Patient Safety Culture in Health Service at Pertamina Plaju Palembang Hospital

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Abstrak

Background: The patient safety culture at Pertamina Plaju Palembang Hospital still not good enough, it can be seen by the number of reporting patient safety incident from KPRS team. Whereas, this C-type hospital is obligated to implement patient safety culture in improving health service quality. Method: This research uses quantitative method with cross sectional approach. The number of research samples using Slovin formula taken from medic and paramedic, medical support, and management and sampling with proportional stratified random sampling. Measurement of patient safety culture using MaPSaF (Mancheste Patient Safety Framework) questionnaire which has been published NPSA (National Patient Safety Agency) in 2006 and has been tested the validity and reability by previous research. The questionnaire consists of 10 dimensions with 24 aspect of the questions. Result and Discussion: Implementation of patient safety culture at Pertamina Plaju Palembang Hospital in accordance with MaPSaF assessment of 70% at proactive level, 20% at generative level, and also 10% at bureaucratic level. Overall patient safety culture is dominant at the proactive level. Conclussions and Suggestions: The patient safety culture at Pertamina Plaju Palembang Hospital is the proactive level, but still needs improvement to the generative level with raising of awereness, good cooperation, and responsibility for the importance of patient safety culture.

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Kata Kunci: patient safety culture, MaPSaF

BACKGROUND

The safety culture of patients is the value, perception, beliefs, attitudes and competencies as well as patterns of behavior of individuals and groups based on the commitment of the organization of the organization with the aim of ensuring the patient's safety during hospitalization. Application of patient safety culture aims to detect errors that will or has occurred that can raise awareness and report in case of incidents (1). Broadly speaking, NPSA (2004) mentions the safety culture of patients there are 4 components: open, fair, infomative and learn from mistakes (2).

The occurrence of patient safety incidents in hospitals can have adverse impacts on both hospitals and patients as they can extend the treatment period, increased injuries and even deaths, blaming behavior, conflicts between officers and patients, lawsuits, blow-ups, and reduce the image and quality of hospital services to be less good. This condition must be anticipated to ensure patient safety, continuous patient care, and the organization is running (3).

According to a report from the Hospital Patient Safety Committee in January 2010 to April 2011 in some provinces in Indonesia the incidence

rate was reported as many as 137 incidents. East Java Province ranks highest of 27% among other provinces. Based on the 137 incidents, 55.47% were unexpected events, 40.15% were nearly injured and 4.38% respectively. The data also caused deaths of 8.76%, permanent injuries 2.19%, injuries while 21.17%, and minor injuries of 19.71% (4).

The results of preliminary study obtained by Pertamina Plaju Palembang Hospital is one of the state-owned health services in Palembang city which in 2017 has passed the actreditation with a plenary level and become public hospital type C. This is a reference in the effort to improve patient safety for better service quality. Preparing ahead of previous accreditation, Pertamina Plaju Palembang Hospital has prepared several patient safety efforts, such as preparation of patient safety SOP guideline audit based on 6 KARS safety objectives and all employees have been participated in patient safety training. Nevertheless, patient safety incidents still occur like the table below.

Table 1.1 Incident Report of Patient Safety (IKP) July-October 2017

No	Description incidents	Number	Months
1	Near miss	3	July 4, 2017 July 10, 2017 July, 14 2017
2	Near miss	3	August, 2017
3	Near miss	3	September, 2017
4	Adverse event	1	Oktober, 2017
	Near miss	1	Oktober, 2017

Source : KPRS Team Pertamina Plaju Palembang

Based on the situation occurring in Pertamina Plaju Hospital Palembang illustrates that the established standard has not been fulfilled and the patient safety culture still needs special attention in the implementation of the health program so as not to cause potential harm so the purpose of this study is to assess the safety culture of patients at Pertamina Plaju Palembang Hospital.

RESEARCH METHODS
Types of research

This research is a type of research using quantitative method of cross sectional approach that evaluate the patient safety culture at Pertamina Plaju Palembang Hospital. Assessment by quantitative method is a survey by using standard questionnaires and the results can be percentage-shaped data describing a symptom (5).

