

Triage related Knowledge and Practice among nurses in Ali Fatima Hospital Lahore.**Sidra Iqbal CH^a, Amina Kainat^a, Kanwal Zubair^a, Sehreem hanif^a, Kainat Fakhar^a**^a Department of Nursing, The University of FaisalabadCorrespondence: Amina.kainat55@gmail.com**ABSTRACT**

Background and Objectives: Triage is a solution to the issue of overcrowding, and the effectiveness of the judgments made by the triage unit influences how well nurses perform in the long run. Triage can significantly lower the mortality rate. The use of a rapid triage system is necessary to guarantee that patients receive the best care possible in emergency situations. Our study's objective is to evaluate the triage nurses' knowledge and proficiency.

METHODOLOGY: A simple descriptive correlational study was conducted at the Ali Fatima Hospital to determine nurses' knowledge and skills regarding triage.

RESULTS: There is no statistically significant relationship between knowledge and skills. Results show the low percentage of knowledge was (53.3%), moderate percentage of knowledge was (12%), high percentage of knowledge was (14.1%) and very high percentage of knowledge was (20.7%). The respondents with less than one year of experience have a high level of knowledge with p-value (0.004). The participants with bachelor's degree found out to have poor knowledge with p-value (0.000). Therefore, Experience and education have association with knowledge. Conversely, the results indicate that the low level of competence was (<60%) where the mean score was 2.77 (SD=0.799), the intermediate level of skill was (60-80%) where the mean score was 0.130 (SD=0.49), and the high level of ability was (80%) where the mean score was 0.0109 (SD=0.104).

CONCLUSION: The findings indicate that Ali Fatima Hospital's triage nurses lack sufficient knowledge. It was discovered that both the triage knowledge and the triage skill were at low levels. The majority of our study's findings were negative. The semiprivate hospital provided the data. It is recommended that nursing personnel receive training that includes information on how to grasp triage in their departments.

KEYWORDS: Triage, practice and knowledge , Nurses, Skills

INTRODUCTION

The ER is the place where the caregiver can be sent to the most suitable evaluation and receive the greatest care. The patient must be put in the right place at the right time in order to receive the right kind of care and the right resources to meet their medical needs. (1) Prioritizing patients with life-threatening issues such as cardiac arrest, airway blockage, and shock is necessary to reduce adverse effects and mortality. (2) In all areas of Pakistan, emergency room overcrowding is viewed as a severe issue. Patients occasionally have to wait longer than 60 minutes, and this is especially crucial when service is delayed and patients become frustrated. The effectiveness of triage nurses is improved by formal training, and with increased confidence, they

are more equipped to function.(2,3)

Triage consists of two decisions primary decision and secondary decision. The main choice has to do with how to evaluate and choose which patients will receive the best care. While the secondary choice has to do with starting nursing treatments and giving patients comfort putting patients in the appropriate location at the right time to receive the correct care Understanding triage helps decision-makers decide whether a patient requires immediate assistance or not while paying attention to possible complications that arise after triage is carried out (3)It is highly important to expand nurses' knowledge and practices, thus efforts should be geared on improving nurses' inventiveness,

How to cite this: Iqbal S, Kainat A, Zubair K, Hanif, Fakhar K. Triage related Knowledge and Practice among nurses in Ali Fatima Hospital Lahore. International Journal of Healthcare Professions. 2025; 2(2): 21-26

access to updated information, and continuous educational opportunities (4)

Triage is a critical activity that solves numerous difficulties in emergency services and improves the quality of health outcomes in a cost-effective manner. Rising health-care expenses, poor health-care quality, and patient discontent are all visible in areas where emergency departments do not use triage. As a result, triage must be implemented in all emergency departments (6). Several factors contribute to the lack of use of nursing knowledge and skills in practice. These include barriers that prohibit nurses from implementing knowledge and competence in the areas of acute care and emergency nursing. This includes a failure to recognize emergency nursing as a specialty care, a lack of clinical competency standards, and a lack of defined tools and indicators for assessing nurses' skill in emergency rooms.(7)

Triage nurses must have appropriate training and experience in emergency nursing triage, decision making and emergency nursing cares. (8) Therefore, employing experienced and skilled nurses for the emergency department, and teaching them how to properly perform triage can prevent many deaths, disabilities, and additional costs of treatment. Thus, formal triage training improves triage nurses' efficacy and confidence in their ability to operate more effectively(7-9)

Scales make up the triage system. Those scales have appropriate waiting times ranging from seconds to hours depending on the circumstances (10-13)

METHODOLOGY

Research Design

A simple descriptive correlational study was conducted.

