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# Analysis of Patient Satisfaction Levels for Emergency Room Services at North Jayapura Health Center, Jayapura City, Papua Province

Krisnasari Dwi Marlati<sup>a</sup>, Martapina Anggai<sup>b\*</sup>, Septevanus Rantetoding<sup>c</sup>, Hasmi<sup>d</sup>, Novita Medyati<sup>e</sup>, Sarce Makaba<sup>f</sup>

<sup>a</sup>Postgraduate Master Program of Public Health, Faculty of Public Health, Cenderawasih University

<sup>b,c,d,e,f</sup>Faculty of Public Health, Cenderawasih University, Jayapura Papua, Indonesia, 99351

<sup>a</sup>Email: krisnadm@gmail.com, <sup>b</sup>Email: martapinaanggai23@gmail.com

#### **Abstract**

**Background:** The emergency room is a service unit in a hospital or health center that provides initial treatment for patients who are sick and injured, who need emergency care that can threaten their survival. **Objectives:** The aim of the study was to analyze the level of patient satisfaction with the emergency room services at the North Jayapura Health Center, Jayapura City, Papua Province. **Methods:** This type of research is an observational descriptive quantitative with a cross sectional study approach. The population was all patients who underwent examinations at the North Jayapura Health Center Emergency Room with a total sample of 34 people which was carried out in January 2023. Data were collected using a questionnaire, then analyzed univariately.

**Result:** The results of the study showed that: 1) patients using emergency room services in the physical evidence dimension were in the quite satisfied category as many as 19 people (55.9%) and satisfied as many as 15 people (44.1%) with an average of 62,6% in the satisfied category, 2) patients using emergency room services in the reliability dimension in the quite satisfied category as many as 10 people (29.4%) and satisfied as many as 20 people (70.6%) with an average of 67,8% in the satisfied category, 3) patients who use emergency room services in the responsiveness dimension in the satisfied category as many as 8 people (23.5 %) and very satisfied as many as 26 people (76.5%) with an average of 83,7% in the very satisfied category, 4) patient users of emergency room services in the guarantee dimension in the satisfied category as many as 20 people (58.8%) and very satisfied as many as 14 people (41.2%)


<sup>\*</sup> Corresponding author.

with an average of 80,0% in the very satisfied category, and 5) patients who use emergency room services in the empathy dimension in the category of quite satisfied as many as 19 people (55.9%) and satisfied as many as 15 people (44.1%) with an average of 63,3% in the satisfied category.

*Keywords:* Emergency Room; Satisfaction; Services; Health Center.

#### 1. Introduction

Health services are currently important and have long been discussed in both developed and developing countries. This shows that the health care system is increasingly responsive to the needs of patients and society. In order to realize the goals of health development as stated in Presidential Regulation Number 18 of 2020 concerning the 2020-2024 National Medium-Term Development Plan, the Ministry of Health has established 6 (six) Strategic Goals, one of which is increasing quality universal health coverage. In order to achieve this strategic goal, strategic objectives are set, namely increasing the availability of health service facilities and improving the quality of health services.

Health Service Facility is defined as a place where the central government, regional government, and/or the community organize promotional, preventive, curative, and rehabilitative health service efforts, as well as a location where there is a risk of infection or disease spread for health workers, patients, patient families, visitors, and the public in general. Every Health Service Center must protect the health and safety of its human resources, patients, patient companions, visitors, and the environment from different possible risks. As a result, health-care organizations should become more focused on the needs of patients.

Patient satisfaction is one indicator of the effectiveness of community health services. Patient satisfaction is attained when what the patient receives exceeds his expectations [1]. Patient satisfaction is the level of feeling that a patient has as a result of the performance of the health service he receives after comparing it to what is expected. Services are built around five service quality principles: speed, accuracy, friendliness, and convenience [2]. It is critical to understand health center patients' satisfaction as users of health services in order to sustain and continually enhance health center' performance and services. To get information on patient satisfaction, patient satisfaction surveys are required. Furthermore, measuring patient satisfaction is an indicator for determining the quality of health care, enhancing health center services in general, and determining how to optimize health center use [2, 3, 4].

Health center is a method of delivering health services as well as a health service firm for the community, as defined in the Ministry of the Republic of Indonesia Regulation No. 40 of 2019. Health Centers (Puskesmas) are health-care centers that provide primary community and individual health-care services, with a focus on promotion and prevention in their work areas. Patient satisfaction reflects the quality of health-care services. The technical criteria for satisfying the quality of basic services for minimal services in the health sector have been specified in the Regulation of the Ministry of Health of the Republic of Indonesia, Regulation of the Minister of Health Number 4 of 2019.

Patient dissatisfaction develops when the dynamics of patient requests vary quickly but are not matched by the

pace with which work patterns and behaviors of health center personnel evolve. Health center officers focus more on medical performance or treatment services (registrars, nurses, physicians), despite the fact that patients appear to anticipate the performance to be supplied in accordance with the standard, namely concentrating more on non-technical parts of nursing [5].

According to Zeithalm and Parasuraman, the indicator in assessing patient satisfaction with service quality that is widely used is known as the RATER dimension, the five service qualities include reliability, assurance, tangibles, empathy, and responsiveness [6].

The results of measuring the value of patient satisfaction from a health service are very important because they can be used as a benchmark in providing a health service that follows all procedures in good faith, with a sense of responsibility, is serious and professional in order to improve public health [7]. Previous research evidence indicates that improving the quality and function of services in a complex manner, adequate infrastructure, and dependable human resources, the completeness of medicines, and pleasant attitudes and behavior of health workers towards patients can all contribute to patient satisfaction at health center [8]. Emergency care is one of the health center services that can improve patient satisfaction. Quickly handling patients in the emergency room will improve patient safety and satisfaction [9].

The Emergency Room Unit (IGD) is an essential aspect of a health center's service. The health center offers a variety of services, including comprehensive individual health care, inpatient, outpatient, and emergency treatments, as well as additional health service facilities [10]. The emergency service unit is part of the health center's service role, together with promotional, preventative, curative, and rehabilitative services provided inpatient and outpatient [11]. The Emergency Room is the name given to the health unit that offers emergency care. The unit's operation is critical since individuals constantly request first assistance in the unit. According to the emergency service handbook, emergency services are available 24 hours a day. Emergency services are offered to clients who require immediate attention in order to save lives [12]. Previous research at an emergency room, Siti Rahmah Islamic Hospital in Padang revealed that the results of 70% of respondents stated that they were satisfied with health services in the dimensions of reliability / reliability, responsiveness / quick response, empathy, assurance / assurance, tangibles / direct evidence. From the results of this study, it is hoped that officers who work at the Emergency Room, Siti Rahmah Islamic Hospital, Padang, will improve service to patient satisfaction, maintain it for the quality of health services in general and nursing in particular [13].

