Analysis of Patient Safety Culture Among Nurses in Inpatient and Outpatient Care Unit Jambi Teaching Hospital

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ABSTRACT

Patient safety has become a global concern since the publication of the Institute of Medicine report in 1990. Nurses are health workers who play a very important role in patient safety. The patient is on the nurse's responsibility 24 hours a day. Nurses fulfill all the basic needs of the patient every day, especially in patient safety. The purpose of this study was to determine patient safety culture at Jambi Teaching Hospital. This cross-sectional study was carried out on sample of 128 nurses in public hospital in Jambi. total sampling was used in this study. Data were collected using patient safety culture questionnaire (HSOPSC) by Radloff which consists of 12 factors and 42 question items . SPSS were used to perform statistical analysis. Most of respondents (69,5%) stated cooperation within units in high categorized, supervision (80.5%) was in moderate category, organizational learning (69.5%) was in moderate category, management support (68%) was in moderate category, perceptions of patient safety (85.9 %) in moderate category, cooperation between units (88.3%) in moderate category, staffing (89.8%)in moderate category, hands-off & transition (60.9%) in moderate category, Non punitive response (80.5%) in moderate category, feedback (64.8%) in moderate category, communication open (88.3%) in moderate category, frequency of incident reporting (75%) in moderate category. The results of this study have shown overall patient safety culture in the Outpatient and Inpatient care unit of Jambi Teaching Hospital. Hospitals need to create good patient safety culture to increase nurse job satisfaction which affects the performance of nurses and the rate of insiden report.

Keywords: Patient Safety Culture.

1. BACKGROUND

Complex health services that involve a variety of health workers have created a risk of negligence, disability and even unwanted death. These unwanted events can occur from events that do not cause side effects to cause death. Patient safety is often overlooked because of considerations in the cost of care. Responding to payer constraints, many hospitals have begun reducing costs by shortening the length of stay in the hospital, cutting nursing staff, and increasing workloads. [1]

The world health organization has estimated that tens of millions of patients are victims of injuries and death from negligence, and unprotected medical care around the world. Medical error in US annually result in 44000 to 98000 death in hospital. Based on the available evidence, it is estimated that in developed countries, 1 out of patients will be injured during services.

Nurses are health workers who play a very important role in patient safety. The patient is on the nurse's responsibility 24 hours a day. The nurse plays an important role in all aspects of patient care, such as provide direct care, giving education, and coordinate with all health workers related to patient treatment and care. Nurses are in control in meeting all the basic needs of patients on a daily basis. This study aims to determine the application of patient safety culture related to patient safety incidents in the Inpatient and outpatient Care unit.

2. METHOD

The aim of this study is to analyse patient safety culture in the Inpatient and Outpatient Care unit, Jambi teaching Hospital, this cross-sectional study was conducted in selected public hospital in Jambi. The investigation was carried out from agustus 2020 to Desember 2021 on sample of 128 nurses in public hospital in Jambi. total sampling was used in this study. Data were collected using patient safety culture questionnaire (HSOPSC) by Radloff which consists of 12 factors and 42 question items . SPSS were used to perform statistical analysis. In this study, full-time employment, the physical and mental desire and ability to participate, and having more than 6 months of work in the hospital were defined as inclusion criteria.

3. RESULTS

Based on table 1, 95.3% of 128 respondent were female, 46.1% or 59 respondents aged 26-35 years, 62,5% or 80 respondents was graduated in diploma. 94.5% of all respondents who work in inpatient care units were married, 59.4% of respondent are civil servants. 50,8% of all respondent have been work for more than 10 years.

Table 1. Characteristics of Respondents

No.	Variable	n	%
1.	Characteristics Respondent		
	Age		
	26 - 35 years	59	46,1
	36 - 45 years	44	34,4
	46 - 55 years	23	18,0
	56 - 60 years	2	1,6
	Total	128	100
	b. Gender		
	Male	6	4,7
	Female	122	95,3
	Total	128	100
	c. Last Education		
	Diploma 3 in Nursing	80	62,5
	Diploma 4 Nursing	7	5,5
	Bachelor in Nursing	39	30,5
	Master in Nursing	2	1,6
	Total	128	100
	d. Unit Kerja		
	Inpatient Care unit	121	94,5
	Outpatient Care unit	7	5,5
	Total	128	100
	e. Marital Status		
	Married	7	5,5
	Single	121	94,5
	Total	128	100
	f. Employment status		
	PNS	76	59,4
	Contract worker	52	40,6
	Total	128	100
	g. Length of work		
	1-3 year	8	6,3
	3-5 year	12	9,4
	5-10 year	43	33,6
	>10 year	65	50,8
	Total	128	100

