

Factors Affecting Inpatient Patient Satisfaction of Social Security Agency of Health (BPJS) Participants at Bangkinang Hospital

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ARTICLE INFO

Article history:

Received Dec 05, 2022

Revised Dec 21, 2022

Accepted Dec 30, 2022

Keywords:

Satisfaction,
Social Security Agency of
Health,
Bangkinang Hospital.

ABSTRACT

Bangkinang Hospital is the main referral hospital for the people of Kampar, especially Social Security Agency of Health (BPJS) patients. Inpatient satisfaction at Bangkinang Hospital in 2021 is 76%. The standard according to the Ministry of Health is $\geq 90\%$. The BOR value has decreased in the last three years, namely 2019 by 57%, 2020 by 52% and 2021 by 43%. One of the causes is the Covid-19 pandemic that has occurred in the last two years. The standard BOR value is 60-85%. The purpose of this study was to look at the factors that influence inpatient satisfaction of Social Security Agency of Health (BPJS) participants at Bangkinang Hospital. The research was conducted in the inpatient room of Bangkinang Hospital, August 2022 with a total sample of 96. This type of research is an analytic study with a cross-sectional design. The data analysis used was univariate, bivariate and multivariate. Bivariate analysis showed that the variables that influenced patient satisfaction were empathy ($p = 0.011$), responsiveness ($p = 0.009$), reliability ($p = 0.014$) and patient experience ($p = 0.007$). Variables that have no effect are assurance ($p = 0.238$) and tangible ($p = 0.073$). Multivariate analysis obtained two confounding variables, namely assurance and tangible. The variable that has the dominant influence is the patient's experience with a POR value of 7,495. The conclusion of this study is that there are four variables that influence patient satisfaction and two confounding variables. The suggestion of this research is that it is necessary for homes to complete facilities in inpatient rooms, especially call bells, provide training to improve the competence of officers, and ESQ training.

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INTRODUCTION

Health services are one of the basic rights of the people whose provision must be administered by the government as mandated in the 1945 Constitution article 28 H paragraph (1) Everyone has the right to live in physical and spiritual prosperity, to have a place to live, and to have a good and

healthy environment. and have the right to obtain health services[1][2]. One of the health insurance for the Indonesian people is the National Health Insurance (JKN) or commonly known as BPJS for health. Social Security Agency of Health (BPJS) is a manifestation of the government's efforts to guarantee the health of all Indonesian citizens [3][4]. According to the latest data on October 7 2022, the number of participants in the National Health Insurance Program (JKN) has increased to 246,464,342 people or approximately 89, 35% of the entire population of Indonesia. In an effort to maximize services, the Social Security Agency of Health (BPJS) services have many complaints and questions from the public. BPJS health participant satisfaction survey [5] [6]. The satisfaction survey conducted by BPJS shows that the satisfaction rate for BPJS Kestran participants continues to increase, namely 80.1% in 2019 to 81.5% in 2020 [5]. one of the causes of people not wanting to use BPJS for health is service dissatisfaction. Satisfaction arises within oneself after someone compares the services obtained with what is expected[7][8]. Some literature states that there is a relationship between patient satisfaction and the increasing number of patient visits to the hospital. Thus, patient satisfaction is very important to be a concern for hospital management [9], [10], [11] In an effort to maximize services, the Social Security Agency of Health (BPJS) services have many complaints and questions from the public. Patient satisfaction can be measured using the service quality (servqual) method, namely by evaluating the five dimensions of patient satisfaction, namely the dimensions of tangible, reliability, responsiveness, empathy and assurance [12][13]. In Kampar Regency, there are six hospitals apart from the Regional General Hospital (RSUD) of Bangkinang, namely RSIA Bunda Anisyah, RSIA Husada Bunda, RSU Tandun, Hospital Mesra and RSIA Norfa Husada. Bangkinang Hospital is the only government-owned hospital in Kampar and is one of the main referral hospitals in the Kampar area [14]. there are quite a lot of patients at Bangkinang Hospital, including inpatients (Bangkinang Hospital, 2022). The number of BPJS health participants undergoing hospitalization at Bangkinang Hospital has continued to decline from 2019 to 2021, namely 5,176 patients (71.5%) in 2019, 4,044 patients (63, 4%) in 2020 and 3,435 patients (61.8%) in 2021. Judging from the value of the hospital's Bed Occupancy Rate (BOR), in 2019 it was 57%, in 2020 it was 52% and in 2021 it was 43% (Bangkinang Hospital, 2022). The standard set by the Ministry of Health is 60-85%. The Regional General Hospital (RSUD) of Bangkinang conducts a survey on the satisfaction of the people who undergo treatment every six months. The survey was carried out by distributing questionnaires to people who were seeking treatment at the Emergency Room, Outpatient Installation, Inpatient Installation or Medical Support. The results of a survey conducted from January to June 2021 found that the community satisfaction index score at the inpatient installation was the lowest, namely 76%. While the Emergency Room (IGD) is 80%, outpatient installation is 79% and medical support is 80% (Hospital Bangkinang, 2022). Based on the Regulation of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning minimum hospital service standards, it states that the inpatient satisfaction index should be $\geq 90\%$. Therefore it is important to know the factors that influence inpatient satisfaction of BPJS Health participants at Bangkinang Hospital.

