PATIENT SAFETY CULTURE IMPROVEMENT TO ENHANCE THE QUALITY OF HEALTHCARE IN HARAPAN BUNDA HOSPITAL JAKARTA

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ABSTRACT

Background: One of the achievements in running health care service institutions (hospitals) is providing strategic health care services to improve health status. Harapan Bunda Hospital is a private hospital located in East Jakarta. Whose vision is to become the preferred hospital by providing the best quality service. One of the implemented programs was reporting incidents in the unit to the QPS Committee. However, the incident that occurred in Harapan Bunda Hospital is still not widely reported regularly by officers in the unit. In addition, there are many discrepancies in service delivery in the form of safety. Therefore, it is necessary to measure the Safety Culture at Harapan Bunda Hospital.

Methods: This research used quantitative method with design cross sectional and used descriptive analysis to seek whole picture of all patient safety variable that had been done by Harapan Bunda Hospital. The population in this research is all staff of Harapan Bunda Hospital which around 708 staff member. Researcher used systematic random sampling with Slovin calculation formula and get 256 minimum sample needed. Instrument used is Patient Safety Culture survey refer to Agency for Healthcare Research and Quality (AHRQ).

Results: The result of mean measurement patient safety culture in Harapan Bunda Hospital is 72%, it means Harapan Bunda Hospital was moderate Patient Safety Culture. There are dimensions being focused to improving patient safety culture; the overall perception of patient safety, feedback and communication about errors, communication openness, frequency of incident reporting, staffing and non-punitive responses to errors.

Conclusion: Meanwhile, the other 6 dimensions of safety culture have been included in the good category of safety culture. Thus, Harapan Bunda Hospital is expected to always carry out routine monitoring and evaluation of the measurement of safety culture.

Keywords: Patient Safety Culture, Hospital, Quality of Healthcare

INTRODUCTION

One of the achievements in running health care service institutions (hospitals) is providing strategic health care services to improve health status. Therefore, hospitals are required to provide quality services following the established standards and to be capable of reaching all social stratification. One measurement of a qualified hospital is minimizing the events related to patient safety. Therefore, patient safety is the top priority for implementation. [1]

Patient safety in hospitals has become a crucial issue because of the many medical error cases that occur in various countries. There are almost 100,000 patient casualties due to medical errors in America. The
death tolls due to unexpected causes are estimated to reach 33.6 million annually worldwide, and approximately 44,000 lives in New York alone. [2]

Generally, in Indonesia, there are no adequate and complete reports regarding the incidence related to patient safety. However, in 2007, it was reported that Jakarta Province ranked highest, namely 37.9% on the events related to patient safety. The data on the adverse events above, according to the Indonesian Ministry of Health (2006), does not represent the actual adverse events in Indonesia [1]. The Patient Safety Incident (PSI) reports by the Indonesian Hospital Patient Safety Committee (IHPSC) in Indonesia, from January to April 2011, found that there were reports of adverse events (14.41%) and near misses (18.53%) due to clinical processes or procedures (9.26%), medication (9.26%), and patients’ falls (5.15%). [3,4]

According to the Agency Health Care and Research Quality (AHRQ), patient safety culture can be measured in terms of the perspective of the hospital staffs consisting of 12 dimensions as follows:

1. Expectations and Actions of the Managers in Promoting Patient Safety;
2. Organizational Learning (Continuous Improvement);
3. Teamwork within the Units in the Hospital;
4. Communication Openness;
5. Feedback and Communication about Errors;
6. Non-Punitive Responses of Errors;
7. Staffing;
8. Management Support for Efforts in the Implementation of Patient Safety;
9. Collaboration between Units in the Hospital;
10. Patient Hand-offs and Transitions;
11. Overall Perception of Hospital Staffs regarding Patient Safety; and
12. The Frequency of Events Reported. [5]

The application of patient safety culture will benefit patients and health care providers. The application of a patient safety culture will detect errors that will occur or if errors occur. A patient safety culture will increase awareness to prevent errors and report if there is any error occurs. The patient safety culture can also reduce the financial expenses incurred by patient safety events. [6]

