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Analysis of Factors Causing Delays in Elective Surgery in Central Hospital Surgical Installations

Sari Arie Lestari B[1], Ade Kartika[2], Ultra Madani[3], Usman Barus Ohorella[4], Harlina[5], Anggi Aryadi[6]

[1] Program Undergraduate Nursing and Nursing Profession Studies, Universitas Mandala Waluya, Indonesia
[2] Nursing Profession Study Program, Universitas Nurul Hasanah Kutacane, Indonesia
[3] Nursing Profession Study Program, Universitas Nurul Hasanah Kutacane, Indonesia
[4] Nursing Study Program in Masohi, Poltekkes Kemenkes Maluku, Indonesia
[5] Programs Nursing Studies, STIKes Gunung Sari Makassar, Indonesia
[6] Nursing Study Program, STIKes Tujuh Belas Karanganyar, Indonesia

ABSTRACT

Overcrowding in the emergency department is defined as a situation where the emergency department has more patients than treatment rooms or more patients than the staff should ideally handle, and the emergency department is an overcrowded place, with patient volumes far from capacity. and forcing emergency departments to operate beyond their capacity. Delays in elective surgery are one of the National Quality Indicators which are closely related to perioperative services in Central Surgical Installations. The Central Surgery Installation is one of the installations that provides perioperative services in hospitals. This installation provides well-planned surgical services. The aim of the research is to determine the factors that cause delays in elective surgery in the Central Surgery Installation. Method This research uses a retrospective observational analytic method with a cross-sectional approach. The sampling technique used is cluster sampling which is taken randomly. The analysis used is Logistic Regression. Research Results There is a significant relationship between patient factors and staff factors. The conclusion is that staff factors are the most dominant factor influencing surgical delays in the Central Surgical Installation.

Keywords: Factor Analysis, Causes of Delays, Elective Surgery, Central Surgical Installations

Correspondent : Sari Arie Lestari B
E-mail : sariariel.83@gmail.com

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1. Introduction

Inspections in the room according to the disease subdivision are carried out by the resident on duty according to each subdivision with supervision by the doctor in charge of the patient. The length of time specified during the patient process starting from being examined then carrying out supporting examinations until finally deciding whether the patient is hospitalized or not is less than 6 hours. Supporting and diagnostic examinations often require more time than specified, giving rise to the problem of a backlog of patients in the Emergency Care Installation.

The emergency department is one of the most congested units in the home care system Sick. Skinner, (2016), stated that various problems that occur, such as full emergency rooms, are almost the same problems that occur in hospitals throughout the world. Various other problems will arise as a result of emergency units being full, such as increased mortality and morbidity rates, delays in monitoring pain responses and a decrease in the quality of services provided. An emergency unit that is too full can reduce the capacity for quality patient safety as well as difficulties in management when a disaster occurs. The inability of the emergency unit to admit patients who need hospitalization can cause obstacles in the flow of patients, so this is the main cause.

Overcrowding in the emergency department is defined as a situation where the emergency department has more patients than treatment rooms or more patients than the staff should ideally handle, and the emergency department is an overcrowded place, with patient volumes far from capacity. and forcing emergency units to operate beyond their capacity (Huang et al, 2015). By knowing the factors that cause overcrowding in the emergency department, hospital management can determine the right solution to overcome this problem. This condition also has an impact on adverse events (unwanted events) for patients, decreased quality and patient safety, decreased staff performance, increased length of stay, service delays and has a negative impact on the use of hospital resources. Delays in services will certainly have unpleasant consequences for patients. Delays in surgery can be caused by reasons originating from the patient. Elrahman's

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research, 2014, stated that the lack of consent from patients for surgery was the cause of delays in surgery apart from financial problems.

A letter of approval for surgery is a very important thing that must be done before surgery. The function of this surgical approval letter is to help protect the patient's rights from all forms of malpractice and protect the hospital and operating team from claims from patients. Informed Consent originated from the idea of judge Benyamin Cardoso in handling the case (case) between Schloendorff vs Society of the New Hospital in 1914. In its development it turned out that this statement gained recognition as one of the patient's rights (Patient rights) in the world of medicine.

The quality of the health services provided by the hospital to patients will determine whether the hospital's image is good or bad. One form of service quality that patients often complain about is waiting time. Waiting time is the time used by health workers in hospitals to provide services to patients. The length of patient waiting time reflects how the hospital manages service components that are tailored to the patient's situation and expectations. Long waiting times risk reducing patient satisfaction and service quality (Kristiani et al., 2015; Supartiningsih, 2017).

Hospital accreditation standards also require hospitals to meet 12 National Quality Indicators consisting of compliance with patient identification, emergency response time, outpatient waiting time, postponement of elective operations, compliance with specialist doctor visit hours, reporting time for critical laboratory test results, compliance with the use of the national formulary, hand hygiene compliance, compliance with clinical pathways, compliance with efforts to prevent the risk of patient falls, patient and family satisfaction, and speed of complaint response time (Hospital Accreditation Commission, 2022).

Acceptance of intervention by the patient must provide voluntary consent, without coercion. The advantage of providing informed consent is that it provides legal power to patients and medical providers against suspected malpractice. Informed Consent is a form of approval for all information and actions that will be carried out by medical personnel to patients in written or verbal form through several stages of communication carried out between the service provider and the service provider. The challenge of operating room

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operational management is to increase the efficiency of the operating room by paying attention to aspects of scheduling operations, carrying out operations and monitoring the operating room. Operation scheduling is intended to manage all processes that occur in the operating room.

