



The Effect of Patient Safety Culture and Leader Coaching Behaviour Nursing Managers on Patient Safety Incident Reporting at Panembahan Senopati Hospital, Yogyakarta

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ABSTRACT

Every year, millions of patients worldwide suffer from disability, injury, or death due to unsafe medical practices. The Hospital Safety Committee in 2007 reported Patient Safety Incident (PSI) in Yogyakarta is 3rd out of eight provinces. One of the causes of the high PSI is an ineffective PSI reporting system. Patient Safety Culture (PSC) was recommended by the Institute of Medicine to prevent PSI. The presence of lead follow-up in the form of coaching in health affects the development of PSC. This study aims to know the effect of PSC and Leader Coaching Behavior (LCB), nursing managers, on PSI reporting at Panembahan Senopati hospital. This study was a cross-sectional survey design. The sample was 134 nurses who served on the ward with inclusion and exclusion criteria. Data analysis used multiple linear regression. This study shows that there is a significant effect of PSC and LCB nursing managers on PSI reporting ($R = 0,582$; $F\text{-count} = 88,545$; $p < 0,05$), which is indicated by the t-count of PSC on PSI reporting is 2,110 and t-count of LCB nursing managers on PSI reporting is 11,868 so that there is a significant effect of PSC and LCB nursing managers on PSI reporting.

Kata kunci:

Pelaporan insiden keselamatan pasien
Manajer keperawatan
Budaya keselamatan pasien
Leader Coaching Behaviour

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ABSTRAK

Di seluruh dunia, terdapat jutaan pasien yang mengalami cacat, cedera, maupun kematian setiap tahun akibat medical error. Berdasarkan laporan Komite Keselamatan Pasien Rumah Sakit, Insiden Keselamatan Pasien (IKP) di Yogyakarta menempati urutan ke tiga tertinggi diantara delapan provinsi. Salah satu penyebab tingginya IKP adalah pelaporan IKP yang tidak efektif. Institute of Medicine merekomendasikan untuk membangun Budaya Keselamatan Pasien (BKP) guna mencegah terjadinya IKP. BKP dapat ditingkatkan dengan adanya tindak lanjut oleh pemimpin berupa coaching terhadap semua staf yang berperan pada pelayanan kesehatan. Penelitian ini untuk mengetahui pengaruh BKP dan Leader Coaching Behaviour (LCB) manajer keperawatan terhadap pelaporan IKP di RSUD Panembahan Senopati. Penelitian ini menggunakan desain penelitian cross sectional survey. Sampel dari penelitian ini adalah 134 perawat yang bertugas dibangsal, serta memenuhi kriteria inklusi dan eksklusi. Analisis data menggunakan regresi linier berganda. Hasil penelitian ini menunjukkan bahwa BKP dan LCB manajer keperawatan berpengaruh secara signifikan terhadap pelaporan IKP ($R = 0,582$; $F\text{ hitung} = 88,545$; $p < 0,05$) yang ditunjukkan oleh nilai t hitung variabel BKP terhadap pelaporan IKP sebesar 2,110 dan t hitung variabel LCB manajer keperawatan terhadap pelaporan IKP sebesar 11,868. Kesimpulan: Terdapat pengaruh BKP dan leader coaching behaviour manajer keperawatan yang signifikan secara simultan terhadap pelaporan IKP.

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INTRODUCTION

Patient safety is a critical aspect of healthcare delivery. The purpose of patient safety is to avoid and minimize risks, errors, and injury to patients while they are receiving medical care. Patient safety measures must be implemented on a continuous basis and continually enhanced in response to errors or unforeseen events in order to avoid recurrence (WHO, 2019). Patient safety issues can have an impact on the cost and quality of treatment provided to patients. In order to limit the number of patient safety accidents, accurate patient safety incident reporting is the best strategy (Chen et al., 2018). Every year, millions of individuals are disabled, injured, or die as a result of medical blunders across the world (Lawati et al., 2018).

According to data from the National Reporting and Learning System (NRLS) in the UK in 2015, there were 825,416 patient safety incidents recorded in six months. The number of patient safety incidents in the UK grew to 1,879,822 in 2016, according to statistics from the National Patient Safety Agency. The Ministry of Health of Malaysia recorded 2,769 patient safety incidents in 2013 in Southeast Asian nations like Malaysia (NHS, 2015; RSUDZA, 2017).

Jakarta is Indonesia's province with the greatest number of patient safety incidents (37.9%). Central Java province (15.9%), Yogyakarta (13.8%), East Java (11.7%), South Sumatra (6.9%), West Java (2.8%), Bali (1.4%), Aceh (10.7%), and South Sulawesi (0.7%) were the next most popular destinations. According to a report from the hospital's patient safety committee in 2007, this is the case (Dewi et al., 2019). According to statistics from the Hospital Patient Safety Committee, patient safety incidents resulted in 8.76% of fatalities, 2.19% of permanent injuries, 21.17% of serious injuries, and 19.71% of minor injuries from January 2010 to April 2011 (Komite Keselamatan Pasien Rumah Sakit, 2015).