Harapan Bunda Hospital is a private hospital located in East Jakarta. Its vision is to become the preferred hospital by providing the best quality services. In terms of service sustainability, Harapan Bunda Hospital noted that there was an increase in patient visits every month. In January-December 2018, the number of recorded patients had increased by 30%. On average, there are 300 outpatients per day. A significant increase in the number of patients, particularly in class III inpatient services, due to the National Health Insurance program (JKN). The increasing number of patients at Harapan Bunda Hospital is an enormous responsibility to continuously provide quality services while minimizing and even eliminating the risk of errors in providing services. [7]

Harapan Bunda Hospital has just formed a Committee on Quality Improvement and Patient Safety (QPS) in charge of handling the patient safety system at Harapan Bunda Hospital. One of the programs carried out was reporting incidents in the unit to the QPS Committee. However, the incident that occurs in Harapan Bunda Hospital is still not widely reported regularly by officers in the unit. Based on the data, the QPS Committee of Harapan Bunda Hospital only received three reports of near misses, one report of an adverse event, and one report of sentinel incident, whereas after QPS Committee conducted an investigation, the incidents occurred are more than those reported.

In the previous study, the researcher also found many discrepancies in service provision in the form of safety. For example, there are still many nurses in rooms that only use a pair of rubber gloves to handle
a large number of patients, there are still many delays in reporting an incident in the unit to the head of the unit or the QPS Committee, and many other things. Considering that there are still many problems that occur regarding Patient Safety at Harapan Bunda Hospital, researchers want to measure the patient safety culture at Harapan Bunda Hospital. The importance of implementing this safety culture is also essential in improving the quality of the Harapan Bunda Hospital health care services.

METHODS
This study utilized a quantitative method with a cross-sectional design. This study used quantitative descriptive analysis to see an overview of all safety culture variables that have been carried out by Harapan Bunda Hospital. The population in this study was 708 employees of Harapan Bunda Hospital. The researcher used a systematic random sampling method by calculating the Slovin formula and obtained 256 employees as the samples. The instrument used was a safety culture questionnaire with the survey method from the Agency for Healthcare Research and Quality (AHRQ) [7]. This research was conducted in March 2019 at Harapan Bunda Hospital.

Sample calculation of the population:

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

\[
n = \frac{708}{1 + (708 \times 0.05 \times 0.05)} = \frac{708}{2.77} = 256
\]

The dependent variable in this study was the Application of Patient Safety Culture, while the independent variable was the Twelve Dimensions of Patient Safety Culture.

The steps to grasp a full overview of the patient safety culture include calculating the discrepancy of the total sum of positive answers in all dimensions, then dividing it by the number of responses received. A patient safety culture is indicated to be a strong culture if the positive response is equal to or greater than 75%; moderate if the positive response is between 50% and 75%, and weak if the positive response is less than 50% [5].

The data analysis in this study is univariate data analysis employed to describe the frequency distribution of each variable/dimension. The analysis in this study employed SPSS analysis software for the quantitative data. From the results, the steps to improve the patient safety culture at Harapan Bunda Hospital will be drafted.

RESULTS
The following is the measurement result of the positive responses of the safety culture in Harapan Bunda Hospital. The positive responses were obtained from the employees' answers to positive questions, while the negative responses were obtained from the employees’ answers to negative questions.

Table 1. The Result of Measuring Patient Safety Culture Harapan Bunda Hospital

<table>
<thead>
<tr>
<th>Dimensions of Patient Safety Culture</th>
<th>Positive responds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork Within Units</td>
<td>80%</td>
</tr>
<tr>
<td>Supervisor/Manager Expectations and Actions Promoting Patient Safety</td>
<td>82%</td>
</tr>
<tr>
<td>Organizational Learning – Continuous Improvement</td>
<td>86%</td>
</tr>
<tr>
<td>Management Support for Patient Safety</td>
<td>77%</td>
</tr>
</tbody>
</table>
From the results of the measurement above, there are still many issues that are not of concern that can affect the culture of safety at Harapan Bunda Hospital. The dimensions that are still of concern and need to be improved are the dimensions of the overall perception of staff in the hospital regarding patient safety, and the frequency of incident reporting, feedback and communication regarding errors, open communication, frequency of reporting incidents, staffing and non-positive responses to errors.

**Overall Perception of Patient Safety**
The dimension of employees’ perception of patient safety consists of four statements, namely, two positive statements and two negative statements. The measurement result of the dimensions of employees’ perceptions of patient safety is presented in Table 4 as follows.

