

## Conference Paper

# The Relationship Between Preceptor Role and Student Knowledge with Triage Skills in Emergency Department

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**Abstract**

The Emergency Department is a place for clinical practice students to acquire triage experience. Triage can be carried out well by students who are supported by the supervisor and their own knowledge. The objectives of this study were to examine the relationship between the preceptor role and student knowledge with triage skills in emergency department. The research design was cross-sectional. The sample consisted of 43 nursing students who clinical practice in the emergency department. This study used accidental sampling technique. Data analysis used univariate and bivariate with the chi-square test. The results of the univariate analysis showed that 8.1% respondents had a good receptor role, 88.4% respondents had good knowledge and 60.5% nursing students had good of triage skills. The bivariate results showed a relationship between the role of supervisor and student knowledge with triage (p-value 0.006<0.05). Good triage implementation is supported by the supervisor and student knowledge. It is hoped that the hospital can apply the role of the preceptor to the maximum, set the preceptor schedule with the preceptee at the same time and the lecturers of educational institutions carry out simulations or equip students about triage optimal.

**Keywords:** Preceptor, Knowledge, Triage Skills

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## 1. Introduction

Emergency Department a service or first aid in the hospital provided to clients with emergency conditions. The role of health workers is urgently needed by clients in the immediate future to solve problems, save lives, and prevent disability. The process of services provided to clients is by the level of need and the severity of a client's illness or emergency. Handling of emergencies in health services is supported by facilities and infrastructure, one of which is human resources, both doctors, senior nurses, and junior

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nurses or students who practice clinics. The client's first aid in the ER is carried out by triage by medical staff, namely doctors [1].

The triage service provided to clients involves all elements in the IGD room including students because the IGD room is also a place for field study for students. The student's success in recognizing the client's condition and triage is supported by the role of preceptors and student knowledge. Student clinical practice in the ER is a lesson in determining client classification or triage management based on the level of emergency and providing nursing care as early as possible to prevent errors that can lead to client safety incidents. The role of preceptors is also very important to improve the application of triage. The preceptor has a role in directing students to achieve competency regarding triage, seen from the condition of nurses in the ER to divide tasks as service providers and also as preceptors who are still not maximal and very busy in handling clients so that they have not been maximally guiding students [1].

Some of the factors that influence student triage are the emergency room atmosphere, knowledge, the role of preceptors, and family panic. Judging from the knowledge of students before doing clinical practice, educational institutions are given provisioning first, but there are still students who do not understand Triage. A study was conducted by Binti Ekry Fahrizal (2018) to investigate the contribution of knowledge about triage to Diploma students of nursing in Pekanbaru, it showed that 29.8% of nursing student have poor knowledge of response time triage in Emergency Department [2]. Furthermore, Sulung N. (2015) found that implementation of the competency intervention of the preceptor and mentor methods has a significant effect on the skills of nurses in the Pediatric Ward of RSUP. Dr. M. Djamil Padang [3].

Apart from the role of the preceptor, student knowledge is very important have triage skills. Knowledge can be increased by seeking as much information as possible through guidance from tutors/lecturers and independent study. According to Notoatmodjo (2012), knowledge is the result of a person's learning process for something, whether seen, heard, or practiced. Based on the research of Khairina et al. (2018), it was found that the knowledge level factor was the dominant factor related to nursing decision-making on the accuracy of filling in the triage scale with a p-value of 0.012 and an odds ratio value of 17.856. [4].

Based on the results of preliminary studies was conducted on students who practice in the Emergency Department in Hospital at Jambi Province, in the last month there were 10 clinical practice nursing students, 6 students did not know optimally about the principles and functions in carrying out triage and 4 students were sufficient. know but still don't understand the classification and prioritization of triage. The objectives

of this study were to examine “The Relationship between Preceptor Role and Student Knowledge with triage skills in Emergency Department”.

## 2. Methods

### 2.1. Research Design

This research was a quantitative study with a cross-sectional design. The independent variable is the role of the preceptor and student knowledge, the dependent variable is the triage skills.