Study Area

Study area included Ali Fatima Hospital Lahore.

Duration of research

Four months from February to May, 2023

Source of data

Data was obtained from Google Scholar and PubMed.

Target population

Study population was the nurses working in Ali Fatima Hospital.

Sampling Selection:

Inclusion criteria: This study included all the staff nurses of the above selected hospital.

Exclusion criteria: This study excluded all the student nurses

Research Instrument:

A self-administered questionnaire that consisted of 11 questions was used to assess knowledge Emergency

department nurses' knowledge regarding triage.

Triage knowledge and skills among nurses in emergency units of Specialized Hospital in Hawassa, Ethiopia: cross sectional study. BMC research notes, This questionnaire was which consists of 37 questions with three dimensions, including rapid assessment, patient categorization, and patient allocation

Sampling Technique:

This study was quantitative study so we used non-probability observational study.

Sample Selection:

A convenience sampling technique was used.

Sampling size

The total sample size was 92 nurses.

Sample size was calculated by Slovin's formula.

Data Analysis Procedure:

SPSS software version 20 was used and descriptive statistics was calculated.

Data Collection Procedure:

A structured questionnaire to assess the knowledge and practice was distributed among the nurses with informed consent form.

RESULTS

Table no: 1 shows the socio-demographic characteristics of the nurses. It shows educational level which indicates that most of the nurses were with Bachelor's degree (59.8%) where as the nurses with technical diploma in nursing were constituted (39.1%).The highest percentage(94.6%) shows that most of the nurses were with less than 25 years of age .Nurses with less than1year of working experience shows highest percentage(55.4%).Most of the nurses had attended prior triage training with percentage(53.3%).Percentage(67.4%) shows that most of the nurses did not have additional emergency nursing training courses. Most of the nurses were working in medical department shows highest percentage(28.3%).

Table 1: distribution of emergency department nurses according to their socio-demographic characteristics & work related data.

Demographics	Frequency	Percentage
Age in years.		
<25	87	94.6
26-30	5	5.4
31-35	0	0
	0	0
Years of Experience		
0>1	51	55.4
2-3	37	40.2
>4	4	4.3
Educational attainment		
Diploma	36	39.1
Bachelor's degree	55	59.8
Post graduate degree	1	1.1
Prior Triage Training		
Yes	49	53.3
No	43	46.7

Additional emergency nursing training or courses		
None	62	67.4
In-service course in triage	12	13.0
Emergency nursing certificate	11	12.0
Others	7	7.6
h Working department		
Medical ward	26	28.3
Surgical ward	12	13.0
Nursery	7	7.6
Emergency ward	16	17.4
OBS and Gynae	10	10.9
Nephrology ward	10	10.9
Urology Ward	1	1.1
Dialysis	5	5.4
Intensive care unit	5	5.4

Table no: 1 shows the socio-demographic characteristics of the nurses. It shows educational level which indicates that most of the nurses were with Bachelor's degree (59.8%) where as the nurses with technical diploma in nursing were constituted (39.1%).The highest percentage(94.6%) shows that most of the nurses were with less than 25 years of age .Nurses with less than1year of working experience shows highest percentage(55.4%).Most of the nurses had attended prior triage training with percentage(53.3%).Percentage(67.4%) shows that most of the nurses did not have additional emergency nursing training courses. Most of the nurses were working in medical department shows highest percentage(28.3%).

provided correct answers. The third time limit provided with (29.3%) of correct answers .In forth time limit nurses provided correct answers with percentage (53.3%).In relation to Knowledge about the stages of triage process, it illustrates low level of knowledge among the nurses with (47.8%) of correct answers. . Regarding to the visual assessment category for the management of triage nurses demonstrate a low level of knowledge (53.3%).In relation to the fifth category," the triage helps the nurses on their work", it also shows a low level of knowledge among the nurses 58.7% respectively.

Table 2: Percentage distribution of correct answers responded by the emergency department nurses regarding knowledge of factor affecting triage.

Category	Correct answers	(n=92)	
		N	%
6.Factor affecting triage	a. The characteristic of the patient.	7	7.6
	b. The triage decision -maker.	11	12.0
	c. The health care sitting.	10	10.9
	d. All the above.	64	69.6

In relation to knowledge about factors affecting triage.It illustrates moderate level of knowledge among nurses with (69.6%) of correct answers by the nurses.

