

## Evaluate Factors Associated With Hospital Triage Decision Making At Abubakar Tafawa Balewa University Teaching, Hospital, Bauchi

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### **Abstract**

*The study investigated the factors associated with hospital triage decision making. Two objectives and two research questions guided the study and tested two alternative hypotheses at 0.05 level of significance. The study adopted survey research design. The research was conducted in the Abubakar Tafawa Balewa University Teaching Hospital. The population of the study was four hundred fifty (450) nursing staff (Diploma RN, B.Sc, M.Sc and Others). The sample size was seventy six (76) respondents; this was determined using Taro Yamane formula. The instrument used for data collection was a structured questionnaire developed by the researcher from literature reviewed. Three experts validated the instrument while split-half method was used to determine the internal consistency of the items and reliability co-efficient of 0.822 was obtained, indicating that the instrument is reliable for the study. The instrument was administered by the researcher and four research assistants. Descriptive statistics of mean and standard deviation were used to answer the research questions while inferential statistics of Pearson Correlation was used to test the alternative hypotheses at 0.05 level of significance. The study revealed that a high extent of triage knowledge among nurses in in Abubakar Tafawa Balewa University Teaching Hospital. Hypotheses analysis of data from the study showed there is no significance difference between age and training level and also between triage room experience and triage skills among nurses in in Abubakar Tafawa Balewa University Teaching Hospital. Further hypothesis analysis of data revealed that there was a significant difference between training and skill level and also nursing work experience and triage knowledge among nurses. It was recommended that the hospital administrative give more emphases about nursing turn over and incentives for nurses who work ED, because reasons for ED triage quality decline is associated with high turnover of nurses and lack of incentives.*

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**Keywords:** *Triage knowledge, Triage skill, and Training experience, associated factors: and Triage*

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### **Introduction**

Healthcare resource allocation refers to the distribution of healthcare resources among individuals and populations and encompasses rationing and triage. With more complex medical procedures, increasing patient age and expectations, and the increased severity of diseases, there is a greater demand for all medical services. Given all these conditions, occasionally the needs for close monitoring is required in some patients. Often, when it comes to intensive care services, demand exceeds supply leading to a rationing of ICU beds. Therefore, a method of

prioritizing or triaging patients is necessary, often resulting in admission refusal (Sprung, et al., 2016).

Many patients refer to emergency units in hospitals every day due to being exposed in high-risk situations, in which the physical or mental status of the individuals has been affected and they require immediate and appropriate actions (Tabatabai & Salari, 2013). As the important characteristics of the emergency unit are time restriction, high numbers of referrals, diversity in causes of referral, lack of primary information on patient, and urgency in selecting the type of treatment (Fatemeh et al., 2019), these units are the most critical units of hospitals.

Triage is an essential aspect in taking care of the patients referring to emergency departments (EDs) and it is among the initial actions, which is done during the patient's entrance to the EDs (Gilboy et al., 2011). Triage can be considered as the process of assessment, decision-making and giving priority to the patients' problems for providing treatment cares that this prioritization is done based on patients' clinical situation (Abbas et al., 2013).

Actually correct decision-making of triage is the basis of prioritization and providing emergency cares and has an important effect on patients' treatment outcomes (Considine, et al., 2017). It should be considered that totally, nowadays correct decision-making is counted as an important part of nursing cares, but considering the sensitivity and criticality of the patients' conditions the importance of this decision-making in emergency conditions is double (Abbas et al., 2013). Although confidence on accuracy of triage decision making has been improved in light of availability of the standard triage scale along with the current equipment and facilities in the triage units, many still argue that the standard scale is limited to the multidimensional understanding of the nature of decision making (Clarke et al., 2015).

So triage decision-making is a complex clinical decision-making because often this decision-making is done in unclear conditions and by having incomplete and ambiguous information and also is done with the limitation of time and place (Fry & Burr 2001). Triage decision-making is done based on the signs and symptoms of the patients and this decision-making is not equal to the medical diagnosis. Triage nurses are responsible for rapid diagnosis of threatening situations and potentially threatening of the life and doing rapid actions regarding resolving these conditions.

Triage nurses in order to do correct triage should be able to diagnose useful clues among all the available information and they should be able to have correct triage decision making based on these clues (Vatnoy, et al., 2012)

### **Statement of the Problem**

The provision of intensive care is a perplexing issue for clinicians and the public. Concerns about the apparent lack of beds and the appropriateness of the patients admitted are tempered by the high cost of providing this service. When evaluating a patient with a severe acute illness, intensivists must determine the following: diagnosis, prognosis, treatment, and whether ICU admission is warranted. The answers to all these questions are related to a number of factors: number of beds available in the ICU, patient characteristics and comorbidities, and characteristics of the acute illness (severity, reversibility, and predicted quality of life after ICU discharge) (Jose et al., 2013).

