

A Study On In-Patient Satisfaction In Uki Hospital Using Servqual And Importance Performance Analysis

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Abstract: Hospital services are one of the services that are needed by the community regardless of one's social status. According to government regulations, hospitals are health facilities that provide health services evenly, prioritizing efforts to cure diseases and health recovery, and prevention of diseases in a referral order, and can be used for energy education and research. Hospitals continue to experience an increase in demand for outpatient care and hospitalization. The objectives of this study was to find out whether there is a gap between perceived quality of service and the quality of services expected by the inpatients, and identifying variables that must be prioritized by the hospital. Descriptive survey study design was adopted for this study. The respondents in this study were patient hospitalized at UKI General Hospital. Non probability purposive sampling technique was used and 172 patients was selected through face to face interview using a structured questionnaire. The SERVQUAL model with five dimensions namely: tangibility, responsiveness, assurance, empathy and reliability were used to best describe the service quality of the hospital. Data was collected from October 2018 to February 2019. Data analysis techniques using Importance Performance Analysis with SPSS software version 23.0. Based on the study finding, in Quadrant I (Concentrate Here) there were tangible variables considered by patients of the UKI General Hospital to be important but in fact the tangible performance of the UKI General Hospital was considered lacking by patients. In quadrant II (Keep Up the Good Work), there is a reliability and assurance variable where the variable is considered by the patients of the UKI General Hospital important and the performance of these variables is in accordance with the patient's expectations. In quadrant III (Low Priority), there is a responsiveness variable. Where the variable is considered by the patient to be less important and its performance is felt by ordinary patients. In quadrant IV (Possible Overkill), empathy variable where the patient's expectations for this assurance variable are less important and their performance is considered good by patients at UKI General Hospital.

Keywords: SERVQUAL, Customer satisfaction, Importance Performance Analysis, In-patient, Cartesius Diagram, Teaching Hospital

I. Introduction

The need for quality hospital services is increasing along with the improving economy and public health status. In recent years, the Indonesian hospital industry has experienced significant developments. According to data from the Ministry of Health (2019), currently the number of hospitals is 2820 and 1248 are privately owned. The growth of public hospitals over the past 6 years is not as fast as the growth of private hospitals. The average growth of public hospitals is 0.4%, due to a decrease in the number of non-profit private hospitals, while private hospitals are 15.3%. With the issuance of various laws and regulations that aim to encourage investment and create better business conditions and hospital services that business people are now increasingly actively investing in the hospital industry. However, this development is certainly not without obstacles. Various problems such as limited human resources, uneven distribution of hospitals, complaints of the high cost of medical treatment, services, and operational problems which later led to the emergence of a dispute between the hospital and patients who were not satisfied often appeared in various print and electronic media. In-patient service is one of the services that is the main concern of hospitals all over the world, because the more number of inpatients with increasing compliance days yhat could be a predictable source of large market share that will continue to increase improved hospital finances in the future. Besides choosing for hospitalization, hospitals must provide more services, this is also related to the policy direction of making UKI hospitals become world-class hospitals that are able to imply hospital management standards that are recognized and agreed upon by the world. At this time the people who use hospital services are not only

concerned with the end result, in the form of healing themselves or their families, but they have assessed what they saw and felt when they were hospitalized. Observing these problems, then in fulfilling the expectations of his patients the hospital management cannot act in accordance with his own will in deciding all operational policies, but must be able to realize the best service, trust and commitment to his patients if he does not want to be left as the main customer in the future which will come. The quality of services that is stated above is one of the important elements in the service delivery, especially in the hospitals. This is due to the one of the tools that is used to measure the performance of service organizations (Hope and Muhlemann, 1997). Therefore, the management has to pay best attention into it. To determine the quality of service to be achieved by a service organization, it must first have a clear purpose. There are many definitions are given by the experts on the quality of the service. The quality itself is a form of attitude, however it is not the same as the satisfaction, that is the comparison between expectations and actual performance. Both of the quality of service and satisfaction are formed from different things. Furthermore, it is stated that the most common understanding of differences in service quality and satisfaction is that service quality is a form of attitude, the assessment carried out for a long time, while satisfaction is a measure of a specific transaction. The difference between service quality and satisfaction leads to a way of disconfirmation that is operationalized. In measuring the quality of service compared what it should be obtained, while measuring satisfaction that is compared it's what customers might get (Parasuraman, at al., 1998). Service quality is currently a focus for many corporate and marketing