Basically, medical errors can be prevented. Medical mistakes in health care include misdiagnosis, delays in giving therapy, insufficient use of medical equipment, and unanticipated events that affect patients (Ghobashi et al., 2014). One of the reasons for high patient safety incidents is ineffective patient safety incident recording and reporting systems (Chegini et al., 2020a). The patient safety incident reporting system encourages all stakeholders engaged in the healthcare system to be concerned about patient safety. Reporting patient safety incidents can help to strengthen efforts to investigate patient safety incidents, ensuring that no errors occur again (Wijaya et al., 2015).

To avoid patient safety incidents and promote patient safety, the Institute of Medicine (IOM) suggests creating a patient safety culture. Several worldwide organizations have produced standards for assessing patient safety culture so that hospitals may analyze collaboration, management actions, leadership support, staffing problems, incident reporting, and other relevant concerns in order for the health care to analyze which aspects are inadequate and need to be modified in order to enhance patient safety (Ali et al., 2018). By learning about patient safety incidents that occur, a leader may use unexpected event knowledge to strengthen the patient safety culture (Parand et al., 2013). Follow-up by leaders in the form of education and coaching of all workers involved in the health service can help to strengthen the culture of patient safety (DuPree et al., 2011).

The leader's attitude and behavior are two aspects that influence the patient safety culture. The nursing perspective, leadership style, and corporate culture can all impact whether or not patient safety incidents are reported. The prevalence of a blaming culture is the key determinant in

low patient safety incident reporting (Ko and Yu, 2015). When patient safety incidents are reported, leaders may affect patient safety culture via teaching and mentoring. Most leaders in developing nations are more concerned with data collecting, auditing, and reporting than with creating learning and support structures to prevent such occurrences from occurring again (Chegini et al., 2020b; Manzi et al., 2017).

Coaching is an important part of the educational process because it helps nurses to change as a team. Furthermore, the coaching program has been shown to result in good results. The presence of leadership coaching as a means of receiving the most up-to-date counsel demonstrates that nurses may continue to learn and develop the culture of patient safety throughout their careers. Because there is no clear evidence-based set for leadership coaching, research on leadership coaching among healthcare professions is interesting (Chegini et al., 2020c).

According to the definition above, reporting patient safety incidents is critical to improving patient safety. If there is no reporting of patient safety incidents, there is no way to learn from them. This can lead to a recurrence of the safety incident, as well as an increase in patient morbidity and death. A number of factors can influence how such instances are reported. When it comes to reporting patient safety incidents, patient safety culture and leader coaching behavior are critical. As a result, more study is needed to determine the impact of patient safety culture and leadership coaching behavior on reporting patient safety incidents. As a result, researchers want to study "The Effect of Patient Safety Culture and Leader Coaching Behaviour of Nursing Managers on Reporting Patient Safety Incidents at Panembahan Senopati Hospital."

METHOD

This research uses a cross-sectional survey research design with quantitative research types. The subject of the study was a nurse of Panembahan Senopati Hospital, and the object was Panembahan Senopati Hospital which was conducted in September 2021 located in Bantul city. All nurses at Panembahan Senopati Hospital are the target population of this study. The affordable population is all nurses in Panembahan Senopati Hospital who serve in the ward. The sample in the study was a member of an affordable population that met the inclusion and exclusion criteria of 134 people. The inclusion criteria in this study are permanent nurses for at least one year, nurses who serve on the ward, and are willing when data collection is carried out. While the exclusion criteria are nursing managers, nurses who become ward heads, nurses on leave, and nurses who serve in outpatient poly, emergency departments, central surgical installations, hemodialysis, chemotherapy, as well as infection prevention and control nurses in hospitals. Sampling methods use probability sampling, especially simple random sampling.

The research instruments used in the study were a patient safety culture questionnaire (12 dimensions) from the Agency for Healthcare Research and Quality (AHRQ), a leader coaching behavior (4 dimensions) questionnaire developed by (Stowell, 1986) and revised by (Ko and Yu, 2015), as well as a patient safety incident reporting questionnaire (6 dimensions) from (WHO, 2020). The questionnaires consist of a number of questions from each dimension that have alternative answer options in the form

of Likert scale criteria. Interval 1-5 is used for each respondent's answer where the score 5 = strongly agrees, the score 4 = agrees, the score 3 = neutral, the score 2 = disagrees, the score 1 = strongly disagrees.

The questions in the questionnaire before use as a research instrument tested validity and reliability first. The validity test is conducted by looking at the significance value of < 0.05, while the reliability test by looking at Alfa Cronbach's value > 0.6. The validity and reliability test was conducted on nurses who served in the hospital ward of Yogyakarta City Hospital and numbered 30 nurses.

The data analysis in this study used multiple linear regression tests consisting of partial t-tests and simultaneous F tests, as well as classical assumption tests consisting of normality tests, linearity tests, heteroskedasticity tests, and multicollinearity tests.