Triage is identified as determining the priority in care and making the best decision for subsequent intervention steps. The concept of triage was originally developed to ensure that medical treatment and resources are used in the best and most appropriate way, especially in events when there are many injuries such as mass accidents, disasters, and war. Triage expanded

later and started to be used in EDs to determine the priorities of outpatients, patients brought with ambulances, or those whose arrival is unexpected (Yeşim & Dilek, 2017)

### **Objective of the study**

The purpose of this study is to evaluate factors associated with hospital triage decision making at Abubakar Tafawa Balewa University Teaching Hospital, Bauchi.

The specific objectives are to:

1. To assess knowledge of triaging among nurses working in emergency departments of Abubakar Tafawa Balewa University Teaching Hospital, Bauchi.
2. To ascertain perceived triaging skill among nurses working in adult emergency departments of Abubakar Tafawa Balewa University Teaching Hospital, Bauchi.

### **Research Questions**

The following research questions guided the study

1. What is the knowledge of triaging among nurses working in emergency unit?
2. What are the skills of triaging among nurses working in emergency departments of Abubakar Tafawa Balewa University Teaching Hospital?

### **Research Hypotheses**

**H11:** There is significant difference between working experience and knowledge of triage among nurses working in emergency unit Abubakar Tafawa Balewa University Teaching Hospital.

**H12:** There is a significant difference between age and training level among nurses working in emergency unit of Abubakar Tafawa Balewa University Teaching Hospital.

### **Methods**

The research design used for this study was descriptive research design. The descriptive survey design was selected because it enables a researcher to identify the peculiar characteristics of a given population and allows him present them in a logical and analytical way. Furthermore, the survey design was picked because it is very effective to studies that relates to field work.

Target population consisted of all seventy four hundred and fifty (450) Nurses. The sample was 76 respondents using Taro Yamane formula. Data were collected using a set of questionnaires which were adopted with some modification. The questionnaire was used reputedly by other researchers (Fathoni et al., 2013). Instruments consisted of the following items: The Demographic Data Sheet (DDS) focused on personal characteristics, training Experience and work experience. Training experience in the past three years was interpreted using a training index in which higher scores reflected greater training experience. Work experience was evaluated by simply using the number of months each nurses had worked in ED, where more months reflected greater experience (Fathoni et al., 2013).

Triage Knowledge Questionnaire (TKQ): consisted of 9 items. Each question had four choices. A correct answer for each item received a score of 1 and an incorrect answer received a score of 0. Higher scores indicated that the nurses had more knowledge. The possible range of the total scores for triage knowledge was from 0 to 9. The numerical scores were converted to percentages. The total score was converted to percentage, if the total score is less than 60% poor knowledge more than 60 % good knowledge (Fathoni et al., 2013).

Triage Skill Questionnaire (TSQ): was a 15-item questionnaire with three dimensions: rapid assessment, patient categorization, and patient allocation. Subjects were asked to respond to each item using a 1-5 rating scale: 1 = needs improvement, 2 = poor, 3 = fair, 4 = good, and 5 = very good. The possible range of the total scores was from 37 to 185. The numerical score was converted to percentage, if the total score was less than 60% poor skill, more than 60% good skill. (Fathoni et al., 2013).

The pilot study of the instrument was done in which 10 nurses of the Abubakar Tafawa Balewa Teaching Hospital were given the questionnaire to answer. Observations were noted and corrections were effected so as to ensure construct validity of the instrument. Content questionnaires validity was done in which the questionnaire was given to three experts in the field who went through the tool and a content validity index (CVI) of 0.75 was obtained, which ensured further validity of the instrument. The standardized electronic triage decision making questionnaire was tested for reliability using the test-retest method. It was administered to some subjects within a period of three months during which the retest was done. The responses were compared for reliability. Pearson's correlation coefficient was used to determine the coefficient of correlation which was 0.9771 approximately 0.98. Hence the questionnaire had 98% reliability.

The questionnaires were personally administered to respondents in the study area by the researcher and two research assistants, who were briefed on how to administer the instrument. Prior to the administration of questionnaire, the researcher met with the Head of Personnel Department and introduced the topic. The ward head then gave the researcher an appointment on when to come to administer to the targeted respondents.

