



FACTORS RELATED TO THE *RESPONSE* TIME OF NURSING IN EMERGENCY PATIENTS MANAGEMENT

Saktiawati^{1*}, Silvah², M. Irsan Arief Ilham³

^{1,3*} Ners Study Program, STIKes Bataraguru Soroaka, Indonesia

² Midwifery Study Program, STIKes Bataraguru Soroaka, Indonesia

ARTICLE INFORMATION

Received : January 1st, 2021
Revised : May 11th, 2021
Available online : May 31st, 2021

CORRESPONDENCE

Phone : -
Email : saktiawati.msi.apt@gmail.com

KEYWORDS

Response Time; Nurse; Emergency Patient

ABSTRACT

Background: One indicator of the successful prevention of medical emergency patients is the response time of health workers. Response time A fast will reduce the incidence of death by about 30%, on the other hand, if the delayed response time is will have an adverse impact, resulting in permanent disability and death.

Objective: This study aims to determine the factors related to the response time of nurses in handling emergencies in the Emergency Room (IGD), Operating Room (OK), and Intensive Care Unit (ICU) at Ilagaligo East Luwu Hospital 2020.

Method: The study is a cross-sectional study. The population in this study were all nurses in the IGD, OK, and ICU Lagaligo I Hospital, East Luwu. The sampling technique was total sampling with a total of 60 nurses.

Result: The results showed that there was a relationship (p -value < 0.034) between education ($p = 0.05$), years of service ($p = 0.016$), and training ($p = 0.034$) with the response time of nurses at Lagaligo I Hospital in 2020. It is hoped that the hospital will continue to encourage staff/employees, in this case, nurses, to continue their education and continuous training to support the professionalism of all nurses.

Conclusion: The incidence of the response time of slow nurses in patients is due to the absence of good cooperation with the patient's family. It is hoped that the hospital will provide support and motivation to nurses to improve their education by existing standards.

INTRODUCTION

The hospital is an agency or social and health organization with a function as a place of service that must have good management in providing services to patients such as comprehensive care and treatment as a form of improving the quality of care services. The Emergency Room (IGD) at the hospital is the first place for patients to be handled based on emergencies or grouping triage patients (Musliha, 2015).

Emergency services are medical actions that are needed by emergency patients immediately to save lives and prevent disability (Permenkes RI No.47, 2018). Handling of patients in the emergency room must see the *time saving its life saving* which is usually called the *golden time* in the success of medical treatment and the patient's life expectancy. Handling in the ER must be carried out quickly and precisely because fast handling will reduce the incidence of death by 30%, on the other hand, if the response time is delayed it will have a negative impact, it can result in permanent disability and death (Kambuaya, Kumaat, & Onibala, 2016; Plasay, Islam, & Gaus., 2016; Limantara, Herjunianto, & Roosalina, 2015).

One of the indicators of the success of medical treatment for emergency patients is the speed of providing adequate assistance to emergency patients both in daily routine situations or during disasters. The success of the *response time* is very much dependent

on the speed available and the quality of assistance to save lives or prevent disabilities from the moment of the incident, on the way to hospital assistance. *The response time* or timeliness gave by patients who come to the ER requires standards according to their competence and abilities so that they can guarantee an emergency treatment with *response time* fast and proper handling (Hartati, et al, 2017). *Response Time* is the speed in handling patients, calculated from the time the patient arrives until treatment is carried out with a measure of success is a response time of 5 minutes and a definitive time of ≤ 2 hours (Said, 2018).

The response time can be calculated in minutes, but the response time can be influenced by several factors, namely: 1) the number of personnel available, 2) facilities and infrastructure, 3) education, and other supporting factors. It is said to be on time if the response time required to respond does not exceed the predetermined average or standard time. Implementation of adequate response time in Indonesia still requires further evaluation and what is an indicator of the success of emergency response times is the speed in assisting patients, both daily routine and during disasters as well as assistance provided to save lives or prevent disabilities (Rima, 2015, Soetrisno, 2013 and Yuliati, 2018).

