

## Patient Safety Culture in Hospitals based on Agency for Health Care Research and Quality

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#### **ABSTRACT**

Background: The first step towards patient safety is to build a good patient safety culture. Patient safety culture measurements can be used as evaluations to improve quality and patient safety. This study aims to determine an overview of patient safety culture in hospitals.

Subjects and Method: This was a cross-sectional study conducted at Panembahan Senopati Hospital from July to September 2022. Total sample was 383 hospital employees selected using simple random sampling. The dependent variable was patient safety culture. The independent variables were information disclosure, feedback and communication about patient safety incidents, management support for patient safety, non-punitive response to errors, organizational learning and continuous improvement, staffing, staff expectations of supervisor/management attitudes and actions in encouraging patient safety, cooperation within the unit, frequency of incident reporting, overall perception on safety, handoff and transition, and cross units cooperation. The data were colelcted using the Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire developed by the Agency for Health Care Research Quality (AHRQ) consisting of 12 dimensions of patient safety culture. The study data were analyzed in descriptive analysis.

Results: The positive value of patient safety culture was categorized as medium (72.12%). The dimensions of patient safety culture with strong categories (>75%) were intra-unit cooperation, managerial support for patient safety, organizational learning, and inter-unit cooperation. Medium categories (50%-75%) included employee perceptions of patient safety, error feedback and communication, open communication, incident reporting frequency, handoffs and transitions, and non-punitive error responses. The weak category (<50%) was staffing.

**Conclusion:** Strength areas of patient safety culture include organizational aspects, management support, cross-unit and intra-unit cooperation, and managerial actions promoting safety. Areas needing development are staffing, open communication, and incident reporting, which must be prioritized for improvement.

**Keywords:** hospital survey, patient safety, safety culture, agency for health care research quality

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### **BACKGROUND**

Law Number 44 of 2009 concerning Hospitals states that the operation of a hospital must be based on the value of patient protection and safety (Kementrian Kesehatan RI, 2009). Patient safety is a system in hospitals that generates a safer patient care to reduce risks and prevent injuries resulting from errors in an intervention or not implementing intervention according to procedures (PERMENKES NO 11, 2017) Patient safety goals must be implemented in the Hospital as an effort to prevent the occurrence of Patient Safety Incidents (PSI) (Kepmenkes RI, 2022).

A patient safety incident is an event or situation that has the potential to result in injury that is not supposed to happen (Salawati, 2020). According to WHO, unsafe interventions can lead to patient safety incidents and as one of the top 10 causes of death in the world. Every year an estimated 134 million incidents are caused by unsafe measures in hospitals in several low- and middle-income countries and 2.6 million of them result in death (Jha et al., 2013). Until now, Patient Safety Incidents (PSI) are still a major problem for all accredited hospitals as one of the indicators of Quality Improvement and Patient Safety, in which all services have a risk to patient safety (Huriati et al., 2022).

The first step towards patient safety is to build a good patient safety culture (Sorra et al., 2018). Evaluation of patient safety culture can provide a clear picture of which aspects of patient safety still require further attention (Khoshakhlagh et al., 2019). The implementation of a patient safety culture will provide benefits for patients and health care providers. The implementation of a patient safety culture will detect errors that will occur or if mistakes occur. A patient safety culture can raise awareness to prevent mistakes and report if there are mistakes. A

patient safety culture will also reduce financial expenses resulting from patient safety incidents (Romi Begiata, 2012).

According to the Agency for Healthcare Research and Quality (AHRQ, 2004), Patient safety culture is a product of individual and group value, attitude, perception, competency, behavior pattern, and organizational/ institutional, health and safety behaviors, skills and management. Organizations that have a positive safety culture are characterized by communication based on mutual trust, a shared perception of the importance of safety, and a belief in the success of preventive measures (Tear et al., 2020). Patient safety culture according to AHRQ can be measured in terms of the perspective of hospital staff which consists of 12 dimensions including: expectations and actions of managers promoting patient safety, organizational learning, continuous improvement, cooperation within units in the hospital, communication openness, feedback and communication regarding errors, non-punitive responses to errors, staffing, management support for patient safety efforts, cross units cooperation in the hospital, patient handoffs and transitions, perceptions of all staff in the hospital regarding patient safety, and frequency of patients safety incident reporting (AHRQ, 2004). Building a culture of patient safety in the hospital is the obligation and responsibility of all staff working in the hospital, especially professional caregivers who interact directly with patients that allow them to discover and experience the risk of errors when providing services.