RESULTS AND DISCUSSION

Characteristics of Respondents

Based on gender, the results showed that the number of female respondents was greater than 120 respondents (89.6%), compared to the number of male respondents of 14 respondents (10.4%). Based on age, the majority of respondents in the age group between 30-40 years old is as many as 85 respondents (63.5%). Then the age group under 30 years is as many as 24 respondents (17.9%), the age group between 41- 50 years as many as 18 respondents (13.4%),

and the age group over 50 years as many as 7 respondents (5.2%). Based on marital status, most respondents were married, with 122 respondents (91.0%), while the number of single respondents was 9 respondents (6.7%) and widows/widowers as many as 3 respondents (2.2%). Based on the last education, most of the respondents of his last education were DIII Nursing as many as 108 respondents (80.6%). Then Ners as many as 13 respondents (9.7%), S1 as many as 10 respondents (7.5%), and DIV Nursing as many as 3 respondents (2.2%). And based on length of work, the most respondents worked over 10 years, which is 61 respondents (45.5%), then between 5- 10 years as many as 44 respondents (32.8%) and less than 5 years as many as 29 respondents (21.6%).

Test Validity and Reliability

Validity test results showed that question items on the nursing manager's lead coaching behavior variable and patient safety incident reporting showed that all items had a significance value of < 0.05. So it can be concluded that all items are declared valid. However, in the patient safety culture variable, there are some question items (2 dimensions) that have a significance value of ≥ 0.05 which means invalid. The invalid question item was declared dead and not used for data retrieval in the study. While the results of reliability tests variables of patient safety culture, lead coaching behavior nursing managers, and reporting of patient safety incidents showed that Alfa Cronbach's value > 0.6, so it can be said to be reliable.

Table 1
Description of Respondents based on Research Variables

Variable	Minimum	Maximum	Average	Interpretation
Patient safety culture (X₁)				
Good: score ≥ 51	46	75	58,54	Good
Less good: score <51				
Leader coaching behavior nursing manager (X₂)				
Good: score ≥ 39	39	65	52,30	Good
Less good: score < 39				
Patient safety incident reporting (Y)				
Good: score ≥ 132	132	220	173,04	Good
Less good: score < 132				

Table 1 showed that respondents' answer scores on patient safety culture questionnaires had a minimum score of 46, a maximum score of 75, and an average score of 58.54. Based on the average value, the patient safety culture variables are in a good category. So it can be concluded that nurses at Panembahan Senopati Hospital assess the patient safety culture that is carried out is good. On the leader coaching behavior, questionnaire nursing managers had a minimum score of 39, a maximum score of 65, and an average score of 52.30. Based on the average value, the variable leader coaching behavior of nursing managers in the

category is good. So it can be concluded that nurses at Panembahan Senopati Hospital assess the leader coaching behavior of existing nursing managers has been done well. As well on the patient safety incident reporting questionnaire had a minimum score of 132, a maximum score of 220, and an average score of 173.04. Based on the average value, the patient safety incident reporting variable is in a good category. So it can be concluded that nurses assess the reporting of patient safety incidents at Panembahan Senopati Hospital is good.

Table 2
Categorization of Respondents based on Research Variables

Variable	Category									
	Very good		Good		Enough		Less		Very lacking	
	F	%	F	%	F	%	F	%	F	%
Patient safety culture	6	4,5	81	60,4	47	35,1	0	0	0	0
Leader coaching behavior nursing	78	58,2	50	37,3	6	4,5	0	0	0	0

manager									
Patient safety incident reporting	48	35,8	79	59	7	5,2	0	0	0

Table 2 shows that the number of respondents based on the number of respondents' answer scores to the patient safety culture is the most in the good category, which is 81 respondents (60.4%), then the category is enough as many as 47 respondents (35.1%), and the category is very good as many as 6 respondents (4.5%). No respondents were found to fall into the less and very fewer categories. Based on the table, it can be known that most nurses at Panembahan Senopati hospital assess the culture of patient safety that is run is good.

Table 2 also shows that the number of respondents based on the number of respondents' answer scores to the most nursing manager coaching behavior leaders in the category is very good, which is as many as 78 respondents (58.2%), then the good category as many as 50 respondents (37.3%), and

the category is enough as many as 6 respondents (4.5%). No respondents were found to fall into the less and very fewer categories. Based on the table, it can be known that most nurses rate the leader coaching behavior of nursing managers at Panembahan Senopati Hospital very well.

Table 2 also shows that the number of respondents based on the number of respondents' answer scores to reporting patient safety incidents is the most in the good category, which is 79 respondents (59.0%), then the category is very good as many as 48 respondents (35.8%), and the category is enough as many as 7 respondents (5.2%). No respondents were found to fall into the less and very fewer categories. Based on the table, it can be known that most nurses assess the reporting of safety incidents at Panembahan Senopati Hospital as good.

Table 3
Variable Dimensions of Patient Safety Culture

No.	Dimensions	N	Minimum	Maximum	Average	Interpretation
Feedback and Communication Regarding Errors						
1	Good: score ≥ 3 Less good: score < 3	134	2	5	4,14	Good
Frequency of Reported Events						
2	Good: score ≥ 9 Less good: score < 9	134	3	15	8,95	Less good
Handsoff and Transition						
3	Good: score ≥ 3 Less good: score < 3	134	1	4	2,16	Less good
Management Support for Patient Safety						
4	Good: score ≥ 3 Less good: score < 3	134	1	5	2,99	Less good
A Response That Doesn't Blame						
5	Good: score ≥ 6 Less good: score < 6	134	2	10	6,01	Good
Organizational Learning-Continuous Improvement						
6	Good: score ≥ 3 Less good: score < 3	134	3	5	4,33	Good
Overall Perception of Patient Safety						
7	Good: score ≥ 6 Less good: score < 6	134	4	10	7,83	Good
Staffing						
8	Good: score ≥ 9 Less good: score < 9	134	5	15	9,28	Good
Teamwork between Units						
9	Good: score ≥ 3 Less good: score < 3	134	2	5	4,16	Good
Teamwork in One Unit						
10	Good: score ≥ 6 Less good: score < 6	134	4	10	8,69	Good

Table 3 shows that in the variable culture of patient safety based on the average value of each dimension, there are several dimensions that fall into the unfavorable category, namely the frequency dimensions of reported events, handoff and transition dimensions, and the dimensions of management support for patient safety.

