The influence of organizational and individual factors on Nurses’ compliance with re-assessment of patient fall risk

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Abstract

The report on the average achievement of nurses’ compliance with the reassessment of patients’ fall risk from January to June 2020 was 54.75% and did not meet the average hospital standard of 100%. This study aims to analyze the influence of organizational and individual factors on nurses’ compliance with the re-assessment of fall risk at the inpatient installation of RSPAL dr. Ramelan Surabaya. This was an analytical observational study with a cross-sectional design. 162 people were taken as the respondents using a proportionate simple random sampling technique. The results of strategic issues and Focus Group Discussion (FGD) showed that nurse peer support in the fairly supportive category (75.9%). The result of measuring the nurses’ compliance with performing the reassessment of fall risk is in the High category (89.5%). The factors, including supervision, information, the proximity of authority, the location status, personal responsibility, the legitimacy of authority figure, the status of authority figure, and peer support, significantly affect the nurses’ compliance with performing the reassessment of patients’ fall risk. The increase in the nurses’ compliance level in performing the re-assessment of fall risk correctly can be achieved by conducting an outreach to all nurses regarding the effects of performing the re-assessment of fall risk incorrectly, and conducting a regular outreach to heads of nursing room to actively evaluate and motor the implementation of the re-assessment of fall risk.

Keyword:
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fall risk
nurses
re-Assessment

Kata kunci:
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perawat
penilaian ulang

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INTRODUCTION

Based on the report on the patient safety incidence at RSPAL Dr. Ramelan Surabaya, a number of patient safety incidents had been found from 2017 to 2019. This shows that the implementation of a patient safety program still becomes a vital issue for RSPAL Dr. Ramelan Surabaya. If it is analyzed based on the types of incidents and the work unit, it can be identified that from 2017 to 2019, most of the patient safety type with the highest proportion was patients’ fall risk (Source: Recapitulation of achievement indicators of adherence to reassessment of patients at risk of falling at the inpatient installation of RSPAL Dr. Ramelan from 2017 to 2019). The total was 9 incidents, and this frequently happened in the inpatient installation. It is not in line with the stipulation by the Indonesian Ministry of Health No. 129/Menkes/SK/II/2008 on the Minimum Standards in Health Services at Hospitals, stating that the prevalence rate expected in the hospital is 0% for patients fall risk or zero accident.

It is known that from January to June 2020, the achievement of re-assessment compliance indicator in patients’ fall risk was unstable. It can be seen that from January to March, there was an increasing trend, then a decreasing trend happened in April. Furthermore, an increasing trend occurred again in May, while in June, a decreasing trend occurred. It can be seen that the average achievement (January to June 2020) was 5.8% and it was still below the hospital standards (100%).

Based on the data explanation above, it can be inferred that re-assessment of patients’ fall risk is not achieved as it did not meet the hospital standards from January to June 2020 at RSPAL Dr. Ramelan. The inability of nurses to comply with the re-assessment of patients’ fall risk might be affected by supervision, information, motivation, the proximity of authority, the location status, personal responsibility, the legitimacy of authority figure, the status of authority figure, and peer support, analyzing the nurses’ compliance with the re-assessment of patients’ fall risk, analyzing the effects of both variables. The variables in this study consisted of independent variables (information, motivation, the proximity of authority, the location status, personal responsibility, legitimacy of authority figure, the status of authority figure, and peer support) and dependent variables (the nurses’ compliance with the re-assessment of patients’ fall risk).

The instrument for assessing supervision variables consisted of 26 questions, using a checklist of activity frequency with a choice of 4 answer scales, scale 1 for answers never, scale 2 for answers sometimes, scale 3 for answers often, and scale 4 for strongly agree answers. The instrument for assessing motivational variables consisted of 55 questions, using a checklist of activity frequencies with 4 answer choices, namely scale 1 for strongly disagree answers, scale 2 for disagree answers, scale 3 for agree answers and scale 4 for strongly agree answers. And the instrument for assessing individual perception variables consists of 24 questions, using a Likert scale with 4 answer choices, namely scale 1 for strongly disagree answers, scale 2 for disagree answers, scale 3 for agree answers and scale 4 for strongly agree answers.

