

# Evaluation of service quality and complaint handling on outpatient satisfaction at the pharmaceutical installation of mokoyurli buol regional public hospital

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## ABSTRACT

Pharmaceutical installations have an important role in improving and providing effective services to achieve patient satisfaction. Patients' complaints occur if they receive a service that does not meet expectations. The hospital management must investigate the causes of patients' complaints. Solving the patients' complaints indicates that the hospital can fulfill their expectations. The purpose of this study is to examine the results of servqual on service quality, customer satisfaction index, and importance-performance analysis on service quality and complaint handling. This research employed a descriptive design with qualitative and quantitative approaches. The study was conducted by distributing questionnaires to 100 outpatients. The respondents' answers were then analyzed using the Cartesian diagram to obtain quadrants A, B, C, and D. Interviews were directly conducted with the complaint management and pharmaceutical installation staff to explore the attributes included in quadrant A (top priority). The patients were selected using the purposive sampling method. Finally, the data were analyzed using the servqual analysis, importance-performance analysis, and customer satisfaction index. The result shows that the service quality dimension has a negative gap value. The reliability dimension has the smallest gap while the responsiveness dimension has the largest gap. The result of the customer satisfaction index shows that outpatient satisfaction with the service quality and complaint handling has a value of 56.53%. Thus, this dimension is categorized as quite satisfying. The result of the importance-performance analysis shows that the dimensions included in quadrant A are the tangible evidence dimension, including poor physical facilities, and the responsiveness dimension, including patients' long waiting time to manage prescriptions and complaint handling.

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## 1. Introduction

The quality of pharmaceutical services provided by health staff in hospitals greatly affects satisfaction levels. Moreover, friendly health staff in hospitals who quickly provide services can affect the improvement of the quality of services (Rikomah, 2017). Outpatient satisfaction from pharmaceutical installation services can be measured using the servqual method. This method consists of five dimensions: tangible evidence, responsiveness, assurance, reliability, and empathy (Parasuraman et al., 1988). Tangible evidence is related to physical facilities, completeness, and the appearance of staff. Responsiveness is associated with the staff's speed to respond and help patients. Assurance is associated with the knowledge and politeness of the staff and can increase patient confidence. Meanwhile, reliability is associated with reliable and precise service providers. Finally, empathy is associated with staff who have a sense of concern for patients (Parasuraman et al., 1988).

Patients assess that service is considered quality if they are satisfied with the provided services. Providing services to patients is inseparable from their complaints which occur if they begin to get a service that does not meet their expectations. Patients submit their complaints because they want the hospital to reconsider its services. Patients' complaints that are immediately solved will make them more satisfied. According to (Pohan, 2007), patient satisfaction is the expected result of health services.

This research employed the servqual concept to describe satisfaction levels by investigating the difference between expectations and services. The differences would cause gaps, consisting of gaps 1, 2, 3, 4, and 5. The combination of gaps 1 to 4 is gap 5 (Windasuri & Susanti, 2016). Thus, this study only investigated the results of analyzing gap 5. Meanwhile, the outpatients' satisfaction levels were investigated using the customer satisfaction index (CSI) method. This method can determine overall patient satisfaction scores (Sumarwan, 2019). The servqual concept was then developed in the IPA model (importance-performance analysis) to measure consumers' desires and investigate a company's strategies to achieve a quality product. The IPA model consists of four parts and is bounded by two perpendicular and intersecting lines, X and Y lines; the lines are then described in a Cartesian diagram (Supranto, 2011). Research on the quality of services is necessarily conducted because the measurement of patient satisfaction is crucial. Therefore, satisfaction should be measured periodically and meticulously (Pohan, 2007).

This study aims to determine the quality of services from five dimensions, such as tangible evidence, reliability, responsiveness, assurance, and empathy, using the servqual method. The level of patient satisfaction was measured using the customer satisfaction index (CSI). Meanwhile, the quality of services and handling of outpatients' complaints were identified using the importance-performance analysis (IPA) method. Research on the quality of services for outpatients in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital was necessarily conducted. Based on outpatients' explanations and a brief interview with the pharmaceutical installation staff of the hospital, the most frequent complaints of outpatients deal with the inconvenient waiting rooms and long waiting-time for medicine. The satisfaction measurement is crucial and should be done along with the measurement of quality dimensions of health services.

