



## Study Patient Satisfaction with Covid-19 Self-Isolation At-Home Services Monitoring

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### A B S T R A C T

The extent of COVID-19 transmission in Jakarta has overwhelmed healthcare facilities, making it challenging to accommodate all incoming patients. Jakarta initiated the COVID-19 Self-Isolation Patient Monitoring Program at each Community Health Center (*Puskesmas*). This crucial initiative was implemented during the peak pandemic period from March to May 2022. To assess the program's success, 100 respondents were selected through purposive sampling to participate in this research. The objective of this study was to evaluate patient satisfaction and explore the relationship between patient characteristics and the five dimensions of service quality based on the SERVQUAL model. The analysis revealed an overall patient satisfaction rate of 88%. Additionally, through Chi-square analysis, the findings highlighted a significant relationship between employment status ( $P$ -value = 0.017) and service quality dimensions, including tangibility, reliability, responsiveness, assurance, and empathy (each with a  $P$ -value = 0.001) about patient satisfaction. However, lower satisfaction levels were identified in specific areas, such as the daily monitoring of a patient's conditions during self-isolation (75%), the availability of free swab tests at the *Puskesmas* (77%), and the prioritization of patient care during self-isolation (78%). This study outlines the program's strengths and areas that require service improvement to enhance patient satisfaction.

## INTRODUCTION

Jakarta, as the densely populated capital city of Indonesia, faces an elevated risk of COVID-19 transmission due to its high population density, significant mobility of its residents, and the presence of numerous slum areas (Adzania et al., 2021; Caraka et al., 2020). This heightened vulnerability is starkly evident in the city's alarming COVID-19 statistics. As of September 23, 2022, Jakarta has reported more than 1,421,152 confirmed cases and a tragic death toll of 712 individuals (Minister of Health of the Republic of Indonesia. COVID-19, 2022). Between June 28 and July 30, 2021, 88,295 individuals were compelled to undergo self-isolation due to the virus (Minister of Health of the Republic of Indonesia. COVID-19, 2021). During this same period, the city recorded 265 deaths occurring outside of healthcare facilities (Kompas Cyber, 2021). These daunting figures were compounded by a severe shortage of hospital and service facilities, leading authorities to implement home self-isolation measures, even for asymptomatic patients. Tragically, a report from Annur in 2021 reveals that 2,700 patients lost their lives while in self-isolation (Annur, 2021). These sobering realities underscore the critical need for immediate and comprehensive public health interventions to address the ongoing COVID-19 crisis in Jakarta.

The Ministry of Health, through official letter No. HK 02.01 /Menkes /202/2020 issued a Self-Isolation protocol (Ministry of Health Indonesia, 2020). Local *Puskesmas* and COVID-19 tracers carry out the

Self-Isolation monitoring service. If, during the Self-Isolation monitoring, the Patient experiences worsening symptoms, the Patient must be referred to a local hospital.

The number of patients who self-isolate is enormous. Therefore, knowing the community's acceptance and the quality of the services is necessary to implement the paradigm of patient-centered care as a significant component of the healthcare mission (Al-Abri and Al-Balushi, 2014).

The focus of health services has begun to shift towards patient-centered care. The concept is how health service providers incorporate with patients to solve health problems. Today, many health service providers realize that patient satisfaction is central to fulfilling health services at health service centers and hospitals. Several studies have proven that patient satisfaction can improve clinical outcomes, health service efficiency, and the health service business (Teisberg et al., 2020; Zaid et al., 2020). Patient satisfaction surveys are essential for designing and evaluating healthcare services by reflecting service quality from the Patient's perspective and identifying patients who need additional attention (Crane et al., 2007).

The development of digital health interventions (DHI) has made it possible to treat patients through digital networks for specific reasons, such as the distance between services and patients, the limited number of experts in an area, and reasons for transmitting diseases such as COVID-19. At this time, DHI issues are affecting organizational impact, data security, choice of comparator, technical considerations, unmet medical needs, and legal aspects (Kolasa and Kozinski, 2020). Therefore, research on patient satisfaction with COVID-19 Monitoring Services is very much needed.

