

DENTINO
JURNAL KEDOKTERAN GIGI
Vol VII. No 1. March 2022

**DETERMINANTS OF THE QUALITY OF PHARMACY SERVICES
 IN HOSPITAL DURING PANDEMIC COVID-19**

Arie Sulistiyoningrum¹⁾, Ayun Sriatmi²⁾, Septo Pawelas Arso³⁾

¹⁾Dinas Kesehatan Kabupaten Kudus, Kudus, Jawa Tengah, Indonesia

²⁾Bagian Administrasi Kebijakan Kesehatan, Fakultas Kesehatan Masyarakat, Universitas Diponegoro, City, Semarang, Jawa Tengah, Indonesia

³⁾Fakultas Kesehatan Masyarakat, Universitas Diponegoro, Semarang, Jawa Tengah, Indonesia

ABSTRACT

Background. Hospitals are individual health service facilities that are part of health resources in order to support the implementation of health efforts, one of which is pharmacy services. During pandemic covid-19, all hospitals must continue to provide service to patients, according to technical instructions, including Aisyiyah Kudus Hospital. The quality of service is determined by various factors, including perception of hospital, facilities, policies and competencies. **Purpose.** This study aims to analyse factors that affect quality of pharmaceutical services in the outpatient pharmacy installation of Aisyiyah Kudus Hospital. **Methods.** This study was a quantitative study with cross sectional design, population in this study were outpatients who received pharmacy services at Aisyiyah Kudus Hospital with sample size of 98 respondents. Sampling technique in this study was accidental sampling. Data were analysed by using Chi-Square test and Logistic Regression. **Results.** The result shows that there is a significant relationship between perceptions of hospital, infrastructure, officer competence and policies with service quality with *p* value 0.000, in a regression analysis show that there is a very strong influence of independent variables on the dependent variable. **Conclusion.** There is a significant relationship between perceptions of hospital, infrastructure, officer competence and policies with service quality. Hospital management needs to provide soft skill training for all officers in supporting the improvement of services to patients.

Keywords: Infrastructure, Officer Competency, perception of Hospital, policies, quality service.

Correspondence: Arie Sulistiyoningrum, Health Department Kudus Regency, Diponegoro Street No 15 Kota Kudus 59312. drg.arie3003@gmail.com

INTRODUCTION

Hospitals are individual health service facilities that are indispensable in supporting the implementation of health efforts that have various means to maintain outpatient compliance and loyalty. Health services in hospitals must be carried out in a safe, quality, anti-discriminatory and effective manner and prioritize the interests of patients, including pharmacy services.¹ In order to improve the quality and efficient pharmaceutical services based on pharmaceutical care in hospitals, it is necessary to have service standards that can be used as guidelines in providing pharmaceutical services in hospitals.²

Aisyiyah Kudus Hospital is one of the type C hospitals in the Kudus Regency which is obliged to provide health services during the COVID-19 pandemic. During the COVID-19 pandemic, all hospitals must continue to provide services to patients according to technical

instructions.³ Quality pharmaceutical services must continue to be carried out by continuing to provide services to general patients with the risk of transmission to a minimum by conducting screening, waiting rooms with dividing chairs, waiting rooms with hand washing points, the existence of barriers for officers and patients and the use of PPE (personal protective equipment) by officers. Changes in the service system during the pandemic make patients have different perceptions of service quality where this has an impact on patient satisfaction.⁴

The quality of pharmaceutical services is largely determined by the patient's perception of the hospital, the competence of officers, facilities and policies.⁵ Assessment of the quality of health services consists of responsiveness, competence, ethics and completeness (facilities).⁶ Comprehensive pharmacy services are a top priority by implementing a quality assurance approach.⁷ The

quality of pharmaceutical services includes the dimensions of tangibles, reliability, responsiveness, assurance and empathy.⁸ The quality of pharmaceutical services is determined from the patient's perception, as explained that the public's perception gives an assessment of the services in the hospital, including pharmacy services.⁹

