NURSE'S KNOWLEDGE ON THE INITIAL ASSESSMENT FOR PRIMARY SURVEY OF EMERGENCY PATIENT AT EMERGENCY DEPARTMENT

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ABSTRACT

Background: A person who has experienced an interruption of breathing or cardiac arrest is not necessarily dead, he can still be helped. The early examination with initial assessment which is starting from the preparation in identifying the patient, after that do the triaging according to disease classification and followed by doing primary survey in doing first aid action, then proceed with action cardiopulmonary resuscitation (CPR).

Materials and Methods: The method used in this study is quantitative research with the type of correlational design. The population was taken is emergency installation nurse at Emergency Department of Regional Hospital Toto Kabila, Bone Bolango Regency, Gorontalo with total of 23 respondens, which is analyzed by rank spearmen correlation technique.

Results: The results show a positive correlation value of correlation test results that have been done, it is known that the significance value shown is equal to 0.000 or <0.05 with a coefficient of 0.743.

Conclusion: The higher the nurse's knowledge about the initial assessment the better in the implementation of the primary survey. These results may serve as a reference to improve the performance of nurse emergency installation in dealing with emergency patients.

Keywords: Initial Assessment, Primary Survey, Emergency Department.
1.0 Introduction

Emergency Department (IGD) is an installation to handle emergency cases, such as accidents, poisoning, natural disaster victims, heat, vomiting, severe diarrhea requiring immediate treatment to save lives and avoid disability. A person experiencing an interruption of breathing or cardiac arrest is not necessarily a death, can still be helped (Wicaksana 2011).

Preliminary examination with initial assessment that is, starting from the preparation in identifying the patient, after that do triage according to the classification of disease and followed by doing primary survey that is ABCD (Airway, Breathing, Circulation, Disability) in performing first aid measures which then proceed with the form of action Cardiopulmonary resuscitation (CPR). Thus there is a relationship between the nurse's knowledge level of the emergency patient's initial assessment with the primary survey at the Emergency Department (IGD) (American Heart Association, 2015).

The 2014 the data of patient visits to Emergency Department (IGD) throughout Indonesia reached 4,402,205 (13.3% of total visits in hospitals) with 12% are from Emergency Department visits. This significant amount requires considerable attention with emergency patient services. This is particularly influential in total Emergency Department such as waiting time, wasting time, patient mortality and patient satisfaction, used to assess the density and clinical performance of each patient arrival at the Emergency Department used as an indicator of efficiency assessment of operational and clinical performance improvement (Niels, et.al, 2012).

Through observation results in the report of Emergency Department of Regional Hospital Toto Kabila in December 2016 showed the top 10 cases of ISPA (upper respiratory infection), GE (gastro intestinal), febrile/Fever, HT (hypertension), DM (diabetes mellitus), Colic Abdomen, DHF (dengue hemorrhage fever), CVA (cerebrovascular accident), typhoid fever and traffic accident.

Based on preliminary study conducted by the author on December 19, 2016 in Emergency Department of Regional Hospital Toto Kabila with interview method to 2 nurses stated that in the initial assessment of the first thing to do inspection of his consciousness and then perform airway, breathing and circulation checks quickly and done resuscitation action if necessary. Handling in emergency patients should be done quickly and appropriately so that life threats can be effectively tackled. Based on the observation of 5 nurses, 3 nurses can conduct initial assessment according to procedure while 2 other nurses perform the initial assessment not according to procedure.

Initial assessment is a rapid assessment process in emergency patients directly followed by resuscitation (Suryono, 2010). Initial assessment is divided into 2 phases, namely primary survey and secondary survey, the purpose of the primary survey is to deal with life-threatening issues that must be quickly identified through the assessment of ABCD (Airway, Breathing, Circulation, and Disability), while the purpose of the secondary survey is to identify all illnesses and injuries or problems related to the patient's complaints FGHI (fulset of vitals, give comfort measure, history, and head to toe assessment, inspect posterior surfaces) (Steinmann, 2010).
The initial management of the primary survey is approached through (ABCD):

(1) Maintaining airways with cervical spine control, airway management is paramount in resuscitation and requires special skills in the management of emergency situations, therefore the first thing to be assessed is the smoothness of the airway, which includes airway checks that can be caused by a foreign object, a laryngeal or tracheal fracture. Airway disturbances can arise suddenly and totally, gradually partially and progressively or repeatedly (Dewi, 2013),