A similar study on the level of satisfaction in the hospital emergency room by (Sharif & Udi, 2022) found that there was an effect of reliability, responsiveness, empathy and assurance, but the physical evidence variable did not affect the level of satisfaction of COVID-19 patients with emergency room services at the hospital, meaning that reliability is less than 2 times the tendency for COVID-19 patients to be dissatisfied with emergency room services compared to good reliability.

Thus, to increase the satisfaction of COVID-19 patients with hospital services, the hospital should improve the quality of service in providing services to every patient who visits the hospital [14].

North Jayapura Health Center, Jayapura City, Papua is a health facility unit that provides public services for the surrounding community, Jayapura city, with accreditation standards for primary health centers that continue to be improved to achieve the quality of infrastructure and service quality to become a health center with plenary accreditation standards. One of its parts is the Emergency Installation service (IGD) North Jayapura Health Center with Emergency Room (IGD) officers are required to be agile, skilled, and able to carry out procedural, fast, precise handling for patient safety. The standard of patient satisfaction in health services is set nationally by the Ministry of Health.

Measuring satisfaction at the North Jayapura Health Center was carried out in two ways through suggestion boxes with monthly evaluations and satisfaction surveys based on Regulation of the Minister of Health No. 30 of 2022 concerning the quality of health services aims to realize safe and quality health services, every independent practice place for doctors and dentists, clinics, community health centers, hospitals, health laboratories, and blood transfusion units as part of health service facilities. One of the National Quality Indicators is the level of patient satisfaction with an achievement target of 76.6% at the service site. In addition to the national quality indicators, the health center also measures satisfaction through a suggestion box for the community to provide an assessment of satisfaction and dissatisfaction as well as input that can be used as input for consideration of improving the quality of health center services which will be discussed at the monthly miniworkshop.

Indicator data for Jayapura Utara Health Center's quality of health services as of September 2022. In September, the average patient satisfaction objective from all treatment rooms at Jayapura Utara Health Center was 77.23%, and the emergency room was 76.91%, according to a study. To maintain service quality in each room, assess satisfaction level measures using suggestion boxes. In the first observation of the satisfaction evaluation from the suggestion box established in the Emergency Room (IGD) in October, it was discovered that 45% of patients were satisfied and 55% were unhappy, and in November, 41.6% were satisfied and 58.3% were unsatisfied.

Through these preliminary observations, the authors discovered that there were problems that caused a higher percentage of dissatisfaction to occur in October and November, and they sought a more detailed description of the problem in service quality that was the source of patient dissatisfaction by conducting additional research on patient satisfaction surveys in Emergency Installation services at the North Jayapura Health Center, Jayapura City, to assess the quality of services provided.

The findings provide key foundational information that will be valuable for enhancing services as a basis for making continuous choices about the administration of the Emergency Room (IGD).

#### 2. Methods

The type of research used in this study is a type of an observational descriptive quantitative with a cross-sectional study approach.

The research was conducted in January and February 2023 in the Emergency Room at the North Jayapura Health Center. The patient population was determined based on the total number of patients who visited the

Emergency Room (IGD) at the Jayapura Utara Health Center beginning in January 2023 and reaching a maximum of 194 people. A total sample of 34 patients was taken using the incidental sampling technique according to the inclusion criteria, namely the patient's awareness compos mentis with GCS 14-15, patients who were already in the Emergency Room IGD  $\geq$  3 hours, aged  $\geq$  17 years and conscious. Data were collected using questionnaire and then analyzed descriptively.

#### 3. Results

### 3.1. Characteristics of Respondents

**Table 1:** Distribution of respondents according to age, gender, occupation and JKN membership at North Jayapura Health Center, Jayapura City.

No	Variables	n	Percentage (%)
1	Age		
	26-35 years old	10	29.4
	36-45 years old	12	35.3
	46-59 years old	9	26.5
	> 60 years old	3	8.8
2	Gender		
	Male	28	82.4
	Female	6	17.6
3	Occupation		
	Doesn't work	15	44.1
	Work	19	55.9
4	JKN membership		
	Yes	25	73.5
	No	9	26.5
Total		34	100

Source: Primary Data, 2023

Based on Table 1 it shows that the majority of respondents aged 36-45 years were 12 people (35.3%), male sex were 28 people (82.4%) and JKN participants were 25 people (73.5%).

### 3.2. Patient Satisfaction Level with Emergency Installation Services

### 3.2.1. Patient Satisfaction Based on Tangible (Physical Evidence)

**Table 2:** Distribution of respondents according to the level of satisfaction based on physical evidence at the North Jayapura Health Center in Jayapura City.

No	Tangible (Physical Evidence)	n	Percentage (%)
1	Not satisfied	0	0.0
2	Quite satisfied	19	55.9
3	Satisfied	15	44.1
4	Very satisfied	0	0.0
Total	1	34	100

Source: Primary Data, 2023

Table 2 shows that 19 patients (55.9%) who use emergency room services in the physical evidence dimension are quite satisfied and 15 people (44.1%) are satisfied and none are in the dissatisfied and very satisfied categories.

This shows that the physical evidence of the emergency department is satisfactory enough for patients who receive services at the emergency installation of the North Jayapura Health Center.

### 3.2.2. Patient Satisfaction Based on Reliability

**Table 3:** Distribution of respondents according to the level of satisfaction based on reliability at the North Jayapura Health Center in Jayapura City.

No	Reliability	n	Percentage (%)
1	Not satisfied	0	0.0
2	Quite satisfied	10	29.4
3	Satisfied	20	70.6
4	Very satisfied	0	0.0
Total	1	34	100

Source: Primary Data, 2023

Table 3 shows that 10 patients (29.4%) who use emergency room services in the reliability dimension are quite satisfied and 24 people (70.6%) are satisfied and none are in the dissatisfied and very satisfied categories.

This shows that the reliability of the emergency department is satisfactory for patients who receive services at the emergency installation at the North Jayapura Health Center.