Patient perceptions are related to the form of pharmaceutical services, responsiveness, service guarantees, empathy and physical evidence in services at pharmacy installations.¹⁰ Perceptions of the quality of health services according to public perceptions are very important because they determine the decision to use these services. From this perception, the patient can give an assessment of the quality of service.¹¹ Public perception of the hospital can determine the quality of service in the hospital. Perception is formed because of the information and understanding of services so that it will form perceptions of service quality.¹² Good public perception due to the provision of clear information, so that patients are willing to wait for services and have an awareness about pharmacy policies and services in hospitals.¹³

The service aspect is also relates to the facilities provided. The public's perception of the facility will provide trust and the perception of service users that the services provided are in accordance with their expectations.¹⁴ Perception of facilities and an environment that makes patients and families comfortable as an indicator of service quality.¹¹ Facilities are important predictors in influencing the service quality, where service facilities that provide customer convenience will shape perceptions of good service quality. Service quality refers to the level of service perfection in meeting the needs and demands of each consumer, including the completion of the facilities and the convenience of the facilities provided.¹¹

The service dimension that needs to be considered is the public's perception of service quality, namely the reliability dimension as one of the competences of officers that has a significant effect on health service satisfaction. Competence of health workers includes responsiveness in providing certainty of service schedules, paying attention to patients and providing certainty on treatment problems being undertaken.¹¹ The competence of officers in providing professional and reliable services with empathy, respect and full responsibility will form a sense of security and comfort. This is also indicated by the existence of guarantees (assurance) during the service process.¹⁵

Quality of service quality is also determined from the policies made by the hospital. During the Covid-19 pandemic, pharmacy services at hospitals must be carried out according to health protocols. Aspects that need to be considered are the patient's perception of the hospital, policies and competence of officers during the pandemic.¹⁶ Perceptions of policies that must meet the needs of the patient make a lot of demands so as to provide an assessment of the quality of services provided.¹⁷ Policies that provide convenience and benefits for patients can shape perceptions of the quality of good pharmaceutical services. Policies that apply must consider the ease with which patients can access services.¹⁸

These factors which consist of perceptions of hospitals, facilities, competencies and policies become the basis for improving quality services.¹⁹ The quality of service quality affects patient satisfaction which includes the dimensions of direct evidence, empathy, responsiveness, and assurance and plays a role in increasing patient loyalty.²⁰ Based on this description, researchers are interested in analysing the quality of pharmaceutical services at the outpatient pharmacy installation of the Aisyiyah Kudus Hospital during the COVID-19 pandemic.

MATERIALS AND METHODS

This research is a quantitative research with a cross sectional approach. The dependent variable of this study is the quality of pharmaceutical services at the outpatient pharmacy installation of the Aisyiyah Kudus Hospital during the COVID-19 Pandemic. The independent variables of this study are perceptions of hospitals, facilities and infrastructure, competence of officers, hospital policies. The population in this study was outpatients who received pharmaceutical services based on the Medical Record data in the Aisyiyah Kudus Hospital in 2021, which recorded the number of visits in 2020 as many as 47,902 people and an average of 3,991 which was divided into 2 types, 3,655 BPJS patients and 336 general patients (Medical Record Data for Aisyiyah Kudus Hospital in 2021). The sampling technique in this study is Accidental Sampling, a technique for determining the sample by taking respondents who happen to exist or are available in a place according to the research context.²¹ The sample size is 98 respondents. The samples taken were adjusted to the research criteria. The inclusion criteria were patients visited > 1 time, aged 21-60 years and were not referred patients. Exclusion criteria for patients refusing to be respondents.

Collecting data with questionnaires that have met the validity and reliability tests. Validity and reliability tests were carried out at PKU Muhammadiyah Mayong Hospital Jepara to 30 respondents with the results on hospital perceptions

(r count 0.495-0.822; alpha 0.902), officer competence (r count 0.410 to 0.850; alpha 0.883), infrastructure (r count 0.567 -0.792; alpha 0.897), hospital policy (r count 0.470-0.733; alpha 0.872), quality of pharmaceutical services (r count 0.436-0.827; alpha 0.953). This research questionnaire with a Likert scale consisting of hospital perceptions (good, score 50%, less, score < 50%), competence (good, score ≥ 50%, less, score < 50%), facilities (good, score 50%, less, score < 50%), policy (good, score 50%, less, score < 50%) and service quality (good, score ≥ 50%, less, score < 50%). The data obtained were analysed using Chi-Square Test and Multiple Logistics Regression. This research has passed the ethical review conducted by the Faculty of Dentistry, University of Jember with number: 1347/UN25.8/KEPK/DL/2021.