(2) Keeping breathing with oxygen ventilation is very important for life. The body's cells require the supply of oxygen used to support the energy-producing chemical reaction, which produces CO2 that must be released continuously (Dewi, 2013),

(3) Perform bleeding control (hemorrhagic control), because bleeding is the cause of death after trauma (Krisanty, 2012),

(4) Neurological status near the end of the primary survey evaluated rapid neurologic state. It is assessed is the level of awareness, size and reaction of the pupil (Advanced Trauma Life Support, 2015). A quick way to evaluate neurological status is to use AVPU (Alert, Voice, Pain, Unconscious), while the GCS (Glasgow Coma Scale) is a more detailed method of evaluating neurological status, and can be done at the time of the secondary survey (Krisanty, 2012).

Based on the description above, the purpose of this study is to explain the relationship between the level of knowledge of nurses on the initial assessment of emergency patients with the implementation of primary survey at Emergency Department of Regional Hospital Toto Kabila.

2.0 Materials and Methods

This research is conducted with cross-sectional study design. The respondent that use in this study is a nurse who works at the Emergency Department of Regional Hospital Toto Kabila, Bone Bolango Regency, Gorontalo. The technique of determining the sample is to use inclusion and exclusion criteria. Considerations in the inclusion criteria are nurses who are still directly involved in dealing with the patient, the letter of registration is still valid, and the emergency first aid certificate is still valid. Then, on the exclusion criteria the considerations include: (1) There are circumstances or diseases that interfere with the measurement or interpretation of results,

(2) There are circumstances that interfere with the ability of implementation

(3) Ethical barriers,

(4) The subject refuses to participate. Based on the criteria used, the number of nurses used as samples in this study is a number of 23 nurses.
Variables used in this study, consists of two types of variables, namely independent variables and dependent variables. Independent variable used in this research is nurse knowledge level about initial assessment in emergency patient. Then the dependent variable used is the action of the implementation of the primary survey.

The indicators used to explain the nurse's knowledge level on initial assessment in emergency patients consist of five things:

1. Preparation,
2. Triage,
3. Primary survey,
4. Fluid resuscitation, and
5. Cardiopulmonary resuscitation.

Then on the action of the implementation of the primary survey, the indicators used are through the ABCD assessment, which consists of:

1. Airway,
2. Breathing,
3. Circulation, and
4. Disability.

Data collection techniques in this study were conducted by using questionnaires. In the primary survey, the questionnaire used in this study is based on Emergency Medical Technician-Basic: National Standard Curriculum (National Highway Traffic Safety Administration, 1997), consisting of 36 statements. The questionnaire used to explain the nurse's knowledge level on initial assessment is based on the questionnaire that has been used in the Nursalam (2013). The questionnaire consisted of 30 statements about nurse knowledge on initial assessment.

On validity test and reliability of research instrument, done by using spearman correlation test. The result of validity and reliability test shows that every statement used in this research can be used for further analysis, that is Rank Spearman Correlation analysis. Before Rank Spearman Correlation analysis, first coding is done with the aim to simplify the respondent's answer so that it can be processed.
3.0 Results

The results of this study were discussed below:

**Table 1**: Nurse's Knowledge About Initial Assessment at Emergency Department of Regional Hospital Toto Kabila, Bone Bolango Regency, Gorontalo

<table>
<thead>
<tr>
<th>No</th>
<th>Nurse's Knowledge About Initial Assessment</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>17</td>
<td>73.91%</td>
</tr>
<tr>
<td>2</td>
<td>Good Enough</td>
<td>6</td>
<td>26.09%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Based on the results shown in Table 1, it is known that of the 23 nurses working in the Emergency Department of Regional Hospital Toto Kabila that the knowledge of the initial assessment has been at a good level, i.e., there are 17 nurses. Then there are 6 nurses who have knowledge of initial assessment which is in enough category. These results explain that the nurses are working in the Emergency Department of Regional Hospital Toto Kabila has good knowledge of initial assessment.