Table 2. Dimensions of Patient Safety Culture

Patient safety culture	Kategori			n	%
	Rendah	Sedang	Tinggi		
Cooperation in unit	1	38	89	128	100
	0,8%	29,7%	69,5%	100	100
Total	1	38	89		
Supervision	0	103	25	128	100
	0	80,5%	19,5%	100	100
Total	0	103	25		
Learning organisation	0	89	39	128	100
	0	69,5%	30,5%	100	100
Total	0	89	39		
Support	0	87	41	128	100
Management	0	68%	32%	100	100
Total	0	87	41		
patient safety perception	8	110	10	128	100
	63%	85,9%	7,8%	100	100
Total	8	110	10		
Cooperation within unit	0	113	15	128	100
	0	88,3%	11,7%	100	100
Total	0	113	15		
Staffing	3	115	10	128	100
	2,3%	89,8%	7,8%	100	100
Total	3	115	10		
Hands-off & transition	45	78	5	128	100
	35,2%	60,9%	3,9%	100	100
Total	45	78	5		
Non punitive response	14	103	11	128	100
	10,9%	80,5%	8,6%	100	100
Total	14	103	11		
Feedback	2	83	43	128	100
	1,6%	64,8%	33,6%	100	100
Total	2	83	43		
Open Communication	6	113	9	128	100
	4,7%	88,3%	7,0%	100	100
Total	6	113	9		
Frekuen event report	0	96	32	128	100
	0	75%	25%	100	100
Total	0	96	9		

Based on table 2, it can be seen that patient safety culture in the Hospital is in moderate category. Most of respondents stated that supervision, organizational learning, management support, collaboration between units, staffing, Hands-off & transition, Non punitive response, feedback, open communication, and the frequency of reporting incidents in the medium-cultured category, only cooperation within units at high culture category.

Table 3. Demographic data and patient safety culture at Jambi Teaching Hospital

Variabel	Budaya Keselamatan Pasien								P-value
	Rendah		Sedang		Tinggi				
	N	%	N	%	N	%		Total	
Gender									
Laki-laki	0	0	6	100	0	0	6	4,68	0,679
Perempuan	7	5,7	108	88,5	7	5,7	122	95,3	
Usia									
26 - 35 years	1	1,7	54	91,5	4	6,8	59	46,0	0,529
36 - 45 years	5	11,4	37	84,1	2	4,5	44	34,3	
46 - 55 years	1	4,3	21	91,3	1	4,3	23	17,9	
56 - 60 years	0	0	2	100	0	0	2	1,56	
Pendidikan									
D3 in nurse	4	5	72	90	4	5	80	62,5	
D4 in Nurse	1	14,3	5	71,4	1	14,3	7	5,46	0,099
Bch in nurse	1	2,6	36	92,3	2	5,1	39	30,46	
Master in nurse	1	50	1	50	0	0	2	1,56	
Unit Kerja									
Inpatient care	6	5	108	89,3	7	5,8	121	94,5	0.480
Outpatient care	1	14,3	6	85,7	0	0	7	5,46	
Status Pernikahan									
Belum nikah	0	0	7	100	0	0	7	5,4	0,635
Sudah nikah	7	5,8	107	88,4	7	5,8	121	94,5	
Employment st									
Civil servant	7	9,2	67	88,2	2	2,6	76	59,3	0,023
privat	0	0	47	90,4	5	9,6	52	40,6	
length of working									
1 – 3 years	6	9,2	57	87,7	2	3,1	65		
3 – 5 years	0	0	7	87,5	1	12,5	8		0,326
5 – 10 years	0	0	12	100	0	0	12	9,3	
> 10 years	1	2,3	38	88,4	4	9,3	43		

Based on table 3, it can be seen that 88.5% of 128 respondent were in moderate patient safety culture. 91.5% respondents aged 26-35 years. 90% of all respondents with diploma in education were in a moderate patient safety culture. 89.3% who work in inpatient units have a moderate patient safety culture. 88.4% of all respondents with married status have a moderate patient safety culture. 88.2% of respondents have employment status as civil servants. Most of the respondents who have worked 1-3 years have a moderate patient safety culture as many as 57 respondents (87.7%).

4. DISSCUSION

88,5% of 122 female respondents were in moderate category. The results of statistical tests using chi-square test obtained p-value 0.679 which means there is no relationship between gender and patient safety culture. This research is in line with research conducted by Nivilinda (2013) which states that in nursing

management there is no ideal limit for the ratio of male and female nurses, but in nursing management regarding service schedule arrangements, it is recommended that in one shift there are male and female nurses so that if taking privacy measures can be performed by nurses of the same sex.