RESULTS

The majority of respondents in this study were aged 31 to 40 years (39.8%), with the majority being female (51%), the majority of respondents having the latest high school education (45.9%), and the majority working as private employees (50%). The results of these characteristics can be seen in table 1.

Table 1 Frequency Distribution of Respondents Based on Respondents Characteristics

Characteristics	Frequenc y	Percentage (%)
Ages		
< 30 years	13	13.3
31-40 years	39	39.8
41-50 years	30	30.6
> 50 years	16	16.3
Gender		
Male	47	48.0
Female	51	52.0
Education		
SD	10	10.2
SLTP	40	40.8
SLTA	45	45.9
Diploma	3	3.1
Occupation		
Laborer	3	3.1
Entrepreneur	16	16.3
Private employees	49	50.0
Students	25	25.5
TNI-POLRI-P-ASN	5	5.1

Based on the results of the bivariate test using Chi-Square, it was found that all variables

related to the quality of outpatient pharmacy services during the COVID-19 pandemic at Aisyiyah Hospital with a p value for the relationship between hospital perception variables and service quality of 0.000, the p value of the facility perception varies with service quality of 0.000, the p value of the variable perception of officer competence with service quality of 0.000, and the relationship between the perception variable of hospital policy and service quality obtained p value of 0.000 (Table 2)

Table 2. Results of Analysis of Independent Variables with Quality of Outpatient Pharmacy Services

Variabl e	Service Quality				Amount		P valu e
	Good		Less		F	%	
	F	%	F	%			
Hospital Perception							
Good	52	80.	1	20.	6	100.	0.00
		0	3	0	5	0	
Less	8	24.	2	75.	3	100.	0
		2	5	8	3	0	
Infrastructure							
Good	58	92.	5	7.9	6	100.	0.00
		1			3	0	
Less	2	5.7	3	94.	3	100.	0
			3	3	5	0	
Officer Competence							
Good	58	95.	3	4.9	6	100.	0.00
		1			1	0	
Less	2	5.4	3	94.	3	100.	0
			5	6	7	0	
Hospital Policy							
Good	58	95.	3	4.9	6	100.	0.00
		1			1	0	
Less	2	5.4	3	94.	3	100.	0
			5	6	7	0	

Based on the results of data analysis with multiple logistic regression obtained p value 0.000 < 0.005 which indicates that there is a significant correlation between perceptions of hospitals, facilities and infrastructure, competence of officers and hospital policies together on service quality. The independent variable turned out to be a change in parameter estimation (-2 log likelihood) of 39,050. If we look at the R-square value of 0.608 or 60.8% (Cox & Snell) and 0.825 or 82.5% (Nagekerke). Thus it can be interpreted that the service quality factor which consists of variables, X1, X2, X3 and X4 have a simultaneous effect, then the proportion of service quality that can be explained is 82.5%. But keep in mind that this interpretation is only an approximate value as in the coefficient of determination. (Table 3)

Table 3. Results of Multivariate Analysis of Independent Variables

	B	S.E	Wal d	d f	Sig.	Exp (B)
Perception of Hospital Infrastructures	-0.022	1.186	0.000	1	0.000	0.978
Officer Competency	18.393	2.842E4	0.000	1	0.000	9.723E7
Hospital Policy	-42.384	4.019E	0.000	1	0.000	0.000
Constant	18.274	2.842E4	0.000	1	0.000	8.632E7
	2.810	0.820	11.738	1	0.001	16.615

The results of the study found that there was a significant influence on the perception of hospitals, facilities, perceptions of competence and perceptions of hospital policies on service quality. The Exp equation (B) is found in the perception of the hospital by -0.022 which means that the perception of the hospital has the opportunity to improve the quality of service by 0.022 times, as well as the perception variable of facilities that get 18.393 which means that it is 18.393 times a good perception improves the quality of service. The competence gets -42,394 which means a good perception improves the quality of service. In the policy to get 18,274 which means that a good perception increases the quality of service by 18,274 times.