The data collected was coded using Microsoft excel 2013 version. Inspection of the coded data was done to ensure coding accuracy. The data was later transferred to SPSS version 25. Descriptive statistical analysis such as simple frequency distribution tables, percentages and mean were implemented using SPSS. In order to test hypothesis, inferential statistics of chi-square was used. The choice of Statistical Package for the Social Sciences (SPSS) in the data analysis was made to avoid errors due to manual calculations.

The study location ATBUTH Bauchi is a 650 Bed capacity located in North Eastern Part of Nigeria. The hospital provides a wide range of medical, surgical, diagnostic, out-patient, rehabilitative and support services to residents of Bauchi. It has a functional Accident and Emergency Unit which provides 24 hour emergency services all year round. The multi-disciplinary approach to service makes it the best point of call for a number of subjects including Pediatrics, General Medicine and Surgery, Obstetrics and Gynecology, Laboratory Services, Radiology, HIV/STI Services, Anesthesiology, Intensive Care Unit, Ophthalmology, Dietetics, Physiotherapy, Psychiatry, and many more.

## **Results**

The data collected was coded by the researcher using Microsoft excel 2013 version. Inspection of the coded data was done to ensure coding accuracy. The data was later transferred to SPSS version 25. Frequency distribution, mean, median and mode were used in accomplishing the data analysis task for this study. The data obtained from the respondents through the administration of the questionnaire is presented as follows:

Table 4.1: Age Distribution of Respondents

Age	Frequency	Percentage
Below 30 years	27	35.5
30-50 years	34	44.7
Above 50 years	15	19.7
Total	76	100.0%

*Source: Author's Computation from Field Survey 2021.*

Table 4.1 showed the age distribution of respondents. 27(35.5%) of the respondents are below 30 years of age. 34(44.7%) of the respondents are between 30-50 years of age and 15(19.7%) of the respondents are above 50 years of age.

Table 4.2 Working Experience by nursing profession of Respondents

Level	Frequency	Percentage
Below 10 years	19	25.0
11-20 years	30	39.5
Above 20 years	27	35.5
Total	76	100.0%

*Source: Author's Computation from Field Survey 2021.*

Table 4.2 showed the working experience by nursing profession distribution of respondents. 19(25.0%) of the respondents are below 10 years, 30(39.5%) of them are between 11-20 years and 27(35.5%) of them are above 20 years' experience in nursing profession.

4.3 Working Experience by nursing profession of Respondents

Level	Frequency	Percentage
Below 10 years	19	25.0
11-20 years	30	39.5
Above 20 years	27	35.5

Total	76	100.0%
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*Source: Author's Computation from Field Survey 2021.*

Table 4.3 showed the working experience by nursing profession distribution of respondents. 19(25.0%) of the respondents are below 10 years, 30(39.5%) of them are between 11-20 years and 27(35.5%) of them are above 20 years experience in nursing profession.

Table 4.4: Work Experience as a nurse in ED of Respondents

No. of Years	Frequency	Percentage
Below 12 months	49	64.5
12-24 months	21	27.6
Above 24 months	6	7.9
Total	76	100.0%

*Source: Author's Computation from Field Survey 2021.*

Table 4.4 showed the work experience as a nurse in ED distribution of respondents. 49(64.5%) of the respondents had a work experience less than 12 months, 21(27.6%) of them had a work experience between 12-24 months and 6 (7.9%) of them had a work experience above 24 months.

Table 4.5: Work Experience as a nurse in Triage room of Respondents

No. of Years	Frequency	Percentage
Below 12 months	54	71.1
12-24 months	12	15.8
Above 24 months	10	13.2
Total	76	100.0%

*Source: Author's Computation from Field Survey 2021.*

Table 4.5 showed the work experience as a nurse in triage room distribution of respondents. 54 (71.1%) of the respondents had a work experience less than 12 months, 12 (15.8%) of them

had a work experience between 12-24 months and 10 (13.2%) of them had a work experience above 24 months.

**Data Analysis (Univariate & Bivariate)**

Any item with a mean value of 4.00 to 5.00 was regarded as Very High Extent, 3.00 to 3.99 was regarded as High Extent, 2.00 to 2.99 was regarded as Low Extent while any item with a mean value below 1.00 was regarded as Very Low Extent.

Table 4.6: Respondents' Opinion about Triage knowledge among nurses at Abubakar Tafawa Balewa University, Teaching Hospital, Bauchi.