Subjects and Objects of research

This research was conducted at Pertamina Plaju Palembang Hospital having address at Pertamina complex of UP III Plaju, No. 1, Komperta Palembang 30628. The subjects in this study are hospital management, medical and paramedical staff (doctors, nurses, midwives) and medical supporters (laboratory, physiotherapy, hemodialysis, radiology, nutrition, pharmacy and medical record). While the object of his research is the

assessment of patient safety culture in the health service of Pertamina Plaju Hospital.

Samples and Sampling

Samples in this study were management, medical staff and paramedics, and medical support using Slovin formula. The sample formula in this study is (6):

$$n = \frac{N}{1 + Ne^2}$$

n = number of sample members

N = number of members of the population

e = error rate (typically used 1% or 001, 5% or 0.05, and 10% or 0.1 that the researcher can select)

The population in this study amounted to 142 peoples consisting of the management of 5 peoples, medical staff and paramedics totaling 111 peoples and medical support totaling 26 peoples. Then the sample size as follows:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{142}{1 + 142 \times 0{,}1^2}$$

= 58,76 rounded up to 59

Sampling technique with Proportional Stratified Random Sampling. The calculation of the population number using the formula n = population class / total population x the number of samples determined.

Medical and paramedical staff:
111/142 x 59 = 46.11 (rounded 46 respondents)

Medical support staff:
26/142 x 59 = 10.80 (rounded off 11 respondents)

Management:
5/142 x 59 = 2.07 (rounded 2 respondents).

Research Instruments

The research instrument using questionnaire consists of 10 dimensions MaPSaF (Manchester Patient Safety Framework) in which there are also some aspects of the question and has been tested the validity and reliability by previous research using the test questionnaire used.

Assessment of questionnaires using Likert scale (1-5) to determine maturity level is 1 (pathological), 2 (reactive), 3 (bureaucratic), 4 (proactive), 5 (generative).

Data analysis

Data obtained from the results of further questionnaires will be analyzed by descriptive approach to determine the relationship between the existing data with the theory used to obtain a clear result about the issues study.

RESULTS AND DISCUSSION

Characteristics of Respondents

Table 1.2. Characteristics of respondents

Gender	Amount (n)	Percentage (%)
Man	8	14%
Woman	51	86%
Age	**Amount (n)**	**Percentage (%)**
20-29	28	47%
30-39	25	42%
40-49	6	10%
Years of Service	**Amount (n)**	**Percentage (%)**
<2 year	18	31%
2-5 year	14	24%
>5 year	27	46%
Last Education	**Amount (n)**	**Percentage (%)**
D3	46	78%
S1	13	22%
Patient safety socialization	**Amount (n)**	**Percentage (%)**
Done	57	97%
Not Yet	2	3%
Work Unit	**Amount (n)**	**Percentage (%)**
Medic and Paramedic	46	78%
Medical Support	11	19%
Management	2	3%

Source: Primary data processed, 2018

Based on table 1.2 Given by gender majority of female respondent as many as 51 peoples (36%), majority aged between 20-29 years that is 28 peoples (47%). The working period of respondents is >5 years, that is 27 peoples (46%) with the last education the majority of D3 is 46 peoples (78%). While the majority of respondents have received socialization of patient safety as much as 57 peoples (97%).

Patient Safety Culture Based on Each Dimension MaPSaF
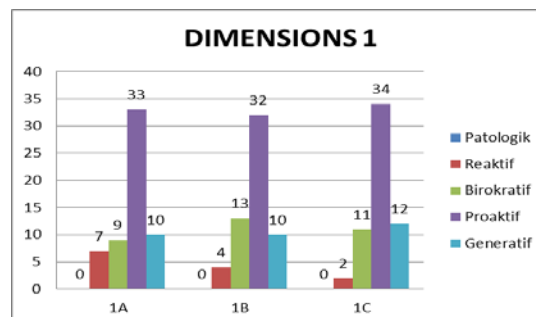1) Dimension 1 (overall commitment to continuous improvement)

Figure 1.1 Distribution of Overall Commitment Dimension to Continuous Improvement

Based on Figure 1.1 The commitment aspect for improvement (1A) is mostly in proactive level as many as 33 respondents (56%) ie hospitals have a great desire and enthusiasm to continue to make improvements. A study conducted by Nurlaily (2017) showed a strong relationship between organizational

commitment and the prevention of unexpected events with p value 0,000 (p <α (0.05) with a correlation value of r = 0.823. An adverse event prevention behavior contributed by organizational commitment of 68.3% (7) .