## 2. Materials and Methods

This is a descriptive study that employed qualitative and quantitative approaches. This research was conducted by distributing questionnaires to outpatients who received services in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital and interviewing the complaint management staff and pharmaceutical installation staff of the hospital. The subjects of this study were outpatients who received services in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital. The patients were selected using the purposive sampling method. Meanwhile, the number of samples was selected using the Slovin formula, as follows (Ismail, 2018).

$$v = \frac{N}{1 + N(d^2)} \quad (1)$$

$$v = \frac{1046}{1 + 1046(0,1^2)}$$

$$= \frac{1046}{10,47} = 99,90 \text{ (only 100 samples)}$$

The data were collected by distributing questionnaires to the outpatients and interviewing the complaint management staff and the pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital. The questionnaires distributed to the patients contained performance and expectation statements to gain the servqual results, customer satisfaction index, and importance-performance analysis. Meanwhile, the complaint management staff and the pharmaceutical installation staff were interviewed to determine responses to the associated attributes in the main priority.

This study began with examining related journals and then observing the pharmaceutical installation of Mokoyurli Buol Hospital. The next step was distributing the questionnaires to

outpatients to test the questionnaires' validity and reliability. These questionnaires contained performance and expectation statements. These Questionnaires were adapted from (Parasuraman et al., 1988) and (Satibi et al., 2021). The valid and reliable questionnaires were then redistributed to the patients. The questionnaires completely answered by the patients were then analyzed. The last step was interviewing the complaint management staff and pharmaceutical installation staff about attributes in the main priority quadrants to determine responses to attributes that were necessarily improved and frequently complained by the patients.

## 2.1. Data Analysis

The data analysis began with the servqual analysis to investigate the differences between perceptions and expectations, known as the "gap" of services, by using the following formula (A. Parasuraman et al., 1985).

$$\text{Reality} - \text{Expectations} = \text{Gap} \text{ or } K - H = G$$

The gap is considered as positive when the  $K > H$ . Thus, the service is considered surprising and very satisfying.

Meanwhile, the gap is considered zero when  $K = H$ . Thus, the service is considered quality and satisfying

In contrast, the gap is considered negative when the  $K < H$ . Thus, the service is considered less quality and not satisfying.

The next analysis was the customer satisfaction index (CSI) to determine overall customer satisfaction scores by showing the service indicators. The steps to determine the CSI are as follows (Aritonang Lerbin R, 2005) in (Zulhazizah et al., 2018).

Calculating the mean importance score (MIS) obtained from the MIS of each indicator with the formula of

$$\text{MIS}_j = \frac{\sum_{i=1}^n y_{ij}}{n} \quad (2)$$

Calculating the mean satisfaction score (MSC) obtained from the MSC of each indicator with the formula of

$$\text{MSS}_j = \frac{\sum_{i=1}^n x_{ij}}{n} \quad (3)$$

Calculating the weight factors (WF) obtained from the presentation of the values of MIS of each indicator in the total of MIS of all indicators with the formula of  $\text{WF}_j = \frac{\text{MIS}_j}{\sum_{i=1}^k \text{MIS}_k} \times 100\%$  (4)

Determining the score weight (WS) obtained from the results of multiplication between the WF and the MSS with the formula of  $\text{WS}_j = \text{WF}_j \times \text{MSS}_j$

Determining the customer satisfaction index (CSI) with the formula of

$$\text{CSI} = \frac{\sum_{i=1}^k \text{WS}_j}{\text{HS}} \times 100\% \quad (5)$$

The final analysis employed the importance-performance analysis (IPA). The steps of this analysis are as follows (Supranto, 2011).

Calculating the adherence (Tki) levels between performance level and expectation levels with the formula of

$$\text{Tki} = \frac{X_i}{Y_i} \times 100\% \quad (6)$$

Tki = Adherence levels of the respondents

Xi = Performance assessment scores

Yi = Rating interest scores

Calculating the average scores of performance and customer expectations with the formula of