Indonesia accounts for 4,402,205 patients (13.3 percent of total hospital visits with 12 percent of emergency visits from

1,033 public hospitals out of 1,319 hospital units. This large number also demands great attention to emergency treatment for patients. 2017). In 2018 in South Sulawesi, data on patient visits to the hospital were 1,990,104 patients. East Luwu District, the number of patient visits to the hospital was 492,479 both outpatient and inpatient, while visits to the primary health care (puskesmas) in East Luwu district were 998,142 (Profil Kesehatan Kabupaten Luwu Timur, 2015).

The need for reliable and precise response times plays an important role in any decision-making process from the moment the patient arrives until the patient is discharged from the emergency room. Several research results indicate that the high number of emergency room visits is a concern because the level of nurse service through fast movement is still very poor in terms of service and action. This is due to the level of education, years of service, and additional training.

Research related to *response time* is important to do because of the high number of IGD visits that require appropriate and efficient handling time. Effective and efficient patient management reduces the impact of disability and death.

Based on the description above, researchers are interested in researching "*Response Time* of Nurses in Emergency Management at Lagaligo I Hospital, East Luwu, 2020"

METHODS

This study used a *cross-sectional study*. The population was all nurses in the IGD, ICU, and OK RSUD Ilagaligo, Wotu District, East Luwu Regency. The sampling technique in this study was *total sampling*, namely 60 nurses. Data analysis used the *Statistical Package for Social Science (SPSS)* program version 20.

RESULTS

Characteristics of Respondents

Characteristics of respondents are characteristics of respondents which include gender, education, tenure, and nurse training. The distribution of respondents according to respondent characteristics can be seen in Table 1 below:

Table 1. Characteristics of Respondents at Lagaligo I Hospital in 2020

Characteristics	N	(%)
Gender		
Male	23	41.7
Female	35	58.3
Working Period		
<5 years	5	8.3
> 5 Years	55	91.7
Last Education Level		
Vocational	11	18.3
Profesi	49	81.7
Training that has been done		
Basic (BHD)	7	11.7
Advanced	53	81.3
Response Time		
Fast 0-5 Minutes	23	11.4
Slow 5-10 minutes	82	40.8

Source: Primary Data, 2020

Relationship of education with a response time of nurses

Table 2. Relationship of education with a response time of nurses at Lagaligo I Hospital in 2020

Education	Response Time		Total %	P-value
	Fast%	Slow %		
Vocational	15	3, 3	18.3	0.005
Professional	80	1.7	81.7	
Total	95	5	100	

Source: Primary Data, 2020

Based on table 2 shows that nurses who have professional education to the response time of patients in the emergency room, ICU, and OK are 49 people (81.7 %), while nurses who have vocational education to response time patients n in the emergency room, ICU, and OK as many as 11 people (18.3%). The results of statistical tests with Fisher obtained p-value = 0.005. Because the value of $p < \alpha 0.05$, this means that there is a relationship between education and Response Time Nurse In Patient Handling Emergency in hospitals Ilagaligo 2020.

Relations with the Work Period Response Time Nurses

Table 3. Relationship with the response time working lives of nurses in hospitals I Lagaligo 2020

Work Period	Response Time		Number %	P-value
	Fast %	Slow %		
≤ 5 years	5	3.3	8.3	0,016
5 years	90	1.7	91.7	
Total	95	5	100	

Source: Primary Data, 2020

Based on Table 3 shows that nurses who have tenure had a faster experience in response time of 55 people (91.7%), compared to 5 nurses who had a less long working period (8.3%). The results of statistical tests with Fisher obtained a p-value = 0.016, which means that there is a relationship between factors related to the response time of nurses in handling emergency patients at Ilagaligo Hospital in 2020.

Relationship between Nurse Training and Response Time

Table 4. Relationship of Training with response time nurses at Lagaligo I Hospital in 2020

Training	Response Time		Total %	P-value
	Fast %	Slow %		
Basic (BHD)	8.3	3.3	11.6	0.034
Advanced (BTCLS, SPGDT, ATLS)	86.7	1.7	88.4	
Total	95	5	100	

Source: Primary Data, 2020

Table 4, shows that nurses who have more training have a faster experience in the response time of the nurses as many as 53 people (88.4%), compared to nurses who have a less long working period, do not have a faster experience in movements. response time nurses as many as 7 people (11.6%). The result of the statistical test with Fisher obtained p-value = 0.034. Because the p-value $< \alpha 0.05$, the alternative hypothesis is

accepted. This means that there is a relationship between the factors related to the *response time* of nurses in the handling of emergency patients at Ilagaligo Hospital in 2020.

