Influence of The Level of Knowledge of BPJS Patients on The Use of JKN Mobile Applications in TP2RJ RSU Thalia Irham Gowa

Agustina*, Lilik Meilany, Muh Erwin Rosyadi, Asriyanti

STIKes Panakkukang Makassar

ABSTRACT

Background : *TheMobile* JKN application is a new breakthrough developed by BPJS Kesehatan which provides convenience for participants to register or register in health services, take online queues, but there are still very few BPJS patients who use the *Mobile* application JKN data found that the total number of outpatient visits per day is 100 – 200 at Thalia Irham Goawa Hospital, only 10 – 15 use the JKN Mobile Application. **Objective**:To determine the influence of BPJS patients' knowledge level on the use of *the Mobile* JKN Application at TP2RJ. **Method:** This type of qualitative descriptive research with a simple linear regression analysis technique, a sample of 75 respondents, and *an accidental* sampling technique. **Results:** The results of simple linear regression showed a Significance Value = $0.000 <$ a probability value of 0.05 which means that there is an influence on the BPJS Patient Knowledge Level in TP2RJ, while the correlation value (R) = 0.688 and the determination coefficient (R Square) = 0.473, the following categories of independent variable influence strength (BPJS Patient Knowledge Level in TP2RJ) on the dependent variable show the strength of the influence magnitude is included in the category with a value of 0.30 – 0.50 (Utilization of Mobile JKN Application in TP2RJ): **Conclusion:** H0 rejected and Ha accepted there is an effect of BPJS patients' knowledge level on the utilization of the Mobile JKN Application, Meanwhile, the Knowledge Level variable has a moderate influence on the variable of the Utilization of the Mobile JKN Application in TP2RJ

Keywords: *JKN Mobile Application*, Knowledge Level,   Utilization

INTRODUCTION

Act No. 40 of 2004 on the National Social Security System (SJSN) provides a new foundation for the government to provide social security to citizens. The Government of Indonesia has implemented the National Health Insurance (JKN) since 2014 through Act 24 of 2011 on the Organizing Authority of Social Insurance Health (BPJS). BPJS Health, as the organizing authority, is a public law body formed to organize the program of National Health Assurance—Healthy Indonesia Card for all the people of Indonesia. It is mandated to develop the system of health services, quality control systems, and cost control, as well as the payment system of efficient and effective health services, in order to ensure the stability of the JKN program. (Suhadi et al., 2022) This

mobile application of JKN is expected to reduce the number of BPJS patients, especially at the reception point of road care patients (TP2RJ) in Thalia Irham RSU, by providing the best service to the community. The benefits of the JKN Mobile app can help the public easily solve administrative affairs by using smartphones anywhere and anytime.

Through this program, the community has a positive and a negative impact. The positive impact is in terms of ease of access and better service for patients. With Mobile JKN, hospitals can minimize the accumulation of hospitals at the patient reception site. (TPP) (Suhadi1*, Jumakil2, Kamrin3, 2022). The negative impact is the non-speech of the user or lack of user knowledge regarding the use of the health service application. Registration is done with a mobile phone number, and the public complains that the OTP code does not appear after the registration on the application, so subsequent registration cannot be resumed. As for the constraints experienced by officials, such as frequent participants changing cell phone numbers but not reporting the data to BPJS Health, This can make it difficult for participants to access the JKN Mobile app, and it can create new problems for users.(Nurhidayah et al., 2024) Based on the results of research conducted by Nurhayati 2022 on the optimization of the use of JKN mobile applications in the community in the state of Sanggrahan, the research results showed that the data obtained from 33 respondents stated that services provided through JKN mobile applications have been said to be effective because they have met all the measurement factors of the effectiveness of services and information received. The public is satisfied with the services provided through the application, where they can feel the facilities such as registration of new participants. BPJS, registration in the service FKTP or FKTRL, can change the data of participants and families, and can see information related to JKN-KIS.

The public and participants can also feel the speed and accuracy of obtaining services and information provided through this mobile application, JKN.(Nurhayati, 2022) Based on the results of the preliminary study carried out by the author at the time of passing the guidance of PKL at RSU Thalia Irham Gowa, the initial data showed that the number of patients BPJS treated per day was 100–200, but patients who use the mobile application JKN per day had 10–15 users per day.

METHODS

This type of research uses highly descriptive and simple linear regression analysis techniques. The study was carried out at the Thalia Irham Public Hospital, located on

the street Poros Limbung No.KM. 15, Panciro Kec. Bajeng, Gowa District, South Sulawesi.