RESEARCH METHOD

This type of research is a quantitative analytic research with a cross sectional design. This research was conducted in the inpatient room of the Bangkinang Regional General Hospital in August 2022. The population in this study were all patients who were hospitalized at Bangkinang Regional Hospital in 2022 and used BPJS health for their health insurance. The sample in this study was 96 people who met the inclusion criteria. The sampling technique in this study used accidental sampling. Primary data was obtained by distributing questionnaires to the research sample. Meanwhile, secondary data was obtained by looking at reports at Bangkinang Hospital. The data processing stage in this study includes the Editing, Coding, Tabulating, Cleaning Scoring processes. After the data processing stage is complete, The next stage in this research is the process

of data analysis. The process of analyzing the research data was carried out using the SPSS application. Data analysis used univariate, bivariate and multivariate analysis.

RESULTS AND DISCUSSIONS

The characteristics of the respondents examined in this study were age, gender, education and occupation. Respondents in this study were BPJS health participant patients who were hospitalized at the Bangkinang Regional General Hospital. The number of respondents in this study were 96 people. The characteristics of the respondents in this study can be seen in table 1.

Table 1. Characteristics of Respondents

Characteristics of respondents	of	Amount (N)	%
Age (years):			
≤ 50 years		75	78.1
>50 years		21	21.9
Gender:			
Man		45	46.87
Woman		51	53.12
Education:			
SD		31	32.3
Junior High School		24	25
Senior High School		21	21.9
D3/D4/S1/S2		20	20.8
Profession:			
Student		8	8.3
Housewife		38	39.6
Private		34	35.4
civil servant		6	6.3
Farmer		10	10.4

Table 1 shows that most of the respondents' ages were ≤50 years (78.1%), female sex (53.12%), last education level of elementary school (SD) (32.3%) and work as housewives (39.6%).

Univariate analysis

The results of univariate analysis in this study can be seen in table 2.

Table 2. Univariate analysis

No	dependent variable	N	%
1	Patient satisfaction		
	Not satisfied	46	47,9
	Satisfied	50	52,1
No	Independent variable	N	%
1	<i>Tangibles/</i> real		
	Not satisfied	42	43,8
	Satisfied	54	56,3
2	<i>Empathy/</i> empathy		
	Not satisfied	35	36.5
	Satisfied	61	63.5
3	<i>reliability</i>		
	Not satisfied	65	67,7
	Satisfied	31	32,3
4	<i>Responsiveness/</i> responsiveness		
	Not satisfied	39	40,6
	Satisfied	57	59,4
5	<i>assurance/</i> certainty		
	Not satisfied	23	24
	Satisfied	73	76

6	Patient experience		
	Not satisfied	29	30,2
	Satisfied	67	69.8

Based on table 2 it can be seen that the majority (52.1%) of respondents were satisfied with the service while undergoing hospitalization at Bangkinang Regional General Hospital. The quality dimension (SERVQUAL), the reliability dimension showed the lowest satisfaction rate, namely 32.3% compared to the dimension the others are 56.3% for tangible dimensions, 63.5% for empathy dimensions, 59.4% for responsiveness dimensions, 76% for assurance dimensions and 69.8% for patient experience.