strategies, with a high level of service being perceived as a means for an organisation to achieve competitive advantages (Mehta, Lalwani & Han, 2000). Brady and Cronin (2001) opine that despite a multitude of research and debates around the concept of service quality, conceptual work on service quality can be described as divergent. Companies are focusing on areas in their operations that might give them an edge over their competitors and the key area has been the delivery of high levels of service quality (Mehta, et al., 2000). Service quality standards require customers and suppliers to interact in a manner which will create mutual relationships. Customers tend to evaluate service providers with the type of service they provide using certain criteria to assess service quality independently.

Furthermore, the assessment of service quality is the level and direction of differences between customer perceptions and expectations. This difference between perception and expectation is the basis of the emergence of the concept of gap (perception-expectation gap) and is used as the basis for the scale of Servqual (Parasuraman, et. Al. 1985; 1988). The SERVQUAL Model, (Parasuraman, Zeithaml & Berry 1985; Zeithaml, Parasuraman & Berry, 1990) identified ten detailed dimensions of service quality: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer and access. Originally containing 10 dimensions, the SERVQUAL model was reduced to five dimensions and is often used in the measurement of service quality.

Table 1. Determinants of Service Quality

Dimensions	Descriptions
Tangibles	Physical plant, equipment and personnel appearance.
Reliability	Ability to perform service dependably and accurately.
Responsiveness	The will to help customers and render prompt service.
Assurance	Knowledge and courtesy of employees and their ability to convey trust and confidence. ability to inspire trust and confidence.
Empathy	Caring, individualized attention the firm provides its customers.

Tangibility includes physical facilities, equipment, employees and means of communication. Reliability, namely the ability of the company to provide promised services in a timely and satisfying manner. Responsiveness, namely the ability of staff to help customers and provide responsive service. Assurance, including the ability, politeness and trustworthiness of the staff, free from danger, risk or doubt. Finally Emphaty, includes ease in making good communication relationships and understanding the needs of customers. The perceived service quality is a comparison between customer expectations and perceptions of the services provided (Parasuraman, Berry, and Zeithalm 1985). This definition has been accepted and used widely and publicly. The analysis of importance performance according to Kotler can be used to rank various elements of a collection of services and identify the actions needed. Martilla and Jams in (Zeithaml et. Al. 1990) suggest the use of the Importance-Performance Analysis method in measuring the level of service satisfaction. In this method, a measurement of the level of suitability is needed to find out how much the customer are satisfied with the performance of the company, and how much the service provider understand what the customer wants to be served by the provider. In the Importance Performance Analysis analysis, mapping into 4 quadrants for all variables that affect service quality in the Cartesian diagram (Martilla and James 1977) as shown below:

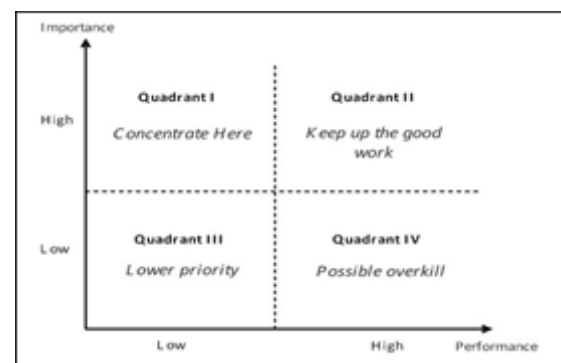


Figure 1. Plotting of Importance Performance Analysis

The strategies that can be carried out regarding the position of each variable in the four quarters can be explained as follows:

1. Quadrant 1 (Concentrate Here) This is an area that contains factors that are considered important by the customer, but in reality they are not yet in line with customer expectations (the level of satisfaction obtained is still low). The variables included in this quadrant must be increased.
2. Quadrant 2 (Keep Up The Good Work) This is an area that contains the factors that are considered important by the customer, and these factors are in accordance with what he feels so that the level of satisfaction is relatively higher. The variables included in this quadrant must be maintained because all of these variables make the product or service superior in the eyes of the customer.
3. Quadrant 3 (Low Priority) This is an area that contains factors that are considered less important by customers, and in reality the performance is not too special. Increasing variables included in this quadrant can be reconsidered

because the effect on the benefits felt by customers is very small.