A health organization / institution will have a positive patient safety culture, if it has cultural dimensions including: open culture, just culture, reporting culture, learning culture, and informed culture (El-Jardali et al., 2014). According to Sammer (2010) through his review, he explains that there

are seven subcultures involved in the scope of patient safety culture, including: leadership, teamwork, evidence based, communication, learning from mistakes, just, and patient-centered service (Sammer et al., 2010)

Panembahan Senopati General Hospital is one of the local government organizations as a provider of complete individual health services that provides inpatient, outpatient and emergency services with a comprehensive, preventive, curative, and rehabilitative approach. Therefore, Panembahan Senopati Hospital, Bantul Regency continues to provide quality and affordable health services in accordance with the hospital's duty, namely carrying out health service efforts effectively and successfully by prioritizing recuperation and recovery which is carried out harmoniously and integrated with the improvement and prevention and implementation of referral efforts (Profil Rumah Sakit Umum Daerah Panembahan Senopati Tahun 2021).

Panembahan Senopati General Hospital in delivering health services, is committed to prioritizing patient safety. In line with this, a Quality and Patient Safety Committee has been formed in which there is a Quality Subcommittee and a Hospital Patient Safety Subcommittee. The Patient Safety Subcommittee is in charge of handling the patient safety system in the hospital. Due to the reporting patient safety incidents issues and the importance of implementing a patient safety culture at Panembahan Senopati Hospital, it is necessary to measure patient safety culture.

This study aims to discover an overview of patient safety culture at Panembahan Senopati Hospital with the intention of identifying strength areas and weakness areas based on 12 dimensions of patient safety culture

### SUBJECTS AND METHOD

### 1. Study Design

This was a cross-sectional study conducted at Panembahan Senopati Hospital, Bantul, from July to September 2022.

### 2. Population and Sample

The source population in this study was all employees at Panembahan Senopati Hospital. Total sample was 383 study subjects selected using simple random sampling.

### 3. Study Variables

The dependent variable was patient safety culture. The independent variables were 12 dimensions based on the Hospital Survey on Patient Safety Culture (HSOPSC) developed by the Agency for Health Care Research Quality (AHRQ consisting of information disclosure, feedback and communication about patient safety incidents, management support of patient safety, non-punitive response to errors, organizational learning and continuous improvement, staffing, staff expectations of supervisor/management attitude and actions in promoting patient safety, cooperation within the unit, incidents reporting frequency, overall perception on safety, handoff and transition, and cross units cooperation.

# 4. Operational Definition of the Variables

Patient safety culture is a product of individual and group values, attitudes, perceptions, competencies, and behavior patterns that determine commitment and style as well as the ability to manage health and safety within an organization/institution.

**Communication openness** is that staff are free to speak up when they see something that can have a negative impact on patients, and feel free to ask questions of those who have higher authority.

Feedback and communication regarding patient safety incidents is Staff are informed of errors that occur, given

feedback on the implementation of changes, and discuss ways to prevent errors.

Management support for patient safety is the hospital management providing a working climate that promotes patient safety and demonstrates that patient safety is a top priority.

**Non-punitive response to errors** is that staff feel that mistakes and incident reports are not used to blame them and are not recorded in their personal documents.

Organizational learning and continous improvement there is a learning culture where mistakes bring positive change and evaluation is conducted toward the effectiveness of change.

**Staffing** is that there are sufficient staff to handle the workload and the appropriate number of working hours to provide the best possible service to patients.

Staff expectations of supervisor/ manager attitudes and actions in promoting patient safety is the positive or negative attitude of the supervisor/ manager towards patient safety efforts.