## METHOD

This research was a Quantitative Approach with a Cross-Sectional Study design conducted in the Kembangan District Health Center from April to June 2022. This study used the SERVQUAL model with Tangibles, Reliability, Responsiveness, Assurance, and Empathy as the independent variable and Patient Satisfaction as the dependent variable. The study employed a purposive sampling method to select participants from the population of COVID-19 patients who underwent self-isolation in the PHC Kembangan District of West Jakarta and received daily monitoring services between March and May 2022. The total population consisted of 1476 individuals, and a sample size of 100 was obtained using the Sloin formula.

$$N = \frac{N}{N(d)^2 + 1} = \frac{1476}{1476(0,1)^2 + 1} = 93,65$$

The study used a Google Forms questionnaire to collect data on patient satisfaction with monitoring services in Jakarta's Sub-District Health Centers (*Puskesmas*). The questionnaire included five dimensions of satisfaction measured on a Likert scale. The dimensions were Tangible, Reliability,

Responsiveness, Assurance, and Empathy. The Tangible dimension consisted of four questions related to the provision of medicine, swab tests, and the professional appearance of the health center staff.

The Reliability dimension had six questions related to the reliability and responsiveness of the health center staff in providing services and answering questions. The Responsiveness dimension had five questions about the staff's speed and skill in responding to complaints and needs and keeping patients informed. The Assurance dimension had five questions related to the security of patient data, adequacy of medicine and vitamins, adherence to health protocols, and building patient confidence. The Empathy dimension had four questions about the staff's consideration, friendliness, monitoring, and care toward patients. The respondents' satisfaction with the services the Kembangan District Health Center provided was also measured. The answers were categorized as either satisfied or not satisfied.

The primary data was collected through Google Forms and analyzed using a statistical program. The questionnaire included questions about respondent characteristics and five service quality dimensions (SERVQUAL), and the results were grouped based on the average Likert scale ratings across the five dimensions. Before distribution, we conducted a questionnaire trial in selected locations, and the results demonstrated that the questionnaire was both valid and reliable. Then, the data was analyzed using the chi-square test.

## RESULT

This study describes the characteristics of respondents based on age group, gender, education level, job status, and monthly income. The analysis results of the respondents' characteristics can be seen in Table 1 below.

**Table 1 Respondent Characteristics of Self-Isolation Patients**

Respondent Characteristic's	n
Age Group	
Non-Productive (<15 and >64 year)	3
Productive (15-64 years)	97
Gender	
Male	46
Female	54
Education Level	
Elementary School	34
Higher Education	66
Job Status	
Unemployment	29
Employment	71
Monthly Income	
< IDR 4,600,000	32
≥IDR 4,600,000	68

Table 1 presents the characteristics of the study participants, which revealed that 97 respondents were in the productive age group (15-64 years), 54 were female, 66 had higher education, 71 were employed, and 68 had a monthly salary of at least IDR 4,600,000 or equivalent to Jakarta's minimum wage.

Table 2 Frequency Distribution of Respondents' Statements on Monitoring Services obtained when Self-Isolating at home on the five dimensions SERQUAL.

Questions	Answer	n	%
<b>Tangible</b>			
The health center provides medicine and vitamins for free, according to the complaints experienced.	Disagree	8	8%
	Agree	92	92%
Get a free swab test at the <i>Puskesmas</i> .	Disagree	23	23%
	Agree	77	77%
My family/close contact got a free swab test at the <i>Puskesmas</i> .	Disagree	15	15%
	Agree	85	85%
Officers should have a professional appearance (wearing PPE, ID, etc.) when conducting home visits.	Disagree	16	16%
	Agree	84	84%
<b>Reliability</b>			
The staff is skilled in explaining the needs of the self-isolation period.	Disagree	12	12%
	Agree	88	88%
Reliable service personnel	Disagree	11	11%
	Agree	89	89%
Officers provide immediate service.	Disagree	16	16%
	Agree	84	84%
Officers have the readiness to answer questions asked	Disagree	10	10%
	Agree	90	90%
The staff is skilled in explaining how to use the drug.	Disagree	13	13%
	Agree	87	87%
The services received are as promised (fulfillment of swabs, drugs, vitamins).	Disagree	10	10%
	Agree	90	90%
<b>Responsiveness</b>			
Officers are quick to respond to complaints experienced.	Disagree	14	14%
	Agree	86	86%
The officers quickly responded to my request regarding the need for self-isolation.	Disagree	16	16%
	Agree	84	84%
The staff is skilled and capable of serving my needs during self-isolation.	Disagree	14	14%
	Agree	86	86%
The officers were willing to help me during my self-isolation period.	Disagree	13	13%
	Agree	87	87%
The staff is prepared to respond to my request during self-isolation.	Disagree	15	15%
	Agree	85	85%
The officer kept telling me when the service would be provided (swab schedule, medication, and vitamins).	Disagree	13	13%
	Agree	87	87%
<b>Assurance</b>			
The <i>Puskesmas</i> provides good security for my data	Disagree	13	13%
	Agree	87	87%
The medicine and vitamins that were given were adequate for the symptoms I was experiencing.	Disagree	10	10%
	Agree	90	90%
Officers can serve patients properly and politely during the self-isolation period.	Disagree	10	10%
	Agree	90	90%
The officers carried out health protocols so that I felt safe.	Disagree	8	8%
	Agree	92	92%
The officers grew my confidence during the self-isolation service.	Disagree	14	14%
	Agree	86	86%
<b>Empathy</b>			
The officers took individual care during the self-isolation period.	Disagree	19	19%
	Agree	81	81%
The staff is friendly.	Disagree	7	7%