4. Quadrant 4 (Possible Overkill) This is an area that contains factors that are considered less important by customers, and felt to be too excessive. The variables included in this quadrant can be reduced so that the company is able to save the costs.

Referring to the opinions of experts related to the improvement of service quality mentioned above and based on observations made by researchers in the UKI Hospital, there are several things of complain come from the inpatients such as hospital cleanliness, incomplete medical facilities, complaints of dissatisfied patients that were not quickly responded to, and employee behavior less friendly non-medical. Therefore, the author wants to conduct a study in order to measure the service performance with patient perceptions in the UKI General Hospital. Thus, the purpose of analysing customers' satisfaction levels serves to confirm the degree of satisfaction or dissatisfaction arising from high or low service quality levels (Tahir & Baker, 2007).

II. Objectives of the Study

This study wants to find out whether there is a gap between perceived quality of service and the quality of services expected by the inpatients, and identifying variables that must be prioritized by the hospitals. Specifically, it aims to answer the following questions:

1. Are there gaps between perceived quality of service and the quality of services expected by inpatients.
2. What variables should be prioritized in the hospital?

III. Methodology

In this study the data collection through structured questionnaire is carried out by trained young doctors who are carrying out clerkship duties at the Department of Public Health and Community Medicine, Faculty of Medicine, UKI. The questionnaire designed was adjusted to Parasuraman, et al., (1998), known as SERVQUAL, using a 5 point Likert Scale (strongly important/strongly good = 5), (important/good = 4, (quite important/good enough = 3), (unimportant/not good = 2), and (strongly unimportant/strongly bad = 1). The number of attributes are 33 and demographic data. The question and answer directly with interview to the patients (face to face) to obtain various data that relevant to the research, such as the process of service to the inpatients, etc. Qualitative data that is not expressed in the form of numbers but in the form of information, such as hospital service procedures. Data was collected from October 2018 to February 2019. An informed consent also distributed to patients prior to data collection. Sample according to Supranto (2011) states that to obtain a good sample size can be determined by means, the number of questions in the questionnaire multiplied by five (5) to (10). So in determining the sample, the calculation is 33 questions x 5 = 165, then the study sample used was 165 samples. In its implementation to avoid incomplete data collection, 172 samples were taken. The non probability purposive sampling technique. This is done because the sample is chosen on the basis of the main feature (inclusive), which must be at least three days hospitalized, must be aged above 18, and its readiness to be respondent. The questionnaire validity test with Pearson Product Moment

method with a valid criteria when the count $r > 0.361$ (Lerbin R, 2005) and reliability testing with reliable criteria when Cronbach's Alpha value > 0.6 . Reliability tests are carried out externally by test-retest, namely by testing the same instrument twice at the same respondent at different times. If the positive correlation coefficient is significant, then the instrument is declared reliable (Sugiyono 2007). While the overall assessment criteria are based on the Minnesota Satisfaction Questionnaire - MSQ (Golbasi, et.al 2008). Ethical approval from the institutional review board of the hospital was acquired prior to the commencement of the study.

IV. Results and Discussion

1. Test Validity and Reliability

Based on the validity test, it was found that all the variables studied produced a correlation ($r \geq 0.3$) which meant the instrument was said to be valid. Reliability test results indicate that all determinants of service quality produce Cronbach Alpha coefficients ($\alpha \geq 0.6$). This shows that the measurement of the research variables is reliable and can provide consistent results, if re-measurements are made on the same subject.

2. Characteristics of Respondents

From 172 respondents, the patient characteristics data were obtained as follows :

Table 2. Demographic characteristics of patients (n=172)

No.	Variables	Frequency (%)
1.	Sex:	
	Male	47.7 %
	Female	52.3 %
2.	Working Status:	
	Civil Servant/Army	9.8 %
	Retired	8.8 %
	Private	27.3 %
	Entrepreneur	13.4 %
	Students	11.0 %
	Housewife	20.9 %
3.	Unemployment	8.8 %
	Reasoning choosing the hospital:	48.8 %
	Location	9.3 %
	Costs	8.7 %
	Doctors	19.9 %
	Services	2.9 %
	Company	2.3 %
	Comfort	6.4 %
	Facilities	1.7 %
	Others	
4.	Origin of in-patients	21.5 %
	First Class	36.6 %
	Second Class	41.9 %
	Third Class	

Based on table 2 above, when viewed from the working status of patients hospitalized in this hospital are those who work in the private sector and are on duty and housewives. While the main reason for choosing this hospital was because of the distance (48.8%) followed by services (19.9%).