The analysis in this study uses multiple logistic regression to analyze the effect of independent variables on the dependent variable. The basis for selecting the test is based on the research objective of the influence test and is declared to have a significant effect if it has a p-value <0.05.

RESULTS AND DISCUSSION

Table 1. Characteristics of Respondent

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Group</strong> (years old)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 – 29</td>
<td>69</td>
<td>42.6</td>
</tr>
<tr>
<td>30 – 40</td>
<td>62</td>
<td>38.3</td>
</tr>
<tr>
<td>41 – 50</td>
<td>27</td>
<td>16.7</td>
</tr>
<tr>
<td>51 – 55</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Length of Employment (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 10</td>
<td>93</td>
<td>57.4</td>
</tr>
<tr>
<td>11 – 20</td>
<td>52</td>
<td>32.1</td>
</tr>
<tr>
<td>&gt; 20</td>
<td>17</td>
<td>10.5</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>147</td>
<td>90.7</td>
</tr>
<tr>
<td>Male</td>
<td>15</td>
<td>9.3</td>
</tr>
</tbody>
</table>
Based on table 1, it is known that based on age, most respondents are aged 21-30 years (42.6%). The maximum working period is 1-10 years (57.4%). The gender of the majority is 90.7% female. The employment status of the majority is honorary 71.6%. And most recent education diploma 3 (72.1%).

Based on Table 2, it is known that the better the supervision carried out by the nurse, the higher the nurse’s compliance in reassessing the risk of falling. Based on Table 2: it can be concluded that the better the supervision carried out on nurses, the higher the level of nurses’ compliance in carrying out re-assessment of fall risk. Based on Table 11, a significant effect is found between supervision factor and nurses’ compliance with the re-assessment of fall risk. It is in line with a study conducted by (Cruz et al., 2016) stating that when nurses are supervised, they will tend to discuss personal matters. Supervision is all assistance from leaders to nurses aimed at the development of nurses and other staff in achieving nursing care goals.

Based on table 3, it is known that the better the information obtained by the nurse, the higher the nurse’s compliance in carrying out the fall risk re-assessment. Based on Table 3: it can be concluded that the better the information obtained by the nurses, the higher the level of nurses’ compliance in carrying out re-assessment of fall risk. Based on Table 11, a significant effect is found between supervision factor and nurses’ compliance with the Re-Assessment of fall risk. According to the Information Motivation Behavioral (IMB) Skills, information that is directly relevant to complete health behavior can be easily implemented by individuals in their social ecology and it becomes the determinant factor of health behavioral performance (Fisher et al., 2017). In this case, a good information regarding re-assessment can also increase nurses’ compliance in carrying out re-assessment of fall risk correctly.

Based on table 4 it is known that the stronger the motivation of the nurses, the higher the level of nurse compliance in carrying out the fall risk re-assessment. Based on Table 4: it can be concluded that the stronger the nurses’ motivation, the higher the level of nurses’ compliance in carrying out re-assessment of fall risk. Based on Table 11, a significant effect is found between motivation factor and nurses’ compliance with the Re-assessment of fall risk. Robbins (2006) defines motivation as a readiness to perform a strong effort that leads to achieving the organizational goals accustomed by the
competency to fulfill individual needs. A high motivation level of nurses is needed for hospitals to anticipate the challenges of any changes occurred in the hospital business environment. High motivation will increase nurses’ compliance. Basically, the information motivation behavioral skill (IMB) model emphasizes that as long as a person has good enough information, he will acquire behavioral skills and apply these skills to challenge adherence to therapy (Nelson L.A., et al., 2018).

Based on table 5, it is known that the closer the nurse is to the supervisor, the impact on increasing nurse compliance in carrying out the fall risk re-assessment. Based on Table 5: it can be concluded that the nurses’ closeness with their leaders can increase nurses’ compliance in carrying out re-assessment of fall risk. Based on Table 11, a significant effect is found between the nurses’ Proximity of Authority and the nurses’ compliance with the Re-Assessment of fall risk. A theory by Milgram (1974) states that the lower the individual perception of the role of Proximity of Authority is, the respondents’ compliance will get lower. The role of emotional closeness between nurses and their leaders at the hospital also determines nurses’ compliance in carrying out re-assessment of fall risk. (Carsten, M.K., et al., 2013).