### 3.2.3. Patient Satisfaction Based on Responsiveness

**Table 4:** Distribution of respondents according to the level of satisfaction based on Responsiveness at the North Jayapura Health Center in Jayapura City.

No	Responsiveness	n	Percentage (%)
1	Not satisfied	0	0.0
2	Quite satisfied	0	0.0
3	Satisfied	8	23.5
4	Very satisfied	26	76.5
Total	1	34	100

Source: Primary Data, 2023

Table 4 shows that patients who use emergency room services in the responsiveness dimension are in the satisfied category as many as 8 people (23.5%) and very satisfied as many as 26 people (76.5%) and none are in the dissatisfied and quite satisfied categories.

This shows that the responsiveness of the emergency department is very satisfactory for patients who receive services at the emergency installation of the North Jayapura Health Center.

### 3.2.4. Patient Satisfaction Based on Assurance

**Table 5:** Distribution of respondents according to the level of satisfaction based on Assurance at the North Jayapura Health Center in Jayapura City.

No	Assurance	n	Percentage (%)
1	Not satisfied	0	0.0
2	Quite satisfied	0	0.0
3	Satisfied	20	58.8
4	Very satisfied	14	41.2
Total	1	34	100

Source: Primary Data, 2023

Table 5 shows that 20 patients (58.8%) who use emergency room services in the warranty dimension are in the satisfied category and 14 people are very satisfied (41.2%) and none are in the dissatisfied and quite satisfied categories.

This shows that the emergency installation guarantee is satisfactory for patients who receive services at the North Jayapura Health Center in Jayapura city.

### 3.2.5. Patient Satisfaction Based on Empathy

**Table 6:** Distribution of respondents according to the level of satisfaction based on Empathy at the North Jayapura Health Center in Jayapura City.

No	Empathy	n	Percentage (%)
1	Not satisfied	0	0.0
2	Quite satisfied	19	55.9
3	Satisfied	15	44.1
4	Very satisfied	0	0.0
Total	1	34	100

Source: Primary Data, 2023

Table 6 shows that 19 patients (55.9%) who use emergency room services in the empathy dimension are quite satisfied and 15 people (44.1%) are satisfied and none are in the dissatisfied and very satisfied categories.

This shows that empathy in emergency room services is satisfactory for patients who receive services at the North Jayapura Health Center in Jayapura City.

### 3.3. Average Patient Satisfaction in the Emergency Room

**Table 7:** Distribution of respondents according to the average patient satisfaction based on the dimension of service quality at the North Jayapura Health Center in Jayapura City.

No	Variables	Average Percentage (%)	Category of satisfaction
1	Tangible	62.6	Satisfied
2	Reliability	67.8	Satisfied
3	Responsiveness	83.7	Very satisfied
4	Assurance	80.0	Satisfied
5	Empathy	63.6	Satisfied
Total		71.5	Satisfied

Source: Primary Data, 2023

Based on table 7 it was found that the average score of satisfaction based on physical evidence obtained a score of 62.6% in the satisfied category, reliability obtained a score of 67.8% in the satisfied category, responsiveness obtained a score of 83.7% in the very satisfied category, assurance obtained a score of 80.0% in the satisfied category and empathy obtained a score of 63.6% in the satisfied category.

The average patient satisfaction at the Jayapura Utara Health Center emergency room was 71.5% or in the satisfied category.

# 3.4. Patient Satisfaction Level Based on Patient Characteristics of Services in the Emergency Room 3.4.1. Patient Satisfaction Levels Based on Age

**Table 8 :** Distribution of Patient Satisfaction Levels by Age for services in the Emergency Room at the North Jayapura Health Center, Jayapura City.

		-	The le	evel of s	satisfac	tion				
Age	Not		•	ıite	Sati	sfied		'ery		
1160	satisfied		sati	sfied			sat	isfied	n	%
	n	%	n	%	n	%	n	%		
26-35 years old	0	0	0	0	7	70.0	3	30.0	10	100
36-45 years old	0	0	0	0	10	83.3	2	16.7	12	100
46-59 years old	0	0	0	0	8	88.9	1	11.1	9	100
> 60 years old	0	0	0	0	2	66.7	1	33.3	3	100
Total	0	0	0	0	27	79.4	7	20.6	34	100

Source: Primary Data, 2023

Table 8 shows that there are 10 patients (88.9%) who use emergency room services in the satisfied category at the age of 46-59 years and 3 people (30%) in the very satisfied category aged 26-35 years.

### 3.4.2. Patient Satisfaction Levels Based on Gender

**Table 9:** Distribution of Patient Satisfaction Levels by Gender for services in the Emergency Room at the North Jayapura Health Center, Jayapura City.

			The le	evel of	satisfac	tion				
Gender	Not satisfied	Quite Satisfied satisfied		sfied	Very satisfied		n	%		
	n	%	n	%	n	%	n	%		, 0
Male	0	0	0	0	22	78.6	6	21.4	28	100
Female	0	0	0	0	5	83.3	1	16.7	6	100
Total	0	0	0	0	27	79.4	7	20.6	34	100

Source: Primary Data, 2023

Table 9 shows that the percentage of patients using emergency room services in the satisfied category was for women as many as 5 people (83.3%) and the most satisfied category was for men as many as 5 people (21.4%).

### 3.4.3. Patient Satisfaction Levels Based on Occupation

**Table 10:** Distribution of Patient Satisfaction Levels by Occupation for services in the Emergency Room at the North Jayapura Health Center, Jayapura City.

-		,	The le	evel of	satisfac	tion				
Occumation	Not		Quite		Satisfied		Very			
Occupation	satisfied		sati	sfied			sati	sfied	n	%
	n	%	n	%	n	%	n	%		
Not work	0	0	0	0	12	80.0	3	20.0	15	100
Work	0	0	0	0	15	78.9	4	21.1	19	100
Total	0	0	0	0	27	79.4	7	20.6	34	100

Source: Primary Data, 2023

Table 10 shows that the percentage of patient using emergency room services is in the satisfied category for respondents who do not work as many as 12 people (80%) and the very satisfied category is for respondents who work as many as 4 people (21.1%).

### 3.4.4. Patient Satisfaction Levels Based on JKN participation

**Table 11:** Distribution of Patient Satisfaction Levels by JKN participation for services in the Emergency Room at the North Jayapura Health Center, Jayapura City.