3. Level of Suitability of Performance and Interest

From the results of the assessment of the level of importance (Y) and the results of performance appraisal (X) then the level of suitability can be calculated, namely the comparison between scores (X) and scores (Y) to determine the priority

order of factors that need to be improved for customer satisfaction. Obtained data in table 3 as follows :

Table 3. Patient Satisfaction Index

No.Attribut	PERFORMAN CE (X)	IMPOR TAN CE (Y)	SUITABILIT Y (%)
Tangible1	692	787	87.93
Tangible2	693	800	86.63
Tangible3	657	799	82.23
Tangible4	661	801	82.52
Tangible5	687	792	86.74
Tangible6	645	804	80.22
Tangible7	723	784	92.22
Reliable1	704	805	87.45
Reliable2	712	782	91.05
Reliable3	727	807	90.09
Reliable4	682	801	85.14
Reliable5	723	796	90.83
Reliable6	734	804	91.29
Reliable7	697	800	87.13
Respon1	704	800	88.00
Respon2	709	804	88.18
Respon3	665	801	83.02
Respon4	694	794	87.41
Respon5	718	805	89.19
Respon6	627	780	80.38
Assurance1	762	810	94.07
Assurance2	725	801	90.51
Assurance3	711	799	88.99
Assurance4	688	797	86.32
Assurance5	710	801	88.64
Assurance6	666	790	84.30
Empathy1	751	809	92.83
Empathy2	705	807	87.36
Empathy3	716	792	90.40
Empathy4	707	784	90.18
Empathy5	652	763	85.45
Empathy6	733	800	91.63
Empathy7	729	796	91.58

Based on table 3 above, it can be seen that all Hospital UKI service attributes have shown high satisfaction levels. In the tangible dimension, the attribute that has the highest degree of conformity between expectations and reality is the availability of an adequate ATM machine with a value of 92.22%. Meanwhile, for the tangible attribute, the lowest value is to have a clean and adequate toilet for patients with a value of 80.22%. On the reliability dimension, the attribute that has the highest level of conformity is to provide sufficient information before the action is taken with the value of the suitability level of 91.29%. Meanwhile, for the reliability attribute which has the lowest value is having

complete medical support facilities (Laboratory, radiology, etc.) with a value of conformity level of 85.14%. In the dimension of responsiveness, the attribute that has the highest level of conformity is the patient's need for health information to be served quickly with a value of conformity of 89.19%. Whereas, for the responsiveness that has the lowest value is the complaint of patients who are dissatisfied quickly responded with a value of the level of conformity of 80.38%. In the assurance dimension, the attributes that have the highest level of conformity are doctors who are experts in their fields of 94.07%. Meanwhile, the assurance attribute that has the lowest value is that many hospitals are recommended to others with a value of suitability of 84.3%. In the empathy dimension, the attribute that has the highest level of conformity is having a doctor who does not discriminate between services to patients with a value of conformity of 92.83%. Meanwhile, for empathy attributes that have the lowest value is having customer service for patients outside of medical with a value of 85.45% suitability

4. Important Performance Analysis of the Attributs (33 items)

Next from the 33 items (attributes) above that affect patient satisfaction are outlined and divided into four Cartesian diagrams, obtained as below :