Based on Table 6, it is known that the higher the nurse’s responsibility, the higher the nurse’s compliance in carrying out the fall risk re-assessment. Based on Table 6: it can be concluded that high responsibility of the nurses can increase nurses’ compliance in carrying out re-assessment of fall risk. Based on Table 11, a significant effect is found between the nurses’ Personal Responsibility and the nurses’ compliance with the Re-Assessment of fall risk. Milgram (1974) stated that people with a strong commitment or strong individuals will have higher compliance than those with a weak commitment. Nurses’ personal responsibility can be seen based on the influence of their personal commitment as medical staff in complying with re-assessment of fall risk (Carsten, M.K., et al., 2013).

Based on table 7 it is known that the more prestigious the work location, it will be followed by an increase in nurse compliance in conducting fall risk re-assessments. Based on Table 7: it can be concluded that the more prestigious the work location, the higher the nurses’ compliance in carrying out re-assessment of fall risk. The more prestigious the work location, the higher the nurses’ compliance in carrying out re-assessment of fall risk (Ulum, M.M. et al., 2013). Based on Table 11, a significant effect is found between the location status and the nurses’ compliance with the Re-Assessment of fall risk. Shaw (1979) revealed that the higher the prestige owned by the health workers is, their compliance will be increasing.
Based on Table 8, it is known that the higher the nurse's recognition at the legitimacy level of hospital authority, the higher the nurse's compliance in conducting a fall risk reassessment. Based on Table 9: it can be concluded that high recognition of nurses' legitimacy of authority can impact on increasing nurses' compliance in carrying out reassessment of fall risk. Based on Table 11, a significant effect is found between the nurses' Legitimacy of Authority and the nurses' compliance with the Re-Assessment of fall risk. Milgram (1974) stated that people, in general, do what their supervisors tell them to do. The leader is someone that is respected and obeyed by their staff for their orders based on their basis of power. Nurses' perception of legitimacy of authority influences nurses' compliance in carrying out reassessment of fall risk (Carsten, M.K., et al., 2013).

Based on Table 8, it is known that the higher the nurse's recognition at the legitimacy level of hospital authority, the higher the nurse's compliance in conducting a fall risk reassessment. Based on Table 9: it can be concluded that high recognition of nurses' legitimacy of authority can impact on increasing nurses' compliance in carrying out reassessment of fall risk. Based on Table 11, a significant effect is found between the nurses' Legitimacy of Authority and the nurses' compliance with the Re-Assessment of fall risk. Kotler (1999) defines a group as two or more people interacting with each other to achieve individual or common goals. Someone's behavior is affected by many small groups, namely the membership of a group is broken down further into a primary group from regular interaction and a reference group. The increased hospital management authority according to their duties has an impact on compliance with the implementation of fall risk reassessment. (Aurelie Hemonnet-Goujot, et al, 2022).

Based on Table 10 it is known that peer support has a higher significance for respondents followed by an increase in nurse compliance in conducting fall risk reassessments. Based on Table 10: it can be concluded that high peer support can impact on nurses' compliance in carrying out reassessment of fall risk. Based on Table 11, a significant effect is found between peer support among nurses and the nurses' compliance with the Re-Assessment of fall risk. A non-compliant environment will ease someone to not comply with his/her environment, even though compliance is something vital (Fernald, 2007). Senior nurses should be able to set an example and remind their colleagues or juniors in carrying out fall risk reassessment correctly so as to increase nurses' compliance in fall risk reassessment.