			The le	evel of	satisfac	tion				
Occupation	Not satisfied	Quite satisfied			Satisfied		Very satisfied		n	%
	n	%	n	%	n	%	n	%		
Not work	0	0	0	0	12	80.0	3	20.0	15	100
Work	0	0	0	0	15	78.9	4	21.1	19	100
Total	0	0	0	0	27	79.4	7	20.6	34	100

Source: Primary Data, 2023

Table 11 shows that the percentage of patients using emergency room services in the satisfied category is 20 respondents who are JKN participants (80%), and the most satisfied category is the respondents who are not JKN participants, 2 people (22.2%).

#### 4. Discussion

According to the findings of a survey of 34 respondents at the North Jayapura Health Center, the average patient satisfaction with emergency room services based on physical evidence, reliability, responsiveness, assurance, and empathy was 73.8%.

According to the research findings, the majority of respondents were between the ages of 36 and 45. The satisfaction level of patients using emergency room services was 10 persons (88.9%) in the satisfied category at the age of 46-59 years, and 3 people (30%) in the most satisfied category at the age of 26-35 years. This demonstrates that respondents can evaluate the quality of services they get at the age of young adults. This might be owing to variances in the requirement for emergency room care between younger and older patients, as a result of the various degenerative disease conditions that necessitate some services that they may not receive.

According to Suryati's (2017) research, someone who is youthful is more sensitive and receptive to field circumstances and has the bravery to communicate his unhappiness, but the elderly prefer to just accept the services they receive [15]. Biological age is determined by a person's bodily tissue and is affected by dietary and environmental variables, which might have an impact on health.

The study's findings revealed that the proportion of satisfied patients using the emergency installation services at Jayapura Utara Health Center was in the satisfied category for as many as 5 people (83.3%), and the most satisfied category was for males as many as 5 individuals (21.4%). This is consistent with Suryati's (2017) finding that gender influences perceptions of the services offered. Women devote greater attention to their looks in detail, whilst men do not [15].

According to the findings, the percentage of patients satisfied with the emergency installation services at the North Jayapura Health Center was in the satisfied category for respondents who did not work as many as 12 people (80%), and the most satisfied category was for respondents who worked as few as 4 people (21.1%). This

demonstrates that those who work and do not work have the same expectations for the same level of service.

According to Suryati (2017), those who work towards health services have higher expectations than those who do not [15]. Karengkeng (2022) discovered that there is no substantial association between employment and job satisfaction levels. The working group typically expects better service since they believe they can afford to pay the costs levied, however this depends on their income [16].

According to the study's findings, the percentage of patient satisfaction level using the emergency installation services at the North Jayapura Health Center was in the satisfied category for as many as 20 people who did not work (80%), and the most satisfied category for respondents who were not JKN participants was 2 people (22.2%). This is because JKN participants receive free services, whilst non-JKN participants pay a fee albeit at a low cost. The higher level of satisfaction for non-JKN participants is due to the shorter service time in the registration procedure, which allows them to receive speedier service. This study is consistent with Kuntoro's (2017) study on the quality of service at the Kretek Bantul Health Center's outpatient registration area in Yogyakarta, which discovered that 62% of patients were happy with the registration area's dependability [17].

According to the research findings, BPJS patient satisfaction in the dependability aspect involves registration counter employees delivering accurate information and assisting you in understanding how to register using BPJS. BPJS patients who are dissatisfied report that the reliability has not been as expected in handling the needs of BPJS patients, particularly when registering for the first time, because registration counter staff have not been able to answer questions wisely when you experience difficulties registering.

# 4.1. The level of satisfaction based on physical evidence in the Emergency Room of the North Jayapura Health Center, Jayapura city

Because the first thing that supports a person's contentment is comfort with the physical look of the facility and health personnel, the dimension of evidence is highly essential in measuring the quality of services offered to patients [18].

The assessment of direct evidence in the emergency room at the North Jayapura Health Center includes the comfort of a quiet and clean waiting room, medical equipment used, complete and good equipment, the appearance of officers, bathroom facilities, and sufficient parking, the availability of supporting papers, and the availability of signs indicating places in the health center.

The findings revealed that on the physical evidence dimension, 19 people (55.9%) were fairly satisfied, 15 people (44.1%) were satisfied, and none were unhappy or very satisfied. This demonstrates that the physical evidence of the emergency department is adequate for patients receiving treatments at the North Jayapura Health Center's emergency installation.

According to the minimum standard requirements no. 43 of 2019, for health center is the presence of educational facilities such as reading materials to assist visitors with health education. This may also be done in the patient's waiting area since, in addition to waiting; you can obtain health-related information.

By providing suitable physical facilities and equipment, the quality of health care may also be felt immediately by its consumers. Health care practitioners will be allowed to work to the best of their abilities. In this instance, changes in communication recommendations and indirect service equipment such as parking spaces and suitable waiting rooms are required. Because service items cannot be seen, handled, or felt, another metric that service consumers may feel more realistically is required. In this situation, service consumers utilize their senses (eyes, hearing, and taste) to evaluate the quality of health services received, such as a clean, pleasant patient reception room with seats, tiled floors, TV, full office equipment, and staff uniforms, nice, appealing, and tidy.

Customers' views will be influenced by good tangible proof. Simultaneously, the physical evidence dimension is a factor that impacts client satisfaction. Customer expectations for services have risen as a result of positive physical evidence responses from patients. While seeing a patient, the appearance of a medical worker or employee is very significant since the patient will feel more comfortable getting services if the medical staff or health center employee is nice and clean. As a result, this feature is included in the section that is significant for patients.

The North Jayapura Health Center's emergency room facilities and infrastructure are still insufficient, such as laboratory equipment that is still manual and consumable medical materials that run out or are damaged, interfering with the results of service inspections; however, judging by the appearance of the North Jayapura Health Center staff, they were neat, polite, and in accordance with the rules that had been set. According to the stated norms, this demonstrates that health center staff has a high level of awareness.

Among of the components that the North Jayapura Health Center believes need to be maintained and repaired include cleanliness issues, particularly in the WC, and the appropriate working of the patient's WC, which is still inadequate despite the cleanliness of other rooms. Warda (2016) performed study at the Perumnas Health Center in Kendari City, which supports this. Of course, many helpful facilities are required to support health services when delivering services to patients, such as facilities, for example, the condition of bathroom cleanliness, which is not clean and aesthetically, patients might feel uncomfortable when they are inside the health center [19].