The officers monitored my condition every day during the self-isolation period.	Agree	93	93%
	Disagree	25	25%
The staff served me with great care during the self-isolation period.	Agree	75	75%
	Disagree	18	18%
Officers prioritize patients during the self-isolation period.	Agree	82	82%
	Disagree	22	22%
	Agree	78	78%

The analysis results in Table 2 show that in the tangible dimension, 92% of patients stated that they had been provided medicine and vitamins according to the complaints experienced for free. Still, as many as 23% of patients need a free swab test at the *Puskesmas*. Then, in the reliability dimension, 90% agreed that officers were ready to answer questions and decided that they had received what was promised (fulfillment of swabs, drugs, vitamins). Still, as many as 16% of patients stated that officers did not provide immediate service.

Furthermore, 87% of patients agreed with the statements in the responsiveness dimension. The officers were willing to help me during my self-isolation period, and the officer kept telling me when the service would be provided (swab schedule, medication, and vitamins). However, 15% of patients disagreed that the staff was prepared to respond to my request during self-isolation.

In the assurance dimension, 92% of patients agreed with the statement that the officers carried out health protocols so that patients felt safe. However, 14% of patients disagreed with the statement that the officers grew their confidence during the self-isolation service. Then, in the empathy dimension, 93% of patients agreed that the staff was friendly. However, 25% of patients disagreed with the statement. The officers monitored my condition every day during the self-isolation period.

Table 3 Frequency Distribution of Respondents' Satisfaction with Monitoring Services from the Health Center

Respondent's Satisfaction	n	%
Not satisfied	12	12%
Satisfied	88	88%
Total	100	100%

Based on the analysis results in Table 3, it can be concluded that most respondents are satisfied with the COVID-19 self-isolation monitoring service from the *Puskesmas*, namely 88% of 100 respondents.

Table 4 Relationship of Patient Characteristics with Patient Satisfaction

Relationship	p-Value	OR (CI 95%) <sup>1</sup>
Age with patient satisfaction	0,321	0,256 (0,217 – 3,058)
Gender with patient satisfaction	0,990	1,221 (0,360 – 4,144)
Education level with patient satisfaction	0,213	2,857 (0,589 – 13,859)
Job-status with patient satisfaction	0,017	-
Monthly income with patient satisfaction	0,097	5,982 (0,737 – 48,529)

As the table above shows, only job status can affect the satisfaction of COVID-19 self-isolation patients at the *Puskesmas* with a p-value of 0.017 (p-value < 0.005).

Table 5 Relationship of SERVQUAL Dimensions with Patient Satisfaction

Relationship	p-Value	OR (CI 95%)
Tangible dimension with patient satisfaction	0,001	-
Reliability dimension with patient satisfaction	0,001	-
Responsiveness dimension with patient satisfaction	0,001	174,000 (17,309 – 1749,181)
Assurance dimension with patient satisfaction	0,001	-
Empathy dimension with patient satisfaction	0,001	23,240 (5,397 – 100,072)

Table 5 illustrates that all dimensions within the SERVQUAL framework are intricately linked to patient satisfaction during self-isolation. This observation underscores the interdependence of these service quality dimensions in shaping the overall level of satisfaction experienced by individuals undergoing self-isolation. It emphasizes the significance of addressing and enhancing each dimension within the healthcare system to meet and surpass patient expectations, ultimately contributing to a more positive and fulfilling experience for those in self-isolation.