Table (3): Percentage distribution of correct answers responded by the emergency department nurses regarding knowledge of triage goal.

7.Goal of triage	To identify patients with urgent, life threatening condition	40	43.5
	To decrease congestion in emergency treatment areas.	6	6.5
	To reduce the admission rate.	6	6.5
	All the above.	40	43.5

In relation to knowledge about factors affecting triage.It illustrates moderate level of knowledge among nurses with (69.6%) of correct answers by the nurses.

Table (4): Percentage distribution of correct answers responded by the emergency department nurses regarding knowledge of characteristic of an efficient triage nurse.

Characteristic of an efficient triage nurse	Able to make quick decision.	11	12.0
	has high level of listing and communication skill	14	15.2
	has extensive knowledge of warning sign & symptoms	8	8.7
	All the above.	59	64.1

Table (4) shows percentage distribution (64.1%) of correct answers responded by nurses regarding knowledge of characteristic of an efficient triage nurses.

Table (5): Percentage distribution of correct answers responded by the emergency department nurses regarding knowledge of persons performing triage

trriage	The nurse only (Correct answer).	8	8.7
	The doctors only	6	6.5
	The registration personal only	10	10.9
	All the above.	68	73.9

Table (5) shows percentage distribution (8.7%) of correct answers responded by nurses regarding knowledge of Person performing Triage.

Table 6: Percentage distribution of the emergency department nurses regarding knowledge of the nurses' role in triaging patient.

Nurses role	Visual assessment	34	37.0
	Vital signs	16	17.4
	Perform differential diagnosis	10	10.9
	Categorize patients based on Severity	14	15.2
	Blood test	4	4.3
	Nursing intervention	8	8.7
	A brief assessment & preoperative diagnosis is documented in patients' medical record before surgery for those emergency patients requiring surgery	0	0
	Documents limited relevant history	2	2.2
	Documents initial triage category Allocated	4	4.3
	Triage nurse will accompany and endorsed the patient to the specific area in emergency	0	0

Factor Association with Knowledge:

Variable	Test	Association	
		Working experience	Education level
Triage knowledge	Chi – square	19.276	28.883
	p-value	0.004	.000

The study revealed working experience of study participant with less than one year have higher knowledge and educational level of study participant with bechol-

ar's degree have low level of knowledge. Therefore, the working experience with p-value 0.004 and education level with p-value 0.000 both are associated with triage knowledge.

Results of triage skills:

Data was compiled, entered and analyzed using SPSS version 22. Percentages and frequency was calculated. The study findings show that nurses had poor triage skills score. Finally, data was presented by using numbers, frequencies, tables, charts and figures.

92.4% of the respondents had low triage skill scores with the mean score being 2.7717 (SD=0.79977).

6.5% nurses had moderate level of skills with the mean score being 0.1304 (SD=0.49652).

1.1% participants had high level of skills with the mean score being 0.0109 (SD=0.10426).

DISCUSSION

Similar to our studies high number of the nurses attained a poor score on the triage knowledge based questionnaire according to the data analysis. Sixty nine percent nurses were found with poor knowledge of triage according to their scores. This answered the first research question that nurses do not have sufficient knowledge about triage in Pakistan. The overall correct response to the questionnaire was 43.22%. (14)

These findings are supported by earlier studies that produced the same outcomes. According to a study provided by only 39.94% of the nurses' answers to the study's knowledge level questions regarding hospital triage were accurate. They concluded from their investigation that Iranian hospitals do not have nurses who are trained in triage (14).

Another study results shows Less than half of the nurses in the study had satisfactory knowledge of triage, according to the current study's findings, while more than half had unsatisfactory knowledge. These findings may be attributed to the lack of triage training programmes in nursing schools, nursing faculties, and hospitals. This is in line with (15), who indicated that the study sample lacked adequate understanding of triage, and who also claimed that emergency room nurses lacked adequate knowledge of triage.

Similar to our study revealed that 53.3% of triage nurses were found with poor knowledge of triage and 42.45% of study participants perceived they as inadequately prepared for triage skill. This result is comparable to the study conducted Tanzania, Indonesia, Gutamala, South Africa and other countries . The reason might be due to the majority nurses who are working in emergency department didn't attend train-

ing course special to triage knowledge and work experience of nurses might contribute to their knowledge .

