Analysis of Nurse Perception Factors on Compliance Implementing Patient Safety Standards in Emergency Installations and Intensive Care Unit

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Abstract

Background: Patient safety standards are a global issue and a top priority for hospital health services. Every health service needs to strive for patient safety. Various previous studies on the application of patient safety standards have been carried out, only explaining external factors such as education, training, infrastructure, and leadership with apassion for compliance behavior in the application of patient safety standards, while internal factors are still very few. In this study, what will be studied is internal factors in nurses, one of the internal factors that cannot be explained is the perception factor.

Objective: The purpose of this study is to Analysis of Nurse Perception Factors on Compliance Implementing Patient Safety Standards in Emergency Installations and Intensive Care Units Tgk Abdullah Syafi’i Hospital.

Method: The type of research used is quantitative correlational with a cross-sectional design. This research was conducted at Tgk Abdullah Syafi’i Hospital. The subjects in this study were all nurses working in the emergency room (ER) and the intensive care unit (ICU) as many as 63 people. The instrument used in this study was a questionnaire consisting of independent variables and a dependent variable questionnaire.

Result and Discussion: The most dominant factor influencing the application of patient application standards is the action cue with an OR value of 4.702. This means that the higher the action cue, the better the implementation of patient safety standards by 4.702 times compared to the action cues that low. Value B = natural logarithm of 4.702 = 1.584 because the value of B is positive, the action cue has a positive relationship with the application of patient safety standards.

Conclusions: There is an influence between perceptions of benefits, perceptions of obstacles, and cues for action on the application of patient safety standards.

Keywords: Nurse Compliance; Patient Address ITY Standards; Emergency Installation; Intensive Care;
Introduction

A hospital is an institution that provides medical services to complex patients and provides various types of services such as emergency, inpatient and outpatient services (Rikomah, 2017). The issue of patient safety is a benchmark for the good and bad quality of health services in a hospital, patient safety policies are regulated in the Ministry of Health Regulation No. 11 of 2017 which contains about the implementation of patient safety includes regulations governing incidents and their handling (RI, 2017). Every patient has the right to obtain quality health services in accordance with professional standards and standard operating procedures, patients also have the right to obtain their own security and safety while in hospital care, but the fact is that the numbers. The incidence of medical error cases that occur in hospitals in various countries is still very high (Stefani, 2015).

Data reported by the National Patient Safety Agency in 2017, between January and December, the number of patient safety incidents reported in the UK was 1,879,822 incidents. The number of patient safety incidents in Indonesia based on a report from the Hospital Patient Safety Committee (KPPRS) states that patient safety incidents in 2015 it was 289 and increased dramatically in 2018 to 1,489 incidents. Based on the type of incidence in 2018, 33% were near-injury events (KNC), 37% were non-injury events (KTC) and 30% were accidental events (KTD). In 2019, there were 171 deaths, 80 serious injuries and 372 moderate injuries. Based on these data, it is necessary to examine the behavior of compliance with the implementation of safety standards for hospitalized patients. The implementation of patient safety is the responsibility of health service providers, one of which is nurses who are always in direct contact with patients. In this study to see the behavior of compliance with patient safety standards by nurses using the Health Belief Model (HBM) theory approach. The components of HBM theory used are the perception of benefits, the perception of obstacles, and the cues of action.

Research Specific Objectives:
1. Identify factors of perceived benefits, perceived barriers, action cues and compliance with patient safety standards.
2. Testing the relationship between benefit perception factors, perceived barriers, action cues and adherence to patient safety standards.
3. Testing the most dominant factors between factors of perceived benefits, perception of barriers, action cues towards compliance with the implementation of patient safety standards.

Urgency/Primacy of Research
This research is important because it is hoped that nurses can improve compliance in implementing patient safety standards so as to prevent events

Method
The type of research used is correlative quantitative with a cross sectional design (Sugiyono, 2011). The research in this cross-sectional study assessed independent
variables and dependent variables, in this study the variable studied were independent variables, namely benefit perception factor (X1), obstacle perception factor (X2) and action cue factor (X3). With a dependent variable, namely nurse compliance with the application of patient safety standards (Y1). The research design can be described as follows:

![Diagram]

This research was conducted at Tgk Abdullah Syafi’I Hospital. The subjects in this study were all nurses who served in the emergency room (IGD) and intensive care unit (ICU) room as many as 63 people. The instrument used in this study was in the form of a questionnaire consisting of independent variables and a questionnaire of dependent variables. The data collection technique that will be carried out in this study is to circulate a questionnaire. The questionnaire to be circulated to respondents contains written statements containing the need for data to identify factors affecting nurses’ compliance in the application of safety standards. The distribution of questionnaire statements from independent variables consists of three parts, namely: (benefit perception factors, barrier perception factors and action cue factors) and dependent variable questionnaires (nurse compliance behavior to the application of patient safety standards).