**Cooperation within the unit** Staff support each other, respect each other and work as a team.

**Reporting frequency** The types of errors reported include errors discovered and corrected before they affect the patient, errors without the potential to injure the patient, and errors that may injure the patient but do not occur.

**Overall perception of patient safety** is the staff's perception of procedures and systems to prevent errors and reduce patient safety concerns.

**Handoff and transition** is important information about patient care delivered at the time of transfer of patients between one unit to another and or during shift changes.

**Cross Units cooperation** Units in the hospital cooperate and coordinate with each other to produce the best service for patients.

### 5. Study Instruments

The study instrument used for data collection was the Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire developed by the Agency for Health Care Research Quality (AHRQ) which contains 42 statements covering 12 dimensions of patient safety culture. The questionnaire used positive and negative statements with Likert Scale answers consisting of "strongly disagree/ never", "disagree/rarely", "agree/ often" and "strongly agree/always".

### 6. Data Analysis

Univariate analysis to obtain the frequency distribution of each dimension. Then the data were classified into 2 categories, i.e. positive response and negative response. Patient safety culture was classified into 3 categories based on guidelines for data collection namely Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire developed by the Agency for Health Care Research Quality (AHRQ). A patient safety culture is said to be a strong category if the positive response ≥75%, a moderate category if the positive response 50-75%, and a weak category if the positive response <50%.

### **RESULTS**

### 1. Sample Characteristics

The subjects of this study consisted of 383 hospital employees. The characteristics of the study subjects included professions, work units, length of service, duration of work, and incident reporting frequency. The frequency distribution of the characteristics of the study subjects is described in table 1.

Table 1. Characteristics of the Study Subject

Variable	Category	Frequency n = 383	Percentage %
Work Unit	Emergency Care	15	3.92
	Medical Rehabilitation	13	3.39
	Surgical Center	13	3.39
	Radiology	11	2.87
	Inpatient care	81	21.15
	Pediatrics	25	6.53
	Maternal	15	3.92
	Perinatal	33	8.62
	Intensive Care	44	11.49
	Clinical Pathology	14	3.66
	CSSD	1	0.26
	Pharmacy	9	2.35
	Nutrition	$3\overline{2}$	8.36
	Sanitation	0	0
	Laundry	1	0.26
	Others	76	19.84
	Total	383	100
Professions	Doctor	33	8.62
TOTOSSIONS	Nurse	220	57·44
	Midwife	19	4.96
	Health analyst		
	Pharmacists	13 6	3.39
			1.57
	Pharmacy Assistant	4	1.04
	Radiographer	9	2.35
	Nutritionist	6	1.57
	Physiotherapist	8	2.09
	Medical Record Officer	3	0.78
	Administrative Officer	14	3.66
	Others	48	12.53
	Total	383	100
Direct	Yes	331	86.42
interaction	No	52	13.58
with patients	Total	383	100
Length of	< 1 year	23	6.01
service in the	1-5 years	65	16.97
hospital	6-10 years	68	17.75
	11-15 years	116	30.29
	16-20 years	47	12.27
	≥21 years	64	16.71
	Total	383	100
Length of	< 1 year	59	15.40
service in the	1-5 years	110	28.72
unit	6-10 years	69	18.02
	11-15 years	87	22.72
	16-20 years	34	8.88
	≥21 years	24	6.27
	Total	383	100
Working time of	< 20 hours	4	1.04
the week	20 - 39 hours	175	45.69
	> 40 hours	204	53.26

Variable	Category	Frequency	Percentage	
v ai iabic		n = 383	%	
	Total	383	100	
Incident	None	209	54.57	
reporting	1-2 reports	115	30.03	
frequency	3-5 reports	47	12.27	
	6-10 reports	7	1.83	
	11-20 reports	3	0.78	
	≥ 21reports	2	0.52	
	Total	383	100	
Patient safety	Exquisite	23	6.01	
level	Good	305	79.63	
	Acceptable	27	7.05	
	Moderate	28	7.31	
	Poor	О	0	
	Total	383	100	