Another study conducted showed a little high score of knowledge about triage among nurses in Indonesia as compared to the present study. They reported that more than half of their study subjects (58%) had low triage knowledge scores. Based on the referenced criterion, the percentages were interpreted as follows: < 60% = low level of triage skill, 60 – 80% = moderate level of triage skill, and > 80% = high level of triage skill. They concluded that the participants required continuing education and training courses related to triage to improve their knowledge and skill to increase patient safety.(16)

The current study findings of low and poor level of triage knowledge among nurses reflect and justify the second assumption that there is a lack of proper training and edifying programs in Pakistan. Nursing curriculum for different nursing programs has not sufficient content of triage process to prepare nurses for this system in emergency units

Another study was conducted reveals that frequency distribution of Level of Knowledge on triage system in pre test and post test. In the pre test, majority of the staff had inadequate knowledge regarding triage system (100%) and in the post test, majority of the staff had moderate knowledge regarding triage system (60%). Over all 60% of the samples had adequate knowledge in the post test.(17-23)

Our study was in contrast with findings reported by Elbashir H and colleagues in Sudan, who found that, nurses represented (84%) knowledge Knowledge regarding purpose of triage system is imminently lifesaving. This study revealed that greater than fifty percent of the participant had a good level of knowledge of purpose of triage. In contrast our study result is better compared to our study stated that the respondents had no knowledge about triaged categories.

CONCLUSION

The level of knowledge of the nurses based on our study findings it is concluded that there was very low level of knowledge and skill regarding triage among nurses. The study illustrates that there was also association between factors education and experience with knowledge. It is concluded that there is an immediate need to reconsider nurses triage education and improve the triage knowledge and skills among nurses. Nurses of the various hospitals should be encouraged to undergo training in emergency, critical care and trauma nursing, as this will go further to

enhance their knowledge and skill on triage which will further reduce mortalities in there department.

Limitations:

The paper based nature of written case scenarios does not provide an ideal simulation of real cases and students may make better decisions in real situations. Providing cases with multimedia objects in computer-based scenarios is recommended for future studies. Due to limited resources of power we were not able to conduct study in multiple government sectors.

Recommendations:

It is recommended that increasing the educational programmes for the nursing staff and a motivation guide to increase acceptance to work smoothly to prevent deaths due to overcrowding. It is also recommended that there should be proper training centers for nursing and seminars should be conducted to increase their knowledge.

ACKNOWLEDGEMENT: None

CONFLICT OF INTEREST: None

GRANT SUPPORT AND FINANCIAL DISCLOSURE: None.

REFERENCES

1. Ahmed, H. (2011): Effect of an Educational Intervention Program on Emergency Department Triage Nurses, Psychological Empowerment and Decision Making Ability in a Military Hospital. Master Thesis in Nursing Administration. Military Institute of Health and Epidemiology, Military Medical Academy.
2. AlShatarat, M., Rayan, A., Eshah, N. F., Baqeas, M. H., Jaber, M. J., & ALBashtawy, M. (2022). Triage Knowledge and Practice and Associated Factors Among Emergency Department Nurses. *SAGE open nursing*, 8, 23779608221130588
3. Duko B , Geja E , Oltaye Z , Belayneh F , Kedir A and Gebire M (2019). Triage knowledge and skills among nurses in emergency units of Specialized Hospital in Hawassa, Ethiopia: cros
4. DeLucia, P. R., Ott, T. E. & Palmieri, P. A. (2012): Performance in Nursing. In *Faculty of Durso, Reviews of Human Factors and Ergonomics*, 3rd ed., Santa Monica, CA: Human Factors and Ergonomics Society, pp. 1-40.
5. Ebrahimi, M., Mirhaghi, A., Mazlom, R., Heydari, A., Nassehi, A., & Jafari, M. (2016). The role descriptions of triage nurse in emergency department: a Delphi study. *Scientifica*, 2016. Rehmani R. & Norain A (2007). Trends in emergency department utilization in a hospital in the Eastern region of Saudi Arabia. *Saudi medical journal*, 28(2), 236-240
6. Goldstein, L. N., Morrow, L. M., Sallie, T. A., Gathoo, K., Alli, K., Mothopeng, T. M. M., & Samodien, F. (2017). The accuracy of nurse performance of the triage process in a tertiary hospital emergency department in Gauteng Province, South Africa. *South African Medical Journal*, 107(3), 243-247
7. Lea I A, Febriyanti E, Odja N(2022) Emergency Nurses' Knowledge and Practices Regarding Triage
8. Mohammad AlShatarat, RN, MsN1 , Ahmad Rayan, RN, CNS, PhD2 , Nidal F. Eshah, RN, CNS, PhD3 , Manal Hassan Baqeas, RN, MSN4 , Mohammad Jamil Jaber, RN, MsN5 and Mohammed ALBashtawy, PhD, MPH, RN Triage Knowledge and Practice and Associated Factors Among Emergency Department Nurses in King Fahad Medical City (KFMC), Saudi Arabian
9. Malakeh.Z. Malak, Nihad Mohammad AL-Faqeer, Dalal Bashir Yehia, Knowledge, Skills, and Practices of Triage among Emergency Nurses in Jordan, *International Emergency Nursing*, Volume 65, 2022, 101219, ISSN 1 7 5 5 - 5 9 9 X , h t t p s : / -doi.org/10.1016/j.ienj.2022.101219.
10. Moirangthem, T.D. (2019). Knowledge Regarding Triage System among Nursing Staff Working In Selected Hospital Of Sikkim
11. Martanti R, Nofiyanto M, Prasojo RAJ, Jendral S, Yani A. Hubungan tingkat pengetahuan dengan keterampilan petugas dalam pelaksanaan triage di instalasi gawat darurat rsud wates. 2015;4(2):69–76
12. Malakeh.Z. Malak, Nihad Mohammad AL-Faqeer, Dalal Bashir Yehia, Knowledge, Skills, and Practices of Triage among Emergency Nurses in Jordan, *International Emergency Nursing*, Volume 65, 2022, 101219, ISSN 1755-599X
13. Phukubye AT, Mbombi OM , Mothiba MT , Knowledge and Practices of Triage Amongst Nurses Working in the Emergency Departments of Rural Hospitals in Limpopo Province, 2019, ISSN 10.2174/1874944501912010439
14. Rahmati H, Azmoon M, Kalantari Meibodi M, Zare N. Effects of Triage Education on Knowledge, Practice and Qualitative Index of