<table>
<thead>
<tr>
<th>Four Items Measuring Overall Perceptions of Patient Safety</th>
<th>For Positively Worded Items</th>
<th>For Negatively Worded Items</th>
<th>Total of Responses to Item (Excluding Missing Responses)</th>
<th>Percent Positive Response to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item A15-positively worded: “Patient safety is never sacrificed to get more work done.”</td>
<td>187</td>
<td>N/A</td>
<td>256</td>
<td>73%</td>
</tr>
<tr>
<td>Item A10-negatively worded: “It is just by chance that more serious mistakes do not happen around here.”</td>
<td>N/A</td>
<td>135</td>
<td>256</td>
<td>53%</td>
</tr>
<tr>
<td>Item A17-negatively worded: “We have patient safety problems in this unit.”</td>
<td>N/A</td>
<td>207</td>
<td>256</td>
<td>80%</td>
</tr>
<tr>
<td>Item A18-positively worded: “Our procedures and systems are good at preventing errors from happening.”</td>
<td>173</td>
<td>N/A</td>
<td>256</td>
<td>68%</td>
</tr>
</tbody>
</table>

N/A=Not applicable

Average percent positive response across the four items = 68%

The table above illustrates that the overall perception of patient safety dimension of employees at Harapan Bunda Hospital reached 68%, which can be interpreted as sufficient or at moderate culture level.
Feedback and Communication of Errors

The dimension of feedback and communication about errors consist of three positive statements. The measurement result of the feedback and communication about errors dimension is presented in Table 5.

Table 3. Measurement Result of Feedback and Communication About Errors Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Three Items Measuring Feedback and Communication about Error</th>
<th>For Positively Worded Items</th>
<th>For Negatively Worded Items</th>
<th>Total of Responses to Item (Excluding Missing Responses)</th>
<th>Percent Positive Response to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item C1-positively worded: “We are given feedback about changes put into place based on event reports.”</td>
<td>92</td>
<td>N/A</td>
<td>256</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>Item C3-positively worded: “We are informed about errors that happen in this unit.”</td>
<td>136</td>
<td>N/A</td>
<td>256</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Item C5-positively worded: “In this unit, we discuss ways to prevent errors from happening again.”</td>
<td>197</td>
<td>N/A</td>
<td>256</td>
<td>77%</td>
<td></td>
</tr>
</tbody>
</table>

N/A=Not applicable

Average positive response across the three items = 55%

The table above illustrates that the dimension of feedback and communication about errors in Harapan Bunda Hospital reached 55%, which can be interpreted quite well or medium culture. The statement on C1 regarding feedback for changes based on the incident reports that have been given to the unit should be of little concern to Harapan Bunda Hospital.

Communication Openness

This communication openness dimension consists of three statements. The statement consists of two positive statements and one negative statement. The measurement result of the communication openness dimension is presented in Table 6.

Table 4. Measurement Result of Communication Openness Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Three Items Measuring Communication Openness</th>
<th>For Positively Worded Items</th>
<th>For Negatively Worded Items</th>
<th>Total of Responses to Item (Excluding Missing Responses)</th>
<th>Percent Positive Response to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item C2-positively worded: “Staff will freely speak up if they see something that may negatively affect patient care.”</td>
<td>144</td>
<td>N/A</td>
<td>256</td>
<td>56%</td>
<td></td>
</tr>
</tbody>
</table>
The table above illustrates that the communication openness dimension that occurs in Harapan Bunda Hospital amounted to 63%, which can be interpreted as being sufficient or at moderate culture level. Communication openness is fundamental in the delivery of safety culture. Because the whole coordination carried out in safety culture must be carried out with a good and open communication process.

**Frequency of Events Reported**
The frequency of events reported dimension consists of three positive statements. The measurement result of the frequency of events reported dimension is presented in Table 7.