**Result and Discussion**

**Table 1**

Frequency distribution of application of patient safety standards, perception of benefits, perception of obstacles and action cues

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of Standards Patient Safety</td>
<td>Good</td>
<td>54</td>
<td>85.7</td>
</tr>
<tr>
<td></td>
<td>Enough</td>
<td>9</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>Less</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Perceived Benefits</td>
<td>Tall</td>
<td>51</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63</td>
<td>100</td>
</tr>
<tr>
<td>Perception of Barriers</td>
<td>Tall</td>
<td>26</td>
<td>41.3</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>37</td>
<td>58.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63</td>
<td>100</td>
</tr>
<tr>
<td>Action Cues</td>
<td>Tall</td>
<td>44</td>
<td>69.8</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>19</td>
<td>30.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: primary data 2022*
Showed that most of the respondents were good at implementing patient safety standards by 85.7%. Of the Three HBM domains, 81% of respondents had a high perception of benefits, 58.7% of respondents had a low perception of inhibition and 69.8% of respondents had high action cues towards the implementation of patient safety standards.

### Table 2
Analysis of the relationship of perceived benefits, perception of obstacles, action cues with the application of patient safety standards

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable</th>
<th>p</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Benefits</td>
<td>Implementation Compliance</td>
<td>0.005</td>
<td>0.456**</td>
</tr>
<tr>
<td></td>
<td>Patient Safety Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception of Barriers</td>
<td></td>
<td>0.003</td>
<td>-0.343**</td>
</tr>
<tr>
<td>Action Cues</td>
<td></td>
<td>0.000</td>
<td>0.414**</td>
</tr>
</tbody>
</table>

*Source: primary data 2022*

The results of the correlation test analysis of the relationship of perceived benefits to the application of patient safety standards show that, there is a fairly strong relationship (r) of 0.456 and has a positive pattern, meaning that the higher the perception of benefits, the more compliant the application of patient safety standards. The results of the statistical stat test obtained $p-value = 0.005 (p < 0.05)$ it can be concluded that there is a significant relationship between the perception of benefits to the application of patient safety standards.

From the results of the study, it showed that the perception of obstacles was related to the implementation of patient safety standards seeing a value (r) of -0.343 (a negative relationship with a fairly strong relationship) $p$ value of 0.003 <0.05. So this shows that the lower the perception of barriers the more compliant the nurse is in applying the standards of patient care.

The results showed that there was a relationship between action cues and the application of patient safety standards with a value (r) of 0.414 with a fairly strong adhesion. The results of the statistical test obtained $p-value = 0.000$ can be concluded that there is a relationship between the action cues and the application of patient safety standards.

The results of the study obtained all HBM variables (benefit perception, obstacle perception, action cues) have a relationship with the application of patient safety standards. The most dominant factor influencing the application of patient application standards is the action cue with an OR value of 4,702. This means that the higher the action cue, the better the implementation of patient safety standards by 4,702 times compared to the action cues that low. Value $B = \text{natural logarithm of } 4.702 = 1.584$ because the value of B is positive, the action cue has a positive relationship with the application of patient safety standards.
Table 3
Analysis of factors most related to the application of patient safety standard’s

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>P Value</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Benefits</td>
<td>1.429</td>
<td>0.002</td>
<td>0.161</td>
</tr>
<tr>
<td>Perception of Barriers</td>
<td>1.478</td>
<td>0.004</td>
<td>0.206</td>
</tr>
<tr>
<td>Action Cues</td>
<td>1.584</td>
<td>0.008</td>
<td>4.702</td>
</tr>
</tbody>
</table>

Source: primary data 2022

Based on the table above, all independent variables of \( p \)-value values below 0.05 mean that all variables of perceived benefits, perception of barriers and action cues have a significant partial influence on the implementation of patient safety standards. The variable that most dominantly influences the application of patient safety standards is the action signal with an OR value of 4.702. This means that the higher the action signal, the better the implementation of patient safety standards by 4,702 times compared to the low action signals. Value \( B \) = natural logarithm of 4.702 = 1.584 because the value of \( B \) is positive, the action cue has a positive relationship with the application of patient safety standards.