S/No	Training	N	Freq	Percentage (%)	Mean	Std Dev
1.	Which of the following complications might occur within 24hrs?	76	44	56.4	1.4211	.49701
2.	A patient presents in the emergency department after falling from a roof. A picture of the femoral neck is suspected. Which of these assessments best support this diagnosis?	76	45	57.7	1.4079	.4971
3.	Which of the following typical problems would you anticipate	76	49	62.8	1.3553	.48177
4.	Which of the following items might occur in this patient?	76	43	55.5	1.4342	.49895
5.	The most appropriate initial management by the nurse is?	76	52	65.7	1.8421	.36707
6.	The nurse caring for Mr. R. Should response which of the following action first?	76	55	70.5	1.2763	.45015
7.	Which of the following complications is the most possible in this patient?	76	55	70.5	1.2763	.45015
8.	Atherosclerosis impedes coronary blood flow by which of the following mechanisms	76	55	70.5	1.2763	.45015
9.	Which of the following complications might occur within 24hrs?	76	36	45.2	1.5263	.50262
10.	A patient presents in the emergency department after falling from a roof. A fracture of the femoral neck is suspected. Which of these assessments best support this diagnosis.	76	45	57.7	1.4079	.4971

Source: Author's Computation from Field Survey 2021.

Table 4.6 supplied information on the opinions of respondents' of nurses at Abubakar Tafawa Balewa teaching hospital assessment on triage knowledge. The percentage scores of the items are above the cut-off mark of 50% that was regarded as high extent as indicated by the researcher. Therefore, most the items under triage knowledge were considered of high extent. The

average percentage of 61.4% with an average mean of 1.4829 which indicates that the respondents unanimously had triage knowledge.

Table 4.7: Respondents' Opinion about Triage skills among nurses at Abubakar Tafawa Balewa University, Teaching Hospital, Buachi.

S/No.	Triage Skills	N	Mean	Std Dev
<b>Rapid Patient Assessment</b>				
1.	Asses patient including vital sign with rapid assessment in 2-5 minute	76	3.6053	0.7133
2.	Assess or ask Chief complaint of patient rapidly	76	3.4474	1.1002
3.	In unconscious patient look in the upper air way such a blood vomit, foreign body, edema, and tongue obstruction as assess airway patency.	76	4.4868	0.5032
4.	Decide to open airway and remove foreign body when airway is obstructed according to airway management	76	3.7895	0.6596
5.	Give positing airway to maintain patency chin lift.	76	3.9605	0.8073
6.	Perform clear airway by correct position with jaw thrust and head tilt chin lift.	76	4.3158	0.4679
<b>Patient Categorization</b>				
7.	Categorize the patient according to triage categorization	76	4.1184	0.8939
8.	Identify patient who require immediate care, urgent and non-urgent according to triage categories.	76	3.9474	0.5632
9.	Avoid the condition of the patient with over triage under triage	76	4.6579	0.4776
10.	Initiate nursing intervention during triage categorization.	76	4.2895	0.4565
<b>Patient Allocation</b>				
11.	Male decisions to allocate the patient with priority 1 (Resuscitation in ED) in the right place.	76	4.1579	0.9010
12.	Make decision to allocate the patient with priority 2 (Critical care in the ED).	76	4.2895	0.4565
13.	Make to allocate the patient with priority 3 in the right place	76	3.7895	0.8991
14.	Allocate the patient with nursing intervention safety in ED	76	4.2895	0.4563
15.	Allocate the patient by collaboration with other emergency and medical			



doctor with handover effectively.	76	4.8421	0.3671
Average Mean		4.1324	0.6147

*Source: Author's Computation from Field Survey 2021.*

Table 4.7 supplied information on the opinions of respondents' of nurses at Abubakar Tafawa Balewa teaching hospital assessment on triage skills. The percentage scores of the items are above the cut-off mark of 3.00 that was regarded as high extent as indicated by the researcher. Therefore, most the items under triage knowledge were considered of high extent. The average mean of 4.1324 which indicates that the respondents unanimously had triage skills.

### Hypothesis One

H11: There is significant difference between nursing working experience and knowledge of triage among nurses working in emergency unit Abubakar Tafawa Balewa University Teaching Hospital.

Table 4.8: Correlation between the nursing working experience and knowledge of triage among nurses working in emergency unit Abubakar Tafawa Balewa University Teaching Hospital.