Table 4 shows that in the variables of patient safety culture, each dimension still has respondents who assess the culture of patient safety at Panembahan Senopati Hospital in the category of enough, less, and very lacking. Based on the table, it can be known that each dimension still requires efforts and programs related to each dimension to improve

the culture of patient safety at Panembahan Senopati Hospital.

Table 4
Categorization of Respondents based on Variable Dimensions of Patient Safety Culture

Category	Frequency	Percentage (%)
Feedback and Communication Regarding Errors		
Very good	28	20,9
Good	98	73,1
Enough	7	5,2

Less	1	0,7
Very lacking	0	0,0
Total	134	100,0
Frequency of Reported Events		
Very good	30	22,4
Good	31	23,1
Enough	25	18,7
Less	28	20,9
Very lacking	20	14,9
Total	134	100,0
Handsoff and Transition		
Very good	13	9,7
Good	21	15,7
Enough	74	55,2
Less	26	19,4
Very lacking	13	9,7
Total	134	100,0
Management Support for Patient Safety		
Very good	13	9,7
Good	45	33,6
Enough	17	12,7
Less	46	34,3
Very lacking	13	9,7
Total	134	100,0
A response That Doesn't Blame		
Very good	24	17,9
Good	17	12,7
Enough	53	39,6
Less	16	11,9
Very lacking	24	17,9
Total	134	100,0
Organization Learning-Continuous Improvement		
Very good	46	34,3
Good	86	64,2
Enough	2	1,5
Less	0	0,0
Very lacking	0	0,0
Total	134	100,0

Overall Perception of Patient Safety		
Very good	98	73,1
Good	10	7,5
Enough	19	14,2
Less	3	2,2
Very lacking	4	3,0
Total	134	100,0
Staffing		
Very good	15	11,2
Good	45	33,6
Enough	56	41,8
Less	17	12,7
Very lacking	1	0,7
Total	134	100,0
Teamwork between Units		
Very good	35	26,1
Good	89	66,4
Enough	7	5,2
Less	3	2,2
Very lacking	35	26,1
Total	134	100,0
Teamwork in One Unit		
Very good	125	93,3
Good	5	3,7
Enough	3	2,2
Less	0	0,0
Very lacking	1	0,7
Total	134	100,0

Table 5 shows that on the variables of the nursing manager's leadership coaching behavior based on the average value of each dimension, all dimensions fall into the good category. This shows that, in general, in Panembahan Senopati Hospital, all dimensions on the variables of the nursing manager's leader coaching behavior are already good.

Table 5
Variable Dimensions of Leader Coaching Behaviour Nursing Manager

No.	Dimensions	N	Minimum	Maximum	Average	Interpretation
1	Direction	134	12	20	16,40	Good
	Good: score ≥ 12 Less good: score < 12					
2	Development	134	9	15	12,19	Good
	Good: score ≥ 9 Less good: score < 9					
3	Performance evaluation	134	8	15	11,75	Good
	Good: score ≥ 9 Less good: score < 9					
4	Relationship	134	4	15	11,96	Good
	Good: score ≥ 9 Less good: score < 9					

Table 6 shows that in the variables of the leader coaching behavior of nursing managers, each dimension still has nurses who assess the leader coaching behavior of nursing managers at Panembahan Senopati Hospital insufficient categories. However, only the dimensions of the relationship

still exist nurses who assess those dimensions in less and very lacking categories. So it can be known that the leader coaching behavior of nursing managers at Panembahan Senopati Hospital still needs improvement in every dimension, especially the dimension of relationships.

Table 6
Categorization of Respondents based on Variable Dimensions of Leader Coaching Behaviour Nursing Manager

No.	Category	Frequency	Percentage (%)
1	Direction		
	Very good	34	25,4
	Good	93	69,4
	Enough	7	5,2
	Less	0	0,0
	Very lacking	0	0,0
	Total	134	100,0
2	Development		
	Very good	112	83,6
	Good	16	11,9
	Enough	6	4,5
	Less	0	0,0
	Very lacking	0	0,0
	Total	134	100,0
3	Performance Evaluation		
	Very good	78	58,2
	Good	49	36,6
	Enough	7	5,2
	Less	0	0,0
	Very lacking	0	0,0
	Total	134	100,0
4	Relationship		
	Very good	100	74,6
	Good	26	19,4
	Enough	6	4,5
	Less	1	0,7
	Very lacking	1	0,7
	Total	134	100,0

Table 7 shows that on the patient safety incident reporting variable based on the average value of each dimension, all dimensions fall into the good category. This

shows that, in general, in Panembahan Senopati Hospital, all dimensions on the variable of reporting incidents of patient safety are already good.