DISCUSSION

Quality health services must be carried out in accordance with the code of ethics and service standards that have been established, which will be able to provide satisfaction for every patient, and quality health services are the right of every patient so that it can provide opportunities for health care facilities to compete with other health service providers.² Aspects in the components of the structure of health services related to the assessment of quality services are facilities, namely service, comfort and a neat and clean room that is felt by the patient, and complete equipment that is in accordance with the wishes, expectations and needs of the patient.²² Perceptions of a good hospital in this study include services that comply with health protocol rules, provide clear information, availability of complete, affordable drugs that do not discriminate against patients, ensure patient confidentiality and have a definite schedule, in addition to administering appropriate drugs with patient complaints.

Perception about the hospital can determine the quality of service in the hospital. Perceptions are formed because of the information and understanding of services so that they can form perceptions of good service quality. Good public

perception is due to the provision of clear information, so that patients are willing to wait for services and have an awareness of pharmacy policies and services in hospitals.¹³ General equipment in hospitals is an indicator of service, the concept of service quality is centred on efforts to fulfil customer needs and desires and the accuracy of delivery to balance customer expectations.²³ The perception that patients have because of clear information will make patients as service users willing to wait because they have a positive perception of the quality of pharmacy services in hospitals.¹³

Service quality indicators are also determined from hospital facilities. Facilities are an important factor because the public's assessment of service users for the first time is related to the quality and quantity of physical facilities and infrastructure.¹² The assessment given by the community to the completeness will affect the public's perception, so that the public's assessment of the service will be high.¹² The public's perception of the facility will provide trust and the perception of the service user community that the services provided are in accordance with their expectations.¹⁴

Facilities in the hospital are indicators of service. The concept of service quality is centred on efforts to fulfil customer needs and desires and the accuracy of delivery to balance customer expectations. The perception of the patient will form a good service in patient treatment services.²³ Perception of facilities and an environment that makes patients and families comfortable as an indicator of service quality. The comfort of the environment includes the condition of clean, neat and orderly service facilities and infrastructure so that it can provide a sense of comfort to service recipients or patients.¹¹

The competence of officers is measured by the responsiveness, willingness, readiness and speed of officers in providing services. In this study, it was found that the better the perception of the competence of the officers, the better the quality of service. This is in line with research conducted by Juniarta in 2015 in Rasnidiati in 2020 related to public perception of the quality of health services, which states that the dimension of reliability (reliability) where one of them is the competence of good officers is indicated by the attitude and behaviour of officers who are oriented directly to the patient in the process of using drugs, aims to ensure the safety, effectiveness and rationality of drug use by applying science and function in the treatment of patients, which significantly affects the satisfaction of health services.^{11,12}

The competence of officers plays an important role in service quality. Competencies of health workers include responsiveness in providing

certainty of service schedules, paying attention to patients and providing certainty in patient treatment problems. The aspect of service quality that is lacking is due to high work demands which describe a high workload, unorganized aspects of work can cause work stress that can trigger conflicts within the organization.²⁴ Patient satisfaction with a service also depends on the speed of service providers in serving all needs as well as the ability of officers to provide information related to disease. The ability of officers to provide brief, clear, and easy-to-understand drug-related information can increase patient satisfaction with services, thereby improving the quality of pharmaceutical services, correct and correct information on drug use is very important in supporting the success of treatment.²⁵ Pharmacists are able to improve their competence by improving the pharmaceutical organizational structure and evaluating their performance on a regular basis.²⁶

Good service has indicators that the policies implemented must facilitate and increase patient comfort.¹⁸ The policies made by the hospital during the pandemic are following service regulations during the pandemic, limiting visitors, requiring health protocols, using PPE, making barriers, online drug services, services according to serial numbers, administering drugs correctly and providing education. This policy makes it easier for patients to get serviced, so that these services meet the expectations and needs of patients which will improve the quality of service. Good policies can form positive perceptions. Patients feel safe and comfortable during the service process, so that it will improve the quality of service.¹⁵ Criteria and standards for health service providers can be set by the authorized agency and then agreed with the medical staff and health workers from the relevant service provider unit through hospital policy.¹⁷

Service quality is an important issue that must be considered by hospital management. This quality can be assessed from the patient's perspective, especially with regard to aspects of hospital perception, competence, facilities and policies. Patients who use pharmacy services in hospitals have the same expectations of service. Good service must be supported by a safe service system, comfortable and complete facilities, professional and competent officers and policies that support ease of service. Different perceptions of each patient give a different impression and assessment. Perceptions must be formed by providing information related to hospital services. Based on this research, it can be seen that the quality aspect of pharmaceutical

services is determined from the perception of the hospital, facilities, competencies and hospital policies.