The visible component (appearance) is the primary impediment to the service process. From the comfort of the atmosphere at the North Jayapura Health Center, the Health Center is still not pleasant, and from the completeness of facilities and infrastructure, there are still inadequate inadequacies, such as the laboratory equipment being manual. Improving direct evidence of this service can be accomplished by continuing to improve comfort and cleanliness, as well as adequate lighting, by adding cleaning staff, because the number of visitors increases the number of users of toilet activity, so it must be kept clean because it is one indicator of the evaluation of the quality of existing services and is directly felt by visitors.

Calisir and colleagues (2012) performed study on the effect of the quality dimension on 292 respondents using the modified SERVQUAL technique, and discovered that physical evidence is an essential component for patient satisfaction and influences the choice to return to utilize the hospital's services [20].

Patient satisfaction at the North Jayapura Health Center in Jayapura City is that the environmental conditions of the North Jayapura Health Center look clean and tidy, that patients receive adequate care, that infection or disease is not easily transmitted, and that the registration counter staff maintain tidiness and cleanliness in providing services. Researchers contend that patient satisfaction with the quality of health services in terms of tangible evidence received has not been met, particularly with regard to supporting facilities in the patient registration procedure. This is due to a shortage of supporting resources such as computers, causing them to be unable to verify and must rely on administration in other service rooms, slowing down the registration process. North Jayapura Health Center in Jayapura City should start breeding right away, especially in the registration procedure, because patient happiness is measured by a quick and adequate registration process.

# 4.2. Satisfaction level based on reliability in the Emergency Room of North Jayapura Health Center, Jayapura city

Tjiptono (2017) defines dependability as the capacity to deliver and perform promised services on time, reliably, accurately, and satisfactorily. Accuracy, thoroughness, and clarity from officers in providing services is highly crucial, especially in the health sector, because time is a very expensive commodity [18].

The North Jayapura Health Center emergency room's reliability is evaluated using the following criteria: opening and closing hours of service, officer arrival schedule, services received that are effective for dealing with illness and appropriate waiting time before seeing a doctor, easy and fast health center emergency installation services, ease of service administration procedures, and reasonable costs. You pay for the service you receive.

The study's findings revealed that 10 persons (29.4%) fulfilled the level of satisfaction of patients utilizing emergency department services in the reliability dimension and did not fall into the dissatisfied or highly satisfied groups. This demonstrates that the emergency department's dependability is adequate for patients who obtain treatments at the North Jayapura Health Center's emergency installation.

The study's findings revealed that patient satisfaction in the reliability aspect included patient registration procedures that were appropriately, quickly, and uncomplicatedly served, medical personnel provided thorough, careful, and timely services as promised, and there was an improvement in the patient's condition (healing) after the patient accepted action and took medication.

The North Jayapura Health Center employees' level of discipline and alertness in serving patients is disciplined, as evidenced by disciplined employees arriving on time according to working hours by officers who are always on standby and ready during working hours, then disciplined employees in dressing and swift in taking action and providing services. Nevertheless, the doctor's arrival is delayed by half an hour or an hour, but this may be managed correctly because the patient is in the process of registration and patient queues. Also, the doctor who arrived quickly gave services, ability to provide health services in a timely and correct manner (as in brochures). Customers in diverse service sectors rank dependability as the most essential of the five aspects of service excellence. It will be difficult to expect constant production due to the non-standardized character of service

products and their outputs being greatly dependent on human actions. Moreover, services are generated and consumed concurrently. To increase dependability in the health-care business, senior management must create a quality work culture, specifically a corporate culture of no errors that is communicated from top management to front-line employees (who directly deal with patients).

This type of work culture must be created by developing a cohesive work group and obtaining ongoing training in response to advances in medical technology and patient expectations [21]. The first supporting dimension in the service process is dependability. In terms of accountability, all health professionals at the Jayapura Utara Health Center, including officials and physicians, are fully responsible for delivering health services in their respective professions. Apart from that, the Jayapura Utara Health Center personnel is already disciplined, but it has to be developed further so that they can deliver the best service possible.

The opening hours of the emergency room service and the arrival of doctors at the emergency room cause delayed processing and registration of patients who are queuing, which causes patient discontent based on trustworthiness. The North Jayapura Health Center's response time to patient complaints is still slow and does not meet the health center's required service time. Services that are nonetheless regarded delayed include emergency room services that are not on time.

The findings of this study are consistent with the findings of Fatrida & Andesma (2019) research on the association between waiting time and patient satisfaction in getting health care [22]. The waiting time is the time it takes patients to acquire health care from the moment they register to the time they enter the doctor's examination room. Patient waiting time is one of the factors that might lead to discontent. People will believe that health services are poor if their disease does not heal, lines are lengthy, and health professionals are unfriendly, despite their professionalism [23].

Waiting time is the amount of time it takes for a patient to obtain a prescription from a doctor; waiting for an extended period of time increases patient/customer unhappiness. In outpatient care, decreasing waiting time can improve patient satisfaction. The three primary causes for the long wait for patient treatment are: the time it takes to register at the counter, the restricted number of physicians, the high number of patients, and the limited number of other health care workers.

According to the Indonesian Ministry of Health, waiting times in outpatient care of less than 60 minutes might boost customer/patient satisfaction by more than 90% in 2016. The duration of patient waiting time indicates how health-care providers handle service components that are specific to the patient's condition and expectations. According to studies, the huge number of patients with long wait times is attributable to a lack of attentiveness among health professionals at the North Jayapura Health Center.

According to the researchers, the majority of patients trust in the dependability and correctness of services supplied by police swiftly. And, because of the officer's dependability, the officer is capable of being fair in giving services to patients without regard to socioeconomic position or other variables (not discriminating).

This is consistent with Muininjaya's (2016) theory for health service providers, according to which the quality of

health services is more related to the dimensions of suitability of services provided with the latest developments in science and technology and or professional autonomy in providing health services based on patient needs [21]. Satisfaction with patients demonstrates that the known dependability of the health center is how responders may trust the registration counter employees in delivering health services to the community. According to the findings of this study, there are still groups of patients who are unsatisfied with services in the dependability dimension. This demonstrates that satisfaction with health center services in terms of dependability may still be enhanced.