**Table 5. Measurement Result Frequency of Events Reported Variable**

<table>
<thead>
<tr>
<th>Three Items Measuring Communication Openness</th>
<th>For Positively Worded Items</th>
<th>For Negatively Worded Items</th>
<th>Total of Responses to Item (Excluding Missing Responses)</th>
<th>Percent Positive Response to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item C4-positively worded: “Staff feel free to question the decisions or actions of those with more authority.”</td>
<td>97</td>
<td>N/A</td>
<td>256</td>
<td>38%</td>
</tr>
<tr>
<td>Item C6-negatively worded: “Staff are afraid to ask questions when something does not seem right.”</td>
<td>N/A</td>
<td>246</td>
<td>256</td>
<td>96%</td>
</tr>
</tbody>
</table>

N/A = Not applicable  Average positive response across the three items = 63%
### Three Items Measuring Frequency of Events Reported

<table>
<thead>
<tr>
<th></th>
<th>For Positively Worded Items</th>
<th>For Negatively Worded Items</th>
<th>Total of Responses to Item (Excluding Missing Responses)</th>
<th>Percent Positive Response to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>not, how often is this reported?</td>
<td>N/A</td>
<td>Average positive response across the three items = 52%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table above illustrates that the frequency of events reported dimension at Harapan Bunda Hospital is 52%, which can be interpreted as being sufficient or at moderate culture level. The frequency of events reported should be a concern for Harapan Bunda Hospital and must be developed through the role of safety culture.

### Staffing

The staffing dimension consists of three statements: one positive statement and three negative statements. The measurement result of staffing dimension is presented in Table 8.

**Table 6. Measurement Result of Staffing Variable**

<table>
<thead>
<tr>
<th>Four Items Measuring Staffing</th>
<th>For Positively Worded Items</th>
<th>For Negatively Worded Items</th>
<th>Total of Responses to Item (Excluding Missing Responses)</th>
<th>Percent Positive Response to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item A2-positively worded: “We have enough staff to handle the workload.”</td>
<td>138</td>
<td>N/A</td>
<td>256</td>
<td>54%</td>
</tr>
<tr>
<td>Item A5-negatively worded: “Staff in this unit work longer hours than is best for patient care.”</td>
<td>N/A</td>
<td>152</td>
<td>256</td>
<td>59%</td>
</tr>
<tr>
<td>Item A7-negatively worded: “We use more agency/temporary staff than is best for patient care.”</td>
<td>N/A</td>
<td>208</td>
<td>256</td>
<td>81%</td>
</tr>
<tr>
<td>Item A14-negatively worded: “We work in crisis mode trying to do too much, too quickly.”</td>
<td>N/A</td>
<td>187</td>
<td>256</td>
<td>73%</td>
</tr>
</tbody>
</table>

N/A=Not applicable

Average percentage of positive responses across four items = 67%

The table above illustrates that the staffing dimension in Harapan Bunda Hospital is 67%, which can be interpreted as being sufficient or at moderate culture level.

### Non-punitive Responses to Errors

The non-punitive of responses to errors dimension consists of three negative statements. The measurement result of the non-punitive responses to errors dimension is presented in Table 9.
Table 7. Measurement Result of Non-Punitive Responses to Errors Variable

<table>
<thead>
<tr>
<th>Three Items Measuring Nonpunitive Response to Error</th>
<th>For Positively Worded Items</th>
<th>For Negatively Worded Items</th>
<th>Total of Responses to Item (Excluding Missing Responses)</th>
<th>Percent Positive Response to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item A8-negatively worded: “Staff feel like their mistakes are held against them.”</td>
<td>N/A</td>
<td>186</td>
<td>256</td>
<td>73%</td>
</tr>
<tr>
<td>Item A12-negatively worded: “When an event is reported, it feels like the person is being written up, not the problem.”</td>
<td>N/A</td>
<td>171</td>
<td>256</td>
<td>67%</td>
</tr>
<tr>
<td>Item A16-negatively worded: “Staff worry that mistakes they make are kept in their personnel file.”</td>
<td>N/A</td>
<td>170</td>
<td>256</td>
<td>66%</td>
</tr>
</tbody>
</table>

N/A=Not applicable  
Average percent positive response across the three items = 69%

The table above illustrates that the non-punitive responses to errors dimension in Harapan Bunda Hospital is 69%, which can be interpreted as sufficient or at moderate culture level.

**DISCUSSION**

The most deficient dimension in the application of safety culture in Harapan Bunda Hospital is the Overall Perception of Patient Safety as it only achieved an average score of 68%. As many as 53% of the employees answered that there had never been any serious incident in their work unit. On the other hand, the perception of patient safety from the events indicates that the employee is very aware of patient safety [8]. Therefore, efficient treatment is required in overcoming the correct understanding of the occurrence of errors related to patient safety.