Discussion

In general, the application of patient safety standards at Tgk Abdullah Syafi'i Hospital is in the good category of 85.7%. This shows that most nurses in emergency departments and intensive care have taken measures that can protect and prevent patients from the risk of injury. Patient safety is already a priority in hospital service and has become a demand in health care. Efforts to organize patient safety in hospitals are expected to minimize the risk of KTD (Unwanted Events) abominations. The results of this study are in line with research conducted by (Surahmat et al., 2019). The results showed that the implementation of patient safety goals by nurses showed that out of 96 nurses, 81 nurses (84.4%) with the implementation category of patient safety goals were good and 15 nurses (15.6%) with the implementation category of health goals The patient's exposure is not good. Another research result that is in line with this research is a study conducted by (Setiyajati, 2014). The results showed that 77.5% of nurses behaved obediently in the implementation of patient safety standards. Good patient safety will have an impact on quality and quality service and meet the expectations of patients. Another impact for hospitals is to be an added value for the achievement of national standard services, and safe and quality and services are expected to increase public trust in hospitals.

In HBM theory behavior is influenced by the perception of benefits, the perception of barriers and action cues. If the perception of benefits, high action cues and low barriers then it will be better and more obedient in behavior Glanz (2010). The results of this study are directly proportional to the concept of HBM theory, when viewed from the results of frequency attribution, the perception of benefits is in the high category of 81%. Based on
the results of the correlation test analysis, the relationship of perceived benefits to compliance with the application of patient safety standards shows that there is a fairly strong relationship ($r$) of 0.456 and a positive pattern, which means that the more high perception of benefits is increasingly compliant in the implementation of Patient safety standards. The results of the statistical test obtained $p$-value = 0.005 ($p < 0.05$) can be concluded that there is a significant relationship between the perception of benefits and the application of patient safety standards. The results of this study are in accordance with several previous studies conducted by (Eman M and Marwa M, 2014). The results show relationship between the perception of benefits and to the behavior of compliance. This means that when nurses feel that they get high benefits from implementing patient safety standards, the better they will be in implementing them.

From the results of the frequency distribution, it was also found that the perception of obstacles was in the low category with a percentage of 58.7%, this can be interpreted to mean that most nurses do not feel that there are obstacles in implementing patient safety standards when viewed from the results of the correlation test, the compliance of the application of patient safety standards sees a value ($r$) of -0.343 (negative relationship with close relationship is quite strong) $p$ value < 0.003. So this suggests that the lower the perception of barriers the better the nurse is at implementing patient safety measures. These findings are consistent with the facts put forward by Janz and Becker that barriers are the most predictors of compliance behavior. However, several other studies have shown that in contrast to the results of this study, there are still high obstacles in the application of patient safety standards, including due to emergency conditions and limited nursing staff in providing services compared to the large number of patients.

The results of this study show that in general, the cues of action in implementing patient safety standards are already high. However, when viewed from the results of the frequency distribution, there are still 30.2% in the low category. From the results of the questionnaire analysis, it shows that the motivation / invitation of peers and supervision is still in the low category. With this, it can be argued that the lower the education and supervision instructions, the lower the compliance rate for the implementation of patient safety standards. Several Studies have shown the same thing with these findings, such as research conducted by (Kasim et al., 2017) which shows a significant relationship between motivation (peer invitation) and nurse compliance in the application of patient safety standards. Research conducted by (Hanifah, 2015) states that regular visits or supervision from superiors are one of the factors that affect nurse’s compliance.

Based on the multivariate test, all independent variables of $p$-value value below 0.05 mean that all variables of benefit perception, perception of barriers and action cues have a significant partial influence on the implementation of patient safety standards. The Most dominant variable influencing patient safety implementation standards is the action cues with an OR value of 4,702.

This means that the higher the action cue, the better the application of patient safety standards by 4,702 times compared to the low action signals. Value $B = \text{natural logarithm}$
of 4.702 = 1.584 because the value of B is positive, the action cue has a positive relationship with the application of patient safety standards

**Conclusion**

There is an influence between perceptions of benefits, perceptions of obstacles and cues for action on the application of patient safety standards < 0.05
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Reference


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