Variables	Nursing Experience	Working	Triage Knowledge
Nursing Working Experience	Pearson Correlation	1	0.293
	Sign (2-Tailed)		
	N	76	76
Triage Knowledge	Pearson Correlation	0.293	1
	Sign (2-Tailed)	0.000	
	N	76	76

*Source: Author's Computation from Field Survey 2021.*

The table above showed the correlation between nursing working experience and triage knowledge among working in emergency unit Abubakar Tafawa Balewa University Teaching Hospital. The results showed that there is 29.3% positive correlation between nursing working experience and triage knowledge among working in emergency unit Abubakar Tafawa Balewa University Teaching Hospital. This implies that nursing working experience and triage knowledge are strongly correlated. Since the probability value of the correlation coefficient, which is 0.010, is less than the critical 0.05 at 5% significance level, the alternative hypothesis (H1) is accepted that there is a significant difference between the nursing working experience and triage knowledge among nurses working in emergency unit Abubakar Tafawa Balewa University Teaching Hospital.

### Hypothesis Two

H12: There is a significant difference between age and training level among nurses working in emergency unit of Abubakar Tafawa Balewa University Teaching Hospital.

Table 4.9: Correlation between age and training level among nurses working in emergency unit of Abubakar Tafawa Balewa University Teaching Hospital.

Variable	Age	Triage Level
Pearson Correlation	1	0.134
Sign (2-Tailed)	1	0.247
N	76	76
Pearson Correlation	0.134	1
Sign (2-Tailed)	0.247	
N	76	76

\*\**. Correlation is significant at the 0.05 level (2-tailed). Source: SPSS Result*

The table above showed the correlation between age and training level among nurses working in emergency unit of Abubakar Tafawa Balewa University Teaching Hospital. The results showed that there is 13.4% negative correlation between age and training level. This implies that age and training level are negatively correlated. Since the probability value of the correlation coefficient, which is 0.247, is greater than the critical 0.05 at 5% significance level, the alternative hypothesis (H2) is rejected that there is no significant difference between age and training level among nurses working in emergency unit of Abubakar Tafawa Balewa University Teaching Hospital

## Discussion

The Socio-demographic findings revealed that most of the respondents 51(67.1%) are female between the ages of 30 and 50 and were 34(44.7%) while 27(35.5%) are below the age of 30 years, this age distribution shows that the sample size is a blend of young and elderly respondents with appreciable years of experience.

Majority of the respondents had a nursing working experience between 11-20 years 30 (39.5%), below 12 months 49 (64.5%) working experience as a nurse in ED, and below 12 months 54 (71.1%) experience in triage room, followed by those who had worked above 20 years 27 (35.5%) with 12-24 months 21 (27.6%) experience in ED, and 12-24 months 12 (15.8%) working experience in the triage room then below 10 years 19 (25.0%) were nurses with working experience with above 24 months 6 (7.9%) experience in ED and above 24 months 10 (13.2%) had a working experience as a nurse in triage room representing a good working experience of the study area. This finding is different compared with the study conducted at Kenya where more than half of the subjects 92 (70.4%) had less than 12 months of work experience in triage room (Walsh, 2019) the difference may be due to high nurse's turnover rate and rotation from working area. According to a descriptive study conducted in three hospitals of Iran in 2014 found that 15 (14.4%) participants had Basic Life Support training course, 17(16.3%) had Basic Trauma Life Support training course, 6(5.7%) had Advanced life Support and 84(80.7%) Triage Officer Course. (12). This is slightly comparable to this study finding which shows that over (47.7%) of respondents have taken different types of training Commonly BLS training 37 (48.7%), ACLS 41 (53.9%) and ATLS 35 (46.1%).

Triage course 36 (47.4%) and basic Emergency care 34 (44.7%). Disaster management, 33 (43.4%). But it is less compared with other study conducted in east Java, Indonesia indicate that all subjects had attended the Basic Life Support (BLS) training course, 59.39% had attended the Basic Trauma Life Support (BTLS) training course, 30.83% had attended the Advanced Life Support (ACLS) training course, and 29.32% had attended the Triage Officer Course (TOC)

(Fathoni et al., 2013).this means each respondent have taken at least one triage related training which is different from this study finding in which 60.6%of respondent have no training in thepast three years.