The population in this study is BPJS patients who registered for outpatient services, for a total of 300 patients. In this study, the method of non-probability sampling (random sample) is used in the case of random sampling. The BPJS patient who was admitted to the outpatient registration street of Thalia Irham Gowa General Hospital was a sample in this study. In this study, there is one independent variable (free), namely the level of knowledge of patients with BPJS in TP2RJ (X). In this research, there is also 1 (a) dependent (bound) variable, namely the use of JKN Mobile Applications in TP 2RJ (Y).

The data collection was carried out using the Questioner and Observation method with a quantitative approach with the officers, patients, or relatives of patients of BPJS street care at Thalia Irham Gowa. The method of the questionnaire has been performed. Test of validity and reliability: Tests on validity and reliability were performed on this study to ensure that the data obtained by means of querying is valid and reliable. The simple linear regression analysis method is used to determine the influence of both variables. (variabel X).

RESULTS

The results from table 1, show that the gender-based characteristics of respondents indicate that the number of patients based on gender is more male (53.3%) than female (46.7%).

Table 1. Respondents Characters Based on Gender Type of Outpatient BPJS Patients in June 2024 at Thalia Irham Gowa general Hospital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	40	53.3	53.3	53.3
	female	35	46.7	46.7	100.0
	Total	75	100.0	100.0	

From the results of table 2, it shows that the number of patients based on age is mostly aged 26-35 while the lowest is aged 17-25 years.

Table 2. Respondents Characters Based on Age of Outpatient BPJS Patients in June 2024 at Thalia Irham Gowa general Hospital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25 years	1	1.3	1.3	1.3
	26-35 years	35	46.7	46.7	48.0

	Frequency	Percent	Valid Percent	Cumulative Percent
36-45 years	31	41.3	41.3	89.3
46-55 years	8	10.7	10.7	100.0
Total	75	100.0	100.0	

Out of the results of table 3, 23 (30.7%) of respondents were under- educated and 52 (69.3%) had higher education.

Table 3. Respondents Characters Based on Education of Outpatient BPJS Patients in June 2024 at Thalia Irham Gowa general Hospital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	23	30.7	30.7	30.7
	High	52	69.3	69.3	100.0
	Total	75	100.0	100.0	

The results of Table 4 show that the characteristics of respondents based on work were: civil servants counted 6 patients (8%), private employees counted 11 patients (14.7%), farmers counted 10 patients (13%), and households counted 48 patients (64%).

Table 4.Respondents Characters Based on Occupation of Outpatient BPJS Patients in June 2024 at Thalia Irham Gowa general Hospital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	households	48	64.0	64.0	64.0
	private employees	11	14.7	14.7	78.7
	farmers	10	13.3	13.3	92.0
	civil servants	6	8.0	8.0	100.0
	Total	75	100.0	100.0	

The size/strength of the influence of the independent and dependent variables can be known through the summary model table, known: Correlation value (R) = 0.688, Determination coefficient (R Square) = 0,473 means the magnitude of the independent variable influence on the level of knowledge of the BPJS patient in TP2RJ against the variable dependent on the Mobile Application Usage variable JKN in TP2RJ) of 0.688 x 100 = 68.8%.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.688[a]	.473	.466	11.509

a. Predictors: (Constant), BPJS Patient Knowledge

Based on the above Anova table shows that the difference between the predicted value and the actual value is very Significant with the value for the Sing value: 0,000, which indicates that the differences between the forecasted and actual value are very significant.

Table 5. Anova Statistical Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8676.442	1	8676.442	65.499	.000[b]
	Residual	9670.144	73	132.468		
	Total	18346.587	74			

a. Dependent Variable: Using JKN Mobile Applications in

b. Predictors: (Constant), BPJS Patient Knowledge

based on the above coefiesien table obtained a constant value of 21,584, which means that if the knowledge level of the BPJS patient in TP2RJ is equal to 0, then the use of the JKN mobile application in TP2RJ can be predicted as 21.584. The knowledge level for BPJS patients in TP2RJ with a value of 8.093, which means every increase in the knowledge of the patient, then the usage of JKN Mobile application is also increasing. This is demonstrated by the Beta trial with the value of 0.688 which shows that the knowledge levels of BPJS in TP2RJ have a significant correlation with the utilization of Mobile JKN applications in TP2RJ

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95,0% Confidence Interval for B Lower Bound	95,0% Confidence Interval for B Upper Bound
1	(Constant)	21.584	6.315		3.418	.001	8.999	34.170
	Pengetahuan Pasien BPJS	.694	.086	.688	8.093	.000	.523	.865

a. Dependent Variable: Pemanfaatan Aplikasi Mobile JKN di TP2RJ

Based on the results of the statistical test with simple linear regression test obtained the result is: Ho = No influence between the patient's knowledge level variable BPJS in TP2RJ (X) on the mobile application usage variable JKN in TP2/RJ(Y), Ha = There is influence among the knowledge-level variable Patient BPJS at TP2 RJ(X) over the mobile

applications usage variant JKN at TP2/ RJ (Y). If the significance value is < 0.05, then the X variable is influenced by the Y variable. Then the H0 analysis results are rejected and Ha received which means there is an influence between the variables X and Y.

