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# APPLICATION OF SERVICE QUALITY METHOD TO PUBLIC HEALTH CENTER PATIENT

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Abstract: Providing services to patients is an obligation that must be carried out by health agencies. Of course, good health services can be measured by the performance of medical personnel. The current problem with the Aek Loba Health Center is that it does not have a system that can measure the level of patient satisfaction with the services provided. In addition, patients also still have difficulty in expressing opinions in the form of complaints about the performance of medical personnel. The aim of the research is to become a forum for assessing the quality of service that can make it easier for patients to submit complaints and also as a measuring tool for health agencies on the level of success of the quality of services provided. This study uses the Service Quality method by assessing service quality based on 5 quality dimensions, namely Tangibles, Responsiveness, Reliability, Assurance, and Empathy. Based on these problems, a decision support system was designed using the PHP programming language and the database used, namely MySQL. So that this research resulted in this system being able to help and facilitate the Aek Loba Health Center in accommodating and measuring the level of quality of service to patients. In addition, this system can make it easy for leaders to find out the elements that need to be improved, maintained, and repaired by the Aek Loba Health Center.

**Keywords:** patient; questionaire; service quality

Abstrak: Memberi pelayanan kepada pasien merupakan kewajiban yang harus dilakukan oleh instansi kesehatan. Pelayanan kesehatan yang baik tentu saja dapat diukur dari kinerja tenaga medisnya. Permasalahan Puskesmas Aek Loba saat ini yaitu belum mempunyai sistem yang dapat mengukur tingkat kepuasan pasien terhadap layanan yang diberikan. Selain itu, pasien juga masih kesulitan dalam menyampaikan pendapat berupa keluhan terhadap kinerja tenaga medis. Tujuan penelitian untuk menjadi wadah penilaian kualitas pelayanan yang dapat memudahkan pasien dalam menyampaikan keluhan dan juga sebagai alat ukur instansi kesehatan terhadap tingkat keberhasilan kualitas pelayanan yang diberikan. Penelitian ini menggunakan metode Service Quality dengan menilai kualitas pelayanan berdasarkan 5 dimensi kualitas, yaitu Bukti Nyata (tangibles), Ketanggapan (responsiveness), Kehandalan (reliability), Jaminan (assurance), dan Empati (emphaty). Berdasarkan permasalah tersebut maka dirancang sebuah sistem pendukung keputusan menggunakan bahasa pemrograman PHP dan database yang digunakan yaitu MySQL. Sehingga penelitian ini menghasilkan sistem ini dapat membantu dan mempermudah pihak Puskesmas Aek Loba dalam menampung dan mengukur tingkat kualitas pelayanan terhadap pasien. Selain itu, sistem ini dapat memberi kemudahan bagi pimpinan untuk mengetahui unsur-unsur yang perlu ditingkatkan, dipertahankan, serta diperbaiki oleh Puskesmas Aek Loba.

**Kata kunci:** kuesioner; pasien; service quality

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#### INTRODUCING

Health services are invisible activities that occur as a result of communication between patients and staff [1]. Good service can make patients comfortable and feel at home when doing treatment [2]. Regarding service, the Aek Loba Health Center has problems in service quality [3].

That is, the Aek Loba Community Health Center does not yet know how to measure the level of service quality for patients [4]. Considering that the Aek Loba Puskesmas is an accredited Puskesmas, of course this institution must provide facilities that can accommodate the opinions of patients regarding the services provided [5]. Meanwhile, the impact of a decrease in the quality of services provided by service providers, namely the Aek Loba Health Center, will reduce people's interest in taking treatment at the Puskesmas [6]. Therefore, puskesmas must continue to improve the quality of services by making various improvements in serving patients [7].

To reduce the impact arising from the lack of service to patients that cannot be measured, the Aek Loba Health Center requires a decision support system as a forum for accommodating patient complaints by measuring the quality of services provided [8].