Respondents who participated in this study came from all components of the work unit in the hospital, whether they interact directly with patients or not. Based on table 1 it can be seen that most of the respondents came from inpatient (21.15%), based on profession most of the respondents were nurses (57.44%) and mostly interacted directly with patients (86.42%). On the question about the assessment of the level of patient safety in hospitals, most respondents as many as 305 respondents stated good, (79.63%), while 23 respondents (6.01) stated exquisite, 27 respondents (7.05%)

stated acceptable, and 28 respondents (7.31%) stated moderate. Another interesting point was that most respondents (54.57%) had not reported about patient safety incidents in the past 12 months and only 5 people (1.3%) had reported more than 10 times.

# 2. Overview of Patient Safety Culture Dimension

The results of the safety culture survey at Panembahan Senopati Hospital in 2022 toward 383 respondents can be seen in table 2.

Table 2. Overview of Patient Safety Culture Dimension

Code	Agnosts of Dationt Safety Culture Dimension	% Positive	Culture
	Aspects of Patient Safety Culture Dimension	Response	Category
Cooperation within the unit		83.81	Strong
A1	Employees in our unit support each other	94.26	Strong
A3	When we have work in and needs to be done quickly, the employees in our unit work together as a team to complete the work	93.21	Strong
A4	The officers in our unit respect each other	94.78	Strong
A11	If an area in our unit is busy, then other areas of our unit will help	53	Moderate
Manager expectations and actions in promoting patient		79.11	Strong
safety			_
B1	Our unit manager/supervisor praises us for seeing work completed according to patient safety procedures	69.71	Moderate
B2	Managers/supervisors seriously consider staff input to improve patient safety	89.03	Strong

Code	Aspects of Patient Safety Culture Dimension	% Positive Response	Culture Category
В3	When the workload is high, our manager/supervisor asks us to work fast even by taking shortcuts	74.41	Moderate
B4	Our managers/supervisors always exaggerate patient safety issues that occur in our unit	83.29	Strong
Organ	izational learning	96.34	Strong
A6	Our unit actively conducts activities to improve patient safety	97.65	Strong
A9	In our unit, mistakes are used to make positive changes	93.99	Strong
A13	To improve patient safety, our unit evaluates the changes/improvements made	97.39	Strong
Manas	gement support for patient safety	86.34	Strong
E1 `	Hospital management creates a working atmosphere that supports patient safety	92.43	Strong
E8	Hospital management measures show that patient safety is a top priority	93.73	Strong
E9	Hospital management is interested in patient safety only when an Undesirable Event occurs	72.85	Moderate
Emplo	yee perception of patient safety	69.06	Moderate
A15	Our unit never sacrifices patient safety to complete more tasks	87.21	Strong
A18	The procedures and systems in our unit are good in preventing incidents / errors	90.08	Strong
A10	It would be fortunate if more serious incidents do not occur in our unit	34.46	Weak
A17	In our unit there are many patient safety issues	64.49	Moderate
Feedb	ack and communication to errors	64.93	Moderate
C1	Employees in our unit obtain feedback on implemented changes based on incident reports	50.13	Moderate
С3	Employees in our unit are informed about incidents that occur in the unit	58.75	Moderate
C5	In our unit, we discuss how to prevent incidents from happening again	85.90	Strong
Open (	communication	58.22	Moderate
C2	Employees in our unit are free to speak up if they see something that could have a negative impact on patient care	51.17	Moderate
C4	Employees in our unit may question decisions or actions taken by their superiors	56.92	Moderate
C6	Employees in our unit are afraid to ask if something goes wrong	66.58	Moderate
Incide	nt reporting frequency	58.31	Moderate
D1	If something goes wrong, but it is noticed and corrected before it impacts the patient, how often is this reported? (mitigation)	54.57	Moderate
D2	If something goes wrong, but has the potential to harm the patient, how often is it reported? (prevent)	68.93	Moderate
D3	If something goes wrong, and it should have injured the patient but it does not happen, how often is this reported? (lucky)	51.44	Moderate
Cross	Units Cooperation	85.31	Strong
E4	There is good cross units cooperation in the hospital to complete the work together	87.73	Strong