The distribution of examination / audit aspect (1B) is mostly in proactive level as much as 32 respondents (54%) is hospitals want to give the best quality Doctors are involved in the audit process to keep improving. Medical evaluation is an internal audit and management review that aims to improve the quality and effectiveness of medical services and can not be used as a tool to punish a person or a group The findings of internal audit and the applicable standard are evaluated by management activities in the form of meetings including involving doctors and expert staff to solve the root cause (8).

While in SOP and policy aspect (1C), most of them are at proactive level as many as 34 respondents (58%) is SOP, protocol and policy are discussed and implemented as the basis of service. Patients and families are invited to be involved in making service decisions.

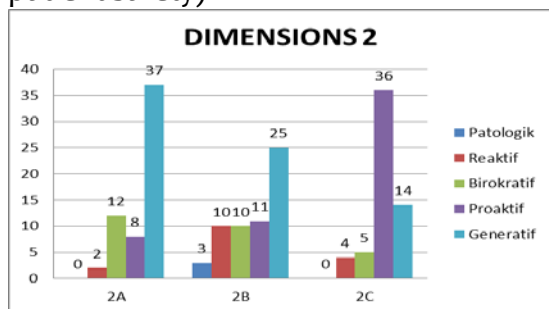2) Dimension 2 (priority given for patient safety)

Figure 1.2 Distribution The priority dimensions given for patient safety

Based on figure 2, it can be seen that the priority aspect given to patient safety (2A) is mostly at the generative level of 37 respondents (63%) ie patient safety is the main priority in the hospital. The distribution of risk management system aspects (2B) is mostly at the generative level of 25 respondents (42%) ie all staff consistent in implementing risk management system and continuous quality improvement. While on the implementation aspect of patient's safety (2C) mostly at proactive level sebnayak 36 respondents (61%) that is all officer involved in patient safety.

This is in accordance with the Ministry of Health RI (2008) which states that there are several important issues related to safety in the hospital such as patient safety, health personnel safety, building safety and hospital equipment, and environmental safety that impact on environmental pollution of the hospital. But it must be recognized that the patient as an important motor of the activities of the institution of the hospital. Therefore patient safety is a top priority and should be implemented as it relates to the quality and image of a hospital (9).

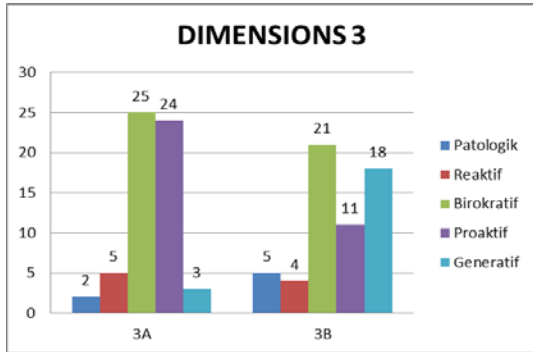3) Dimension 3 (individual system errors and responsibilities)

Figure 1.3 Distribution of Individual System and Individual Error Dimensions

Based on Figure 1.3 It can be seen that the cause of incident (3A) has been mostly at the bureaucratic level of 25 respondents (42%) ie incidents due to system errors, not just individuals. While the distribution of aspects of patient safety culture (3B) is mostly in the bureaucratic level as much as 21 respondents (36%) that is open and fair culture, but officers have not felt it.

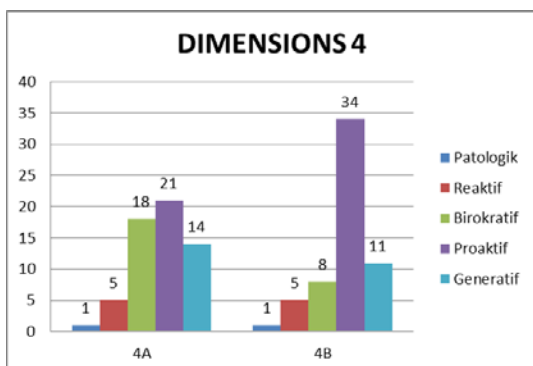4) Dimension 4 (incident recording and best practices)

Figure 1.4 Distribution of Incident Recording Dimensions and Best Practices

Based on Figure 1.4 it can be seen that the aspects of the reporting system and its usefulness (4A) are mostly already at the proactive level of 21 respondents (36%) ie the reporting process is easy to do and is friendly. While the distribution of what aspect officers feel when reporting incidents (4B) is mostly at the proactive level of 34 respondents (58%) is staff feel safe to report the incident as they can learn from the problem.