## DISCUSSION

This study has uncovered significant findings regarding patient satisfaction and its influencing factors. Firstly, it has identified a substantial correlation between employment status and patient contentment, aligning with previous research findings (Rizal and Jalpi, 2018). Secondly, the study underscores the significance of the reliability dimension in service quality, emphasizing the importance of healthcare providers delivering services as promised, promptly, accurately, and satisfactorily (Zeithaml and Parasuraman, 2004). Notably, the responsive and empathetic dimensions, as integral components of the SERVQUAL model, exhibit a strong connection to patient satisfaction, supported by recent studies (Marzuq and Andriani, 2022; Saputra and Ariani, 2019). Consequently, healthcare institutions must prioritize the quality of their services in these dimensions to ensure a positive patient experience and higher satisfaction levels. The analysis results indicate that patients who receive effective monitoring services in the responsiveness dimension are 174 times more likely to report increased satisfaction with the COVID-19 self-isolation monitoring services provided by the health center.

A patient or service recipient needs services that can provide support, friendly and polite service, exemplary attention by officers, and responsive officers so that patients will feel helped and satisfied while receiving the services provided (Hermansyah and Darmana, 2019). For this reason, the responsiveness dimension requires more attention from health service providers to achieve patient satisfaction. However, in the field, some patients feel that officers need to be more responsive in serving patients, especially on holidays, and tend to be indifferent to the problems felt by patients.

This study also states a significant relationship between service quality in the assurance dimension and patient satisfaction. The assurance dimension is the ability of health service providers to provide guarantees on their services, including politeness, trustworthiness, knowledge, and staff skills, so that

patients are free from danger (Setyawan et al., 2019). However, according to observations in the field, some patients feel insecure regarding personal information, such as cellphone numbers, because several parties contact them. Maintaining communication between only two directions is better so that patients can feel safe regarding their data.

This study shows that patients in the empathy dimension are 23.240 times more likely to be satisfied with the COVID-19 self-isolation monitoring services received from the health Center. The empathy dimension is an essential Servqual dimension. Getting psychological attention from officers can affect the satisfaction felt by patients with the services received and be able to reduce the level of stress that patients may experience while undergoing the process from illness to recovery (Rizal et al., 2021).

According to the results of observations, some patients felt less cared for by officers while undergoing a period of independent isolation and felt that there was uneven service. In addition, respondents also felt difficulties in psychological terms during self-isolation, so patients also expected attention and encouragement in psychological terms from health workers to patients.

## CONCLUSION

An impressive 88% of respondents expressed satisfaction with self-isolation monitoring services. Notably, there was a significant association between employment status ( $p$ -value = 0.017) and each dimension of service quality ( $p$ -value = 0.001) with patient satisfaction. The study aimed to gauge patient satisfaction with self-isolation services, highlighting the highest satisfaction levels when the health center provided medicines and vitamins according to complaints, was ready to answer questions, served patients with politeness, and maintained a friendly staff. Conversely, lower satisfaction levels were observed when officers monitored conditions daily during self-isolation, access to free swab tests was challenging, and patient prioritization needed improvement. Addressing these areas of concern is vital to enhance patient satisfaction during self-isolation, leading to an improved patient experience overall.

## REFERENCES

- Adzania, F.H., Fauzia, S., Aryati, G.P., Mahkota, R., 2021. Sociodemographic and environmental health risk factor of COVID-19 in Jakarta, Indonesia: An ecological study. *One Health* 13, 100303.
- Al-Abri, R., Al-Balushi, A., 2014. Patient satisfaction survey as a tool for quality improvement. *Oman Medical Journal* 29, 3.
- Annur, C.M., 2021. 2.700 Pasien Meninggal Saat Isoman, DKI Jakarta Terbanyak [WWW Document]. Data book. URL <https://databoks.katadata.co.id/datapublish/2021/07/27/laporcovid-2700-pasien-meninggal-saat-isoman-dki-jakarta-terbanyak> (accessed 1.24.24).
- Caraka, R.E., Lee, Y., Kurniawan, R., Herliansyah, R., Kaban, P.A., Nasution, B.I., Gio, P.U., Chen, R.C., Toharudin, T., Pardamean, B., 2020. Impact of COVID-19 large scale restriction on