$$\bar{X} = \frac{\sum X_i}{n} \quad (7)$$

$$\bar{Y} = \frac{\sum Y_i}{n} \quad (8)$$

$\bar{X}$  = The average score of the implementation levels

$\bar{Y}$  = The average score of the consumer interests

n = Number of respondents

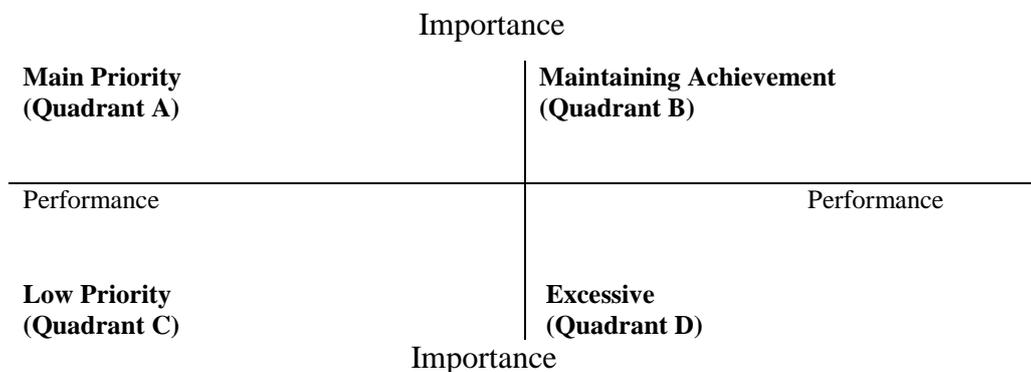
Furthermore, the values of X and Y were plotted on a Cartesian diagram. The formula to gain the boundar lines (X, Y) is as follows.

$$\bar{X} = \frac{\sum_{i=1}^N X_i}{K} \quad (9)$$

$$\bar{Y} = \frac{\sum_{i=1}^N Y_i}{K} \quad (10)$$

K = Number of attributes/facts that can affect patient satisfaction

The description of each item is divided into four quadrants, as follows (Martilla & James, 1977).



**Fig. 1.** Importance-performance analysis in Cartesian

Description:

Quadrant A refers to factors/attributes considered affecting patient satisfaction and pivotal service elements. The management could not execute the quadrant based on the patients' expectations. As a result, the services are disappointing or unsatisfying.

Quadrant B refers to basic service elements successfully implemented by the hospital. Thus, this success must be maintained because it is crucial and satisfying.

Quadrant C refers to factors with less important influence on the patients while its implementation is mediocre. Thus, the services are considered less important and less satisfying for the patients.

Quadrant D refers to factors with less important influence on patients, but its implementation is very excessive. As a result, the service is considered less important but highly satisfying the patients.

### 3. Results and Discussion

This research was conducted in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital to examine 100 outpatients of the 1,046 total population. The results of the validity test showed that the questionnaires about reality and expectations were valid. Each item is considered valid if the  $r\text{-table} < r\text{-count}$  (Herlina, 2019). The result of the reliability test is above 0.6 indicating that the questionnaires are good.

#### 3.1 Servqual Analysis

The servqual analysis or gap of outpatients was conducted by investigating five dimensions: tangible evidence, reliability, responsiveness, assurance, and empathy. The results of the analysis are

summarized in the following Table 1. Table 1 shows that the average score between reality and expectations on the tangible evidence dimension is negative (-0.6). The results of this study are in line with the research by (Fan et al., 2017), which has discovered that patients' perception of the quality of service could not meet their expectations. The attribute with the smallest gap is the easily accessible location of the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital. Meanwhile, the attribute with the largest gap is the physical facilities. The location of the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital has a negative value with the smallest value because some patients have argued that another hospital has a pharmaceutical installation nearer to the examination room. Therefore, the patients have considered that the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital is more distant than that of another hospital. This research agrees with (Yuliati et al., 2016), who discovered that the smallest gap refers to the easily accessible and strategic location of outpatient pharmaceutical installations.

The attribute with the largest gap is related to physical facilities. The patients stated that physical facilities, such as a waiting room in the pharmaceutical installation of the hospital, were inadequate and hot. They also sometimes had to stand when taking the medicines due to an insufficient number of seats. These findings are in line with the research by (Yuliati et al., 2016), which has revealed that the largest gap in the tangibility dimension is an attribute of physical facilities, such as buildings, waiting rooms, and uncomfortable environments for outpatient patients. The overall score of the tangibility dimension shows a negative gap. This finding agrees with (Nangaro et al., 2019), who have discovered several negative gaps in the tangible evidence dimension.

Table I shows that the average score of the gap analysis on the reliability dimension is -0.1. This score indicates a difference between reality and expectations. The attribute with the smallest gap refers to clear service procedures in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital. Meanwhile, the attribute with the largest gap refers to the explanation about medicine prices. The attribute with the smallest gap (-0.05) refers to clear service procedures in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital. Some patients argued that a pharmaceutical installation located inside the hospital building has made them confused to find it when submitting the prescription. It probably occurs because the information of the pharmaceutical installation is covered by other patients who are standing in front of the windows of the installation.

