception is good	7	25	20	75	27	100	

Based on table 9 standard operating procedures that are perceived as not good by nurses as much as 100% leads to positive incidents of patient safety. While for a good perception, 75% leads to a negative patient safety incident. There is a p value of 0.030 which means that there is a relationship between standard operating procedures and patient safety incidents.

Table 10.
Distribution of Nurse Comfort with Patient Safety Incidents (n=30)

Comfort	IKP				Total		P value
	Positif		Negatif				
	f	%	f	%	f	%	
Uncomfortable	9	100	0	0	9	100	0.08
Comfortable	1	5	20	95	21	100	

Based on table 10 the comfort experienced by nurses can lead to patient safety incidents leading to positive as much as 5% and leading to negative 95%, while for discomfort 100% leads to positive patient safety incidents. There is a p value of 0.08 which means that there is no relationship between comfort and patient safety incidents.Patient safety incidents do not occur

DISCUSSION

Based on table 1, most of the nurses are aged less of 27 years as many as 57% (17 people). The majority of nurses' was D3 Nursing by 73% as many as 22 people. Nurses' work experience is more than half of their experience more than 18 months by 66% (19 people). Competency assessment nurses more than half of 63% (37 people) are not competent. Most of them are shown with good cooperation results of 53% (16 people). Disturbances experienced by nurses in patient safety, namely 87% experiencing low interference (26 people). Perception of nurses related to standard operating procedures that have been implemented in the majority has been perceived well 90% (27 people). Comfort in the workplace is mostly perceived as comfortable by 70% (21 people). Incidence of patient safety incidents is the largest, which is 67% (20 people). Only because of one or two triggers, but many triggers that can contribute, ranging from systems that drive health services, facilities and infrastructure to individual performance that direct contact with sufferers, all of which work together so that incidents cannot be prevented. Variables that are at risk of causing patient safety incidents must be controlled evenly covering the system and the area that surrounds it. This study analyzes 10 variables, namely age, education, work experience, competence, cooperation, communication, interference, Standard Operating Procedures, workplace comfort and patient safety incidents. Of the nine variables, there are 7 variables that cause patient safety incidents, namely age, work experience, competence, cooperation, communication, interference, and SOPs. 2 other variables that are not the cause may also be related to the formation of patient safety incidents but can be controlled by the system and the surrounding environment, namely education and comfort in the work area.

The results of this study on the age variable there is a relationship with patient safety incidents. Charlie hospital is a new hospital for the recruitment of nurses aged between 20-30 years. Nurses who are less than 30 years old have the risk of uncomfortable nursing care, so this can lead to the formation of patient safety incidents (Mulyana DS, 2013). Age is related to the level of maturity and maturation, in the sense that increasing age will also increase maturity/maturity technically and psychologically, and more capable of carrying out their duties and age 25-44 years. The age of a person is in the stage of stabilization (Pagala, 2012).

Education mostly Diploma 3 nursing Mostly affects patient safety incidents towards negative. On the other hand, scholars and nurses all lead to negative safety incidents. Education is a formal process of one's training and one's development which includes intellectual, spiritual, moral, creative, emotional and physical activity. The level of education is an aspect of a person's predisposition to behave so that the educational background is a basic and motivating aspect of attitude or that provides individual references in one's learning experience (Pagala, 2017).

Work experience makes a big contribution to health services. The work experience possessed by nurses will share abilities in the form of knowledge, expertise, and behavior to these nurses who support them in their work. Longer work experience, of course, nurses will have longer experience in dealing with patients with various cases they face. Not only because of the many experiences they have, work experience also makes the implementing nurses more skilled and alert so that the nursing care provided does not cause injuries to sufferers (patient safety incidents) (Pagala, 2017). The competent nurses at Charlie hospital are mostly competent and lead to negative patient safety incidents. The competence of nurses determines whether a person is good or not in carrying out nursing care, including how the nurse carries out nursing care that is comfortable and does not cause patient safety events (Pagala, 2017).