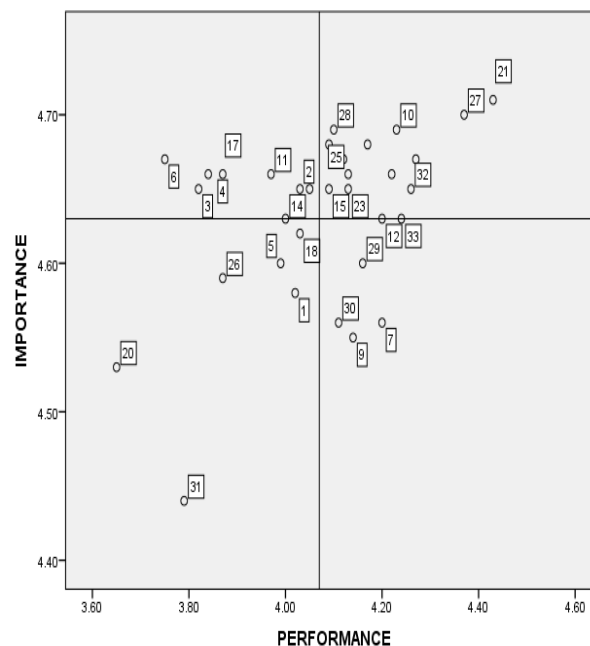


Diagram 1: Importance Performance Analysis of Attributes

Quadrant 1 (Concentrate Here), attributes in this quadrant are considered very important by the customer but the service is not satisfactory. These attributes are the top priority for immediate repair by hospitals: clean and neatly arranged building (Tan2), spacious and comfortable waiting room (Tan3); a clean, bright and comfortable room (Tan4); a clean and adequate toilet for patients (Tan6); complete medical support facilities, such as laboratory, radiology, etc. (Rel4); Ability to provide needed facilities (Rel7); Complaints of patients who are not satisfied are quickly responded (Res3);

Quadrant 2 (Keep Up The Good Work), attributes that are in this quadrant are considered very important by the customer and the performance of the servant is very satisfying,

namely: Services that are according to a predetermined schedule (Res1); Having an emergency room (infusion fluid, oxygen) and drugs that are always ready in an emergency situation (Rel3); Ensure the confidentiality of the patient's medical records (Res5); Doctors who are experts in their fields or specialties (Ass1); Skilled financial administration of officers and rights, skilled and dexterous information (Ass3); The costs are relatively affordable (Ass5); Doctors are equally treated services to patients (Emp1); E2 attribute: Having access to who do not discriminate between services to patients; Attribute E6: Medical personnel pay attention to the patient's disease progression.

Quadrant 3 (Low Priority), attributes in this quadrant are considered not important by the customer and the service is not satisfactory, namely: Availability of adequate ATM machines (Tan7); Do not allow prescriptions to be redeemed outside the hospital for patients (Rel2); Patient needs about health information are served quickly (Rel5); Attributes Visiting hours that provide comfort for patients (Emp3); Staffs care about the other needs of patients (Emp4); Provides time for the patient's family to consult (Emp7).

Quadrant 4 (Possible Overkill), attributes that are in this quadrant are considered not too important by the customer but the service is satisfactory, namely: Adequate parking (Tan1); Have complete and modern medical equipment (Tan5); The poor patients who are unable, but need treatment at this hospital are served (Res4); The suggestion / complaint given box by visitors is quickly responded (Res6); Hospital is recommended to other people (Ass6); Good customer service (Emp5).

4. Importance Performance Analysis of the Variables (5 Indicators)

With the same calculation as the steps described in the previous diagram, plotting data is done for each variable (5 indicators), namely: 1. Reliable, 2. Reliability, 3. Responsiveness, 4. Assurance, and 5. Emphaty obtained data in diagram 2, as follows :

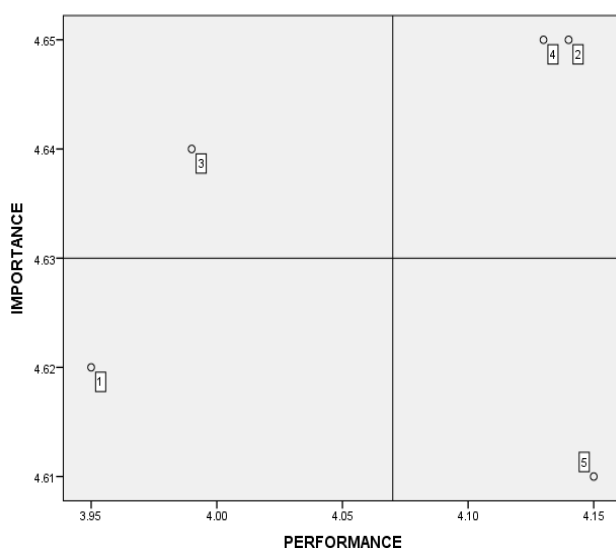


Diagram 2. Plotting data of each variables (5 Indicators)

1. Quadrant 1 (Concentrate Here)

Variables that are in this quadrant are considered very important by patients but the service is not satisfactory.

These attributes are the top priority for immediate improvement by the Hospital. Variables included in this quadrant are responsiveness variables.