The attribute with the largest gap (-0.2) is to the pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital who explain the prices of the received medicine. The pharmaceutical installation staff only explains medicine prices to general patients (non-health insurance). In contrast, the staff does not explain medicine prices to patients with health insurance (BPJS) although some of them want to know the prices. As a result, some patients showed disagreement in the reality part. Meanwhile, some patients showed disagreement, agreement, and strong agreement in the expectation part. The reliability dimension is the dimension with the smallest gap. This finding disagrees with research by (Pareraway et al., 2016), which has discovered that the reliability dimensions give the lowest satisfaction to outpatients with the biggest gap.

Table I shows that the average score of the gap analysis on the responsiveness dimension is -0.84. The attribute with the smallest gap (-0.21) is the pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital who always help patients gladly. The difference between reality and expectations leads to the emergence of a negative gap in this attribute. The attribute with the largest gap (-1.81) is the patients' short waiting time to manage prescriptions. This finding shows that general patients do not perceive the expected reality in this attribute. Outpatients consider that they have to wait a long to manage their prescription. The connection of outpatient prescription, inpatient, and emergency rooms is one of the causes of long waiting times. This finding agrees with research by (Nangaro et al., 2019), which has deployed that the reliability dimension has a negative value.

Furthermore, Table I shows that the average score of the gap analysis on the assurance dimension is -0.16. The attribute with the smallest gap (-0.08) is the patients' assurance to receive the correct medicine. This attribute is associated with the largest gap referring to the patients' safety feeling when delivering the prescription to the pharmacist. Some of the patients showed disagreement answers. They explained that they did not know if they had delivered the prescriptions to a pharmacist or not. According to some patients, they will still feel safe even though the medicine is given by a pharmacist's assistant. Meanwhile, in the part of expectations, some patients have suggested that the pharmacists should introduce themselves and tell the patients if the one who is handling the medicine is a

pharmacist or not. However, the limited number of pharmacists disables them to serve many patients; thus, they are sometimes assisted by a pharmacist assistant to provide services. This finding agrees with research by (Sulo et al., 2019), which has revealed that the assurance dimension has a negative gap, which signifies that outpatients' satisfaction in the pharmaceutical installation has not been fulfilled.

**Table 1.** The servqual analysis or gap of outpatients was conducted by investigating five dimensions Tangible evidence, reliability, responsiveness, assurance, and empathy

| <b>Dimensions</b>   |                |                    |              |
|---|----------------|--------------------|--------------|
| <b>Tangible evidence</b>  | <b>Reality</b> | <b>Expectation</b> | <b>Gap</b>   |
| The pharmaceutical installation staff of Mokoyurli Buol Hospital have an attractive appearance.   | 3.38           | 3.62               | -0.24        |
| The needed medicine is always available.  | 3.24           | 3.65               | -0.41        |
| The location of the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital is easily accessible.                            | 3.47           | 3.61               | -0.14        |
| The pharmaceutical installation of Mokoyurli Buol Regional Public Hospital has modern equipment and technology, such as computers.          | 3.34           | 3.65               | -0.31        |
| Physical facilities, such as waiting rooms and buildings, are representative.   | 1.76           | 3.66               | -1.9         |
| <b>Average Scores</b>   | <b>3.03</b>    | <b>3.63</b>        | <b>-0.6</b>  |
| <b>Reliability</b>  | <b>Reality</b> | <b>Expectation</b> | <b>Gap</b>   |
| The pharmaceutical installation of Mokoyurli Buol Regional Public Hospital provides services on a punctual schedule.                        | 3.47           | 3.61               | -0.14        |
| Service procedures in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital are clear.                                 | 3.52           | 3.57               | -0.05        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital provides information easily understood by patients.        | 3.61           | 3.67               | -0.06        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital provides reliable information.                             | 3.56           | 3.63               | -0.07        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital gives the medicine prices received by the patients.        | 1.85           | 2.05               | -0.2         |
| <b>Average Scores</b>   | <b>3.20</b>    | <b>3.30</b>        | <b>-0.1</b>  |
| <b>Responsiveness</b>   | <b>Reality</b> | <b>Expectation</b> | <b>Gap</b>   |
| Patients do not have to wait long to manage the prescription.   | 1.82           | 3.63               | -1.81        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital always helps me gladly.                                    | 3.44           | 3.65               | -0.21        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital clearly explains when medicines will be given to patients. | 2.78           | 3.58               | -0.8         |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital actively explore medication information for patients.      | 3.14           | 3.55               | -0.41        |
| The pharmaceutical installation of Mokoyurli Buol Regional Public Hospital has enough staff during busy hours.                              | 2.59           | 3.57               | -0.98        |
| <b>Average Scores</b>   | <b>2.75</b>    | <b>3.59</b>        | <b>-0.84</b> |