48,6% of all nurses aged in range 26-35 years 91.5% of them were in moderate category the results of statistical tests using the chi-square test obtained p-value 0.529 which means there is no relationship between age and patient safety culture. This research is in line with research conducted by Sabila (2014) which shows that young adults (20-40 years) are the peak developmental age in applying knowledge and skills and the habit of rational thinking will increase.

62,5% of all nurses graduated from diploma 3 in nursing. 90% of them was in moderate categorized. The level of nurse education will make nurses accustomed to being more rational and creative in accepting various renewal efforts and being able to adapt to these reforms. The majority of respondents who work in inpatient units have a moderate patient safety culture as many as 108 respondents (89.3%) The results of statistical tests using the chi-square test obtained a p-value 0.480

88.4% of 128 respondents have been married. The results of statistical tests using the chi-square test obtained p-value 0.635 which means there is no relationship between marital status and patient safety culture in Inpatient and Outpatient care unit. 76% of all respondent that involved in this study was civil servant. 88.2% of them was in moderate category. 87.7% of the respondents had worked 1-3 years in the hospital. Most of them in moderate category. The results of statistical tests using the chi-square test obtained p-value of 0.326 which means there was no relationship between length of work and patient safety culture in Inpatient and Outpatient care unit. The longer the nurse works, doesn't means the more cases are handled so that the experience increases, and vice versa, the shorter the nurse works, the fewer cases they handle.

4.1. Dimensions of Patient Safety Culture in The Hospital

4.1.1. Cooperation within the unit

In dimension of cooperation, 69.5% of all respondents in high category which means safety culture in the dimension of cooperation within the unit is categorized as high culture. Cooperation in units shows the extent to which members of a division are cohesive and work together in teams. Cooperation is defined as a collection of individuals with specific skills who work together and interact to achieve common goals. [2] While Thompson (2000) in (Setiowati, 2010) defines a team as a group of people who are interrelated with information, resources, skills, and trying to achieve common goals. The chance of the incident occurring as a result of certain conditions. Conditions that facilitate errors include environmental disturbances and teamwork that does not work. [3] According to Lestari (2013) communication barriers and an unbalanced division of tasks are the causes of ineffective teamwork. [4]

4.1.2. Supervision

In dimension of supervision, the role of the leader is very dominant in determining the failure and success of an organization. supervision has a moderate response of 80.5% which illustrates that the dimension of supervision can be interpreted as being cultured. Human resources in the hospital as individuals who directly implement health services must be able to meet needs both in quality and quantity. The quality element of a person can be seen from the element of education and the basic competencies they have. Competence of human resources in hospitals can be carried out through efforts to meet competency standards of each officer in accordance with the standards set by the profession. Hospitals can implement measures such as delegating officers to attend competency-based training.

4.1.3. Organizational Learning

Based on the results of research on the organizational learning dimension or continuous improvement regarding patient safety, it was measured from 3 statements. In this dimension, the response obtained is 69.5% which can be interpreted as a safety culture in the organizational learning dimension in the Outpatient and Inpatient Unit, which is categorized in moderate culture. Organizational learning or continuous improvement is carried out by a special team in strategizing patient safety culture values. Feedback from organizations and teammates is a form of organizational learning and is an effort to evaluate the effectiveness of programs that are already running [5].

4.1.4. *Management support*

In dimensions of management support for patient safety there are 4 statements that are measured in this dimension. In this dimension, the response obtained 68%, which can be categorized that the patient safety culture in this dimension can be said to be moderate. In the dimensions of expectations and actions of managers to promote patient safety, what is meant by the manager here is the direct supervisor of each executive nurse, namely the head of the room. The head of the room is a nurse who has the duty and responsibility to regulate and control the activities of nurses in the ward to ensure safe care for patients [6]. Strong leadership, one of which must be possessed by the head of the room, can build a patient safety culture that allows the entire team to support and improve patient safety [7].

4.1.5. *Perceptions of patient safety*

Based on the results of this study, dimensions of perception of patient safety had a response of 85.9% which illustrates that the dimensions of perception of hospital staff about patient safety can be interpreted as being cultured. This shows that the level of understanding and knowledge of patient safety perceptions by respondents so far is sufficient, however it is better if the interpretation for health workers in the hospital should be in the high category. Perception is the process of interpreting sensations so that they make them meaningful. The process of observing someone that comes from cognitive abilities that is influenced by factors of the learning process, empirical experience, paradigm and one's knowledge. Many factors that influence perceptions can come from the parties who form perceptions [8].