### 2.2. Setting

This research was conducted in the IGD Room at the Jambi Provincial Hospital, IGD in April and May 2019.

### 2.3. Subject and Object

The population in this study were all nursing students who clinical practice in the emergency department. This study used accidental sampling technique with a total sample of 43 nursing students. The inclusion criterion was those nursing students who had the nursing education background at least diploma in nursing level.

### 2.4. Data Collection Technique

Data were collected using a set of questionnaires: 1) Triage Skill Questionnaire (TSQ) was a 15-item questionnaire with three dimensions including rapid assessment, patient categorization, and patient allocation. Subjects were asked to respond to each item using 1-4 rating scale (1 = never, 2 = sometimes, 3 = often, 4 =always). The total score results are based on the median value (median=45). Using the criterion, the following score was interpreted as: < median = not good of triage skills, and > median= good of triage skills. 2) Triage Knowledge Questionnaire (TKQ) consists of 20 items. Each question has four choices. The correct answer of each item was get 1 score and incorrect answer was get 0 score. The higher scores indicate that the nurse had more knowledge. The total score was calculated to percentage. Using the criterion-referenced, the total score less than 56% was low level of knowledge, 56-75 % was moderate level

of knowledge and more than 75% was high level of knowledge. 3) Preceptor Role Questionnaire (PRQ) was a 15-item questionnaire The total score results are based on the median value (median=28). Using the criterion, the following score was interpreted as: < median = not good of preceptor role, and > median= good of preceptor role.

### 2.5. Data Analysis Technique

The analysis used univariate to see the frequency distribution of variables and bivariates using the chi-square statistical test.

## 3. Results

### 3.1. Univariate Analysis

TABLE 1: Frequency Distribution of the Role of Receptors, Knowledge, and Implementation of Triage in Jambi Provincial Hospital (n = 43)

Variable	Frequency (f)	Percentage (%)
<b>Role of Preceptors</b>		
Not good	18	41,9
Good	25	58,1
<b>Nursing Students knowledge</b>		
Poor Knowledge	1	2,3
Moderate Knowledge	4	9,3
Good Knowledge	38	88,4
<b>Triage Skills</b>		
Poor Good	17	39,5
Good	26	60,5

Based on table 1, the frequency of the role of the preceptor is good for 25 (58.1%) of respondents, most of the students' knowledge is quite good, 38 (88.4) of respondents and most of the implementation of triage is good 26 (60.5%).

### 3.2. Bivariate Analysis

TABLE 2: Relationship between the role of the receptor and the Skills of Triage at the Jambi Provincial Hospital (n = 43)

Role of Preceptors	Triage Skills				Total		p-value
	Poor good		Good		n	%	
	n	%	n	%			
Not good	12	66,7	6	33,3	18	100,0	0,006
Good	5	20,0	20	80,0	25	100,0	

### 3.2.1. Relationship between the role of the receptor and the implementation of Triage

The results of statistical data analysis show that there is a relationship between the role of the preceptor and the application of triage in the emergency departement in hospital at the Jambi Province with a p-value of 0.006.

### 3.2.2. Relationship between Student Knowledge and the implementation of Triage

TABLE 3: Relationship between Student Knowledge and the implementation of Triage in Jambi Provincial Hospital (n = 43)

Student knowledge	Triage Skills				Total		p-value
	Poor good		Good		n	%	
	n	%	n	%			
Poor Knowledge	1	100,0	0	0	1	100,0	0,013
Moderate Knowledge	4	100,0	0	0	4	100,0	
Good Knowledge	12	31,6	26	68,4	38	100,0	

The results of statistical data analysis show that there is a relationship between clinical practice student knowledge with triage skills in emergency department at hospital Jambi Province with p-value of 0.013.