Code	Aspects of Patient Safety Culture Dimension	% Positive Response	Culture Category
E10	The units in the hospital work together well to provide the best service for patients	93.73	Strong
E2	In our hospital, one unit with another unit does not coordinate well	76.24	Strong
E6	It is often very unpleasant to work with staff in other units of the hospital	83.55	Strong
Staffin	ng	45.82	Weak
A2	Our unit is not staffed enough to handle the excessive workload	44.91	Weak
A5	Employees in our unit work overtime for patient safety	38.12	Weak
A7	Our unit uses a lot of additional personnel for patient safety activities	45.43	Weak
A14	We work as if in a "crisis", trying to do a lot quickly	46.74	Weak
Handoffs and transitions		71.02	Moderate
Е3	When there is a transfer of patients from one unit to another, it inevitably creates problems related to patient information	61.88	Moderate
E5	Important information about patient care is often lost during change-of-shift	70.50	Moderate
E7	Problems always arise in the exchange of information between units in the hospital	66.32	Moderate
E11	Changes of shift are a problem for patients	85.38	Strong
Non-punitive response to errors		67.10	Moderate
A8 ¯	Our unit employees often feel that the mistakes they make are used to blame them	83.29	Strong
A12	When our unit reports an incident, the perpetrator is the conversation piece instead of the problem	78.33	Strong
A16	Employees worry that mistakes they make will be recorded in their performance appraisals	39.69	Weak
ACCO	MPLISHMENT	72.12	Moderate

A total of 12 dimensions had been asked to respondents to determine areas that were the strength of the hospital which means areas that had a positive value of more than 75% and areas that required improvement, which means those that had a positive value of less than 50%. An overview of patient safety culture at Panembahan Senopati Hospital in 2022 obtained a positive response reaching 72.12% which was included in the medium category. The results of the safety culture overview were supported from data on each dimension.

Out of the 12 dimensions measured, five dimensions had a positive value of > 75% with overall positive responses ranging

from 45.82% - 96.34%. The dimension that showed the highest value was organizational learning or continuous improvement (96.34%), followed by management support for patient safety (86.34%) and cross units cooperation (85.31%). This dimension can be considered as one of the sources of strength of the hospital. While the dimensions with the lowest value were staffing (45.82%), open communication (58.22%) and incident reporting frequency (58.31%).

The lowest score of all dimensions of patient safety culture was the staffing dimension (45.82%). This means that most respondents stated that staff allocation and deployment were inadequate compared to

the workload of handling patients safely. Various things to be considered related to the implementation of staffing at the hospital. Designing work by paying attention to human factors such as in the arrangement must take into account working hours, workload, staffing ratios and also the shift system by paying attention to fatigue factors, sleep cycles, and others and designing work for patient safety such as training, assigning the right people and putting someone in the right position.

The low value of the incident reporting frequency dimension is supported by data on the low number of incident reports over the past 12 months, with a total of 54.57% respondents stated that they had never reported a patient safety incident. One of the factors contributing to the low rate is reflected in the subdimension that 60.31% of staff were concerned that mistakes made will be recorded in their work assessments.

### DISCUSSION

### 1. Cooperation within the unit

This study showed a positive response value on the dimension of cooperation within the units was 83.81% categorized as strong. This dimension can be regarded as one of the sources of strength of the hospital. This research is in line with research (Mrayyan, 2022) that cooperation within the unit is an area of strength in the patient safety culture. The results of the systematic review stated that the most important component of patient safety culture in recent years studies is teamwork and organization (Azyabi et al., 2021). Cooperation within the unit is needed for coordination with several members or colleagues in the unit to be more effective (Elmontsri et al., 2017).

# 2. Manager expectations and actions in promoting patient safety

This study showed a positive response value on the dimension of manager expectation and action in promoting patient safety was 79.11% categorized as strong. Managerial ability is one of the important factors to achieve high productivity in an organization and provide motivation to employees which has an impact on quality service performance (Sunaryanti & Sunarno, 2022). Leaders and managers are expected to promote patient safety in achieving a good patient safety culture. Some actions to promote patient safety are by formulating patient safety guidelines that are disseminated to all hospital employees (Mohammed et al., 2021).