Table 7
Variable Dimensions of Patient Safety Incident Reporting

No.	Dimensions	N	Minimum	Maximum	Average	Interpretation
1	Environment for Reporting	134	21	35	27,53	Good
	Good: score \geq 21 Less good: score $<$ 21					
2	Reporting Rules and Content	134	30	55	43,99	Good
	Good: score \geq 33 Less good: score $<$ 33					
3	Analysis and Investigation	134	39	65	51,19	Good
	Good: score \geq 39 Less good: score $<$ 39					
4	Governance	134	12	25	19,50	Good
	Good: score \geq 15 Less good: score $<$ 15					
5	Action and Learning	134	6	10	8,04	Good
	Good: score \geq 6 Less good: score $<$ 6					
6	Patient and Family Engagement	134	14	30	22,80	Good
	Good: score \geq 18 Less score: score $<$ 18					

Table 8 shows that in reporting patient safety incidents, in every dimension, there are still nurses who assess patient safety incident reporting at Panembahan Senopati Hospital insufficient categories. Only the governance dimension and the dimension of patient and family engagement that there

are still nurses who assess in the category less. So it can be known that reporting incidents of patient safety at Panembahan Senopati Hospital still requires improvement in every dimension, especially the dimension of governance and the dimension of patient and family engagement.

Table 8
Categorization of Respondents based on Variable Dimensions of Patient Safety Incident Reporting

No.	Category	Frequency	Percentage (%)
1	Environment for Reporting		
	Very good	29	21,6
	Good	93	69,4
	Enough	12	9,0
	Less	0	0,0
	Very lacking	0	0,0
	Total	134	100,0
2	Reporting Rules and Content		
	Very good	81	60,4
	Good	43	32,1
	Enough	10	7,5
	Less	0	0,0
	Very lacking	0	0,0
	Total	134	100,0
3	Analysis and Investigation		
	Very good	25	18,7
	Good	98	73,1
	Enough	11	8,2
	Less	0	0,0
	Very lacking	0	0,0
	Total	134	100,0
4	Governance		
	Very good	86	64,2
	Good	27	20,1
	Enough	20	14,9
	Less	1	0,7
	Very lacking	0	0,0
	Total	134	100,0
5	Action and Learning		
	Very good	118	88,1
	Good	4	3,0
	Enough	12	9,0
	Less	0	0,0
	Very lacking	0	0,0
	Total	134	100,0
6	Patient and Family Engagement		
	Very good	68	50,7
	Good	42	31,3
	Enough	23	17,2
	Less	1	0,7
	Very lacking	0	0,0
	Total	134	100,0

Test Analysis Prerequisites

Normality Test

Normality tests are performed to test whether residual data is normally distributed or not. Normality testing on residual data was conducted using the Kolmogorov-Smirnov test. Based on the results of the study obtained a significance value (Sig.) which is 0.096. Taking a real level $\alpha = 5\%$, it is seen that the value of significance is greater than $\alpha = 0.05$. So it can be concluded that the residual data of this study is the normal distribution. Thus, the assumption of normality is met, and the data can be used to perform further analysis.

Linearity Test

The linearity test is performed to see if there is a linear relationship or not between the free variable (X) and the bound variable (Y). Based on the results of the study, the

significance value (Sig.) of both variables is 0.000. Taking real levels $\alpha = 5\%$, it is seen that the significance value is less than $\alpha = 0.05$, so it can be concluded that there is a linear relationship between patient safety culture and patient safety incident reporting and nursing manager coaching behavior leader with patient safety incident reporting. Thus, the assumption of linearity is met, and the data can be used to perform further analysis.

Heteroskedasticity Test

Heteroskedasticity or homogeneity tests are performed to test whether or not residual variance is homogeneous. Homogeneity examination is done using a scatterplot. Based on scatterplot results, it is seen that the point scattering pattern is random and spread both above and below the number 0 (zero) on the vertical axis. So it can be concluded that residual variance data is homogeneous. Thus, the

assumption of heteroskedasticity is met, and the data can be used to perform further analysis.