**Effects of Organizational and Individual Factors on Nurses’ Compliance with the Re-Assessment of Fall Risk**
Based on table 11, it is known that the results of multiple linear regression tests found that all variables significantly influence nurse adherence in carrying out fall risk reassessments. supervision variable (p-value 0.001), information (p-value 0.012), motivation (p-value 0.002), proximity of authority (p-value 0.039), personal responsibility (p-value 0.029), status of location (p-value 0.022), legitimacy of authority figure (p-value 0.007), status of authority figure (p-value 0.006) and peer support (p-value 0.001). A study conducted by Putri, A.D.et al. (2016) showed that the nurses’ compliance with the re-assessment of patients’ fall risk in the inpatient installat ion of “X” Hospital was 48%, indicating that it does not fulfil the hospital standards of 100%. This shows that the problem with the compliance of the re-assessment of patients’ fall risk is the problem that is not only experienced by RSPAL Dr. Ramelan Surabaya but is also a classic problem in every hospital. Therefore, a correct strategy is needed to overcome that problem.

The Recommendations to Increase Nurses’ Compliance with the Re-Assessment of Fall Risk

The recommendations to increase nurses’ compliance with the re-assessment of fall risk in the inpatient installation of RSPAL Dr. Ramelan Surabaya are as follows:

a. Conducting community outreach to all nurses about the effects of incorrect implementation of fall risk.

b. Performing an approach to senior nurses to be a role model and remind co-workers or junior nurses in implementing the re-assessment of fall risk correctly.

c. Conducting a regular outreach to heads of nursing room to actively evaluate and monitor the implementation of the re-assessment of fall risk.

Based on the findings, it is known that the highest contribution affecting nurses’ compliance with the re-assessment of patients’ fall risk in the inpatient installation of RSPAL Dr. Ramelan Surabaya is individual factors consisting of information, motivation, the proximity of authority, the location status, personal responsibility, legitimacy of authority figure, the status of authority figure, and peer support.

CONCLUSIONS AND SUGGESTIONS

Most of the respondents’ perceptions of organizational factors consisting of supervision in performing the re-assessment of fall risk in the inpatient installation of RSPAL Dr. Ramelan Surabaya are in the Satisfactory category. Supervision has a significant effect on the nurses’ compliance with the re-assessment of fall risk. Meanwhile, the respondents’ perceptions of individual factors are as follows: information in the satisfactory category, motivation in the moderate category, the nurses’ proximity of authority in the fairly close category, the nurses’ personal responsibility in the fairly responsible category, the location status in the fairly prestigious category, the nurses’ legitimacy of authority in the fairly legitimate category, the nurses’ status of authority figure in the fairly authoritative category, and the nurses’ peer support in the fairly supportive category. The nurses’ compliance with performing the reassessment of fall risk in March 2021 was in the High category.

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ETHICAL CONSIDERATIONS

This study has Ethical Approval by the Rumkital Health Research Ethics Commission Dr. Ramelan Surabaya with Number 05/EC/KERS/2021.

Funding Statement.

No funds, grants, or other support was received.

Conflict of Interest Statement

There is no conflict of interest

REFERENCES


Table 11.
A Summary of p-Value and Multiple Linear Regression Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>p-value</th>
<th>Beta</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision</td>
<td>0.001</td>
<td>0.265</td>
<td>Significant</td>
</tr>
<tr>
<td>Information</td>
<td>0.012</td>
<td>0.095</td>
<td>Significant</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.002</td>
<td>0.093</td>
<td>Significant</td>
</tr>
<tr>
<td>Proximity of authority</td>
<td>0.039</td>
<td>0.163</td>
<td>Significant</td>
</tr>
<tr>
<td>Personal responsibility</td>
<td>0.029</td>
<td>0.082</td>
<td>Significant</td>
</tr>
<tr>
<td>Location status</td>
<td>0.022</td>
<td>0.062</td>
<td>Significant</td>
</tr>
<tr>
<td>The legitimacy of authority figure</td>
<td>0.007</td>
<td>0.210</td>
<td>Significant</td>
</tr>
<tr>
<td>Status of authority figure</td>
<td>0.006</td>
<td>0.136</td>
<td>Significant</td>
</tr>
<tr>
<td>Peer support</td>
<td>0.001</td>
<td>0.072</td>
<td>Significant</td>
</tr>
</tbody>
</table>
Program in Hospital", Jurnal Kedokteran Brawijaya, 28(1), pp. 78-83.