The results of the research by Pidada & Darma (2019) related to the collaboration of nurses with patients and nurses with other nurses is that the relationship between nurses still requires good coordination in terms of carrying out standard operating procedures and filling out monitoring forms related to patient safety, because this will affect the quality of service by Interaction communication will be good and will affect good teamwork as well (Pidada & Darma, 2019).

The main trigger for the lack of cooperation in research conducted (Atrianty, 2013) is that health workers in each work unit feel that they are not well coordinated, some health workers find it difficult to coordinate with other units, and it is safer to work alone than working in teams. The results of this study show that respondents with teamwork are less likely to make mistakes in patient safety incidents. The results of this study showed that the cooperation carried out by nurses was mostly good so that patient safety incidents went to negative.

Communication has a positive relationship to patient safety incidents. Agency for Healthcare Research and Quality (AHRQ) says communication problems such as failure in verbal and nonverbal communication, miscommunication between staff, between shifts, non-verbal communication well-documented are things that can lead to errors (Rivai, 2016). Efficient communication by nurses is understood and understood by patients, so that the stages of nursing actions carried out can be carried out correctly, patients can be cooperative and nurses can assess the success of the care given to patients (Siti Nur Qomariah & Lidiyah Uyan Ari, 2015). The lack of effective communication is due to the lack of openness and positive behavior shown such as getting positive feedback from supervisors, the lack of mutual discussion to resolve problems related to patient safety incidents in their work units, and health workers are not given the opportunity to ask if there is a patient safety incident in their unit. work (Astrianty N. Arfan, Syahrir A. Pasinringi, 2013).

The results of Astrianty's research (2013) show that the disturbances or interruptions in carrying out tasks experienced by health workers are very much caused because they often get other jobs outside their job duties and responsibilities, often carry out more than one job at the same time, and often get assignments or jobs. other things that must be done again carry out their duties and responsibilities. The presence of these obstacles or interruptions may lead to errors that can have a severe impact on the patient (Astrianty N. Arfan, Syahrir A. Pasinringi, 2013). The results of this research are that most of them experience low external constraints and these obstacles are perceived as negative patient safety incidents.

The application of standard operating procedures is perceived to be mostly good by nurses and has a relationship with patient safety incidents. Strict supervision related to the application of standard operating procedures has made patient safety incidents negative. This matter can cultivate nurses in the application of actions that are in accordance with applicable procedures, even without supervision. Strict supervision is needed as an early step in disciplining nurses against nurses' compliance with standard operating procedures to prevent the risk of patients falling (Pagala, 2012).

Work comfort and the behavior of nurses in providing services on patient safety is indicated by a p value of 0.08 which means more than 0.05. Patient safety is an effort to ensure all actions and activities related to patient safety with patients carried out by health workers so that it takes place safely and does not cause consequences or consequences that harm the patient through a series of activities which has been regulated in the legislation (Ulumiyah, 2018). Case the availability of facilities and infrastructure also affects the implementation of

safety programs patients (Neri et al., 2018). Sourced from Permenkes No. 46 of 2015, if health facilities are required to pay attention to quality of service and patient safety in service activities and carried out sustainable (Ulumiyah, 2018).

The results of this study contradict the research of Firawati et al., (2012) that the application of patient safety culture and patient safety in A health service facility can be influenced by several aspects, namely: organization, work area, and cultural aspects. There is no relationship between work comfort and patient safety in this study because actions that focus on Patient safety have become an obligation that must be done by a nurse (Firawati et al., 2012). Although there is no relationship between convenience and incident patient safety, hospitals must provide health care facilities that ensure the safety, comfort and health of its staff (Zalukhu, 2020).

CONCLUSIONS

There is a relationship between age, experience, competence, cooperation, communication, interference, and the application of standard operating procedures with patient safety incidents. There is no relationship between education and work area comfort with patient safety incidents. Analysis of factors that influence patient safety incidents is on the variables of age, experience, competence, cooperation, communication, constraints, and the application of standard operating procedures.