DISCUSSION

Characteristics of Respondents

The results of observations conducted at Lagaligo I Hospital regarding the level of nurse education in three action rooms (IGD, ICU) and OK) who have an average professional education. The results of cross-tabulation regarding the response time for nurses based on education show that nurses who have professional education to the response time of patients in the emergency room, ICU, and OK are 49 people (81.7%), while nurses who have vocational education to the response time of patients in the emergency room, ICU, and OK are 11 people (18.3%).

Employee tenure in the company is viewed as affecting the quality of employee work because with a longer working period the employee will have a lot of experience and better skills in completing their work. The employment period is the length of time an employee has worked for a company or agency. The results showed that the work period of respondents more than 5 years was 55 people (91.7%) and less than 5 years was 5 people (8.3%).

Training is a narrow human resource management concept that involves planned

specific instruction activities (such as training on specific training operating procedures) or skills training (such as task-related training, programs job introduction). The results showed that general nurse training was Advanced (BTCLS, SPGDT, and ATLS) as many as 53 people (88.3%) and Basic (BHD), namely 7 people (11.7%). The results of the cross-tabulation showed that nurses who had more training had a faster experience in the response time of the nurses as many as 53 people (88.4%), compared to nurses who had a less long working period did not have a faster experience in response movements. time nurses as many as 7 people (11.6%).

The cross-tabulation results show that nurses who have a longer working period have a faster experience in moving the response time of the nurses as many as 55 people (91.7%), compared to nurses who have a less long working period, do not have faster experiences in moving. The response time for nurses is 5 people (8.3%)

The response time for medical services is the speed of service by the doctor on duty at the Emergency Room from the time the patient arrives until he receives a doctor on duty with a standard time of fewer than 5 minutes. The results showed that the fastest response time was 57 people (95%) and the slowest was 3 people (5%). The results showed that the response time of nurses from several rooms conducted by the study showed greater, namely the response time quickly, this is because nurses have a

higher education level, a longer work period, and a lot of training. The incidence of the response time of slow nurses in patients is caused by the absence of good cooperation with the patient's family.

To anticipate the occurrence of a slow response time, nurses are encouraged to further increase their level of education, deepen their experience in a longer work period, and participate in more training related to response time nurses.

The relationship between education and response time.

Based on the results of the study, the results of statistical tests with Fisher obtained a value of $p = 0.005$ that there is a relationship between the factors related to the response time of nurses in handling emergency patients in Ilagaligo Hospital in 2020. The results showed that the level of education was not significantly related to nursing response time ($p = 0.005$).

The same study conducted by V. Maatilu (2014) found that there was a significant relationship between education and response time. The results of the researchers' findings are in line with the theory of Gibson et al. (2015) which states that a person's education has a high influence on employee performance, in this case, the nurse's response time. Background and demographics that influence a person's performance level are age, gender, marital status, ethnicity, education, work

experience, family conditions, and social status (Gibson et al. 2015).

The relationship between working period and response time

Based on the results of the study, the results of statistical tests with Fisher obtained a p -value = 0.016 that there is a relationship between factors related to the response time of nurses in handling emergency patients in Ilagaligo Hospital in 2020. The results of this study are in line with the research. regarding the response time conducted at the IGD RSUP Prof. Dr. RD Kandou Manado by V. Maatilu (2015) found that there was a significant relationship between the length of work and response time of nurses.

The theory developed by Gibson (2015) states that members who have worked in an organization for a long time will gain more experience so that their performance will be better and according to Robbins (2016) the level of seniority of an employee is directly proportional to work productivity. The working period is related to the length of work, the longer a person works, the more proficient at work will be. This theory is supported by research by Bogar (2015) which states that there is an effect of experience on nurse performance.