4.1.6. *Cooperation between units*

Dimension of teamwork in the Outpatient and Inpatient Unit showed there was a positive response of 88.3% which could be interpreted as having a moderate culture. Cooperation between units indicates the extent of cohesiveness and teamwork between units or parts of providing health services to patients. This cooperation can be interpreted in terminology as a group of people with special skills who work together and interact to achieve the goals of the institution. [2]

4.1.7. *Staffing*

Based on the results of this study, staffing dimension had a response of 89.8% which illustrates that the staffing dimension can be interpreted as moderate culture. Human resources in the hospital as individuals who directly implement health services must be able to meet both in quality and quantity. The quality element of a person can be seen from the element of education and the basic competencies they have. Competence of human resources in hospitals can be carried out through efforts to meet the competency standards of each officer in accordance with the standards set by the profession. Hospitals can implement measures such as delegating officers to attend competency-based training

4.1.8. *Hands-off & transitions*

Based on the results of this study, dimensions of handoffs and transitions between service units had a response of 60.9% which illustrates that dimensions of hands-off work and patient transition can be categorized in moderate culture. Hand-offs and transitions are related to cooperation within units and between units, the profession that usually undergoes shift changes is of course a nurse. According to Hamdani (2017), transition is a process of moving patients from one place to another. Transfer of patients from a unit to another can be in the form of moving patients from the emergency room to the unit in order to get treatment. In this transfer, an error can occur that endangers the patient such as the fall of the patient and misinformation when there is an exchange of information about the patient. Misinformation about these patients can also occur at change of shift between nurses. [9]

4.1.9. *Non-punitive response to errors*

Nurses and patients are treated fairly when an incident occurs. When an incident occurs, it should not focus on finding individual mistakes but rather study the system that results in errors. A culture of not blaming needs to be developed to strengthen a culture of patient safety. Based on the results of the study, the dimension of the no-blame response at the Jambi Teaching Regional Hospital had a response that was 80.5%, which means moderate culture. Even so, there are nurses who worry that the mistakes they make will be recorded in personal documents by the leadership and worry that they will be blamed or punished. Penalties for a mistake are used to correct and prevent the same mistakes from recurring.

4.1.10. *Feedback*

In the dimensions of feedback and communication to errors, 64.8% of the responses were categorized as moderate culture. Feedback and communication of errors or errors is very important after reporting of each incident to patient safety. One of the core principles in incident reporting according to Mahajan (2011) in Hamdani (2007) is that reporting can only provide benefits if it is responded to in a constructive manner. At least there is feedback from the analysis of findings. Ideally there are recommendations for changes to all systems. Feedback from organizations and teammates is a form of organizational learning. One of the barriers to recording and reporting systems is the lack of feedback on incident reports. [10]

4.1.11. *Open communication*

In open communication dimension there was a response of 88.3% which was categorized as a moderate patient safety culture. Since 2010 openness in communication has become a standard for the Joint Commission Accreditation of Health Organization (JCI) (2011). [1] Open communication can be applied at the time of operand or handover of patients, nursing rounds, and briefings before carrying out activities. At the time of handover, a nurse is expected to be able to communicate openly by communicating to other nurses about the risk factors for an incident. Briefing can be used as a way to obtain information related to current issues related to the culture of patient safety, nurses can also ask questions freely and openly about patient safety that are at risk of providing daily nursing care. Nursing rounds can be done weekly and only focuses on patient safety [9].

Safety culture is an output of individual and group values, behaviors, competencies, and patterns and habits that reflect the commitment and style and skill of organizational management and patient safety. Patient safety culture is an important thing because building a patient safety culture is a way of building a patient safety program as a whole, because if we focus on patient safety culture it will produce more safety results when compared to just focusing on the program. An organizational culture that prioritizes patient safety in providing health services will create a high patient safety culture in a hospital. Based on the description above, it can be seen that the level of patient safety culture was in the moderate culture category.

5. CONCLUSIONS AND SUGGESTIONS

The results of this study have shown that the study of the overall patient safety culture in the Outpatient and Inpatient care unit was categorized in a moderate culture of safety culture. The patient safety culture measurement questionnaire can be applied by nurses to obtain a situational picture and the level of quality of the application of patient safety culture related to the development of 12 scope or dimensions of patient safety culture from HSOPSC (Hospital Survey on Patient Safety Culture). Hospitals need to create a good patient safety culture to increase nurse job satisfaction which affects the performance of nurses. The leader of the hospital can increase structural empowerment in the hospital environment by rewarding employees' achievements and creating flexibility in the work given, focusing staff work on the goals the organization wants to achieve and making it easier for staff to achieve organizational goals.

AUTHORS' CONTRIBUTIONS

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