2. Quadrant 2 (Keep Up The Good Work)

The variables that are in this quadrant are considered very important by the patient and the performance of the staff is very satisfying. The variables included in this audit are reliability and assurance variables.

3. Quadrant 3 (Low Priority)

Variables in this quadrant are considered insignificant by the patient and the service is unsatisfactory. Variables included in this quadrant are tangible variables.

4. Quadrant IV (Possible Overkill)

Variables that are in this quadrant are considered not too important by the patient but the service is satisfactory. The variable included in this quadrant is variable empathy.

V. Conclusions

Based on the results of the analysis for each attribute as illustrated in diagram 1, the results can be summarized as follows:

1. The hospital has to prioritize focus on improving the attributes that are in the concentrate quadrant for the reason of the unsatisfactory service performance, namely :

- A clean and neatly arranged building,
- Spacious and comfortable waiting room,
- Clean, bright and comfortable room,
- Clean and adequate toilet for patients,
- Complete medical support facilities, such as laboratory, radiology, etc.,
- Ability to provide needed facilities, and
- Quickly response of complaints of patients.

2. The attributes that need to be maintained (Keep the Good Work) for the reason of the patient is in service:

- Services that are according to a predetermined schedule
- Having good emergency rooms included drugs that are always ready
- Ensure the confidentiality of the patient's medical records
- Experties of medical doctors
- Financial administration officers and dexterous information,
- Costs are relatively affordable,
- Doctors are equally treated services to patients,
- Nurses equally services to patients, and
- Medical personnel pay attention to the patient's disease progression.

3. The hospital must improve the attributes of this quadrant but it is not a low priority at this time, namely in terms of:

- Availability of ATM machines,
- Not allowed to be redeemed outside the hospital,
- Quickly serves medical information for patients,
- Comfortably visiting hours,
- Staffs care about the other patients of patients, and
- Provides time for the patient's family for consultation

4. Although it is considered not as important as other attributes, UKI General Hospital must maintain (Possible Overkill) in terms of:

- Adequate parking,

- b. Complete and modern medical equipment,
- c. Services for the poor patients,
- d. Suggestion / complaint box given by visitors must be quickly responded,
- e. Hospital is recommended to others, and
- f. Good customer service.

5. Efforts to improve the quality of service to patients when reviewed based on variables as depicted in diagram2, the hospital must give priority (Concentrate Here) to all responsiveness variables due to unsatisfactory service performance, namely:

- a. Service on schedule,
- b. Recipe not to be redeemed outside the hospital,
- c. Emergency Room Facility,
- d. Medical Support,
- e. Confidentiality of Medical Records,
- f. The team gives info, and
- g. Ability to provide facilities.

6. The hospital must improve the Tangible variable but it is not the first priority (Low Priority), namely:

- a. Parking lot,
- b. Clean the room,
- c. Comfort of the waiting room,
- d. Comfort of inpatient room
- e. Availability of complete medical equipment
- f. Clean toilet
- g. Availability of ATM machines

7. Although patients are considered less important, UKI General Hospital must maintain performance on this variable (Emphaty), namely:

- a. Doctors are equally treated services to patients,
- b. Nurses equally services to patients,
- c. Comfortably visiting hours,
- d. Staffs care about the other staff of patients,
- e. Good customer service,
- f. Medical personnel pay attention to the patient's disease progression, and
- g. Provides time for the patient's family for consultation.

VI. Recommendations

In order to improve the satisfaction services to patients, the researchers provide recommendations as follows:

1. Giving comfort to the care room by changing the quality of a better bed.
2. Renovating and expanding the waiting room.
3. Improve the performance of the hospital hygiene department and supervise cleaning staff
4. Provide a hotline number so patients can immediately complain and can be responded to as soon as possible
5. Change the complaint box into an electronic mail complaint, so that patient complaints can be more easily seen and followed up by supervisors and leaders.
6. Increasing the overall performance of all hospital staff (doctors, nurses, medical support staff, etc.) so that patients can feel comfortable being treated at the UKI General Hospital so that patients will advise others to seek treatment at UKI General Hospital
7. Increase the supporting facilities that are owned to increase the comfort of inpatients such as the availability of televisions for the visitors.

8. Conducted training for all UKI General Hospital staff regarding hospitality and supervised them the performance of UKI General Hospital employees.

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