**Table 1 (Continue).** The servqual analysis or gap of outpatients was conducted by investigating five dimensions Tangible evidence, reliability, responsiveness, assurance, and empathy

| <i>Assurance</i>  | <b>Reality</b> | <b>Expectation</b> | <b>Gap</b>   |
|---|----------------|--------------------|--------------|
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital are always polite and friendly when providing services to patients.    | 3.42           | 3.60               | -0.18        |
| I'm sure that I receive medicines correctly.  | 3.56           | 3.64               | -0.08        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital have good knowledge to answer my questions about medicine.             | 3.47           | 3.64               | -0.17        |
| The pharmaceutical installation of Mokoyurli Buol Regional Public Hospital has an outstanding reputation.   | 3.41           | 3.59               | -0.18        |
| I feel safe when the pharmacists give me the medicine.  | 2.39           | 2.58               | -0.19        |
| <b>Average Scores</b>   | <b>3.25</b>    | <b>3.41</b>        | <b>-0.16</b> |
| <i>Empathy</i>  | <b>Reality</b> | <b>Expectation</b> | <b>Gap</b>   |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital always understand the needs for my treatment.                          | 3.38           | 3.59               | -0.21        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital tries to understand patients' complaints.                              | 3.49           | 3.69               | -0.2         |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital willingly help and give solutions to the problems of my treatment.     | 3.47           | 3.75               | -0.28        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital gladly find an alternative medicine following my financial conditions. | 3.17           | 3.45               | -0.28        |
| The pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital observe patients' faces when handing medicine.                         | 3.25           | 3.55               | -0.3         |
| <b>Average Scores</b>   | <b>3.35</b>    | <b>3.60</b>        | <b>-0.25</b> |

Source: Primary data processed in 2020

Table I shows that the average score of the gap analysis on the empathy dimension is -0.25. The attribute with the smallest gap (-0.2) is the pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital who try to understand patients' complaints. This attribute still has a negative gap because some respondents' answers in the reality part showed disagreement with such a statement. However, the respondents' answers in the expectation part showed agreement with such a statement. This finding indicates that the pharmaceutical installation staff should more comprehensively understand the patient's complaints. The attribute with the largest gap (-0.3) is the pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital who deliver medicines by observing patients' faces. During the pandemic, medicine delivery is hindered by the window; thus, the staff could not maximally observe patients' faces when handing over medicines. Such a condition has triggered some patients to argue that the staff does not observe their faces when handing over the medicines. Patient satisfaction based on the empathy dimension is inseparable from the staff's sense of care to the patients who need help (Sari et al., 2019).

### 3.2. Customer Satisfaction Index (CSI)

The results of the CSI analysis show that patient satisfaction from the service quality and complaint handling is categorized as fairly satisfying with a value of 56.53%. The outpatient satisfaction from the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital can increase along with the improvement of quadrant A in the importance-performance analysis method.

### 3.3. Importance Performance Analysis (IPA)

The IPA method is used to describe performance and expectations (Sari, 2018). The description of each item is divided into four quadrants, as follows:

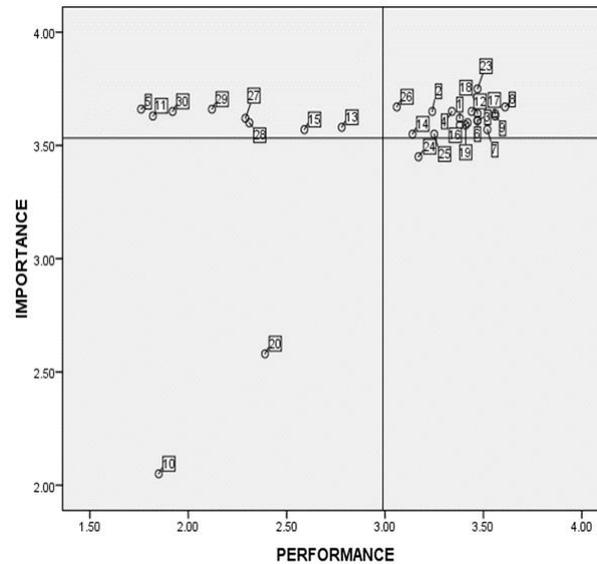


Fig. 2. Cartesian Diagram

#### a) Quadrant A

The attribute in the tangible evidence dimension included in quadrant A is the physical facilities. The patients have complained about the waiting room and insufficient numbers of seats that made them stand up when waiting for the medicines. This finding agrees with research by (Nangaro et al., 2019), which has discovered that seats in a pharmaceutical installation should be added to accommodate many patients because some of them must stand up while waiting for the medicines.