This study aims to be a forum for assessing the quality of services that can make it easier for patients to submit complaints and also as a measuring tool for health agencies on the level of success of the quality of services provided [9]. The results of this study are to help and facilitate the Aek Loba Health Center in accommodating and measuring the level of quality of service to patients [10]. The designed system provides an explanation to the leadership to find out

the elements that need to be improved, maintained and repaired by the Aek Loba Health Center [11].

# **METHOD**

To measure level patient satisfaction in the services of the Aek Loba Health Center, then it is used questionnaire. Sample in this research are patients who perform health services at the Aek Loba Health Center. This study used a sample data of 30 respondents with 25 attributes questions that will be used as data collection with a questionnaire.

Questionnaire will be given directly to patients at the Aek Loba Health Center Quality of Service Method (Servqual). Is a method used to measure quality service, This method has an attribute each dimension, so the gap value will be found, namely the difference between service delivery to be received and the patient expectations of the service to be performed accepted [12].

Ouality of service has 5 dimensions, namely as follows: (1)Tangibles are physical infrastructure facilities provided by service providers and the surrounding environment., (2) Reliability is the ability to provide services as promised and perform on time, without errors and with high accuracy., (3) Responsiveness is the ability of service providers to assist and provide fast and appropriate services to service recipients, with clear delivery.. (4)Assurance service knowledge, attitude, courtesy, and ability to give trust from service recipients., (5) Empathy is the ability of service providers to understand the wishes of service recipients personally and sincerely [13].

Calculating expectations Patient expectations for clinical services using the calculation:

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$$\sum Xi = (\sum SP \times 5) + (\sum P \times 4) + (\sum N \times 3) + (\sum TP \times 2) + (\sum STP \times 1)$$
 (1)

 $(\sum TP \times 2) + (\sum STP \times 1)$ (1)

#### Information:

SP = Very Satisfied with a weight value

P = Satisfied weight with a value of 4

N = Neutral Satisfied with a weight value of 3

TP = Dissatisfied with a weight value of

STP = Very Dissatisfied with a weight value of 1

# Calculating average expectations:

Patient responses to the statement of expectations using equations:

$$X = \frac{\sum Xi}{n} \tag{2}$$

### Information:

X =The average value of the level of perception

Y =The average value of the expectation

X = Number of respondents

## **Calculating performance Performance**

Calculations use the same equations as calculating expectations.

# Calculating the average performance

The average value calculation uses the same equation as calculating the expected average.

# Calculating the gap value

Calculate the gap value using equation:

$$Nsi = (Xi) - (Yi) \tag{3}$$

Information:

Nsi = The average value of the i-th gap Xi = The average value of the i-th levelof perception

Yi = The average value of the i-th level of expectation

#### RESULST AND DISCUSSION

It is possible to develop a system to detect the level of satisfaction in relation to Aek Loba puskesmas care based on the results of data collection from observers and previous studies. The material that has been collected will be used in the service quality methodology. There are 30 questions in this survey that are answered with the answer patient. 20 attribute questions will be used as data input with the questionnaire. This will be given to Aek Loba Health Center Patients.

Table 2. The following is a table of the results of respondents answers regarding these calculations.

Table 2. Reality Answer

Table 2. Reality Allswei						
Reality						
A	SP	P	N	TP	STP	$\mathbf{W}$
<u>K1</u>	28	1	1	0	0	147
K2	28	2	0	0	0	148
K3	27	3	0	0	0	147
K4	28	2	0	0	0	148
K5	28	2	0	0	0	148
K6	28	2	0	0	0	148
K7	25	5	0	0	0	145
K8	27	3	0	0	0	147
K9	28	2	0	0	0	148
K10	25	4	1	0	0	144
K11	24	4	1	1	0	141
K12	27	3	0	0	0	147
K13	28	2	0	0	0	148
K14	28	1	1	0	0	147
K15	27	3	0	0	0	147
K16	28	2	0	0	0	148
K17	25	4	1	0	0	144
K18	25	2	2	1	0	141
K19	28	2	0	0	0	148
K20	25	3	1	1	0	142

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Information:

A = Attribute

SP = Very Satisfied

P = Satisfied

N = Neutral

TP = Dissatisfied

STP = Very Dissatisfied

W = Weight

Table 3. The following is a table of the results of respondents answers regarding the calculation of these expectations.