In conclusion, the quality of service at Aisyiyah Kudus Hospital is classified as good, there is a significant relationship between perceptions of the hospital, infrastructure, competence of officers, hospital policies and the quality of pharmaceutical services. The hospital management needs to provide soft skill training for all officers in supporting the improvement of services to patients, especially for pharmacy installation officers and routinely evaluating the performance of officers on a regular basis. For further researchers, they can add research variables such as including patient satisfaction as an indicator of service and create a control group of research subjects.⁴

REFERENCES

1. Susanto FXH, Simbolon NI, Monica E. Analisis Hubungan antara Kualitas Pelayanan dan Kepuasan Pasien Rawat Jalan Instalasi Farmasi Rumah Sakit Universitas Muhammadiyah Malang. *Pharmacy: Jurnal Farmasi Indonesia*. 2021;18(1):10-20.
2. Pratomo GS, Umaternate A, Febriani T. Evaluasi Ketersediaan Obat Instalasi Farmasi Rumah Sakit Islam PKU Muhammadiyah Palangka Raya. *Borneo Journal Pharmacy*. 2018;1(1):51-55.
3. Kemenkes RI. Panduan Teknis Pelayanan Rumah Sakit Pada Masa Adaptasi Kebiasaan Baru. In: Direktorat Pelayanan Kesehatan Rujukan Direktorat Jenderal Pelayanan Kesehatan. Kemenkes RI; 2020.
4. Antoni R. Pharmacy services during pandemic Covid-19 of Tegal District Community Health Centers (CHCs). *Majalah Farmasetika*. Published online 2021. <https://farmasetika.com/2021/04/11/pelayanan-kefarmasian-selama-pandemi-covid-19-di-puskesmas-wilayah-kabupaten-tegal/>
5. Kotler. *Dasar-Dasar Pemasaran*. PT. Indeks. Jakarta. 2014: 60-80.
6. Wira IA. Hubungan Antara Persepsi Mutu Pelayanan Asuhan Keperawatan Dengan Kepuasan Pasien Rawat Inap Kelas III Di RSUD Wangaya Kota Denpasar. *Jurnal Keperawatan*. Published online 2018. <https://media.neliti.com/media/publications/21456-ID-the-relationship-between-inpatient-expectations-of-staff-responsiveness-and-empa.pdf> 2(3): 21-32.
7. Kementerian Kesehatan RI. Peraturan Menteri Kesehatan No. 58 Tahun 2014 Tentang Standar Pelayanan Kefarmasian Di