However, there are other factors that may affect low incidence reporting such as research conducted by Andrini T, et al (2015) at pharmacy installations of RSUD Ngudi Waluyo Wlingi to pharmacy staff and management personnel related to the results of the analysis show less pharmacy staff knowledge about what to report and how to report (10).

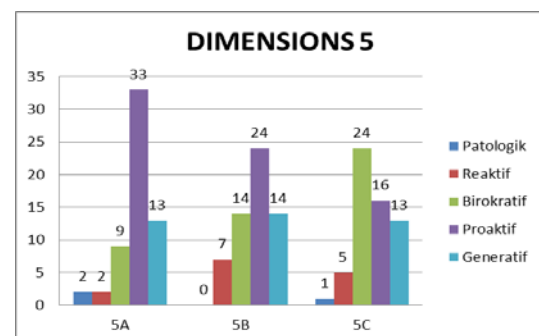5) Dimension 5 (incident evaluation and best practices)

Figure 1.5 Distribution of Incident Evaluation Dimensions and Best Practices

Based on figure 1.5 it can be seen that the aspect of data analysis (5A) is mostly already at proactive level as much as 33 respondents (56%) ie doing incident analysis with root cause

analysis, the purpose is for learning. The distribution of the investigative focus aspect (5B) was largely at the proactive level of 24 respondents (41%) ie patient safety incidents and near miss focus on improvement, but also involving the patient. While the distribution of the investigation aspect (5C) is mostly in the bureaucratic level as much as 24 respondents (41%) ie the result of the investigation is used for the discussion of the procedure and the implementation.
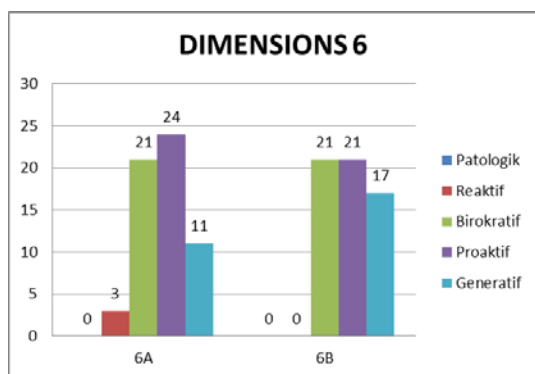
6) Dimension 6 (learning and effective change)

Figure 1.6 Distribution of Effective Learning Dimensions and Changes

Based on Figure 1.6 it can be seen that the learning aspect of safety incidents (6A) has been largely at the proactive level of 24 respondents (41%) ie there is a culture of learning from incidents and sharing the results to make changes. While the distribution of who plays a role in deciding post-incident change (6B) is 21 respondents (36%) in bureaucratic level ie patient safety committee and manager decided to change but less involving officer and proactive role that officer actively participate in decide change

after patient safety incidents and committed to doing so.

This is consistent with the specific purpose of reporting patient's safety incidents for the creation of a patient incident safety reporting system, knowing the causes to the root of the problem concerning patient safety incidents, as well as learning in improving care in order to prevent similar incidents from occurring so that the quality and patient care increased in hospital (11).

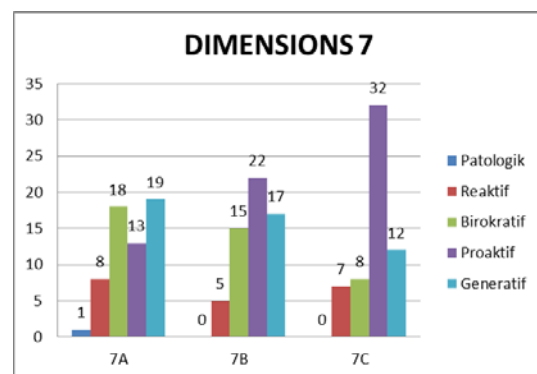7) Dimension 7 (communication on patient safety issues)

Figure 1.7 Distribution of Communication Dimensions About Patient Safety Issues

Based on Figure 1.7, it can be seen from the communication aspect about patient safety (7A) that most of them are at the generative level as much as 19 respondents (32%) ie there is openness of hospital, including involving patient role in developing risk management policy. The distribution of information sharing aspect (7B) is mostly at the proactive level as much as 22 respondents (37%) ie information about patient safety distributed at the briefing session has been scheduled by

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the officer. While from communication aspect about patients safety to patient (7C) mostly at proactive level as much as 32 respondents (54%) that is done effective communication about patients safety to patient and family or hospital visitor.