The interview was conducted after the respondents' answers to the statement of performance and expectations had been analyzed. The interview with the pharmaceutical installation staff was aimed to determine responses of attributes in quadrant A. In the interview, the coordinator of the outpatients pharmaceutical installation explained that the waiting room was inadequate, and the pharmaceutical installation was still under construction. These complaints had been confirmed to the management. The result of the interview with the head of the pharmaceutical installation shows that the outside waiting room makes the patients less comfortable. In fact, the outside waiting room is only used during the pandemic. The lack of seats sometimes makes the patients stand up when waiting for medicines. Cleanliness and comfort are important to create patients' high loyalty to the hospital (Chairunnisa & Puspita, 2017). (Megawati et al., 2016) have revealed that one of the patients' complaints is about waiting room facilities; in fact, the waiting room is a service that affects patient satisfaction.

The attribute in the responsiveness dimension included in quadrant A is the patients' long waiting time when managing their prescriptions. The patients stated that they had to wait a long time for medicines, especially when the queue was a lot. This finding agrees with the research by (Astuti & Kundarto, 2018), which has discovered that one of the priorities necessarily fixed is the prescription service that should be provided precisely and quickly by the pharmacists. Respondents' complaints related to the long waiting time cause long queues of patients, especially at certain hours. The coordinator of the outpatient pharmaceutical installation explained that the process of medical services was relatively long because the pharmacists served the inpatients, outpatients, and emergency rooms. The medicine administration is prioritized for patients who are newly hospitalized and administered as cito patients. There were initially two pharmaceutical counters inside the hospital building. However, during the Covid-19, the counters were moved outside the building.

Based on the results of the interview, the long waiting time for medicines is caused by the availability of one counter. All prescriptions for outpatients, inpatients, and emergency rooms are

connected in one place to submit the prescription. This finding is in line with the research by (Purwanto et al., 2015), which has discovered that the long waiting time occurred because the pharmaceutical installation of Blambangan Regional Public Hospital only uses one counter for the queue system.

The attribute of the responsiveness dimension categorized in quadrant A is the pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital who clearly explain when the medicine will be given. The patients said that they were not informed about how long they should wait. The outpatient coordinator and the head of the pharmaceutical installation stated the pharmaceutical installation staff always informed the patients about how long they should wait for medicines. However, since the waiting room is hot and less comfortable, the patients become impatient. The head of the pharmaceutical installation also argued such information should be provided to patients. Informing the exact duration of waiting time depends on each individual or service provider.

The next attribute of the responsiveness dimension is the adequate number of pharmaceutical installation staff at Mokoyurli Buol Regional Public Hospital during rush hours. The average answers of the respondents showed disagreement and strong disagreement with the statement. The patients argued that one of the causes of the long waiting time for medicines was an inadequate number of pharmaceutical installation staff, who serve patients.

This finding is in line with the research by (Sulo et al., 2019), which has discovered that the cause of patients' long queues is the lack of pharmaceutical installation staff during the rush hours. The results of the interview with the outpatient coordinator and the head of pharmaceutical installation show that the hospital has many pharmaceutical installation staff. However, the connection of outpatient, inpatient, and emergency rooms makes the pharmacy management interrupted. The emergence of Covid-19 has made the pharmaceutical installation staff work in shifts. The reduction of pharmaceutical installation staff causes the patients to think that the number of staff is insufficient to serve the patients during rush hours.

The next attribute categorized in quadrant A is the handling of complaints. The patients argued that they had frequently complained about the less convenient waiting room. However, their complaints were not solved quickly. As a result, they have not seen any fair and reasonable solutions for their complaints. The complaint handling flow in Mokoyurli Buol Regional Public Hospital describes that complaints from patients can be directly delivered to the head of the pharmaceutical installation. During the interview, the pharmaceutical installation staff, who firstly handle patients' complaints, stated that the complaint about the improvement of the pharmaceutical installation had been done by forwarding the complaint to the hospital management. If the complaints are unresolved at that time, they will be discussed with the management of public and employment affairs.

The next attribute is the patients' ignorance about the hospital's phone number, social media, or email address. The lack of information from public relations leads to the patients' ignorance to contact the hospital at any time when they have complaints about services. The management staff who handles complaints necessarily regards the issue of patients' lack of information about the hospital's social media to deliver their complaints. This finding is in line with the research by (Muhadi, 2016), which has revealed that since technological information, such as social media, has increasingly advanced, the hospital should adjust and develop social media-based services.