Karokaro, Hayati, Sitepu, & Sitepu's research (2019) shows that workload can affect the response time of nurses in the ER, due to an increase in the workload of nurses caused by insufficient nurses who have special field competencies. Research by

Mahastuti, Muliarta, & Adiputra (2019), said that nurses who served in the emergency room had a higher level of stress than inpatient nurses because in an emergency setting nurses would face stressors or pressures that caused the workload to increase.

According to Ningsih, Wahid, & Setiawan (2018), the workload cannot affect the response time of nurses, this happens because nurses observe their patients closely during working hours, then the number of patients that must be handled to improve patient safety, and inadequate infrastructure when you want to do handling.

The relationship between Nurse Training and Response Time

Based on the results of the study, the results of statistical tests with *Fisher* obtained a value of $p = 0.034$ that there is a relationship between factors related to the *response time of* nurses in handling emergency patients in Ilagaligo Hospital in 2020.

The results of this study are also in line with Gibson's (2015) theory states that the higher a person's ability level, the higher his / her skills in completing work. Ability is a trait (innate or learning) that allows a person to do something mentally or physically while skills are the factors that most support a person in doing a job (Gibson et al. 2015). A person will be able to complete his job if supported by sufficient knowledge about the

job, ability greatly determines the quality of one's work (Darodjad, 2015). Nurses who have good expertise and skills according to Adnan (2020) will be very important in influencing service quality and client satisfaction.

CONCLUSION

Based on the results of the study it can be concluded as follows: (1) The results of statistical tests with *Fisher* obtained $p\text{-value} = 0.005$. Because the $p\text{-value} < \alpha 0.05$, the null hypothesis is rejected. This means that there is a relationship between factors related to the *response time of* nurses in the handling of emergency patients at Ilagaligo Hospital in 2020. (2) The results of statistical tests with *Fisher* obtained $p\text{-value} = 0.016$. Because the $p\text{-value} < \alpha 0.05$, the null hypothesis is rejected. This means that there is a relationship between factors related to the *response time of* nurses in handling emergency patients at Ilagaligo Hospital in 2020. (3) The results of statistical tests with *Fisher* obtained $p\text{-value} = 0.034$. Because the $p\text{-value} < \alpha 0.05$, the null hypothesis is rejected. This means that there is a relationship between factors related to the *response time of* nurses in handling emergency patients at Ilagaligo Hospital in 2020 (4) The results of the study show that the *response time of* nurses from several rooms conducted by the study shows greater, namely the *response time is fast*. , this is because nurses have a higher level of

education, a longer period of service, and a lot of training. The incidence of the response time of slow nurses in patients is due to the absence of good cooperation with the patient's family.

SUGGESTION

(1) It is hoped that the hospital will provide support and motivation to nurses to improve their education by existing standards (2) Provision of additional training for nursing staff who are not yet competent in carrying out emergency nursing actions. (3) This research can be developed by researching the variables that have been studied, but on the criteria for working tenure so that nurses with a working duration of less than 1 year can be included in the inclusion criteria and on the reward indicators so that they can be differentiated based on the respondent's employment status.

REFERENCES

Adnan, Y. (2020). *Effectiveness of Nursing Caring Behavior to The Satisfaction of Hospital Patients in Puskesmas Wotu*. Afiasi: Jurnal Kesehatan Masyarakat, 5(3), 88–95.

Bogar, M.M., Nursalam & Dewi, Y.S. (2013). *Model Peningkatan Kinerja Perawat Unit Gawat Darurat (UGD). Berdasarkan Asosiasi Karakteristik Individu, Karakteristik Organisasi dan Karakteristik Pekerjaan*. Jurnal Ners, 8 (2), 271–282.

Dinas Kesehatan Kabupaten Luwu Timur. (2015). *Profil Kesehatan Kabupaten Luwu Timur*.

Darodjad, T.A. (2015). *Konsep-Konsep Dasar Manajemen Personalia-Masa Kini*. Bandung : PT Refika Aditama (pp 476). M. Dandan Wildani.