# 4.3. The level of satisfaction based on responsiveness in the Emergency Room of the North Jayapura Health Center, Jayapura City

The elements that determine reaction time, according to the American College of Emergency Physician Theory, reveal that competent human resource assistance delivers a satisfactory response time in the ER. As a kind of professional nursing practice, responsiveness is the core or center of nursing. Responsiveness is crucial in providing treatment and boosting patient satisfaction. The reaction time from the moment the patient arrives at the health center till the response from the staff treating the patient in the emergency room until the treatment is done is referred to as responsiveness [24].

Officers responsive to patient complaints about service, officers serving well when patients ask for an explanation about services, officers serving immediately, waiting time for registration, officers who are always ready to help patients in the waiting room, officers providing information about actions taken are all part of the assessment of responsiveness in the North Jayapura Health Center Emergency Room.

The results revealed that the satisfaction level of patients utilizing emergency department services in the dimension of responsiveness was 8 individuals (23.5%) in the pleased group and as high as 26 people (76.5%) in the very satisfied category, with none in the unsatisfied or fairly satisfied categories. This demonstrates that the emergency department's response is quite good for patients who receive treatments at the North Jayapura Health Center's emergency installation.

The study's findings are consistent with Yudanisa's (2019) research in that the majority of respondents reported that the responsiveness they got in health care was still insufficient [25]. One of the most crucial aspects of providing effective health care is the responsiveness of health care practitioners. Staff answers are meant to assist patients in overcoming barriers to receiving services and obtaining critical information. The employee's response to patient concerns and the quickness with which they provide service are both indicators of responsiveness.

Based on observations in the field, personnel' responses to patient complaints have been positive, indicating that service delivery is on track. However, there are still concerns regarding the service at the registration counter, which is due to the fact that there are only 1 or 2 counter employees and no extra officers as information givers, who are still unresponsive and take too long to process patient registration. As a result, it must be examined and improved; responsiveness is anticipated to assist patients in obtaining information or other concerns, such as

complaints about sickness, complaints about poor services, and other grievances.

Patients who are unsatisfied with the registration counter and laboratory service because it does not meet their expectations. The length of service at the registration counter is caused by the fact that patient registration is done in two steps, first electronically and then manually in the patient register book if the simpus system fails, therefore the registration procedure takes time. Laboratory services take a long time since laboratory medical technology does not yet support it manually; therefore the process of treating patients takes a long time.

According to Nababan (2020), research at the Jambi City Health Center discovered that the service technique was not complex. Several respondents claimed that they still did not grasp the registration flow; moreover, while waiting for the line, the poly respondents had to wait since the patient had not been brought from the registration counter to the poly room [26].

One of the main indicators of high service quality is health care professionals' responsiveness and ability to offer services swiftly and precisely according to set time standards. Nonetheless, there are still several complaints regarding the registration counter service. Furthermore, the speed of service at the North Jayapura Health Center in responding to patient complaints is still slow and not in compliance with the health center's normal service time. Registration counter services and laboratory services continue to be regarded delayed.

# 4.4. Satisfaction level based on assurance at the North Jayapura Health Center Emergency Room, Jayapura city

Patients require assurance/confidence in how to carry out services, emphasizing which is for the ability of service providers and generates patient confidence and confidence that service providers, especially officers whose needs are able to meet their patients' needs, provide services with certainty, and are free from doubt while letting patients wait for no clear reason, which can lead to negative perceptions of the quality of their services [21].

The task of providing information on the certainty that the patient will be served in how much time at the North Jayapura Health Center includes the task of providing information on the certainty that the patient will be served in how much time, the officer asks the queue number and the patient's identity when carrying out examinations and actions, the officer ensures that the patient's recovery will be achieved in the treatment being carried out, the doctors and nurses who serve according to their competence, the confidentiality of your examination.

According to the findings, 20 people (58.8%) were happy with emergency department services, 14 people (41.2%) were extremely satisfied, and none were dissatisfied or very satisfied. This demonstrates that the emergency installation guarantee is enough for people receiving services at the Jayapura Utara Health Center emergency installation.

Patient satisfaction demonstrates that the doctor has the capacity and expertise to diagnose the patient's ailment and answers every patient query persuasively. Throughout the treatment time, the health facilities at the health center addressed the demands of the community. The patient is pleased with the services provided by both

medical and non-medical personnel. Patients must be handled adequately while protecting patient confidentiality at the health center.

The findings of this study are consistent with previous research (2017), which found that the majority of patients are happy with the assurance offered by the health center. The assurance provided by physicians and nurses is adequate to reassure the patient in recovery, and patients who require more care can be transferred. With the presence of a specialist doctor, doctors and nurses have been able to ensure patients' recovery. The Jayapura City Health Office is working with expert doctors who will be able to serve and provide a definitive diagnosis, determining whether the patient requires a referral or not. Aside from that, it minimizes hospital workload in delivering services and can have a favorable influence on health expenses by the community in gaining recommendations for advanced health facility treatment.

According to findings in the field with the number of expert physicians, certain patients can be treated directly by doctors who are already specialists, decreasing the burden on the community, particularly low-income groups, in getting health care in accordance with standards. Customer satisfaction said that the health center's medicine quality was successful and ensured the patient's recovery. The pharmaceuticals are of standard quality, and the quality is maintained through the storage area, as well as checks for damage and expiry. The pharmacist at health center is responsible for the quality of the drug and is aided by four staff members, one of whom is a pharmacist and the other three are nurses.

The aspects of drug quality assurance are primarily concerned with therapeutic effectiveness in disease treatment. Medicines are an integral component of every health-care system. It is believed that by delivering medications, patients would recover from their ailments. Furthermore, because medication is a basic necessity for the population, the view of a health service's output is if they obtained medicine after visiting the health center. As a result, the patient may feel that their visit to the health center is incomplete if they are not provided medicine.

According to the findings of data analysis, the average responder in answering the issue of the dimensions of the medicine guarantee supplied was good. According to the findings of interviews with respondents, the pharmaceuticals offered to respondents, both in terms of efficacy and dose, made the respondents feel good, however they were still not adequate, and some respondents complained that they had to buy drugs elsewhere due to drug shortages.

This is consistent with Warda's (2016) research at the Kendari Health Center, which found that the pharmaceuticals provided were of excellent quality, but there were numerous empty bottles, forcing patients to purchase drugs elsewhere. Furthermore, the provision of specific pharmaceuticals for patients based on the drugs established by the BPJS can be acquired separately [19].