Output Tabel Model Summary

The size/strength of the influence of the independent and dependent variables can be known through the summary model table, known as the correlation value (R) = 0.688, the determination coefficient (R Square) = 0,473 which means the magnitude of influence independent variables (the level of knowledge of the patient BPJS in TP2RJ versus the dependant variable (Usage of JKN Mobile Applications in TP2RJ) of 0.688 x 100 = 68.8%.

<div align="center">DISCUSSION</div>

The result of simple linear regression indicates that the significance value is 0.000 < probability value 0.05. Then the H0 analysis result is rejected and Ha is received, which means there is an influence between variables X and Y, or, in other words, the level of knowledge of patients. BPJS in TP2RJ has a significant correlation with the use of the mobile application JKN in TP3RJ. In other words, the higher the knowledge level of patient BPJS at TP2, the higher is the utilization of the mobile app JKN at TP2. According to Herlinawati research, dkk (2021) uses the population of all participants of BPJ in the district of Cirebon in 2021 who have downloaded the mobile application of JKN. The survey found that 73% of respondents felt satisfied with the online registration of BPJS health on the JKN mobile application at the time of COVID-19. As many as 27% of the respondents who felt dissatisfied felt that it was easier to get directly to the BPJS medical office to carry out registration online. Respondents felt dissatisfied due to nervous technology, a lack of mastery of application usage, and the fact that many NIKs are not online with DukCapil. Other triggers were that there was no signal from the Internet. As a result, participants thought the obstacle was the application or delayed admin serving participants. There is also the assumption that there is a lack of socialization from the authorities or BPJS health regarding the use of mobile applications; otherwise, most people are already accustomed to using applications on mobile phones or internet platforms. (Nurhayati, 2022)

R Square and adjusted R Square show that the 47.3% variation in JKN Mobile Application Usage in TP2RJ can be explained by the BPJS Patient Knowledge Level in

TP3RJ. This means that the BPJ patient knowledge level variable in TP4RJ has a significant contribution to the variation of JKN mobile application usage in TP2 RJ. As for correlation strength, it demonstrates how strong the relationship between the two variables is. The higher the R, the stronger the relationship. In this case, the R = 0.688 indicates a strong relationship between the level of knowledge of the BPJS patient and the use of the JKN mobile application. This means that the higher the knowledge level of BPJS patients in the TP2RJ, the greater the likelihood that they will use the JKN Mobile Application. However, it is worth noting that R square does not show a direct cause-and-effect relationship. This means that the level of knowledge of BPJS patients in TP2RJ may not be the only factor affecting the use of JKN mobile applications. Other factors, such as ease of access to the Internet, the availability of smartphones, and the support of the health care personnel in TP 2RJ, can also play a role. However, overall, the findings suggest that the level of knowledge of BPJS patients in TP2RJ is an important factor that affects the use of JKN mobile applications. This suggests that efforts to improve patient knowledge about JKN mobile applications can help improve their usage.

Increased knowledge of the use of JKN mobile applications in TP2RJ can bring several benefits, among them: To improve the efficiency and effectiveness of health services, it is important to ensure that available resources are used optimally and desired results are achieved through the mobile JKN application. Patients can access health information and improve health services for BPJS Health participants through JKN's mobile application, among other things. Participation Information. Patients can check their BPJS Health attendance status, including fee payment details and active attendance times, on a digital participant card, which can be used when taking medication. Health Facilities Information: Patients can search and find a list of health facilities (health center, clinics, and hospitals) that cooperate with BPJS Health, as well as the location of the nearest health facility. In addition, patients can view the history of visits to health facilities recorded in the BPJS Health System, including treatment and treatment received by patients.(Suhadi1*, Jumakil2, Kamrin3, 2022).