REFERENCES

Astrianty N. Arfan, Syahrir A. Pasinringi, A. I. S. (2013). *Gambaran Determinan Insiden Keselamatan Pasien pada Petugas Kesehatan di Rumah Sakit Universitas Hasanuddin*. 1–10. https://core.ac.uk/download/pdf/25496388.pdf

Firawati, Pabuty, A., & Putra, A. S. (2012). Pelaksanaan Program Keselamatan Pasien di RSUD Solok. *Jurnal kesehatan Masyarakat*, *6*(2), 73–79.

Harus, B. D. (2015). *Pengetahuan Perawat tentang Keselamatan Pasien dengan Pelaksanaan Prosedur Keselamatan Pasien Rumah Sakit (KPRS) di Rumah Sakit Panti Waluya Sawahan Malang*. *3*(1).

KKPRS. (2015). Pedoman Pelaporan Insiden Keselamatan Pasien (IKP). *Kementrian Kesehatan Republik Indonesia*, *11*, 25.

Mulyana DS. (2013). Analisis Penyebab Insiden Keselamatan Pasien Oleh Perawat Di Unit Rawat Inap Rumah Sakit X Jakarta. *Tesis FKM UI*, 1–184. https://www.ui.ac.id

Neri, R. A., Lestari, Y., & Yetti, H. (2018). Analisis Pelaksanaan Sasaran Keselamatan Pasien Di Rawat Inap Rumah Sakit Umum Daerah Padang Pariaman. *Jurnal Kesehatan Andalas*, *7*, 48. https://doi.org/10.25077/jka.v7i0.921

Pagala, I. (2012). Perilaku Kepatuhan Perawat Melaksanakan SOP Terhadap Kejadian Keselamatan Pasien di Rumah Sakit X Kendari. *הנוטע עלון*, *66*, 37–39. https://ejournal.undip.ac.id/index.php/jpki/article/view/18036

Pagala, I. (2017). Perilaku Kepatuhan Perawat Melaksanakan SOP Terhadap Kejadian Keselamatan Pasien di Rumah Sakit X Kendar. *JURNAL PROMOSI KESEHATAN INDONESIA*, *12*, 138–149. https://ejournal.undip.ac.id/index.php/jpki/article/view/18036

Pidada, I. A. D. U., & Darma, G. S. (2019). Kerja Sama Tim Perawat Dalam Meningkatkan Keselamatan Pasien Berbasis Tri Hita Karana. *Jurnal Manajemen dan Bisnis*, *8*(2), 139–150.

Rivai, F. (2016). Faktor Yang Berhubungan Dengan Implementasi Keselamatan Pasien Di RSUD Ajjappannge Soppeng Tahun 2015. *Jurnal Kebijakan Kesehatan Indonesia*, *05*(04), 152–157.

Salih, S. A., Abdelkader Reshia, F. A., Bashir, W. A. H., Omar, A. M., & Ahmed Elwasefy, S. (2021). Patient safety attitude and associated factors among nurses at Mansoura University Hospital: A cross sectional study. *International Journal of Africa Nursing Sciences*, *14*(February), 100287. https://doi.org/10.1016/j.ijans.2021.100287

Siti Nur Qomariah, & Lidiyah Uyan Ari. (2015). Hubungan Faktor Komunikasi dengan Insiden Keselamatan Pasien. *Journals of Ners Community*, *06*(02), 166–174.

Ulumiyah, N. H. (2018). Meningkatkan Mutu Pelayanan Kesehatan Dengan Penerapan Upaya Keselamatan Pasien Di Puskesmas. *Jurnal Administrasi Kesehatan Indonesia*, *6*(2), 149. https://doi.org/10.20473/jaki.v6i2.2018.149-155

Widiasari, W., Handiyani, H., & Novieastari, E. (2019). Kepuasan Pasien Terhadap Penerapan Keselamatan Pasien Di Rumah Sakit. *Jurnal Keperawatan Indonesia*, *22*(1), 43–52. https://doi.org/10.7454/jki.v22i1.615

Zalukhu, J. (2020). Pentingnya Keselamatan Pasien Dan Keselamatan Kesehatan Kerja dalam Keperawatan. *Osf Preprints*, *1*, 1–9. https://osf.io/preprints/fbv5h/