# 3. Organizational Learning/ Continous Improvement

This study showed that the value of positive responses on the organizational learning dimension was 96.34% categorized as strong. Adequate information can be used by an organization for learning (Romi Begiata, 2012). Panembahan Senopati Hospital has regularly provided inhouse training related to patient safety to all hospital employees. In addition, patient safety is included in orientation materials for new employees. It is in accordance with a study at one of the hospitals in Medan, North Sumatra that efforts to provide patient safety learning to health workers is through education and socialization internally and externally however it has not been evenly distributed (Sinaga et al., 2019).

# **4. Management Support for Patient Safety**

This study showed that the value of positive response on the dimension of management support to patient safety was 96.34% categorized as strong. Hospital management creates a supportive working atmosphere for patient safety and policies that prioritize patient safety. The role of a leader or manager can provide support to his staff and it will have a major impact in providing services to patients (Indriastuti et al., 2021).

This is an effective form of leadership in creating an environment that supports patient safety. Strong leadership needs to be possessed by managers and room coordinators in order to build a patient safety culture and improve patient safety (Wulandari et al., 2019). Panembahan Senopati Hospital has implemented personnel management procedures to control its personnel such as providing patient safety materials during the orientation period. Support was also provided for the officers/staff who reported or were involved in incidents.

# **5.** Employee perception of patient safety

This study showed that the value of positive response on the dimension of employee perception of patient safety was 69.06% categorized as moderate. An organization/institution that has a positive safety culture is characterized by communication based on mutual trust, a shared perception of the importance of safety, and with confidence in the success of preventive measures (Tear et al., 2020). Employee perception of patient safety will be formed if the hospital implements good systems or procedures in preventing patient safety incidents (Arini, 2018). In this study, the dimension of perception of patient safety was still in the medium category, it can occur due to lack of understanding or uneven knowledge related to patient safety in each work unit, so resocialization of patient safety is essential (Debora, 2020).

# **6. Feedback and Communication Against Errors**

This study showed that the value of positive response on the feedback and communication dimensions of errors was 64.93% categorized as moderate. Feedback and communication on errors are paramount in response to patient safety reports. Low frequency of safety incident reporting is closely related to low feedback and communication

on patient safety (Almutairi et al., 2022). Feedback to the whistleblower will motivate employees to report patient safety incidents that are expected to improve the patient safety system. Most healthcare professionals agree that feedback and communication on errors can drive action to improve patient safety culture (Zwijnenberg et al., 2016). In addition, hospitals also need to provide effective feedback on survey results as a strategy to improve patient safety culture (Sammer et al., 2010).

## 7. Open Communication

This study showed that the value of positive response on the open communication dimension was 58.22% categorized as moderate. With the openness of communication, it is expected that employees can communicate properly and correctly at the time of patient handoff/ transition which includes patient complaints, therapies that have been or will be administered and incidents related to patient safety if any and also feel free to ask questions to those more authorized. Effective communication strategies during shift changes can maintain continuous care services (Prieto et al., 2021). Open communication must also be carried out between managers and staff in addition to among fellow staff to improve patient safety. (Sorra et al., 2018).

# 8. Frequency of Patient Safety Incident Reporting

This study showed that the positive response value on the frequency of patient safety incidents reporting dimension was 58.31% categorized as moderate. The low value of the incident reporting frequency dimension was supported by data on the low number of incident reports over the past 12 months, with a total 54.57% respondents stated that they had never reported a patient safety incident. One factor that causes the low number was reflected in the subdimension that 60.31% staff were concerned that

mistakes made would be recorded in their work assessment. Fear of reporting is an obstacle to the formation of a positive culture. An environment where employees feel free and confident in incident reporting will improve the maturity of a unit in performing patient-centered services (El-Jardali et al., 2014). Another issue that still occurs in hospitals is the delayed reporting of patient safety incidents (Sinaga et al., 2019).