## 4. Discussion

#### 4.1. Frequency Distribution of the Role of Receptors, Student Knowledge and Application of Triage in Jambi Provincial Hospital

Based on table 1, it is found that the role of the preceptor is mostly good, namely 25 (58.1%) of respondents. This is the role of a good preceptor to guide students during clinical practice at emergency department in hospital Jambi Province. Preceptors are registered nurses who provide supervision through individual relationships with student nurses during a clinical setting. According by Barker (2010) Preceptors are professional nurses or senior nurses who have gone through professional nurse education who have worked > 10 years [5]. According to research conducted by D sari (2012), it was found that the role of clinical supervisors at RSI Sultan Agung Semarang was mostly categorized as good with a percentage (89.5%) [6]. The preceptor plays an important role as a guide to produce students who can gain knowledge in practical fields and make students as partners in carrying out nursing care.

The role of the preceptor is very important in the development of professional nursing knowledgeable and skilled in providing nursing care, the preceptor together with students provide safe quality nursing services for all categories as clients, families, and communities to achieve, maintain and restore optimal health characteristics such as professional knowledge, role models and clinical competence [7]. The role of the preceptor is to provide direction and guide students to achieve their learning goals to produce students who understand and can apply nursing knowledge in triage.

Based on table 1, it was found that most of the 33 (88.4%) students had good knowledge. This showed that students and educational institutions have prepared students to enter clinical practice at the hospital. Based on research conducted by Binti Ekry Farizal (2018) [2]. 120 (70.2%) students had good knowledge about triage responses [2]. Knowledge is the result of knowing and this occurs after someone senses a certain object. Sensing occurs through the five human senses, namely the senses of sight, smell, taste, and touch. Most of the human knowledge is obtained through the eyes and ears. A person's knowledge of an object contains two aspects, namely positive aspects and negative aspects. These two aspects determine a person's attitude towards a certain object, the more positive aspects of an object are known, the more positive the attitude will be towards that object [8].

Achievement of learning attitudes, general skills, special skills, and student knowledge, supported by the seriousness of students in preparing themselves to achieve learning outcomes by the learning method. The role of institutions, especially study

programs, is to provide provisions for students before taking lessons in the clinic. [5]. To achieve skills and increase students' understanding of clients when providing nursing care, it is obtained through education in the clinical practice area [8].

According to Notoatmodjo (2012) mastery of knowledge is influenced by cognitive abilities in analyzing learning and being able to solve problems by providing positive solutions in implementing and applying certain procedures. Research conducted by W. Santosa (2015) states that knowledge and action have a very strong relationship because they are supported by good experience and training so that they can be applied in the field of work in actions based on triage labeling [9].

Based on table 1 the results of the study show that triage skills 26 (60.5%) is good. This shows that students who practice are equipped with knowledge by lecturers and preceptors about triage by Standard Operating Procedures. (SOP) in conducting triage. Triage is one of the main principles of effective management of major emergencies. Triage means segregating, categorizing, or classifying, and refers to the categorization, classification, and prioritization of injured clients and people, based on their urgent need for care.

The results of this study are in line with the research [10]. It was found that the majority of respondents were appropriate to carry out triage actions based on priorities with a total of 18 people (56.3%). The objectives of applying triage are: identifying life-threatening conditions, prioritizing patients according to their accuracy conditions, placing patients according to their accuracy based on precise and accurate assessments, digging complete data about the patient's condition [11].

Triage is an emergency case management when taking action on clients according to the level of severity of a disease. When doing triage and services in the emergency department, it is not based on client queues but based on triage. This should be the attention of students so that there are no mistakes or mistakes when doing actions according to the preceptor's instructions. Students must improve their abilities in implementing triages for the success of triage and good emergency action management..

#### **4.2. Relationship between the role of the Preceptor and the implementation of Triage at the Jambi Provincial Hospital.**

The results of statistical data analysis show that there is a relationship between the role of the preceptor and the application of triage in the emergency room at the Jambi Provincial Hospital in 2019 with a p-value of 0.006. The results of this study are in line with research conducted by Sulung (2015) that the implementation of the competency

intervention of the preceptor and mentor methods has a significant effect on the skills of nurses with a score ( $p < 0.05$ ).

The preceptor is a nurse who has attended preceptorship training and is experienced in the field of nursing services and can provide training and practical experience to students. The preceptor is a nurse practitioner who works and is experienced in a particular area of nursing who can teach, provide counseling, inspire, and behave and act as a "role model". Preceptors play a role in facilitating and giving confidence to students through developing mutual trust in the implementation of preceptorship. A preceptor must see the preceptor/ student as someone who has the ability and interest to become a competent nurse with all his vulnerabilities during the learning process [5] and especially in the application of triage management.