Make a waiting list online and consult with a doctor through an app, thus reducing waiting times and improving patient comfort. The waiting time of the ambulance service is the time it takes from the start of the patient's registration until it is served by a specialist physician. The standard for the standby time indicator on the road is ≤ 60

minutes. (Kemenkes R.I., 2008) The JKN mobile application was created to support JKN services in Indonesia. The basic idea behind providing this service is to make it easier for users, in this case, JKN participants, to use JKN services without having to get direct service from officers. Many of the benefits of JKN Mobile applications include shortening services, accelerating services, simplifying services, reducing the cost of production, preventing service interruptions, and increasing service satisfaction. Based on the findings and results of the research, it indicates that the digital age today wants all public services, including JKN services, to continue to innovate in the form of mobile applications. This is in line with the increase in the population of smart phone users in Indonesia to reach 100 million more, which means that the infrastructure side is very supportive of the operation of JKN mobile applications. The use of the mobile application JKN in its implementation has also received a broad response in society because its operation is more flexible, easy, and can be done anywhere and anytime. On the fact that the community of users of the JKN application felt that access to JKN services was easier without having to visit the BPJS office of the bank, This fact shows that the user community can experience huge benefits when using the JKN mobile app. (Suhadi et al., 2022).

Not in line with the research carried out by (Wulandari, Sudarman, & Ikhsan, 2019) and (Prasetiyo & Safuan, 2022). Research (Wolandari, Sudarma, & Ishsan, 2019) mentions the results of the interim observations conducted in West Aceh district, but the public still lacks knowledge related to the application Mobile JKN. There are still a lot of people who don't have access to their own apps, and some people don't even know about them.

The practice of using the JKN Mobile app in several cities has been tested for its effectiveness. As in the study carried out by Sari et al. (2019) that examined the effectiveness of the use of mobile applications JKN and the minimization of entries in one of the health facilities, it was further concluded that by using five elements or components of the model of the success of information systems according to DeLone and McLean (2003), the presentation of the results of the level of efficiency independent variable seen in the system quality dimensions 78.9%, information quality 76.2%, and service quality 73.9%. Meanwhile, the variable depends on the user satisfaction elements (78.25%) and net benefits (80.5%) (Aidii Safarah, 2023). To improve patient compliance with treatment, the application can be used to regulate the

consumption of medicines and monitor their treatment progress. Implementation of JKN is expected to positively affect patient medication compliance. With comprehensive health insurance, patients have easier access to necessary health services, including routine examinations, treatment, and education related to disease management. Patients may be more motivated to follow the recommended treatment because their financial burden is reduced (Nurgahayu & Ulfah, 2020; Sholehah, 2020).(Renaldi et al., 2023).

A patient with type 2 diabetes requires medication on a regular basis, and adequate medication availability and easy access can improve medication compliance. A doctor can play a role in ensuring that necessary medications are available and reducing barriers to obtaining medication consistently. In addition, JKN also provides an opportunity to improve patient education on type 2 diabetes and disease management. Through the educational programs provided in the framework of the JSC, patients can gain a better understanding of recommended treatments, healthy diets, physical activity, and the importance of managing their illness properly. This enhanced understanding is expected to promote better drug compliance in patients with type 2 diabetes. (Renaldi et al., 2023) Facilitating communication between patients and health workers, patients are able to communicate with their physicians through the app on the doctor's consultation menu, where patients get answers to their questions more easily. Therefore, it is important to continue to improve education and socialization about JKN mobile applications among BPJS patients in TP2RJ. This can be done in various ways, such as: organizing training and workshops on the mobile application of JKN; Sharing brochures and leaflets on JKN Mobile applications, Installing posters and banners on the JKN mobile application in TP 2RJ and providing assistance services for patients who have difficulties using JKN's mobile application(Suhadi1*, Jumakil2, Kamrin3, 2022)

By increasing the use and knowledge of JKN mobile applications, it is expected to improve the quality of health services and public health as a whole. According to Parasuraman, quality of service is the comparison between the service perceived by the customer and the quality of the service expected by the client. According to Kotler, quality of service is a dynamic condition that relates to products, services, people, processes, and environments that meet or exceed expectations.(Asmaul Khusna et al., 2021).

CONCLUSIONS

Significance value = 0,000 < probability value = 0,05 Then the H0 analysis result was rejected and Ha received, which means that there is an influence of the level of knowledge of the BPJS patient on the use of the JKN Mobile Application in the street nursing unit at the General Hospital of Tahlia Irham Kab Gowa. Based on the correlation value (R) = 0,688 and the determination coefficient (R Square) = 0.473, the following category of strength of influence independent variable (BPJS Patient Knowledge Level in TP2RJ) on dependent variables (Use of Mobile Applications JKN at TP2 RJ) shows the strength of the influence in the middle category with Value 0.30 – 0.50 It can be concluded that the independent variable (improved knowledge of patient BPJS inTP2R J) has a moderate influence on dependent variables.

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