Table 3. Expectation Answer

Expectation							
A	SP	P	N	TP	STP	W	
K1	25	5	0	0	0	145	
K2	27	3	0	0	0	147	
K3	25	4	1	0	0	144	
K4	27	3	0	0	0	147	
K5	25	4	1	0	0	144	
K6	25	5	0	0	0	145	
K7	25	4	1	0	0	144	
K8	27	3	0	0	0	147	
K9	25	5	0	0	0	145	
K10	24	5	1	0	0	143	
K11	28	2	0	0	0	148	
K12	28	2	0	0	0	148	
K13	28	2	0	0	0	148	
K14	28	1	1	0	0	147	
K15	27	3	0	0	0	147	
K16	25	4	1	0	0	144	
K17	24	4	2	0	0	142	
K18	25	4	1	0	0	144	
K19	27	3	0	0	0	147	
K20	25	5	0	0	0	145	

Information:

A = Attribute

SP = Very Satisfied

P = Satisfied

N = Neutral

TP = Dissatisfied

STP = Very Dissatisfied

W = Weight

Table 4. The following is a calculation table between expectations and reality as well as the concluded decisions.

Table 4. Gap and Decisions

		· - · I		
$\mathbf{A}$	AR	$\mathbf{AE}$	Gap	<b>Decission</b>
K1	4,9	4,83	0,06	Maintain
K2	4,93	4,9	0,33	Maintain
K3	4,9	4,8	0,1	Maintain
K4	4,93	4,9	0,03	Maintain
K5	4,93	4,8	0,13	Maintain
K6	4,93	4,83	0,1	Maintain
K7	4,83	4,8	0,03	Maintain
K8	4,9	4,9	0	Upgrade
K9	4,93	4,83	0,1	Maintain
K10	4,8	4,76	0,1	Maintain
K11	4,7	4,93	-0,23	Improve
K12	4,9	4,93	-0,03	Improve
K13	4,93	4,93	0	Upgrade
K14	4,9	4,9	0	Upgrade
K15	4,9	4,9	0	Upgrade
K16	4,93	4,8	0,13	Maintain
K17	4,8	4,73	0,06	Maintain
K18	4,7	4,8	-0,1	Improve
K19	4,93	4,9	0,03	Maintain
K20	4,73	4,83	-0,1	Improve

Information:

A = Attribute

AR = Average Reality

AE = Average Expectation

To make it easier for patients to determine patient satisfaction with Aek Loba Health Center services, this research can be accessed anytime and anywhere via the Internet. At this stage the results are given in the form of a user interface on the system to be built.

The first time you access the Aek Loba Puskesmas service homepage, you will automatically be moved to the main page. Then click the start assessment button. for patients to be directed directly to the questionnaire and fill it out.

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Image 1. Questionnaire Page

After logging in the admin and head of the puskesmas can see the results of calculations from measuring service quality and their decisions as well as other data.

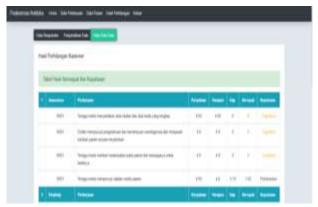


Image 2. Calculations Decisions Page

Admin can also view and print the results of servqual calculations per attribute as image 3.



Image 3. Servqual Calculations Page

Only admin has access to add, modify, and delete patient data as Image 4

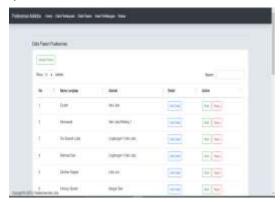


Image 4. Patient Data Page

The admin is also in charge of inputting each answer to the questionn-aire that will be given to the patient.