Gibson, James L, John M.Ivancevich, James H. Donnelly, and Robert Konopaske. (2015). *Organizations Behavior, Structure, Processes: Fourteenth Edition*. New York: Mc-Graw Hill Education.

Hartati S, Halimuddin. (2017). *Response time perawat di ruang instalasi gawat darurat*. Jurnal ilmiah mahasiswa Fakultas Keperawatan, 2 (3), 1-7.

Kambuaya, R. P., Kumaat, L. T., & Onibala, F. (2016). *Hubungan Beban Kerja Perawat dengan Waktu Tanggap Keperawatan Gawat Darurat Menurut Persepsi Pasien di IGD RSUD Kabupaten Sorong*. e-Jurnal Keperawatan (eKp), 4(1), 1-9.

Karokaro, T. M., Hayati, K., Sitepu, S. D., & Sitepu, A. L. (2019). *Faktor Faktor yang Berhubungan dengan Waktu Tanggap (Response Time) Pasien di Instalasi Gawat Darurat Rumah Sakit Grandmed*. Jurnal Keperawatan dan Fisioterapi (JKF), 2(2), 172-180.

Kemenkes RI. (2017). *Profil Kesehatan Indonesia 2016*. Keputusan Menteri kesehatan Republik Indonesia. Jakarta.

Limantara, R., Herjunianto, & Roosalina, A. (2015). *Faktor-Faktor yang Mempengaruhi Tingginya Angka Kematian di IGD Rumah Sakit*. Jurnal Kedokteran Brawijaya, 28(2), 200-205.

Mahastuti, P. P., Muliarta, I. M., & Adiputra, L. I. (2019). *Perbedaan Stress Kerja pada Perawat di Ruang Unit Gawat Darurat dengan Perawat di Ruang Rawat Inap Rumah Sakit "S" di Kota*

- Denpasar tahun 2017. *Jurnal Intisari Sains Medis*, 10(2), 284-289.
- Maatilu, V., Mulyadi, dan Malara, R.T. (2014). *Faktor Faktor yang Berhubungan dengan Response Time Perawat pada Penanganan Pasien Gawat Darurat di IGD RSUP. Prof. Dr. R.D. Kandou Manado*. Program Studi Ilmu Keperawatan Fakultas Kedokteran Universitas Sam Ratulangi. Manado.
- Musliha. (2015). *Keperawatan Gawat Darurat*. Yogyakarta: Nuha Medika.
- Ningsih, P., Wahid, A. W., & Setiawan, H. (2018). *Beban Kerja Perawat dengan Waktu Tanggap Pelayanan Keperawatan Berdasarkan Kategori Triage*. *Jurnal Nerspedia*, 1, 20-27.
- Permenkes RI. (2017). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 40 Tahun 2017 Tentang Pengembangan Jenjang Karir Profesional Perawat Klinis*.
- Plasay, M., Islam, A. A., & Gaus, S. (2016). *Hubungan Antara Waktu Penatalaksanaan Kegawatdaruratan Medis dengan Kematian Lanjut pada Penderita Trauma Mayor*. *JST Kesehatan*, 6(2), 193-200.
- Rima, Wahyu. (2015). *Hubungan Faktor Faktor Eksternal Dengan Response Time Perawat Dalam Penanganan Pasien Gawat Darurat Di IGD RSUP Prof. DR.R.D. Kandou Manado*. *Ejournal Keperawatan*, 3 (2), 1-8.
- Robbins, P. Stephen & Coutler, Mary. (2016). *Human Resources Management*. Edisi 16, Jilid 1, Salemba Empat, Jakarta.
- Said S, Mappannganro A. (2018). *Hubungan beban kerja perawat dengan response time pada penanganan pasien di instalasi gawat darurat Rumah Sakit Ibnu Sina*. *Journal Of Islamic nursing*, 3 (1), 71-81.
- Sutrisno. (2013). *Keperawatan Kegawat Daruratan*. Jakarta: Media Aesculapins.
- Yuliati. (2018). *Buku Ajar Keperawatan Gerontik*. T. Ari, Ed). Jakarta: Cv. Trans Info Medika.