**Table 2**: Implementation of Primary Survey at Emergency Department of Regional Hospital Toto Kabila

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation of Primary Survey</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>1</td>
<td>4.35%</td>
</tr>
<tr>
<td>2</td>
<td>Good Enough</td>
<td>18</td>
<td>78.26%</td>
</tr>
<tr>
<td>3</td>
<td>Not good</td>
<td>4</td>
<td>17.39%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Based on the results shown in Table 2, it is known that the implementation of the primary survey conducted by the nurses working at Emergency Department of Regional Hospital Toto Kabila most have been pretty good. This is indicated by there are 18 nurses who fall into category good enough in carrying out primary survey. Then the rest there are 4 nurses who are still less good in implementing the primary survey, and there is 1 nurse who entered in the category both in implementing the primary survey in Emergency Department of Regional Hospital Toto Kabila.

**Tabel 3**: Spearman Rank Correlation Test Result between Nurses' Knowledge About Initial Assessment with Implementation of Primary Survey in Emergency Department of Regional Hospital Toto Kabila

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.743</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Referring to the results shown in Table 3, it is known that the significance value shown is 0.000. The value of significance explains that there is a significant relationship between the
knowledge possessed by the nurses about the initial assessment with the implementation of the primary survey by the nurse in Emergency Department of Regional Hospital Toto Kabila. When considering the value of the coefficient shown, that is equal to 0.743, it can be explained that the relationship exists between the knowledge possessed by the nurse about the initial assessment with the implementation of the primary survey by the nurse in Emergency Department of Regional Hospital Toto Kabila is in the high category.

4.0 Discussion

Based on the results of research that has been described in the previous section known that the knowledge of initial assessment owned by nurses with the implementation of primary survey conducted by the nurses section Emergency Department of Regional Hospital Toto Kabila have a significant relationship and have a strong relationship This result explains that when the implementation the primary survey by the nurse of the Emergency Department of Regional Hospital Toto Kabila is able to do well, it can be explained that the nurse has knowledge of the initial assessment is good. On the contrary, when the nurse has a poor initial assessment knowledge, it is unlikely that the nurse is unable to perform the primary survey well.

Initial assessment itself is a process of rapid assessment of emergency patients in a hospital. Assessment conducted can be physical and psychosocial assessment to be able to know the problems or illness experienced by patients quickly and accurately (Suryono, 2010). In emergency patients most are patients who need rapid treatment; therefore knowledge of initial assessment becomes an obligation to be able to provide quick and precise action to the patient. The action in question is the action of primary survey and secondary survey. According to Steinmann (2010) primary survey is an action taken to deal with life-threatening issues that must be identified quickly.

Fathoni and Ariayani (2012) in the results of research that has been done to explain that the level of nurse knowledge about the implementation of initial assessment has a relationship with the implementation of primary survey conducted by nurses. These results support the results of the research that has been done, where the primary survey can be done correctly and quickly when the nurse has a good understanding and knowledge of the initial assessment.

Based on the results of descriptive analysis that has been done in the previous section, it can be explained that more than 70 percent of nurses working at the Emergency Department of Regional Hospital Toto Kabila have knowledge of the initial assessment is good. This result explains that nurses working at Emergency Department of Regional Hospital Toto Kabila were able to conduct a quick preliminary assessment when receiving emergency patients. Then based on the results of descriptive analysis that has been done, it is also known that the implementation of primary survey conducted by nurses who work in Emergency Department of Regional Hospital Toto Kabila more than 70% done pretty well.

Therefore, knowledge of initial assessment has an important role for a nurse, especially nurses who work at Emergency Department of Regional Hospital Toto Kabila to be able to support the implementation of primary survey quickly, precisely and efficiently. As explained by
Sutawijaya (2010) that in emergency response time is the main concern, the speed and handling of emergency patients is critical to saving emergency patients, through good initial assessment knowledge so as to support the implementation of a good primary survey, especially at Emergency Department of Regional Hospital Toto Kabila.

5.0 Conclusion

Based on the results of research and discussion that has been described in the previous section, the conclusion of this study is that there is a significant relationship between the level of knowledge possessed about the initial assessment by the nurses of the emergency department Emergency Department of Regional Hospital Toto Kabila, Bone Bolango Regency, Gorontalo with the implementation of primary survey by nurses. This result explains that the nurse can carry out the primary survey well when having knowledge of the initial assessment as well. However, when the nurse does not have a good initial knowledge of the assessment, it is likely that the nurse concerned can not properly carry out the primary survey.

References