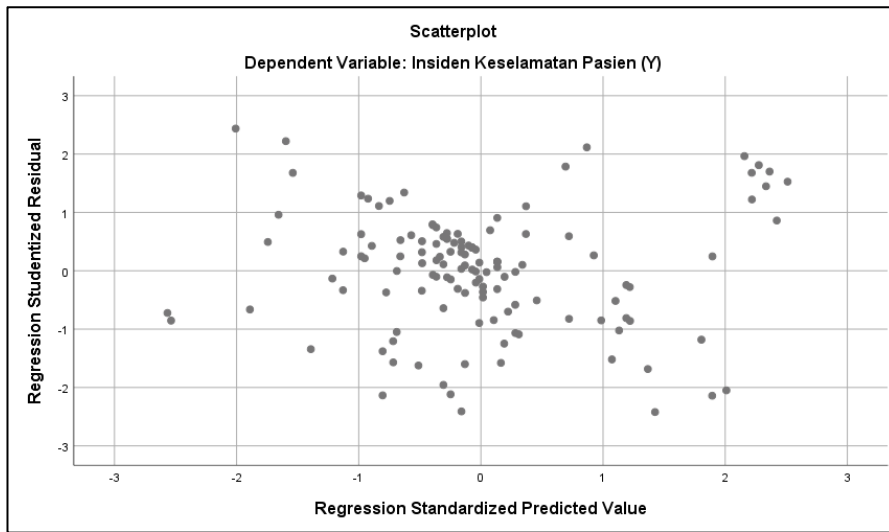


Figure 1. Scatterplot Test heteroskedasticity

Multicollinearity Test

Multicollinearity tests are performed to see if there is a strong relationship or not between the free variables (X). Multicollinearity testing is done by comparing tolerance values with 0.01 and VIF values with 10.0. Based on the results of the study, it was obtained that the tolerance value of both variables is 0.907, greater than 0.10. At the same time, the VIF value of both variables obtained is 1.103, smaller than 10.0. So it can be concluded that there is no problem of multicollinearity between free variables (X).

Thus, the assumption of multicollinearity is met, and the data can be used to perform further analysis.

Hypothesis Testing

Based on table 9, the results of the analysis can be obtained from the model of multiple linear regression equations as follows:

$$Y = 0.127 X_1 + 0.715 X_2$$

Table 9
 Multiple Linear Regression Analysis Results

Variable	Coefficient Regression (Beta)
Patient Safety Culture (X ₁)	0,127
Leader Coaching Behaviour Nursing Manager (X ₂)	0,715

Partial T-Test

Based on table 10, the statistical results of the t-test for the patient safety culture variable (X₁) obtained a calculated t value of 2,110 with a significance value (Sig.) of 0.037. Taking the real level of α = 5%, it is seen that the value of significance is less than α = 0.05, then the hypothesis is accepted. It can be concluded that there is a significant effect on the reporting of patient safety incidents.

Based on table 10, the results of the t-test statistics for the nursing manager's leadership coaching behavior (X₂) obtained a calculated t value of 11,868 with a significance value (Sig.) of 0.000. Taking the real level of α = 5%, it is seen that the value of significance is less than α = 0.05, then the hypothesis is accepted. It can be concluded that there is a significant effect on the reporting of patient safety incidents.

Table 10
 Partial T-Test Results

	T	Sig.	Interpretation
Patient Safety Culture (X ₁) Patient Safety Incident Reporting (Y)	2,110	0,037	Significant
Leader Coaching Behaviour Nursing Manager (X ₂) Patient Safety Incident Reporting (Y)	11,868	0,000	Significant

Simultaneous F Test

Based on table 11 above, the value F calculates 88.545 with a significance value (Sig.) of 0.000. Taking the real level of α = 5%, it is seen that the value of significance is less than α

= 0.05, then the hypothesis is accepted. It can be concluded that there is a significant or shared effect of patient safety culture and leadership coaching behavior of nursing managers on reporting patient safety incidents.

Table 11
Simultaneous F Test Results

	ANOVA		Interpretation
	F	Sig.	
<i>Regression</i>	88,545	0,000	Significant

DISCUSSION

The Effect of Patient Safety Culture on Patient Safety Incident Reporting

Patient safety culture is one of the things that affect the reporting of patient safety incidents. Based on the results of the partial t-test, the analyst showed that t was calculated by 2,110 and the value of its significance of 0.037. The significance value of the partial t-test, which is less than the significance level of 5%, and the regression coefficient that is positive indicates that the patient safety culture has a positive and significant effect on patient safety incident reporting.

The results of the partial test analysis above are also supported by the results of the categorization of patient safety culture at Panembahan Senopati Hospital, which shows that most nurses have a good patient safety culture, which is 60.4%. This is also in line with the results of categorization for reporting incidents of patient safety at Panembahan Senopati Hospital which showed that most nurses also had good patient safety incident reporting, which was 59.0%. From the results of the categorization, it can be concluded that the better the patient safety culture, the better the reporting of patient safety incidents. This is in accordance with the results of categorization on both variables that have the same categorization class.

The results are in line with the results of a study conducted by (Yoo and Kim, 2017) that showed that there is a significant relationship between patient safety culture and reporting of patient safety incidents. It is also supported by (Verbakel et al., 2015) research which says that educating staff and facilitating staff in discussions about patient safety culture will have a positive impact on improving patient safety incident reporting. Therefore, reporting of patient safety incidents can be improved by improving the patient safety culture (Kim et al., 2018).

The results of the categorization of patient safety culture at Panembahan Senopati Hospital are mostly in the good category. However, when viewed from the results of categorization based on the average value of each dimension, there are some dimensions that still fall into the category of less good. Dimensions that fall into the unfavorable category are the frequency of reported events dimensions, the handoff and transition dimensions, and the management support for patient safety dimensions.

At Panembahan Senopati Hospital, there are still some health workers who are afraid to report incidents of patient safety. This can be caused because health workers are afraid to be blamed when reporting incidents of patient safety. Although the management always emphasizes that it will not be blamed or punished by the person who reported the patient safety incident. But in reality, there are still health workers who are afraid to report incidents of patient safety. Increasing the number of people who report patient safety issues, it can be done by eliminating the fear of being blamed on nurses and other health workers who report, not giving punishment, not blaming those who report patient safety incidents, and making standard operational procedures

simple and easy to do in reporting patient safety incidents (Susanti, 2021).