- Rumah Sakit. Vol 39. BN.2014/NO.1223, : 7 hlm.; 2014:1-54. <http://kemkes.go.id>.
8. Yulyuswarni. Mutu Pelayanan Farmasi Untuk Kepuasan Pasien Rawat Jalan di Instalasi Farmasi Rumah Sakit Swasta. *Jurnal Keperawatan*. 2014;X(1):110-115.
 9. Yusuf N. Pengaruh Persepsi Masyarakat Mengenai Pelayanan Kesehatan Terhadap Minat Memanfaatkan Kembali Rawatjalan RSUD Tenriawaru Bone. *Jurnal Kesehatan Masyarakat*. 2014;2(1):89-102.
 10. Wahyuningsih R. Analisis Persepsi Pasien Terhadap Kualitas Pelayanan Di Instalasi Farmasi Rawat Jalan Rumah Sakit Akademik Ugm Yogyakarta. Published online 2018. <http://etd.repository.ugm.ac.id/penelitian/detail/65001>.
 11. Rasnidiati KAP. Persepsi Pasien terhadap Kualitas Pelayanan Rawat Jalan Pada Puskesmas Di Kabupaten Buleleng. *Jurnal Ilmu Manajemen Publik dan Kebijakan Sosial*. 2020;4(1):60-72.
 12. Tawil M. Persepsi Masyarakat Tentang Kualitas Pelayanan Kesehatan Di Rumah Sakit Umum Daerah Kota Kotamobagu Provinsi Sulawesi Utara. *Jurnal Administrasi Publik*. 2018;2(42). <https://ejournal.unsrat.ac.id/index.php/JA/P/article/view/16292>: 24-36.
 13. Sinaga S. Persepsi Pasien Terhadap Mutu Pelayanan Rawat Jalan Di RS Misi Lebak. *Jurnal Keperawatan Komprehensif*. 2018;4(1):41-46.
 14. Rampengan S. Persepsi Pasien Atau Keluarganya Terhadap Mutu Pelayanan Unit Gawat Darurat. *Jurnal Biomedik*. 2019;7(3):148-157.
 15. Widayastika W. Hubungan Antara Persepsi Pasien Tentang Kualitas Pelayanan Dengan Minat Pemanfaatan Ulang Pelayanan Rawat Inap Di Puskesmas Mijen Kota Semarang. *Jurnal Kesehatan Masyarakat*. Published online 2016. 2(1):12-24.
 16. Sabarudin, Solo DM, B MJ, Sida NA, Asdia WO. Evaluasi Mutu Pelayanan Kefarmasian Pada Masa Pandemi Covid-19 Di Rumah Sakit Santa Anna Kota Kendari. *Journal Publicuho*. 2020;3(4):447.
 17. Arifiyanti. Upaya Peningkatan Kepuasan Pasien Di Instalasi Farmasi Rumah Sakit Islam Surabaya. *Jurnal Manajemen Kesehatan Yayasan RS.Dr. Soetomo*. 2018;(3(1):62-74.
 18. Pratiwi H. Analisis Persepsi Masyarakat Terhadap Peran Apoteker Pada Layanan Kefarmasian Di Apotek Kecamatan Sokaraja, Baturraden, Sumbang, Dan Kedungbanteng. *JPSCR: Journal of Pharmaceutical Science and Clinical Research*. 2020;5(1):33-48.
 19. Herjunianto. Faktor yang Mempengaruhi Cakupan Layanan Farmasi di Instalasi Rawat Jalan Rumah Sakit. *Jurnal Kedokteran Brawijaya*. 2016;28(1):8-14.
 20. Margiluruswati P, Irmawati LI. Analisis Ketepatan Waktu Tunggu Pelayanan Resep Pasien JKN dengan Standar Pelayanan Minimal Rumah Sakit 2017 (Studi di UPF Rawat Jalan RSUD Bhakti Dharma Husada). *Jurnal Manajemen Kesehatan Yayasan RSDr Soetomo*. 2017;3(1):115-126.
 21. Sugiyono. *Statistika Untuk Penelitian*. Alfabeta; 2018:92-108.
 22. Amary A, Suprayitno S. Analisis Hubungan Fasilitas Terhadap Kepuasan Pasien Pengguna BPJS Di UPT Puskesmas Segiri Kota Samarinda. *Borneo Student Research*. 2021;2(2):1067-1073.
 23. Rulyandari R. Persepsi Masyarakat Terhadap Kebutuhan Pelayanan Rumah Sakit Syariah di Kota Yogyakarta. *Afiasi: Jurnal Kesehatan Masyarakat*. 2020;5(3):153-161.
 24. Wahyuningsih CD, Endrawanti S. Analisis Kinerja Petugas Farmasi Pelayanan Obat Pasien Rawat Jalan Di RSUD dr.R.Soedjati Soemodjardjo Purwodadi - Grobogan. *Serat Acitya - Jurnal Ilmiah UNTAG Semarang*. 2017;6(1):55:67.
 25. Ekadipta, Sadikin M, Yusuf MR. Kualitas Pemberian Informasi Obat pada Pelayanan Resep Berdasarkan Kepuasan Pasien BPJS Puskesmas Kecamatan Cilandak. *Pharmacy Jurnal Farmasi Indonesia*. 2019;16(2):244-255.
 26. Hepler CD. Clinical Pharmacy, Pharmaceutical Care, and the Quality of Drug Therapy. *Clinical Pharmacy, Pharmaceutical Care, and the Quality of Drug Therapy*. 2012;24(11):1491-1498.