The next dimension that remains to be considered is the dimension of Feedback and Communication about Errors. Regarding the C1 statement, only 36% of respondents responded positively to the statement that the unit received feedback regarding the changes that had to be made. In contrast, the incident reporting flow in Harapan Bunda Hospital stated that after a unit reports an incident, the unit will be provided feedback from the supervisor to make changes so that the same errors will not occur again. The feedback and communication about errors dimension is the essential thing after reporting patient safety incidents. [9]

The next dimension is Communication Openness. Only 38% of the employees answered that they could freely ask about the decisions and actions made by their superiors. This result indicates that there were fears for communicating decisions or actions related to patient safety. In the application of a patient safety culture, communication must occur in a two-way pattern, from the leaders to the frontline personnel and vice versa [10]. Furthermore, silent actions against errors must be replaced with openness and honesty regarding events that involve patient safety. [11]
The dimension of Frequency of Events Reported is also a particular concern for Harapan Bunda Hospital. Particularly for reporting near misses, employees tend to report a little to superiors and even to the QPS committee. Whereas a report is an essential element of patient safety. The institute will use adequate information on reporting as information for future learning. An institute will learn from previous experiences and can identify risk factors for incidents so that they can reduce or prevent future occurrences. [6,10]

Harapan Bunda Hospital also needs to pay attention to the Staffing dimension. Based on the result, the existed staffs to handle patient safety problems were only 54%. This result concludes that there are employees in the unit who feel that the current staffs still have not been able to handle patient safety issues. In a work unit or institution, there should be sufficient resources. One of them is a resource that can handle problems/events in the unit. [12]

The last dimension is Non-Punitive Responses to Errors. Some staffs remain worried that their error reports will be reported to the HR (personnel) section. The staffs and patients were treated fairly when an incident occurred. When an incident occurred, the focus should not weigh on finding individual errors. Instead, the focus should be on studying the system that caused the errors. The culture of not blaming the staffs needs to be developed in fostering a patient safety culture. Staffs will make an incident report if they are sure that the report will not get a punitive consequence for the error. An open and fair environment will assist in reporting action that can be used as information about patient safety.

CONCLUSION

Based on the results of this research, there are several conclusions:

1. The culture of patient safety at Harapan Bunda Hospital per March 2019 is categorized as a strong patient safety culture.
2. There are six dimensions of patient safety culture that are categorized in the dimensions of safety culture that remain not strong enough, namely Overall Perception of Patient Safety, Feedback and Communication about Errors, Communication Openness, Frequency of Reported Events, Staffing, and Non-punitive Responses to Errors.
3. There are six dimensions of patient safety culture that are already strong, namely Teamwork within Units, Supervisor/Manager Expectations, and Actions in Promoting Patient Safety, Organizational Learning, Management Support, Teamwork across Units, and Hand-offs and Transitions.

Therefore, as a recommendation, it is necessary to conduct several actions to improve the safety culture at Harapan Bunda Hospital as follows:

1. Harapan Bunda Hospital is expected to improve and maintain achievement in six dimensions, which showed a strong safety culture. One way is to do periodic monitoring and evaluation so that the QPS Committee can follow-up regularly on the errors that occur.
2. Training and socialization regarding patient safety need to be carried out regularly. Based on the measurement result of the Overall Perception of Patient Safety dimension, there were still many employees who did not understand the events/incidents that may/have occurred in the unit/place around the work.
3. Regulations are required concerning reporting incidents at Harapan Bunda Hospital so that the reports are monitored continually in the course of patient safety programs.
4. Policies are required regarding reward and punishment to staff who report patient safety events under applicable regulations.
5. Coordination between the QPS Committee and the unit should be strengthened. The QPS Committee must swiftly analyze the incident reports that have been received. Moreover, then the unit will receive follow-up regarding reports of incidents that have been given to the QPS Committee.
6. Harapan Bunda Hospital is expected to continuously carry out monitoring and evaluation of the measurement of safety culture.

CONFLICT OF INTERESTS
The authors declare that there is no conflict of interest regarding publish this manuscript.

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