Bivariate Analysis

Bivariate analysis was performed to determine the effect between the dependent variable (patient satisfaction) and the independent variables (tangible, empathy, reliability, responsiveness, assurance and patient experience) by conducting a statistical chi-square test. . The results of the bivariate analysis in this study can be seen in table 3

Table 3. Bivariate Selection Results

No	Variable	Patient satisfaction						p-value	POR (95% CI)
		Not satisfied		satisfied		Total			
		n	%	n	%	N	%		
1	Tangibles								
	Not satisfied	14	33,3	28	66,7	42	100	0.021	0.344 (0.148-0.797)
	Satisfied	32	59,3	22	40,7	54	100		
Amount	46	47,9	50	52,1	96	100			
2	Empathy								
	Not satisfied	11	31,4	24	68,6	35	100	0.025	0.340 (0.142-0.817)
	Satisfied	35	57,4	26	42,6	61	100		
Amount	46	47,9	50	52,1	96	100			
3	reliability								
	Not satisfied	38	58,5	27	41,5	65	100	0.005	4,046 (1,575-10,397)
	Satisfied	8	25,8	23	74,2	31	100		
Amount	46	47,9	50	52,1	96	100			
4	Responsiveness								
	Not satisfied	28	71,8	11	28,2	39	100	0.000	5,515 (2,257-13,477)
	Satisfied	18	31,6	39	68,4	57	100		
Amount	46	47,9	50	52,1	96	100			
5	assurance								
	Not satisfied	14	60,9	9	39,1	23	100	0.235	1,993 (0.766-5,187)
	Satisfied	32	43,8	41	56,2	73	100		
Amount	46	47,9	50	52,1	96	100			
6	Experience								
	Not satisfied	21	72,4	8	27,6	29	100	0.003	4,410 (1,700-11,437)
	Satisfied	25	37,3	42	62,7	67	100		
Amount	46	47,9	50	52,1	96	100			

The result of the statistical test between the tangible dimension and patient satisfaction is 0.021 or <0.05. These results indicate that there is an influence between the tangible variables and the satisfaction of inpatients participating in BPJS Kesehatan at Bangkinang Hospital. The POR value is 0.344 (0.148-0.797), the tangible dimension has a 0-fold effect on inpatient satisfaction of BPJS Health participants at Bangkinang Hospital. empathy dimension with patient satisfaction is 0.025 or <0.05. This means that there is an influence between the empathy variable and the patient satisfaction of inpatient BPJS health participants at Bangkinang Hospital. The result of the statistical test between the dimensions of reliability and patient satisfaction is 0.005 or <0.05. This means that there is an influence between the reliability variable and the patient satisfaction of inpatient BPJS health participants at Bangkinang Hospital. The POR value was 4.046 (1.575-10.397),

This means that the reliability dimension has a 4-fold effect on inpatient satisfaction of BPJS Health participants at Bangkinang Hospital. the statistical test results between responsiveness dimensions and patient satisfaction are 0.000 or <0.05 . This value shows that there is an influence between the responsiveness variable and the satisfaction of inpatients participating in BPJS Kesehatan at Bangkinang Hospital. The POR value is 5.515 (2.257-13.477), meaning that the responsiveness dimension has a 5-fold effect on the satisfaction of inpatients participating in BPJS Kesehatan at Bangkinang Hospital. the result of the statistical test between the dimensions of assurance and patient satisfaction is 0.235 or >0.05 . It can be concluded that there is no effect between the assurance variable and the patient satisfaction of inpatient BPJS health participants at Bangkinang Hospital. POR value 1.993 (0.766-5.187), This means that the assurance dimension has a 1-fold effect on inpatient satisfaction of BPJS Health participants at Bangkinang Hospital. The p-value obtained from the statistical test results between patient experience and patient satisfaction is 0.003 or <0.05 . It can be concluded that there is an influence between patient experience variables and inpatient satisfaction of BPJS health participants at Bangkinang Hospital. The POR value was 4.410 (1.700-11.437), meaning that patient experience has a 4-fold effect on inpatient satisfaction of BPJS Health participants at Bangkinang Hospital. It can be concluded that there is an influence between patient experience variables and inpatient satisfaction of BPJS health participants at Bangkinang Hospital. The POR value was 4.410 (1.700-11.437), meaning that patient experience has a 4-fold effect on inpatient satisfaction of BPJS Health participants at Bangkinang Hospital. It can be concluded that there is an influence between patient experience variables and inpatient satisfaction of BPJS health participants at Bangkinang Hospital. The POR value was 4.410 (1.700-11.437), meaning that patient experience has a 4-fold effect on inpatient satisfaction of BPJS Health participants at Bangkinang Hospital.

Multivariate Analysis

Multivariate analysis was conducted to see whether there is a dominant influence between the dependent variable and the independent variable. The multivariate analysis used in this research is multiple logistic regression test.