Drug vacancies may develop if drug planning was previously prepared by the North Jayapura Health Center based on disease epidemiology methodologies, but the number of patients who attend cannot be expected, resulting in a relatively high demand for pharmaceuticals. As a result, individuals are urged to visit other health clinics to receive medications prescribed by their doctor.

Medicines, vaccines, and so on, as well as other issues at this time, are access or affordability of health services, which still needs to be improved in order to support better health services, and if this is accomplished, it will aim to improve employee performance and provide quality and satisfying health services to the community.

Aside from that, there are long lines for medication services to patients since there are two pharmacy officers who serve taking pharmaceuticals and are not in compliance with the regular service time set. Customers frequently complain about the service at the registration counter, which should take 3 minutes but takes more than 5 to 6 minutes; this disturbs the flow of the patient queue and demonstrates ineffectiveness in providing services, causing services to be hampered/disturbed.

# 4.5. The level of patient satisfaction based on empathy in the Emergency Room of the North Jayapura Health Center, Jayapura City

All patients seek attention and are given to customers individually by attempting to understand their desires, so that the commitment component is also extremely significant. People arrive as soon as possible to register for outpatient treatments because they wish to express or examine their complaints/illness [18]. The assessment of attention at the North Jayapura Health Center includes polite and friendly service, staff that can communicate well, understand patient needs and provide solutions, the ease of contacting management if there are complaints, the ability to ask questions about the illness, and staff that treats all patients equally.

The results showed that in the empathy dimension, the satisfaction level of patients using emergency installation services was in the category of quite satisfied for as many as 19 people (55.9%) and satisfied for as many as 15 people (44.1%), with none in the category of dissatisfied and very satisfied. This demonstrates that patients who receive treatments at the Jayapura Utara Health Center emergency installation have found empathy to be adequate.

Patient satisfaction can be seen in services that do not discriminate between patients, health workers who provide services regardless of social status, health workers who encourage patients to get well soon and pray for them, doctors who respond patient and family complaints patiently, openness of health workers to patient complaints, and officers who provide a sense of comfort and calm to patients while undergoing treatment. The study's findings are consistent with Adian's (2020) research at the East Java Health Center, which found that patients are mainly happy with the attention given to health services [27].

The researcher believes that most pleased patients feel the officers were nice and courteous, and that they always greeted and inquired about the patient's wants when offering services at the health center patient registration area. Based on observations of the services offered by officers to patients, they were still unpleasant since there were still some health center personnel, particularly at the registration counter, who did not provide services to patients in a courteous and polite manner. This is demonstrated by the fact that patients seeking treatment frequently report that the personnel at the registration counter are unfriendly and do not practice the 3S, meaning smile, greet, greet. Nonetheless, several informants stated that some were nice, particularly the

physicians at the health center who treated patients with kindness and patience in order to make them feel happy and comfortable.

Personal concern in this scenario is the employee's ability to sympathize with patients who are having treatment challenges. Because caring behavior is a mix of human behaviors that is beneficial in improving health and assisting sick individuals. Attentive conduct is critical in service because, in addition to boosting service quality, it provides patients with a sense of comfort and happiness. Employees at the North Jayapura Health Center provide acceptable empathy dimensions, but they might be better. In the service process, the empathy dimension becomes the second supporting dimension.

Caring and compassionate conduct towards patients in this scenario. Attentive conduct is critical in service since it not only improves service quality but also gives patients with a sense of comfort and happiness. North Jayapura Health Center workers provide good personal attention; physicians and staff are patient and assist patients truly, sincerely, and wholeheartedly.

### 5. Conclusion

Based on the results of the discussion it can be concluded as follows:

- a. The satisfaction level of patients using emergency room services in the physical evidence dimension ranges from quite satisfied (55.9%) to satisfied (44.1%), with an average score of 62.6% in the satisfied category.
- b. In the reliability dimension, the level of satisfaction of patients using emergency room services in the quite satisfied category was 10 people (29.4%) and satisfied as many as 20 people (70.6%) with an average score of 67.8% in the satisfied category.
- c. The level of patient satisfaction with emergency room services in the responsiveness dimension was 8 patients (23.5%) in the satisfied category and as many as 26 people (76.5%) in the very satisfied category, with an average score of 83.7%.
- d. In the assurance dimension, the satisfaction level of patients using emergency room services is 20 people (58.8%), and 14 people (41.2%) are very satisfied, with an average score of 80% in the satisfied category.
- e. The empathy dimension satisfaction level of patients using emergency room services was 19 participants (55.9%) and satisfied as many as 15 people (44.1%) with an average score of 63% in the satisfied category with an average score of 63.3% in the satisfied category.

### References

- [1] Handayani, S. (2016). Tingkat Kepuasan Pasien Terhadap Pelayanan Kesehatan Di Puskesmas Baturetno. *Profesi (Profesional Islam): Media Publikasi Penelitian*, 14(1), 42. https://doi.org/10.26576/profesi.135.
- [2] Esthi, F. S., Mindarsih, E., & Murni, M. (2017). Faktor-Faktor Mutu Pelayanan Kebidanan yang