- environment and economy in Indonesia. *Global Journal of Environmental Science and Management* 6, 65–84.
- Crane, H.M., Lober, W., Webster, E., Harrington, R.D., Crane, P.K., Davis, T.E., Kitahata, M.M., 2007. Routine collection of patient-reported outcomes in an HIV clinic setting: the first 100 patients. *Current HIV research* 5, 109–118.
- Hermansyah, H., Darmana, A., 2019. Analisis Faktor Yang Memengaruhi Kualitas Pelayanan Kesehatan Dengan Metode Servqual Di Puskesmas Wilayah Kerja Dinas Kesehatan Aceh Timur Tahun 2018. *Health Care: Jurnal Kesehatan* 8, 58–69.
- Kolasa, K., Kozinski, G., 2020. How to Value Digital Health Interventions? A Systematic Literature Review. *International Journal of Environmental Research and Public Health* 17, 2119. <https://doi.org/10.3390/ijerph17062119>
- Kompas Cyber, 2021. Hundreds of Covid-19 Patients Died During Independent Isolation and Efforts to Handle It [WWW Document]. KOMPAS.com. URL <https://nasional.kompas.com/read/2021/07/06/09514311/ratusan-pasien-covid-19-meninggal-saat-isolasi-mandiri-dan-upaya> (accessed 9.25.22).
- Marzuq, N.H., Andriani, H., 2022. Hubungan Service Quality terhadap Kepuasan Pasien di Fasilitas Pelayanan Kesehatan: Literature Review. *Jurnal Pendidikan Tambusai* 6, 13995–14008.
- Minister of Health of the Republic of Indonesia. COVID-19, 2022. Jakarta COVID-19 Response Team [WWW Document]. COVID-19 Emergency Service. URL <https://corona.jakarta.go.id/en> (accessed 9.24.22).
- Minister of Health of the Republic of Indonesia. COVID-19, 2021. Infeksi Emerging [WWW Document]. URL <https://infeksiemerging.kemkes.go.id/> (accessed 9.28.22).
- Ministry of Health Indonesia, 2020. Circular Letter No. HK 02.01 /Menkes/202/2020.
- Rizal, A., Jalpi, A., 2018. Analisis Faktor Internal Penentu Kepuasan Pasien Puskesmas Kota Banjarmasin. *AL ULUM: JURNAL SAINS DAN TEKNOLOGI* 4, 1–6. <https://doi.org/10.31602/ajst.v4i1.1553>
- Rizal, F., Marwati, T.A., Solikhah, S., 2021. Dimensi Kualitas Pelayanan Dan Dampaknya Terhadap Tingkat Kepuasan Pasien: Studi Di Unit Fisioterapi. *Jurnal Kesmas (Kesehatan Masyarakat) Khatulistiwa* 8, 54–62.
- Saputra, A., Ariani, N., 2019. Hubungan Mutu Pelayanan Kesehatan Dengan Kepuasan Pasien Rawat Jalan Pengguna Kartu Bpjs Di Rumah Sakit Daerah Idaman Kota Banjarbaru. *Borneo Nursing Journal (BNJ)* 1, 48–60.
- Setyawan, F.E.B., Supriyanto, S., Tunjungsari, F., Hanifaty, W.O.N., Lestari, R., 2019. Medical staff services quality to patients satisfaction based on SERVQUAL dimensions. *International Journal of Public Health Science (IJPHS)* 8, 51–57.
- Teisberg, E., Wallace, S., O'Hara, S., 2020. Defining and implementing value-based health care: a strategic framework. *Academic Medicine* 95, 682.
- Zaid, A.A., Arqawi, S.M., Mwais, R.M.A., Al Shobaki, M.J., Abu-Naser, S.S., 2020. The impact of Total quality management and perceived service quality on patient satisfaction and behavior intention in Palestinian healthcare organizations. *Technology Reports of Kansai University* 62, 221–232.
- Zeithaml, V.A., Parasuraman, A., 2004. *Service quality*. Cambridge, MA.