#### **b) Quadrant B**

The attribute in the tangibility dimension categorized in quadrant B is the pharmaceutical installation staff who always wear uniforms as scheduled. The medicine needed by the patients is always available. However, some of them sometimes should buy the medicine outside the hospital because their medicine is out of stock. Fortunately, such an incident rarely occurs. The location of the pharmaceutical installation of the Hospital is very close to the hospital lobby. After the patients complete the medical examination, they can easily reach the pharmaceutical installation.

The attribute in the reliability dimension categorized in quadrant B is the pharmaceutical installation that always provides punctual services. Outpatients who come in the morning mostly complete their medical examination at 9 or 10 AM. At these hours, the pharmaceutical installation staff have been ready to service the patients. The pharmaceutical installation of Mokoyurli Buol Hospital has clear service procedures because the process of prescription submission is simple and

stated clearly in the place of prescription submission. The pharmaceutical installation staff explains the information to the patients using an easily understood language.

The next attribute in the responsiveness dimension included in quadrant B is the pharmaceutical installation staff who always gladly help the patients and actively search for information about the treatment for them. The attribute in the assurance dimension is the pharmaceutical installation staff who are always polite and friendly when serving the patients. The pharmaceutical installation staff have good knowledge so that they can easily answer the patients' questions and explain as best as possible.

The attribute in the empathy dimension categorized in quadrant B is the pharmaceutical installation staff who always try to understand the patients' needs of the treatment and their complaints. The pharmaceutical installation staff always observe the patients' faces when delivering medicines to ensure that the one who is receiving the medicines is the patient as written in the prescription. Overall, the gap analysis had discovered that all attributes in quadrant B had negative values. However, after they were analyzed using the Cartesian diagram, the attributes in quadrant B show the satisfying services.

#### c) Quadrant C

The explanation of medicine prices less influences the patients because patients with health insurance do not receive explanations about the prices of their medicine. Although in the expectation part (importance), some patients also want to know the medicine prices. The next attribute is the patients' safety feeling when receiving medicines from a pharmacist. Although the medicines are given by a pharmacist assistant, they still feel safe. A pharmacist assistant constitutes an officer who has education with a pharmacy background that encourages the patients to feel safe when receiving medicines. In the expectation part (importance), some patients expect that the pharmacist will introduce himself before directly giving the medicines to them. The patients sometimes do not know who gives the medicines, a pharmacist or a pharmacist assistant.

#### d) Quadrant D

Quadrant D refers to a quadrant with a less important influence on the patients. The interviews were conducted to determine the responses of pharmaceutical installation staff and complaint management staff to the patients' complaints about quadrant A which was the main priority.

The attribute in this quadrant is the pharmaceutical installation staff's willingness to find an alternative medicine by considering the financial conditions of the patients. Quadrant D indicates that although this attribute is not considered very important by the outpatients, the pharmaceutical installation staff provides the best service (Fandy, 2012). Service providers should improve the performance of the attributes that require more concerns (Yuswantina et al., 2020).

## 4. Conclusion

The result of servqual analysis shows that the quality of services has a negative gap. The smallest gap is reliability, and the biggest gap is responsiveness. The results of the customer satisfaction index (CSI) show that the quality of services and complaint handling in the pharmaceutical installation of Mokoyurli Buol Regional Public Hospital are categorized as fairly satisfying with a satisfaction value of 56.53%. The result of the importance-performance analysis denotes eight attributes are included in quadrant A; thus, they are the priorities of the repair.

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### Competing Interests

The authors declare no conflict of interest.