Multivariate selection

Furthermore, multivariate modeling is carried out in stages on all the variables selected as candidates. Multivariate modeling I is done by entering all candidate variables into the multivariate modeling. The results of multivariate analysis of multivariate modeling I can be seen in table 4

Table 4. Multivariate Modeling I

No	Variable	p-value	POR	(95%CI)	
				Lower	Upper
1	Tangibles	0.073	0.340	0.105	1.104
2	Empathy	0.011	0.154	0.036	0.654
3	reliability	0.014	4,540	1,357	15,184
4	Responsiveness	0.009	4,305	1,429	12,970
5	assurance	0.238	2.102	0.612	7,220
6	Patient Experience	0.007	7,495	1,739	32,313

Table 4.5 shows that of the 6 variables there are four variables that have a p value <0.05 , namely empathy, reliability, responsiveness, patient experience and two variables that have a p value > 0.05 , namely assurance and tangible. Variables that have a p value > 0.05 are excluded from the multivariate modeling gradually starting from the highest p value. The variable that has the highest p value is assurance (p=0.238), so the assurance variable is excluded from the model for the first time. The results of the next analysis can be seen in table 5.

Table 5. Multivariate Modeling II

No	Variable	p-value	POR	(95%CI)	
				Lower	Upper
1	Tangibles	0.107	0.392	0.126	1,223
2	Empathy	0.007	0.136	0.031	0.585
3	reliability	0.016	4,329	1,313	14,277
4	Responsiveness	0.010	4,178	1,398	12,488
5	Patient Experience	0.004	8,428	1974	35,983

After the second modeling is done, then the change in POR value (POR before variable X is removed - POR after variable X is removed / POR before variable X is excluded x 100%) in other independent variables or with no Assurance variable. The results of changes in POR values before and after assurance are removed from the multivariate modeling can be seen in table 6.

Table 6. Changes in POR Values With and Without Assurance (multivariate modeling II)

Variable	POR before	POR After	POR changes
Tangibles	0.34	0.392	-15.29411765
reliability	4.54	4,329	4.647577093
Empathy	0.154	0.136	11.68831169
Responsiveness	4,305	4,178	2.950058072
assurance	2.102	-	-
Patient experience	7,495	8,428	-12.44829887

Based on table 6 it can be seen that changes in POR values > 10% occur in the tangible, empathy, reliability, responsiveness and patient experience variables. So the assurance variable is referred to as the confounding variable. The next step, the third multivariate modeling is carried out by removing the variable that has the second largest p value, namely the tangible variable from the multivariate modeling. The results of multivariate modeling III can be seen in table 7

Table 7. Multivariate Modeling III

No	Variable	p-value	POR	(95%CI)	
				Lower	Upper
1	Empathy	0.002	0.106	0.026	0.433
2	reliability	0.029	3,698	1.146	11,930
3	Responsiveness	0.002	5,276	1813	15,358
4	Patient Experience	0.007	7,313	1,743	30,689
5	assurance	0.391	1697	0.507	5,685

After multivariate modeling III, the change in POR value (POR before variable X was removed - POR after variable X was issued / POR before variable X was issued x 100%) in other independent variables with or without tangible variables. The results of changes in the POR value before and after the tangible variable is removed can be seen in table 8.

Table 8. Changes in POR Values With and Without Tangibles (Multivariate Modeling III).

Variable	POR before	POR After	POR changes
Tangibles	0.34	-	-
reliability	4.54	3,698	18.54625551
Empathy	0.154	0.106	31.16883117
Responsiveness	4,305	5,276	-22.55516841
Patient Experience	7,495	7,313	2.428285524
assurance	2.102	1,697	19.26736441

From table 8 it can be seen that there is a change in POR > 10% in the variables of empathy, reliability, responsiveness, patient experience and assurance. Then the assurance variable is defined as the confounding variable. Furthermore, because there are no more variables that must

be excluded, the next stage is to examine the possibility of interaction variables between other independent variables. The interaction table can be seen in table 9.

Table 9. Interaction Examination

No	Variable	<i>p-value</i>	POR	(95%CI)	
				Lower	Upper
1	<i>Tangibles</i>	0.080	0.348	0.107	1.136
2	<i>Empathy</i>	0.011	0.150	0.035	0.646
3	<i>reliability</i>	0.017	4,407	1310	14,832
4	<i>Responsiveness</i>	0.100	5,935	0.710	50,989
5	<i>assurance</i>	0.237	2,111	0.612	7,281
6	Patient Experience	0.033	9,811	1,199	80267
7	Patient Experience * responsiveness	0.719	0.637	0.055	0.7434

In table 9 it can be seen that there are no interaction variables ($p > 0.05$), so that the final multivariate modeling is carried out without interaction variables. The final multivariate modeling results can be seen in table 10.