During their practice at the hospital, students can carry out care or direct action to patients. The role of the clinical supervisor will determine the achievement of learning competencies, especially competencies related to patient safety. The theory says that the role of preceptors who have good knowledge and skills will be able to help students to acquire knowledge and skills. According by Sari (2018) Clinical supervisors have a major contribution to the process of clinical learning activities for students to achieve learning goals.

According by Prananingrum et al. (2015) to the task theory and the role of the preceptor is as a role model, skill-building, critical thinking, socialization of the preceptor's duties and roles have been implemented and the preceptor has received preceptorship training by the hospital. But from some of these roles, some roles have not been optimally performed by the preceptors. In the future, hospitals and educational institutions must synergize to carry out student nursing practices. Research conducted by T. Y. Omer and S. M. Moola states that students who practice clinical practice in hospitals need motivation from the preceptors and build relationships with care for the transition from the role of students to professional roles [11]. Guidance given by the preceptor overcoming the preceptee's anxiety [12].

The role of preceptors in the hospital has not been maximized because preceptors and students have not implemented guidance according to the preceptor's schedule, for the future to maximize guidance between the preceptors and the preceptors, the same schedule is needed when the preceptors in the morning students and morning services are also in the morning service so that maximum guidance is achieved. Based on the explanation above, it can be concluded that the role of the preceptor is closely related to the successful application of triage to students.



### 4.3. Relationship between Student Knowledge and the implementation of Triage in Jambi Provincial Hospital.

The results of statistical data analysis showed that there is a relationship between clinical practice student knowledge and the application of triage management in the IGD room at Jambi Provincial Hospital in 2019 with a p-value of 0.013. The results of this study are in line with research conducted by Binti Ekry Farizal (2018), it was found that there was a relationship between knowledge and attitudes of health workers towards response time triage with a value of P-Value 0.000. The results of this study are also supported by Gurning (2014) it showed that there is a relationship between knowledge with triage skills based on priority, it showed that there is a significant relationship (p-value 0.036) Understanding Better implementation of triage requires knowledge and skills with continuing education and training related to triage [13].

Knowledge is closely related to education where it is hoped that someone with higher education will have more extensive knowledge. However, someone with low education does not mean low knowledge either. According to the theory, someone with low education can also have good knowledge because it is influenced by many factors, including experience and age. So that the older you get, the more your comprehension and mindset will increase so that the knowledge you get is getting better[14].

The accuracy of triage skills in the emergency department is influenced by various factors, namely: student knowledge, skills, education level, length of work, information, and the role of a clinical supervisor (preceptor). The results of research from previous researchers at the Padang City Emergency Room found that knowledge was the dominant factor affecting decision making in triage accuracy with a p-value of 0.012 with OR: 17.8 (Khairina et al., 2018). According to the results of the study (Santosa, 2015), it was found that there was a very strong relationship between knowledge and actions of nurses  $p = 0.002$ ;  $r = 0.802$ .

In this study, the knowledge of students with the triage skills in emergency department in hospital has a relationship, as explained the better the application of a person, the better the application is given to patients, in this case, the application of a good person can be obtained from good knowledge, but the application someone good can also be obtained from experience, participating in training, seeing colleagues who take action, Knowledge of students with triage has good knowledge, this is because before entering the practice of educational institutions they have provided knowledge of students about the implementation of triage, knowledge of clinical practice students

as well, can be obtained through journals, books, and preparing before entering clinical practice.

## 5. Conclusion

Based on the research results, the role of the preceptor gives a big role in the competence of triage skills that will be achieved by students during clinical practice. The trained receptors will provide guidance according to and even more than the competencies achieved by nursing students. Before doing clinical practice, nursing students increase their knowledge about triage, so that when practicing in the emergency department, they do not feel confused and doubtful

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## Conflic of Interest

The authors have no conflict of interest to declare.

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