The implementation of previously planned operations may experience cancellation, delay or acceleration. Delays in surgery can be attributed to human error and the lack of an operating room scheduling system. Delays in surgery can also be caused by reasons originating from the patient. Elrahman's research, (2014), stated that the patient's lack of consent for surgery was a cause of delays in surgery apart from financial problems. A letter of approval for surgery is a very important thing that must be done before surgery.

Delays in elective surgery are most often caused by medical factors and are mostly due to acute changes in cardiovascular and respiratory function, abnormal laboratory values and patients refusing surgery. Nurses are expected to carry out more intensive monitoring of cardiovascular and respiratory function, laboratory values and provide pre-operative patient education and motivation (Amurwani & Rofi'i, 2018).

According to Arevalo (2009), elective surgery is delayed due to several reasons, the two main causes being insufficient operating room time and patients who are not ready on the day of surgery. Other causes include uncontrolled medical illnesses, abnormal laboratory results and patients being unable to pay for surgery. The causes include medical reasons, patient-related factors and administrative and logistical factors. More specifically, the most common causes include infection or fever, the patient is not ready for surgery and due to lack of operating room time (Kaddoum et al., 2016).

This fact is very concerning considering that the quality of hospital services plays an important role in the level of patient satisfaction amidst increasingly fierce hospital competition. This prompted the author to find out more about the various factors that cause high delays in elective operations in Central Surgical Installations.

2. Research Methods

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This research is a quantitative study using a retrospective observational analytic method with a cross-sectional approach. This research is a study that emphasizes measuring and observing related variable data only once at a time based on medical records and the time the event occurred in the past.

The sampling technique in this research uses a cluster sampling technique which is a sampling technique that is carried out at random or at random where the sample is not an individual consisting of units but consists of clusters or groups (Sugiyono, 2019).

3. Results and Discussion

1. Results

a) The Relationship between Staff Factors and Delays in Operations in Central Surgical Installations

Table 1
Analysis of the Relationship between Staff Factors and Delays in Surgery in Surgical Installations Central

Officer Factors	Long Operation Delay				Total		X^2 (*df*)	OR (95%CI)	*P*
	<60 minutes		>60 minutes						
	n	*%*	*N*	*%*	*n*	*%*			
No	35	18.0	159	82.0	196	100	14,211 (1)	0.297 (0.155 - 0.569)	< 0.001
Yes	23	42.6	31	41.4	54	100			

There was a significant relationship between patient factors and surgical delay <60 minutes, X2 (df) = 14.211 (1), p < 0.001. respondents who did not have the officer factor were 0.30 times more likely to experience an operation delay of <60 minutes compared to respondents who had the officer factor, OR = 0.297 (95% CI=0.155-0.569).

b) The Relationship between Facility Factors and Delays in Operations in Central Surgical Installations.

Table 2.
Analysis of the relationship between facility factors and operational

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delays in central surgical installations

Facility Factors	Long Operation Delay				Total		X^2 (*df*)	OR (95%CI)	*P*
	<60 minutes		> 60 minutes						
	n	%	N	%	n	%			
No	56	29.6	133	70.4	189	100	17,278 (1)	12.00 (2,831 - 50,860)	< 0.00 1
Yes	2	3,4	57	96.6	59	100			

There is a significant relationship between facility factors and surgical delays <60 minutes, X2 (df) = 17.278 (1), p < 0.001. Respondents who did not have the facility factor were 12 times more likely to experience an operation delay of <60 minutes compared to respondents who had the facility factor, OR = 12.00 (95% CI=2.831-50.860).

2. Discussion

In this research, there are two main factors that can result in delays in surgery, namely factors initiated by the patient and factors initiated by the hospital. A meta-analysis study concluded that the global prevalence of surgical delays was 18% with the first reason being a lack of operating room facilities, followed by patient factors such as changes in the patient's general condition and the role of staff who were less communicative (Abate et al., 2020).

In addition, there was a study of 462 patients who had scheduled elective surgery, 146 (31.6 %) had delays and 316 (68.4%) operations were delayed due to the patient's own reasons. The most common reasons for delayed surgery were operator (surgeon) related reasons (35.8 %), patient factors (28.7%), administrative factors (21.2%), anesthesia factors (14.4%) (Desta et al., 2018).

These results are in line with research on 5125 cases where 820 cases of surgery were delayed. The study concluded that there was a relationship between the presence of an operator (surgeon) and delay in surgery with a chi-square value of 66.149 and a significance value of p < 0.001 (Luo et al., 2020).

4. Conclusion

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a. The conclusion in this study is that the most dominant factor in delaying surgery is the officer factor with a significance value of 0.045 and 0.037 with an OR of 27.5 in the simultaneous test.

b. It is hoped that this research will provide input to management so that they can improve the quality of service even better in relation to the national quality indicators for patient delays in surgery, so that the number of delays in surgery can be <5%.

5. Compliance with ethical standards

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Disclosure of conflict of interest

This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

Statement of informed consent

Every action we take as authors is a mutual agreement or consent.

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