Pertamina plaju Palembang hospital always try to build effective communication both internally and with related parties in this case patient and family in building improvement of patient safety culture. The hospital is trying to convey information about the conditions leading to the risk of errors and motivating patients relating to the patients safety (12).

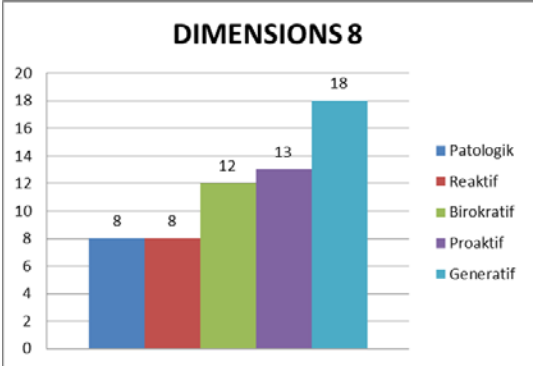8) Dimension 8 (personnel management and safety issues)

Figure 1.8 Distribution of Personnel Management Dimensions and Safety Issues

Based on Figure 1.8 can be seen from the aspect of whether the officer felt supported? Most of them are at generative level as much as 18 respondents (31%) that is personnel management do reflection and discussion about officer competence, do cervical and meting, health officer is paid attention.

This is reinforced by research conducted by Saraswati (2014) which shows there is a significant correlation between nursing service supervision by applying patient safety culture by nurse executor (13). Other studies have also shown that mentoring programs have a 20% effect on the application of patient safety culture and those who do not get mentoring bereseko decreased by 2.5 times larger (12).

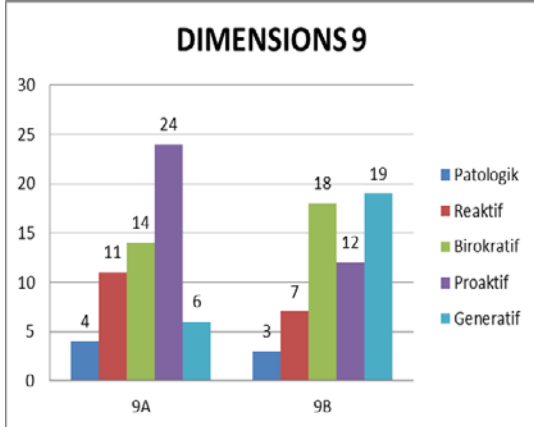9) Dimension 9 (staff education and training)

Figure 1.9 Distribution of Educational Dimension and Staff Training

Based on figure 1.9 it can be seen from the aspect of training requirement (9A) that most of them are at proactive level as much as 24 respondents (41%) ie there are efforts to identify what training the officers need and align with hospital needs. While the aspect of research objective (9B) is mostly at the generative level as much as 19 respondents (32%) ie training seen as a way to support staff in order to develop its potential.

Increased knowledge is the expected impact of the organization

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from a training on quality and patient safety, training as a means of enhancing new knowledge and improving individual and system performance (14).
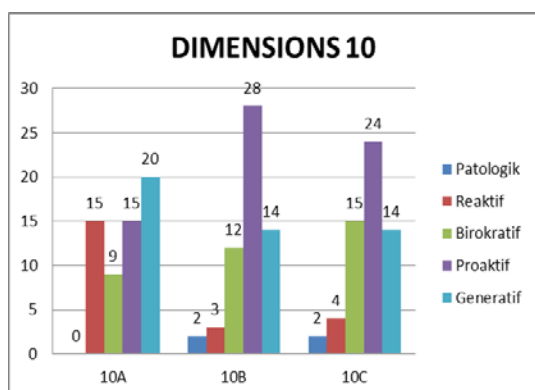
10) Dimension 10 (teamwork)

Figure 1.10 Dimension Distribution Team Cooperation

Based on Figure 1.10 can be seen from the aspect of the team structure (10A) mostly in the generative level of 20 respondents (34%) ie the team is flexible, the contribution in the other field is appreciated. Distribution of what aspect of being a team member (10B) is largely at the proactive level of 28 respondents (47%) ie collaboration among team members works well. While from the aspect of information flow and sharing (10C), most of them are in the proactive level as much as 24 respondents (41%) ie open team to share information including outsiders.