- Emergency Room Staff: A Quasi-Interventional Study. *Bull Emerg Trauma*. 2013 Apr; 1(2):69-75
15. Rehmani, R., & Norain, A. (2007). Trends in emergency department utilization in a hospital in the Eastern region of Saudi Arabia. *Saudi medical journal*, 28(2), 236-240.
 16. Sahar S.Faheim¹, SafaaS.Ahmed², Eman F.Aly³, Samya.M. A.Hegazy(2019). Knowledge of Triage Education on Nurses' Performance in Diverse Emergency Departments
 17. Sahrudi AA. Pengetahuan dan sikap perawat terhadap tindakan triase di instalasi gawat darurat. *NERS Jurnal Keperawatan*. 2021;17(1):14–20.Scott Tilley DD, 2008 competencies in nursing: A concept analysis. *J Contins Educ Nurs* 39(2): 58-64
 18. Sorić, M., Miletić, W., Baršić, T., Delić, B., Grabovac, V., & Žiga, S. (2017). Efficiency of triage in the emergency department of an urban academic clinical hospital—a retrospective study. *Signa Vitae*, 13(4), 16-19.
 19. Torres, S. (2016). What is the Effect on Knowledge, Staff Satisfaction and Competency of Care after Educating Providers on Emergency Department Triage in an Urban Academic Medical
 20. Ebrahimi, M., Mirhaghi, A., Mazlom, R., Heydari, A., Nassehi, A., & Jafari, M. (2016). The role descriptions of triage nurse in emergency department: a Delphi study. *Scientifica*, 2016.
 21. Chan M.F. Factors affecting knowledge, attitudes, and skills levels for nursing staff toward the clinical management system in Hong Kong. *Comput Inform Nurs* 2009; 27 (1): 57-65.
 22. Mirhaghi, A.H., Roudbari, M.A. Survey on Knowledge Level of the Nurses about Hospital Triage. *I.J.C.C.N*. 2011; 3 (4): 167-174.
 23. Haghdust, Z et al., (2010): Effect of Training on Knowledge, Attitude and Practice of Triage Nurses in Emergency Hospital pouring, *Guillan nursing and mid wifely* ; 64: 14-21.

Authors Contributions:

Sidra Iqbal CH, Amina Kainat, Kanwal Zubair:

Substantial contributions to the conception and design of the work. Design of the work and the acquisition.

Sehreem hanif, Kainat Fakhra: Drafting the work. Final approval of the version to be published.

Submitted for publication: 12-04-2025

Accepted after revision: 13-05-2025