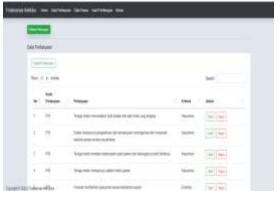


Image 5. Answer The Questionnaire Page

Admin is also in charge of inputting each questionnaire criteria that will be given to patients.

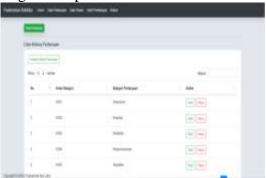


Image 6. Criteria Questionnaire Page

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## **CONCLUSION**

That the use of the service quality method is quite effective in measuring the level of patient satisfaction with the health services provided by the Aek Loba Health Center. Besides that the puskesmas can know the performance of services so that they can make improvements and improve quality. The results of the service quality calculation show a positive gap, which means that patients are satisfied with the health services provided by the Aek Loba Health Center.

# **BIBLIOGRAPHY**

- [1] Reza Nurul Ichsan, Ahmad Karim, "Kualitas Pelayanan Terhadap Kepuasan Nasabah Pt. Jasa Raharja Medan," *J. Penelit. Pendidik. Sos. Hum.*, vol. 6, no. 1, pp. 54– 57, 2021, doi: 10.32696/jp2sh-.v6i1.729.
- [2] V. Andita, W. Hermawat, and N. S. Hartati, "Pengaruh Jumlah Pelayanan Rawat Jalan, Rawat IGD Dan Rawat Inap Terhadap Tingkat Pendapatan Rumah Sakit Umum Daerah (RSUD) Cideres Kabupaten Majalengka," *J. Manaj. Sekol. Tinggi Ekon. Cirebon*, vol. 14, no. 2, pp. 370–378, 2019.
- [3] I. Febrina, S. N. Arief, and A. Pranata, "Analisa Sistem Pendukung Keputusan Menentukan Kualitas Pelayanan pada Hotel OYO Flagship 1348 Home Anaya Medan dengan Menggunakan Metode Customer Satisfaction Index dan Service Quality," pp. 1–12.
- [4] R. Ilman, S. Indriani, and E. Adriantantri, "METODE SERVI-CE QUALITY (Studi Kasus Tabungan Amanah BANK BPR

- Syariah Kota Mojokerto )," vol. 3, no. 2, pp. 86–92, 2020.
- [5] R. Apriani and G. W. Nurcahyo, "Tingkat Kepuasan Pasien RSIA Siti Hawa dalam Upaya Peningkatan Kualitas Pelayanan Menggunakan Metode Service Quality (SERVQUAL)," *J. Sistim Inf. dan Teknol.*, vol. 3, pp. 150–155, 2021, doi: 10.37034/jsisfotek.v3i3.59.
- [6] Fendi Hidayat, Konsep Dasar Sistem Informasi Kesehatan. 2020.
- [7] S. Wahyuni and D. Y. Niska, "Sistem Pendukung Keputusan Pemilihan Pegawai Berprestasi Menggunakan Metode Multifactor Evolution Process (MFEP) (Studi Kasus: Rsup H. Adam Malik Medan)," J. Mantik Penusa, vol. 3, no. 2, pp. 124–129, 2019, [Online]. Available: https://ejurnal.pelitanusantara.ac.id/index.php/mantik/article/view/687
- [8] E. Yulianto and A. Ginanjar, "Pembangunan Sistem Informasi Manajemen Diklat Menggunakan Metode Servqual Dalam Upaya Meningkatkan Kualitas Pelayanan Informasi (Studi Kasus: Balai Diklat Metrologi)," *Media J. Inform.*, vol. 11, no. 1, p. 8, 2020, doi: 10.35194/mji.v11i1.883.
- [9] Reni Asmara Ariga, Buku Ajar Implementasi Manajemen Pelayanan Kesehatan Dalam Keperawatan. 2020.
- [10] M. Syarif and W. Nugraha, "Pemodelan Diagram UML Sistem Pembayaran Tunai Pada Transaksi E-Commerce," *J. Tek. Inform. Kaputama*, vol. 4, no. 1, p. 70 halaman, 2020, [Online]. Available: