



ANALYSIS OF THE INFLUENCE OF JKN MOBILE USERS ON PERCEPTION OF PATIENT SATISFACTION OF OUTPATIENTS CARE AT YAPIKA HOSPITAL

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ABSTRACT

This study aims to examine the relationship between the use of Mobile JKN digital services and outpatient satisfaction at Yapika General Hospital. The study employed a quantitative design with a cross-sectional approach. A total of 150 respondents were selected using accidental sampling technique. Data were collected through a Likert-scale questionnaire based on five dimensions of service quality, namely tangibles, reliability, responsiveness, assurance, and empathy. Data analysis was conducted using univariate and bivariate statistical tests with a significance level of $\alpha = 0.05$. The results showed that the dimensions of reliability, responsiveness, and assurance had a statistically significant relationship with patient satisfaction ($p < 0.05$). Meanwhile, the dimensions of tangibles and empathy did not show a statistically significant relationship ($p > 0.05$). Overall, the use of the Mobile JKN application has met patient satisfaction; however, strengthening the empathy dimension is recommended to further improve the overall quality of healthcare services.

INTRODUCTION

Patient satisfaction is a key indicator in assessing the quality of healthcare services and is a crucial factor influencing the sustainability

and profitability of healthcare institutions. Factors such as the behavior of healthcare workers and increasing public expectations also contribute to patient satisfaction perceptions. Therefore, an active role and

policy from the government are needed to ensure that increasingly complex and essential healthcare needs are met, in line with the dynamics of social change and advances in medical technology (Suciati & Zaman, 2023).

A variety of countries have adopted digital systems in healthcare, which have been shown to contribute significantly to increased patient satisfaction. A 2021 report from the World Health Organization noted that Sweden and Finland achieved very high patient satisfaction rates, exceeding 90%, thanks to the effective implementation of digital service systems that facilitate access and efficiency of technology-based services. These findings indicate that the use of digital technology is a crucial strategy for improving service quality. However, the implementation of similar technologies in Indonesia still faces several obstacles, including low digital literacy and limited infrastructure in remote areas (Narmansyah et al., 2022).

According to 2021 World Health Organization (WHO) data, which compiled more than 6 million patient feedback from 25 countries, Sweden achieved the highest satisfaction rate at 92.37%, followed by Finland (91.92%), Norway (90.75%), the United States (89.33%), and Denmark (89.29%). Conversely, Kenya and India showed the lowest satisfaction rates, at 40.4% and 34.4%, respectively (WHO, 2021).

Along with advances in information technology, health service institutions are required to transform to be able to provide

efficient services that are oriented towards patient comfort (Pramesti & Gita, 2023). In response to these demands, BPJS Kesehatan launched the Mobile JKN application on November 15, 2017. This application was developed to facilitate National Health Insurance participants in accessing digital healthcare services. Using a multi-channel, multi-phase model, this application integrates the service process at healthcare facilities, from registration and clinic services to results collection at the pharmacy.

Usage of the Mobile JKN app continues to grow. Since its launch in 2017, the app has been downloaded over one million times on both Android and iOS devices. By the end of 2022, it had over 16 million active users in 10 major cities, including Makassar, with a total of 245,341 users (Narmansyah et al., 2022). At Yapika General Hospital, based on data from January to December 2024, 17,132 patients have used this application, indicating increasing public engagement with digital-based healthcare services provided by BPJS Kesehatan.

Advanced healthcare users who use the Mobile JKN application tend to report higher levels of satisfaction compared to those who have to queue in person (Wahidah et al., 2023). This satisfaction is influenced by benefits such as reduced in-person queues and ease of scheduling visits. However, the use of this application still faces several obstacles, such as a lack of information or public awareness, limited user understanding of available

features, and limited internet access in some areas.

Therefore, this study focused on the impact of the use of the Mobile JKN application on outpatient satisfaction levels at Yapika General Hospital.

METHODS

This study employed a quantitative approach with a cross-sectional design. The study was conducted at Yapika General Hospital, Gowa Regency, South Sulawesi Province, from March 13 to April 25, 2025. The sample consisted of 150 BPJS patients who used the Mobile JKN application, selected using accidental sampling during a two-week data collection period. Data collection was conducted through a questionnaire designed to measure five dimensions of service quality. Data analysis was performed univariately to describe the frequency distribution of each variable, and bivariately using binary logistic regression to examine the effect of each dimension on patient satisfaction levels.

RESULTS

Referring to the results of data analysis collected from 150 respondents, the following findings were obtained:

Respondent Characteristics

Based on Table 1, the majority of respondents were in the 26–35 age group (54 respondents) (36.0%), while the fewest respondents were in the 56–65 age group (4 respondents) (2.7%). The majority of respondents were female (107 respondents) (71.3%), while 43 were male (28.7%). In terms of education, the highest number of respondents had a high school education (76 respondents) (50.7%), while the lowest number of respondents had a master's degree (2.0%). Based on employment status, the majority of respondents were unemployed (90 respondents) (60.0%), while the lowest number of respondents were lecturers, farmers, and planners (0.7%) each.

Table 1. Characteristics of Outpatient Respondents at Yapika General Hospital

Respondent Characteristics	Frequency (f)	Percentage (%)
Age Group		
12-16 Years	3	2.0
17-25 Years	29	19.3
26-35 Years	54	36.0
36-45 Years	31	20.7
46-55 Years	29	19.3
56-65 Years	4	2.7
Gender		
Male	43	28.7
Female	107	71.3
Highest Education		
Elementary School	5	3.3
Junior High School	18	12.0

High School	76	50.7
D1/D3	11	7.3
D4/S1	37	24.7
>Master's Degree	3	2.0
Employment Status		
Employed	60	40.0
Civil Servant	8	5.3
Private Employee	8	5.3
Self-Employed	26	17.3
Teacher	8	5.3
Lecturer	1	0.7
Farmer	6	4.0
Engineer	1	0.7
Pharmacist Assistant	2	1.3
Not Working	90	60.0

Source: *Primary Data 2025*

Univariate Analysis

The results of the univariate analysis in Table 2 show that almost all respondents were satisfied with the use of the Mobile JKN application (147 respondents (98.0%)), while 3 respondents (2.0%) were dissatisfied. When viewed by dimension, the highest level of

satisfaction was found in direct evidence (98.0%), followed by reliability (94.0%), responsiveness (89.3%), and assurance (80.7%). Conversely, the empathy dimension had the lowest level of satisfaction, at only 32.0%. This illustrates that while patients are generally satisfied, empathy remains a weakness in the application's service.

Table 2. Mobile JKN Patient Satisfaction Level

Satisfaction	Satisfied		Dissatisfied		Total	
	F	%	F	%	N	%
JKN Satisfaction Level	147	98,0	3	2,0	150	100
Tangibles	147	98,0	3	2,0	150	100
Reliability	141	94,0	9	6,0	150	100
Responsiveness	134	89,3	16	10,7	150	100
Assurance	121	80,7	29	19,3	150	100
Empathy	48	32,0	102	68,0	150	100

Source: *Primary Data 2025*

Bivariate Analysis

Bivariate analysis using the chi-square test in Table 3 shows that not all dimensions are related to patient satisfaction. The dimensions of direct evidence and empathy were not significant ($p = 1.000$ and $p = 0.552$, respectively). Meanwhile, reliability ($p = 0.000$), responsiveness ($p = 0.001$), and assurance ($p = 0.000$) were significantly related to satisfaction. This means that the accuracy of service, speed of response, and sense of security provided by the application play a significant role in shaping patient satisfaction.

Table 3. The Influence of Service Quality Dimensions on Patient Satisfaction Levels

Dimensions of Service Quality	Satisfaction				Total		P-Value
	Satisfied		Dissatisfied				
	N	%	n	%	N	%	
Tangibles							1,000
Good	144	98,0	3	2,0	147	100	
Poor	3	100	0	0,0	3	100	
Total	147	98,0	3	2,0	150	100	
Reliability							0,000
Good	141	100	0	0,0	141	100	
Poor	6	66,7	3	33,3	9	100	
Total	147	98,0	3	2,0	150	100	
Responsiveness							0,001
Good	134	100	0	0,0	134	100	
Poor	13	81,3	3	18,8	16	100	
Total	147	98,0	3	2,0	150	100	
Assurance							0,007
Good	121	100	0	0,0	121	100	
Poor	26	89,7	3	10,3	29	100	
Total	147	98,0	3	2,0	150	100	
Empathy							0,552
Good	48	100	0	0,0	48	100	
Poor	99	97,1	3	2,9	102	100	
Total	147	98,0	3	2,0	150	100	

Source: *Primary Data 2025*

Multivariate Analysis

The logistic regression results in Table 4 show that reliability, responsiveness, and assurance all influence patient satisfaction ($p < 0.05$). However, no single dimension is dominant, as the Odds Ratio (OR) values do not show significant differences between the variables. Thus, patient satisfaction with the Mobile JKN application is influenced by a combination of these three dimensions, not just a single factor.

Table 4. Multivariate Logistic Test Between Reliability, Responsiveness and Empathy on Satisfaction Level

Variables	B	SE	Wald	Sig	OR (95%CL)
Reliability	17,498	2972,379	0,000	0,995	0,000
Responsiveness	3,865	12915,128	0,000	1,000	0,000
Assurance	12,601	13275,527	0,000	0,999	0,000
Constant	-68,216	8549,781	0,000	0,994	0,000

Source: *Primary Data 2025*

DISCUSSION

The results showed that the majority of respondents expressed satisfaction with the services provided through the Mobile JKN application at Yapika Hospital. In univariate analysis, the dimension with the highest level of satisfaction was found to be direct evidence (98.0%), followed by reliability (94.0%), responsiveness (89.3%), assurance (80.7%), and empathy (32.0%). However, bivariate analysis showed that only reliability, responsiveness, and assurance had a significant relationship to patient satisfaction ($p < 0.05$). Meanwhile, direct evidence and empathy did not show a statistically significant effect ($p > 0.05$). Furthermore, the results of

multivariate testing using logistic regression revealed that no dimension predominantly influenced the level of patient satisfaction ($p > 0.05$).