Medical errors can decrease by 23% after intervention in the handoff program, as well as communication training in the shift removal and switching process. So that Panembahan Senopati Hospital can improve the dimensions of handoff and transition by making a special innovation, one of which is by conducting training on the importance of oral and written communication in both the handoff and transition process (Starmer et al., 2014).

The implementation of the patient safety culture certainly requires management support. Leadership, safety culture, fulfillment of good structures and systems, and good management are the components needed to realize a culture of patient safety in hospitals. Leadership strengthening programs and management functions can improve the application and knowledge of patient safety in a hospital (Lestari et al., 2013).

At Panembahan Senopati Hospital, the culture of patient safety is one of the focuses that is always considered. To produce a good patient safety culture, Panembahan Senopati Hospital conducts various programs. One of them is to educate about the importance of implementing a patient safety culture and how a good patient safety culture on a regular basis in all individuals involved in patient care, both to employees and students who are conducting education at Panembahan Senopati Hospital. In addition, surveys of patient safety culture at Panembahan Senopati Hospital are routinely conducted every two years. This is stated in the regulation of the Director of Panembahan Senopati Hospital in 2017. The last survey was conducted in 2020. This patient safety culture survey was conducted to evaluate the application of patient safety culture by each individual involved in patient care, whether doctors, nurses, pharmacists, or other health workers.

The survey of patient safety culture conducted once two years at Panembahan Senopati Hospital is in accordance with ideal standards. The results of the survey can be used to find out whether the patient safety culture has been running well as stipulated. So that leaders and hospital management can make policies that are in accordance with the survey results. If the survey results are good, then it needs to be maintained and improved. But conversely, if the survey results are bad, then it is necessary to look for the cause and alternative ways to improve the patient safety culture (Alswat et al., 2017).

The Effect of Leader Coaching Behavior Nursing Manager on Patient Safety Incident Reporting

The importance of leader coaching behavior of nursing managers who are open and interactive is proven to improve patient safety incident reporting. Nurses will feel safe to speak up when viewing or conducting patient safety incidents. Because they realized it was done not to blame but to prevent the patient safety incident from happening in another room or being repeated in the same place (Lee and Dahinten, 2021).

In this study, based on the results of the test analysis t obtained a calculated value of 11,868 with a significance value of 0.000. Significance values less than 5% significance and positive regression coefficients showed that leader coaching behavior nursing manager had a positive and significant effect on patient safety incident reporting. The results of the categorization of the leader coaching behavior nursing manager at Panembahan Senopati Hospital also supported the results of the t-test analysis. The categorization results showed that most of the leader coaching behavior nursing managers at Panembahan Senopati Hospital in the category was very good, which was 58.2%. The categorization results are also in line with the results of the categorization of patient safety incident reporting, which showed that most nurses at Panembahan Senopati Hospital had good patient safety incident reporting, which was 59.0%. So it can be concluded that the better the leader coaching behavior of nursing managers, the better the reporting of patient safety incidents.

The results are in line with research conducted by (Harsul et al., 2020), which said that reporting of patient safety incidents could be improved with the support of hospital leadership and management. One important policy implemented and socialized is the "no blame" policy or will not be blamed who did or reported patient safety incidents. The provision of positive rewards and feedback by leaders will also make employees implement a culture of patient safety incident reporting.

In the description of each dimension on the variables of the nursing manager's leader coaching behavior based on the average value of each dimension, all dimensions in the category are good. However, when viewed from the frequency of the number of respondents, there is still a number of respondent answers that fall into the category of sufficient in each dimension, and there is still a number of respondent answers that fall into the category less and very less in the relationship dimensions. So it can be concluded that Panembahan Senopati Hospital still has to strive to improve the leadership coaching behavior of nursing managers in all dimensions, especially in the dimensions of the relationship.

Leadership style is very important to organize a productive discussion. Leaders who are open and position themselves as team members, as well as receiving input from other team members, will make learning from reported patient safety incidents to the maximum (Anderson and Kodate, 2015). To realize good leadership also requires communication and interaction with other good people as well. Communication skills that include active listening, providing feedback, encouraging information channels, and assertiveness are important skills possessed by a leader (Weiss and Tappen, 2014).

At Panembahan Senopati Hospital, each room leader participated in training gradually. The training is expected to be able to make every room leader can lead the managing nurse well. They were starting from how to communicate about what to do or what not to do and what should be reported related to patient safety incidents. Regular training can improve knowledge and skills, as well as emphasize the importance of teamwork to improve patient safety (Wang et al., 2014).

Every month there is also a meeting of the leadership of the room at Panembahan Senopati Hospital. The regular meeting is conducted to control and evaluate the achievements of patient safety programs that are and have been run. And whether there are obstacles in providing

coaching about the importance of patient safety to the managing nurse.

The Effect of Patient Safety Culture and Leader Coaching Behaviour of Nursing Managers on Reporting Patient Safety Incidents

Patient safety is an important component that must be considered in health care. Providing health care that prioritizes patient safety will produce meaningful positive impacts, such as decreased LA (Length of Stay) numbers, low risk of death, and low cost of care. Conversely, the provision of health services that do not prioritize patient safety will result in incidents of patient safety. Patient safety incidents will harm patients and increase the cost of care. Low patient safety incident reporting will be an obstacle to identifying the cause and preventing the incident from happening again (Jang et al., 2021). Reporting of patient safety incidents can be affected by a variety of factors. The culture of patient safety and the leader coaching behavior of nursing managers are evident in their influence on reporting patient safety incidents. A good patient safety culture and leader coaching behavior of nursing managers will result in good patient safety incident reporting (Chegini et al., 2020c).