Rapid and accurate triage of patients is the key to success in patient care. According to previous findings, the accurate triage of injured patients has reduced fatalities and improved resource usage. An accurate triage system can be beneficialfor determining the treatment trend of patients and facilitating patient's admission and stabilization process. Since Triage is mostly performed by nurses their Decisions directly affect the time of providing medical care's and any failure in providing triage services leads to serious consequences. Triage knowledge is commonly cited as a major influence in clinical decision-making the pure knowledge of nurses on triage plays a more important role in their triage decisions than their records in nursing to make effective and safe triage decisions, nurses must draw from an extensive internal base of knowledge and experience to identify salient cues and act based on the patient presentation (*Walsh, 2019*). But this study shows that 61.4% (48/76) respondents had good knowledge on ED triage. Only 38.6% have poor knowledge. I.e.triage is performed in Abubakar Tafawa Balewa University Teaching Hospital while nurses have been provided with sufficient knowledge and education. This is disagrees with a study conducted in Pakistan; with the same measuring tool and study design on 100 ED nurses 69% of the study subjects were having poor knowledge. (Fathoni, et al., 2010). similarly a study conducted at IRAN withprospective cross sectional study design shows the knowledge of nurses towards EDT were 42.07. (Taheri, et al., 2015). but a study conducted in Tanzania with descriptive cross sectional and observational study to assess knowledge and skill of triage on selected four hospitals with 78 ED nurses shows 58% the study participants had no knowledge. This difference may be due the difference in-service training experience and work experience of respondents.

More than half 67.4% of the respondent perceived their overall skill as good with mean of 4.1324, and SD = 0.6147, which is good while the rest 32.6% of respondents had poor skill. This is different from the study conducted in DarussalamTanzania in which More than half (52%) of the respondents were not able to allocatethe patient to the appropriate triage category. To maintain the effectiveness of ED triage, emergency nurses require triage skill, which is centered on the decision- making ability to prioritize patients into the most correct urgency-of-care categories within a limited space of time. This Skill includes rapid assessment, patient categorization and patient allocation. To perform this ED nurses require triage skill and experience (Aloyce, et al., 2014).this study finding is slightly similar with a study conducted in Indonesia hospital in which the mean scores for triage skill were (mean = 75.12, SD = 11.23,) (Fathoni et al., 2015).In addition a study conducted at IRAN shows the triage skill of nurses were below average (Taheri, et al., 2015). Among thethree hospitals observed in this study two hospitals had nurse specifically assignedfor triage purpose. Among the observed nurses while triaging pt majority of nursesasses pt including air way, breathing, circulation and neurological status .blood pressure measurement, pulse rate and oxygen saturation was assessed by all nurse but respiratory rate was not assessed by 35/37(95%) of nurses. capillary refill, coldand warm extremity assessment, body temperature measurement was not done by all nurses. breathing pattern, chest movement and pulse status was not assessed bymajority of nurses.

There is also significant association between nursing work experience and triage knowledge ( $\beta = 0.293$ , COE = 0.000 and p-value < 0.05). This implies those nurses having nursing work experience between 11-20 years are three times have more knowledge compared to nurses

having less than 11 years nursing work experience. In addition, there is no significant difference between triage room experience and triage skills compared to nurse having less than 12 months of triage room experience, ( $\beta = -0.062$ ,  $COE = 0.596$  and  $p\text{-value} < 0.05$ ). In line with this other study found that working experience in ED was significant relationship with triage decisions and more years of experience increased the decision-making consistency in triage skill (Ehrenberg et al., 2018, and Hicks, et al., 2013). While, this study finding is similar from a study conducted by Considine et al, (2017) which found that there was no significant relationship between experience and triage decision making in triage skill. The more experienced and less experienced emergency nurses could have the same ability to perform triage.

### **Conclusion**

The emergency room (ER) is one of the main portals of entry to the hospital, and, thus, performs a significant role in the overall functioning of the hospital. The results of this study have shown a number of significant factors which influence the accuracy of nurses' triage decisions. These factors should be taken into consideration or changed during triage education training programmes. Since triage nurses in EDs face diverse patients each day and must make acuity judgments under uncertain conditions and in a short time, it is important to improve their competency in making accurate triage ratings in order to allocate patients to appropriate categories and to provide proper care for emergency patients in a timely manner.

### **Recommendations**

Based on the findings of the study, the following policy recommendations are suggested:

1. ED nurses must be improving their knowledge and skill of triage to the sake of themselves and their profession.
2. The hospital administrative give more emphases about nursing turn over and incentives for nurses who work ED, because reasons for ED triage quality decline associate with high turnover of nurses and lack of incentives.
3. The need to rally worth of ED triage care for patient's safety focus, on triage skill of ED nurses must be accessible as continuous nursing education and training related to triage.
4. Hospitals ED with collaboration of MOH, Formulate of national triage guide line, because it leads for uniform ED triage service over all the country.

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