Patient Satisfaction Level with Mobile JKN

In general, the results of this study indicate that the use of the Mobile JKN application has been able to meet the majority of patient expectations for outpatient services. This finding aligns with a study by (Rohmah et al., 2024) which reveals that almost all dimensions of service quality have a significant relationship with user satisfaction

In the context of public health, patient satisfaction is an important measure of service

quality, as stipulated in Decree of the Minister of Health of the Republic of Indonesia Number 129 of 2008, which sets a minimum standard of 90% patient satisfaction. The high level of satisfaction identified in this study confirms that the application of information technology in healthcare facilities can be an effective strategy for improving service quality (Niartiningsih et al., 2025). This is also reinforced by Suciati & Zaman (2023), which states that the adoption of digital systems plays a role in improving the quality of healthcare services.

Tangibles

A total of 98.0% of respondents expressed satisfaction with the tangible aspects, including the app's interface, menu design, and ease of navigation. This finding indicates that the app's visual and technical elements meet user expectations. A similar finding was also found by (Herlinawati et al., 2021) which noted that an informative app interface facilitates the online registration process, especially during the COVID-19 pandemic. From a public health perspective, a well-designed app can improve patient digital literacy, reduce data entry errors, and expedite service delivery. (Pramesti & Gita, 2023).

Reliability

total of 94.0% of respondents perceived the Mobile JKN service as reliable in providing consistent and timely services. This finding is in line with the study conducted

by Trianggraini et al. (2024), which stated that the reliability of information technology systems has a positive impact on user trust in digital health services. However, Hewu Hawini et al. (2022) noted that among elderly users, reliability remains limited due to constraints in adapting to technology. Reliability is a crucial element in ensuring service continuity without technical disruptions.

Responsiveness

A total of 89.3% of respondents gave a positive assessment of the responsiveness dimension, particularly in terms of system response speed and ease of access to in-app features (Bahri et al., 2022) shows that rapid response in digital health applications can accelerate service flow and increase user satisfaction. However, Saputra & Istiqomah (2024) reported that there are still delays in response to certain features, which hinders the user experience. In public services, system speed and readiness are crucial factors that can shorten waiting times and increase efficiency (Wahidah et al., 2023).

Assurance

The assurance dimension achieved a satisfaction rating of 80.7%, indicating a sense of security and trust among patients in the information provided, the ethics of service, and the quality of the services provided. This finding aligns with research (Lestari et al., 2024), which found that clarity and accuracy

of information are key elements in building trust in healthcare apps. However, the presence of some respondents who remained uncertain indicates the need to improve the quality and consistency of information delivered through the application.

Empathy

The empathy dimension received the lowest score of all dimensions studied, at only 32.0%. This reflects that the personal interaction or individual attention experienced by patients through the application is still not optimal. This finding contradicts the SERVQUAL concept developed by Parasuraman et al. (1988), which emphasizes empathy as a critical component in creating service satisfaction. In healthcare, empathy plays a crucial role in forming an emotional bond between the provider and recipient, which impacts patient adherence to therapy. (Ula et al., 2021).

Multivariate Analysis

Referring to the results of the multivariate analysis conducted using logistic regression, no service quality dimensions were found to significantly influence patient satisfaction. This is likely because respondents' satisfaction levels were generally high, so differences between dimensions were insufficient to demonstrate a significant impact. From a public health perspective, these results reinforce the view that service quality is the result of collaboration across all service

elements, not solely dependent on one specific aspect (Suciati & Zaman, 2023).

CONCLUSION

Based on the findings of this study, the following conclusions can be drawn:

1. The use of Mobile JKN does not significantly impact patient satisfaction in the Tangibles dimension.
2. There is a significant relationship between the use of Mobile JKN and patient satisfaction in the Reliability dimension.
3. The Responsiveness dimension significantly impacts patient satisfaction in the use of Mobile JKN.
4. The Assurance dimension significantly impacts patient satisfaction in Mobile JKN users.
5. No significant relationship was found between the use of Mobile JKN and patient satisfaction in the Empathy dimension.

SUGGESTION

Based on the findings of this study, several recommendations can be made, including:

1. Mobile JKN administrators, along with hospital management, are expected to optimize service quality, particularly in terms of empathy, by strengthening more personalized communication and being responsive to patient needs and input.
2. Regular evaluation of the features and service flow within the Mobile JKN application is necessary to ensure ease of

access, speed of response, and the suitability of services to user

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