In the description of each dimension on the patient safety incident reporting variable based on the average value of each dimension, all dimensions are in a good category. However, when viewed from the frequency of the number of respondents, there are still respondents who assess the reporting of patient safety incidents at Panembahan Senopati Hospital in the category is sufficient. Only the dimensions of governance and the dimensions of patient and family engagement are still there are respondents who rate in fewer categories. So it can be known that Panembahan Senopati Hospital still requires efforts to improve the reporting of patient safety incidents in every dimension, especially the dimension of governance and the dimension of patient and family engagement.

Reporting of patient safety incidents will provide clinical information. Clear governance or policies are needed to support the system of recording, storing, and using data related to patient safety incidents, including confidentiality and data protection, anonymity, record management, legality, and information management (WHO, 2020). At Panembahan Senopati Hospital, there are clear regulations regarding reporting patient safety incidents. The patient quality and safety committee is divided into two teams, namely the incident management team and the patient safety target team. The incident management team is responsible for standard operating procedures, grading patient safety incidents, and conducting analysis. At the same time, the patient safety target team is responsible for the achievement and evaluation of the implementation of the patient safety targets.

Patient and family engagement when a patient safety incident occurs is necessary. Patients and their families must participate or be involved in the investigation of incidents. The involvement of the patient and his family is an ethical obligation necessary for the patient and his family to accept sincerely (acceptance), show empathy, and rebuild the trust of the patient and his family. In addition, the involvement of patients and their families will also provide opportunities for them to share information or answer unresolved questions. This is in line with the hospital's goal of being a fair organization as well as meeting the individual needs of the patient and his or her family (Kok et al., 2018).

The survey instrument of the National Standard of Hospital Accreditation (SNARS) Edition 1 of 2018 also included an assessment of the rights of patients and families. Where the hospital is required to have regulations in the fulfillment of the rights of patients and their families. One of them is that the hospital provides explanations to patients and their families about the process of receiving, responding, and following up if there are patients who submit complaints, conflicts, and differences of opinion about patient services. The hospital also informs about the patient's right to participate in this process. This proves that the involvement of patients and families is very important (INSTRUMEN SURVEI STANDAR NASIONAL AKREDITASI RUMAH SAKIT EDISI 1 TAHUN 2018, 2018). There are several ways to involve patients and families and the process of investigating patient safety incidents, for example, through interviews, surveys, or direct involvement during meetings for root analysis of the problem when a patient safety incident occurs (Etchegaray et al., 2014).

Based on the results of multiple linear regression analysis, it can also be known that the culture of patient safety and the leader coaching behavior of nursing managers have a contribution to the reporting of patient safety incidents. This is seen from the value of F calculated at 88.545 with a significance value (Sig.) which is 0.000. Taking the real level of $\alpha = 5\%$, it is seen that the value of significance is less than $\alpha = 0.05$, then the hypothesis is accepted. It can be concluded that there is a significant or shared effect of patient safety culture and leadership coaching behavior of nursing managers on reporting patient safety incidents.

The results are in line with the results of the study, which showed that there is a significant relationship between patient safety culture, lead coaching behavior of nursing managers, and the educational status of nurses to reporting patient safety incidents (Chegini et al., 2020c). This is also in line with the results of (Ko and Yu, 2015) research which showed that there is a positive relationship between the leader coaching behavior of nursing managers with the culture of patient safety and reporting of patient safety incidents.

LIMITATION OF THE STUDY

This study has some limitations. First, the study sample was only taken from nurses serving onwards. Second, the study only used quantitative methods, so additional qualitative methods are needed to know in-depth about patient safety culture, lead coaching behavior of nursing managers, and reporting of patient safety incidents. Third, the filling of the questionnaire was not awaited directly by the researcher. So that if there is incomprehension of words or sentences on the questionnaire, respondents may answer soberly without understanding the meaning of the question. And lastly, in this study, the variables that affect the reporting of patient safety incidents at Panembahan Senopati Hospital focused only on two variables, namely patient safety culture and lead coaching behavior of nursing managers.

CONCLUSIONS AND SUGGESTION

The culture of patient safety positively and significantly affects the reporting of patient safety incidents at

Panembahan Senopati Hospital. The leader coaching behavior of nursing managers has a positive and significant effect on reporting incidents of patient safety at Panembahan Senopati Hospital. There is also a significant effect on patient safety culture and leadership coaching behavior of nursing managers simultaneously or jointly on reporting patient safety incidents.

There are some suggestions for further research. First, samples should be taken from all nurses in a hospital. Second, further research is suggested to add qualitative methods to know in-depth about patient safety culture, lead coaching behavior of nursing managers, and reporting of patient safety incidents. Third, filling out questionnaires should be awaited directly by researchers. So that if there is incomprehension of words or sentences on the questionnaire, respondents can ask directly to the researcher. And finally, further research is expected to add other factors that affect the reporting of patient safety incidents so that more complete research results are obtained.

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