- Mempengaruhi Tingkat Kepuasan Pasien di Poli Kebidanan RSUD Wonosari. *Jurnal Kesehatan Ibu Dan Anak*, 11(2), 35–42. https://doi.org/10.29238/kia.v11i2.38
- [3] Arifin, S., Rahman, A., Muhyi, R., Octaviana Putri, A., & Hadianor, H. (2019). Hubungan Usia, Tingkat Pendidikan, Fasilitas Kesehatan Dengan Kepuasan Pasien Di Puskesmas Muara Laung. *Jurnal Publikasi Kesehatan Masyarakat Indonesia*, 6(2), 40–45. https://doi.org/10.20527/jpkmi.v6i2.7457.
- [4] Chusna, N., Fetriana, T., Adawiyah, R., Palangkaraya, U. M., Raya, P., Kefarmasian, P., & Pahandut, P. (2018). Puskesmas Pahandut Kota Palangka Raya Level of Patient Satisfaction on Pharmaceutical Services in Community Health Centers of Pahandut Palangka Raya. *Borneo Journal of Pharmacy*, (November 2018, Page 89 92), 2019.
- [5] Potter, P., & Perry, A. (2005). Buku ajar fundamental keperawatan; konsep, proses & praktik, Ed. 4. Jakarta: EGC.
- [6] Fais, M. (2014). Organisasi dan manajemen pelayanan kesehatan. Jakarta: Salemba Medika.
- [7] Sihaloho, N. S. R. U., & Herliana, I. (2017). Hubungan Jenis Kelamin, Tingkat Pendidikan Dengan Tingkat Kepuasan Pasien di Ruang Rawat Inap Rumah Sakit Mitra Keluarga. *Jurnal Ilmu Keperawatan Indonesia*, 7(2), 239–247.
- [8] Haya, S. F., & Tambunan, K. (2022). Jurnal Ilmu Komputer, Ekonomi dan Manajemen (JIKEM). Jurnal Ilmu Komputer, Ekonomi Dan Manajemen (JIKEM), 1(1), 129–138.
- [9] Faturrahmah, E. (2017). Analisis Tingkat Kepuasan Pasien Terhadap Kualitas Pelayanan Petugas Medis Melalui Faktor Assurance di Ruang Rawat Inap RSUD Bima, NTB. Public Health Perspective Journal, 2(3), 254–261.
- [10] Yuswantina, R., Dyahariesti, N., Rahmawati, N. R., & Sukma, N. (2020). Analisis Tingkat Kepuasan Pasien Terhadap Pelayanan Kefarmasian Di Rumah Sakit Bhakti Wira Tamtama Semarang. *Indonesian Journal of Pharmacy and Natural Product*, 3(2), 59–67. https://doi.org/10.35473/ijpnp.v3i2.665
- [11] Ramadhani, K. M., Silaen, M., & Fitriani, A. D. (2021). Analisis Tingkat Kepuasan Pasien Rawat Jalan Di Rsu Imelda Pekerja Indonesia Medan. *Journal of Healthcare Technology and Medicine*, 7(2).
- [12] Hadiansyah, T., Pragholapati, A., & Aprianto, D. P. (2019). Gambaran stres kerja perawat yang bekerja di Unit Gawat Darurat. Jurnal Keperawatan BSI. Vol. 7 No. 2 September 2019. ISSN: 2338-7246, e-ISSN: 2528-2239. *Jurnal Keperawatan* 7(2), 50–58. http://ejurnal.ars.ac.id/index.php/keperawatan/article/ view/106.
- [13] Rikayoni. (2020). Gambaran Tingkat Kepuasan Pasien Terhadap Pelayanan Di Ruangan Intalansi Gawat Darurat Rumah Sakit Islam Siti Rahmah Padang Tahun 2019. *Menara Ilmu*, *XIV*(01), 126–134.
- [14] Syarif, M., & Udi, W. (2022). Pengaruh Mutu Pelayanan Terhadap Tingkat Kepuasan Pasien.

- PREPOTIF Jurnal Kesehatan Masyarakat, 6 (Agustus 2022).
- [15] Suryati. (2017). Faktor-Faktor yang Berhubungan dengan Kepuasan Pasien BPJS terhadap Pelayanan Rawat Jalan di Rumah Sakit Panti Wilasa Citarum Semarang. Jurnal Kesehatan Masyarakat (e-Journal) Volume 5, Nomor 5, Oktober 2017.
- [16] Karengkeng, L. C. (2022). Karakteristik Pasien Dan Hubungannya Dengan KepuasanTerhadap Pelayanan di Instalasi Gawat Darurat. Al-Asalmiya Nursing Jurnal Ilmu Keperawatan (Journal of Nursing Sciences) Volume 11, Nomor 1, Tahun 2022
- [17] Kuntoro, W. (2017). Kepuasan Pasien Terhadap Kualitas Pelayanan di Tempat Pendaftaran PasienRawat Jalan Puskesmas Kretek Bantul Yogy. Jkesvo (Jurnal Kesehatan Vokasional)Vol. 2 No 1 – Mei 2017.
- [18] Tjiptono, F. (2017). Pemasaran Jasa (Edisi I). Malang: Andi Publisher.
- [19] Warda, A. (2016). Hubungan Persepsi Mutu Pelayanan Dengan Tingkat Kepuasan Pasien Puskesmas Perumnas Di Kota Kendari Tahun 2016. Halu Oleo University.
- [20] Calisir F, Gumussory CA, Bayraktaroglu AE and Kaya B. Effects of Service Quality Dimensions on Customer Satisfaction and Return Intention in Different Hospital Types. Proceedings of the 2012 International Conference on Industrial Engineering and Operations Management, 2012.
- [21] Muninjaya A. Gide., (2016). Manajemen Kesehatan. Jakarta: Penerbit Buku Kedokteran EGC.
- [22] Fatrida, D., dan Andesma, S. (2019). Hubungan Waktu Dengan Tingkat Kepuasan Pasien Dalam Mendapatkan Pelayanan Kesehatan. *Jurnal Aisyiyah Medika* Volume 4, Nomor 1 Agustus 2019. Halaman 21-30.
- [23] Faizah, A. (2017). analisis Kepuasan Pasien Berdasarkan Bauran Pemasaran (People, Process, Physical Evidence) Di Instalasi Rawat Jalan Rumah Sakit Umum Haji Surabaya. Skripsi thesis, Universitas Arilangga.
- [24] Putra, A. K. M. (2022). Hubungan Waktu Tanggap (Respon Time) Dengan Kepuasan Pelayanan Kegawatdaruratan Pada Pasien Asma Di Unit Gawat Darurat. *Jurnal Penelitian Perawat Profesional*. Volume 4 Nomor 2, Mei 2022.
- [25] Yudanisa, P. (2019). Tingkat Kepuasan Pasien Peserta Badan Penyelenggara Jaminan Sosial terhadap Mutu Pelayanan Farmasi di Instalasi Rawat Jalan. JIKS. 2019;1(2):174–178.
- [26] Nababan, M. C. (2020). Analisis Kualitas Pelayanan Terhadap Kepuasan Pasien Di Puskesmas X Kota Jambi. *Jurnal Kesmas Jambi*. Vol. 4 No. 2 (2020): Vol. 4 No. 2 September 2020.

[27] Adian, Y. A. P. (2017). Gambaran Tingkat Kepuasan Pasien Terhadap Pelayanan Loket Pendaftaran Rawat Jalan di Puskesmas di Jawa Timur. JPH RECODE Oktober 2020; 4 (1): 43-51 http://e-journal.unair. ac.id/JPHRECODE.