Teamwork is an interaction between health professionals working interdependently on each other in performing care in patients with the aim of providing care and sharing information in joint decision making (15).

Components of effective teamwork consist of open communication, a clear environment, clear objectives, team members have clear roles and duties, mutual respect and respect, responsibility, every member participates, understands the procedures in decision-making, evaluation mechanisms and results compliance with regulations and so on (16).

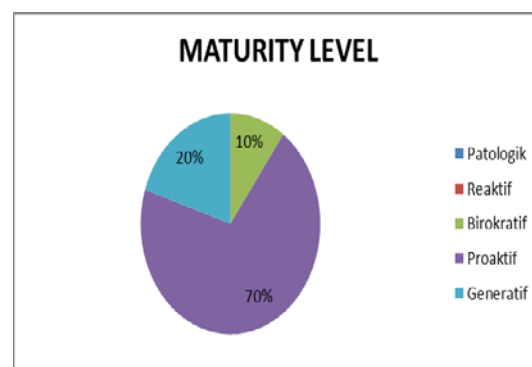**Overall Patient Safety Culture Based on MaPSaF Dimension**

Figure 1.11 Percentage of Overall Cultural Dimension of patient Safety of Pertamina Plaju Hospital Palembang

Based on the results of Figure 1.11, the patient's safety culture of Pertamina Plaju Palembang Hospital is predominantly at proactive level (70%), ie the patient safety culture system at Pertamina Plaju Palembang hospital is comprehensive to the patient safety culture and has been implementing evidence-based. There are 2 dimensions at the generative level (20%) which shows the safety culture of Pertamina Plaju Palembang hospitals already integrated and maintenance, as well as routine effectiveness evaluated, and always

learn from experience and take action to improve the situation. While there is one dimension at the bureaucratic level (10%), the implementation of the patient safety culture system of Pertamina Plaju Palembang hospital is well organized, but still limited in situations when the incident occurred.

CONCLUSSION

1. The patient safety culture based on the MaPSaF questionnaire has 7 dimensions at the proactive level that is the overall commitment to continuous improvement, incident and best practices, incident and best practices evaluation, effective learning and change, communication on patient safety issues, staff education and training, team.

2. The patient safety culture based on the MaPSaF questionnaire has 2 dimensions at the generative level of priority given to patient safety, and personnel management and safety issues.

3. The patient safety culture based on the MaPSaF questionnaire has 1 dimension at the bureaucratic level that is the system error and individual responsibility.

4. Overall the results of the study using the MaPSaF 10 dimensional questionnaire predominantly show that 70% are at proactive level where Pertamina Plaju Palembang hospital has been comprehensive to the patient safety culture and has implemented it in accordance with the evidence-based.

5. The patient safety culture program is already running, but it is still ineffective and still has to make improvements in

some dimensions of patient safety culture.

Suggestion
For Pertamina Plaju Palembang Hospital

a. Each work units should prioritize the safety culture of patients with increased awareness and responsibility to report incidents that occur with no fear of reporting, as well as further enhance cooperation in either 1 unit or between units to minimize error.

b. Hospitals increase their full support to the needs of the officers, namely: increased knowledge, training, and regular socialization of patient safety.

c. KPRS and management teams further improve incident and best practice evaluations in maximizing both simple analysis and evaluation stages up to the Root Cause Analysis (RCA) even though each has other tasks and responsibilities.

d. The hospital maintains the existing patient safety system by involving all officers so that the implementation of patient safety is inherent by supervising and monitoring, as well as a continuous culture survey of patient safety to determine the conditions that have been formed and as a reference in maintaining and developing a patient safety culture to be a top priority.

For the next researcher

Developing this research is more in depth qualitatively with interviews on hospital units in both medical and paramedical sections, medical or management support or also research with Focus Group Discussions (FGD) to

all sections related to patient safety in order to obtain in-depth results about the circumstances that occurred.

Limitations of the study

The absence of qualitative data with KPRS team interviews or other parts of the hospital, did not directly observe the implementation of patient safety culture in the hospital, and the lack of time the investigators caused could not develop this research more widely.

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