Table 10. Final Multivariate Modeling

No	Variable	<i>p-value</i>	POR	(95%CI)	
				Lower	Upper
1	<i>Empathy</i>	0.011	0.154	0.036	0.654
2	<i>reliability</i>	0.014	4,540	1,357	15,184
3	<i>Responsiveness</i>	0.009	4,305	1,429	12,970
4	Patient Experience	0.007	7,495	1,739	32,313
5	<i>assurance</i>	0.238	2.102	0.612	7,220
6	<i>Tangibles</i>	0.073	0.340	0.105	1.104

Based on the multivariate analysis carried out with three modeling times in Table 10, the results are as follows: There are four variables that influence patient satisfaction, namely empathy, reliability, responsiveness and patient experience with a p value < 0.05 . There are two confounding variables in this study, namely assurance and tangible variables. The variable that has the most dominant effect on patient satisfaction is the patient experience variable with a probability of 7.495 times influencing inpatient satisfaction of BPJS Health participants at Bangkinang Hospital. The Nagelkerke R square value = 0.500, which means that of the 6 variables that have an influence on the dependent variable (Patient Satisfaction) the strength value is 50.0%, the rest is explained by the variables not studied.

CONCLUSION

The results showed that the five dimensions of patient satisfaction, the reliability dimension is the dimension that is considered the most important by patients and has the highest gap value compared to the dimensions of tangible, empathy, responsiveness and assurance. Based on the results of a patient satisfaction survey report conducted by the Bangkinang Hospital in 2021, the community satisfaction index value at the inpatient installation was the lowest, namely 76%. While the Emergency Room (IGD) is 80%, outpatient installation is 79% and medical support is 80%. Based on the Regulation of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning minimum hospital service standards, it states that the inpatient satisfaction index should be $\geq 90\%$. After conducting research on 96 samples, it was found that the patient satisfaction rate for inpatient care of BPJS Health participants at Bangkinang Hospital was 52.1%. The results showed that patient experience, responsiveness, reliability and empathy had an effect on patient satisfaction at Bangkinang Hospital. In the dimension of patient experience, the majority of respondents had a satisfactory experience while being treated at Bangkinang Hospital, namely 67 people or 69.8%. On the responsiveness dimension in this study,

57 patients were satisfied. The empathy dimension in this study showed that 61 patients were satisfied. In asoek The patient's experience before admission and after undergoing treatment gives rise to a perception or view in the patient about the hospital. Patient experience also influences patient satisfaction in the hospital. Patients who get satisfying experiences tend to say they are satisfied with the services they get at the hospital. Patient experience of hospital services has a strong impact on patient satisfaction, patient loyalty to the hospital and recommending the hospital to others. The reliability dimension relates to the ability of officers to provide services to patients. Reliability and skills of officers are important points in providing satisfaction for patients. Officers must be able to provide appropriate and efficient services to patients. In addition, the skills or competencies of officers must always be improved according to the times [15]. Patient experience of hospital services has a strong impact on patient satisfaction, patient loyalty to the hospital and recommending the hospital to others. The reliability dimension relates to the ability of officers to provide services to patients. Reliability and skills of officers are important points in providing satisfaction for patients. Officers must be able to provide appropriate and efficient services to patients. In addition, the skills or competencies of officers must always be improved according to the times [15]. Patient experience of hospital services has a strong impact on patient satisfaction, patient loyalty to the hospital and recommending the hospital to others. The reliability dimension relates to the ability of officers to provide services to patients. Reliability and skills of officers are important points in providing satisfaction for patients. Officers must be able to provide appropriate and efficient services to patients. In addition, the skills or competencies of officers must always be improved according to the times [15]. The Empathy dimension relates to the attention given by officers to patients, for example: officers' understanding of the wishes and needs of patients, the ability of officers to communicate with patients, doctors and nurses listen to patient complaints properly, doctors give sufficient time for patients to consult about the situation disease, and provide solutions in consultation[16]. In general, the Tangible and Assurance aspects have no effect on patient satisfaction inpatients participating in BPJS at Bangkinang Hospital.

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