## 9. Cross Units Cooperation

This study showed that the positive response value on the frequency dimension of reporting patient safety incidents was 85.31% categorized as strong. Good cooperation between units is very necessary because it makes it easier to coordinate in an organization. As is the case in hospitals that nurses must coordinate with other units when doing nursing care, such as laboratory units, radiology, pharmacy, and other units that are mutually necessary (Permata et al., 2021). Good cooperation between units shows cohesiveness in working, helping each other and interacting to achieve common goals. Therefore, increased cooperation between units can contribute to building a patient safety culture (Almutairi et al., 2022).

## 10. Staffing

This study showed that the value of positive response in the staffing dimension was 45.82% categorized as weak. The staffing dimension is the lowest of all dimensions of patient safety culture. This means that most respondents stated that the allocation and deployment of staff was inadequate to the workload. Adequate staffing (Wami et al., 2016) with an evenly distributed workload, will affect patient care (Tscholl et al., 2015) Because in doing so, it can work better hence improving the patient safety culture (Upadhyay et al., 2021). Staffing in hospitals must pay attention to human factors such as

taking into account working hours, workload, staffing ratios and shift systems by taking into account work stress factors, fatigue factors, sleep cycles, and others. To keep patients safe, employees need to be given training, assign tasks to the right people and put someone in the right position (Upadhyay et al., 2021). Hospitals need to prepare human resources as individuals who directly deliver services that meet adequacy, both quantity and quality. The quantity aspect can be seen whether the number of officers is sufficient to handle the workload in the unit. The growing workload is related to increased patient safety incidents in hospitals. While the aspect of individual quality is seen from the education and competency standards possessed.

### 11. Handoffs and transition

This study showed a positive response value on the dimensions of handoffs and transitions was 71.02% categorized as moderate. Transitioning or moving patients across units can risk incidents such as patient falls or misrepresentation of information related to the patient. Misinformation may also occur during shift changes between personnel. Handoff is an important aspect of patient care to ensure safety and optimal service for patients (Manias et al., 2016). Ineffective handoff is generated by lack or incompleteness of available information, ineffective communication methods, absence of standardization, and staffing shortages. To improve the correct handoff method, it is necessary to hold education or training related to good and correct handoff methods with the aim of improving patient safety culture (Lee et al., 2016).

## 12. Non-Punitive Response to Errors

This study showed that the value of positive response on the dimension of Non-Punitive Response to Error was 67.10% categorized as moderate. Hospitals can implement a non-blaming culture, over time the more

problems can be solved. Thus, the quality of hospitals can be improved, but there are several obstacles that make this system not so easy to implement, the biggest obstacle is blaming culture. This is in accordance with the results of a survey on the non-punitive response dimension that 60.31% of staff are worried if mistakes made will be recorded in their work assessment. Fear of reporting is an obstacle to a positive culture (El-Jardali et al., 2014). It can be concluded that the hospital already has an open and fair culture, but not all officers feel the existence of non-blaming culture.

### 13. Patient Safety Culture

The study showed the safety culture in the hospital was 86.34% categorized as a moderate patient safety culture. The strength areas of patient safety culture at Panembahan Senopati Hospital were organizational aspects, aspects of management support for patient safety, aspects of cross units cooperation, aspects of cooperation within units, and expectations and actions of managers in promoting patient safety. While the areas that still need development were staffing aspects, open communication aspects, and incident reporting frequency, so they must be prioritized for improvement.

Panembahan Senopati Hospital has an effective patient safety incident report flow, adhering to the guidelines of the National Hospital Patient Safety Committee. The hospital supports online reporting and promotes a culture of fearless reporting by implementing an anonymous and confidential system for recording and reporting incidents.

#### **AUTHOR CONTRIBUTION**

Christiana contributed as principal investigator, data collector, data processor, data analysis, and manuscript writer. Esthi Budhi Asih and Rohayati Masitoh contributed to the planning and overseeing of the study

process. Kiki Rahmawati contributed to directing the process of data processing and analysis.

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## **CONFLICT OF INTEREST**

There was no conflict of interest.

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