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## References

- Aritonang Lerbin R. (2005). *Kepuasan Pelanggan*. Gramedia, Jakarta.
- Astuti, N. K., & Kundarto, W. (2018). Analisis kepuasan pasien BPJS rawat jalan terhadap pelayanan Instalasi Farmasi Rumah Sakit UNS. *JPSCR : Journal of Pharmaceutical Science and Clinical Research*, 3(2), 84. <https://doi.org/10.20961/jpscr.v3i2.22162>
- Chairunnisa, C., & Puspita, M. (2017). Gambaran Kepuasan Pasien Rawat Jalan terhadap Pelayanan di Rumah Sakit Islam Jakarta Sukapura (RSIJS) Tahun 2015. *Jurnal Kedokteran Dan Kesehatan*, 13(1), 9. <https://doi.org/10.24853/jkk.13.1.9-27>
- Fan, L., Gao, L., Liu, X., Zhao, S., Mu, H., Li, Z., Shi, L., Wang, L., Jia, X., Ha, M., & Lou, F. (2017). Patients' perceptions of service quality in China: An investigation using the SERVQUAL model. *PLOS ONE*, 12(12), e0190123. <https://doi.org/10.1371/journal.pone.0190123>
- Fandy, T. (2012). *Service management mewujudkan layanan prima*. Andi Yogyakarta.
- Herlina, V. (2019). *Panduan praktis mengolah data kuesioner menggunakan SPSS*. PT Elex Media Komputindo, Jakarta.
- Ismail, F. (2018). *Statistika untuk penelitian dan pendidikan Ilmu-ilmu Sosial*. Prenadamedia Group, Jakarta.
- Martilla, J. A., & James, J. C. (1977). Importance Performance Analysis. *Journal of Marketing*, 41(1), 77–79.
- Megawati, Hariyanto, T., & Rachmi, A. T. (2016). Hubungan dimensi mutu pelayanan farmasi rawat jalan dengan kepuasan pasien di RS Baptis Batu: peran kepesertaan asuransi. *Jurnal Aplikasi Manajemen*, 14(1). <https://doi.org/10.18202/jam23026332.14.1.16>
- Muhadi, M. (2016). Studi penanganan komplain pasien di Instalasi Rawat jalan (IRJ) RSUD Dr. Soetomo. *Jurnal Manajemen Kesehatan STIKES Yayasan RS. Dr. Soetomo*, 2(1), 8–16.
- Nangaro, J., Citraningtyas, G., & Sudewi, S. (2019). Analisis tingkat kepuasan pasien rawat jalan terhadap kualitas pelayanan obat di Instalasi Farmasi RSUD Liun Kendage Tahuna. *PHARMACON*, 8(2), 406. <https://doi.org/10.35799/pha.8.2019.29307>
- Parasuraman, A. P., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A Multiple-item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64(1), 12–40.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41. <https://doi.org/10.2307/1251430>
- Pohan, I. S. (2007). *Jaminan Mutu Layanan Kesehatan: Dasar-dasar Pengertian dan Penerapan*. EGC, Jakarta.
- Purwanto, H., Indiati, & Hidayat, T. (2015). Faktor penyebab waktu tunggu lama di pelayanan instalasi farmasi rawat jalan RSUD Blambangan. *Jurnal Kedokteran Brawijaya*, 28(2), 159–162.
- Rikomah, S. E. (2017). *Farmasi Rumah Sakit*. Deepublish, Yogyakarta.
- Sari, A., Aroni, D., & Hasanah, I. (2019). Tingkat kepuasan pasien rawat jalan terhadap pelayanan kefarmasian di Instalasi Farmasi RSUD Datu Beru Takengon. *Jurnal Dunia Farmasi*, 4(1), 45–52. <https://doi.org/10.33085/jdf.v4i1.4562>
- Sari, F. (2018). *Metode dalam Pengambilan Keputusan*. Deepublish, Yogyakarta.
- Satibi, Prasetyo, S. D., Rokhman, M. R., & Aditama, H. (2021). *Penilaian Mutu Pelayanan Kefarmasian di Puskesmas*. Gadjah Mada University Press, Yogyakarta.
- Sulo, H. R., Hartono, E., & Oetari, R. A. (2019). Analisis pengaruh kualitas pelayanan terhadap kepuasan pasien rawat jalan di Instalasi Farmasi Rumah Sakit X Kota Surakarta. *Jurnal Ilmiah Manuntung*, 5(1), 81. <https://doi.org/10.51352/jim.v5i1.226>
- Sumarwan, U. (2019). *Pemasaran strategik: perspektif perilaku konsumen dan marketing plan*. PT Penerbit IPB Press, Bogor.
- Supranto, J. (2011). *Pengukuran tingkat kepuasan pelanggan untuk menaikkan pangsa pasar jilid 1*. Rineka Cipta, Jakarta.
- Windasuri, H., & Susanti, H. (2016). *Excellent Service: The Secret of Building a Service Organization*. PT Gramedia Pustaka Utama, Jakarta.

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- Yuliati, Y., Magdalena, E., & Pratiwi, D. (2016). Analisis kepuasan pasien farmasi rawat jalan menggunakan metode servqual (studi kasus di Rumah Sakit Swasta X Jakarta). *Indonesian Journal of Nursing Health Science*, 1(1), 1–6.
- 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).  
<https://doi.org/10.35473/ijpnp.v3i2.665>
- Zulhazizah, Yanuar, F., & Lestari, R. (2018). Analisis tingkat kepuasan masyarakat terhadap kualitas pelayanan jasa RSUD DR. Rasidin Padang. *Jurnal Matematika UNAND*, 7(1), 149.  
<https://doi.org/10.25077/jmu.7.1.149-158.2018>