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Analysis of factors affecting the utilization of BPJS health services at Royal Prima Hospital Medan in 2024

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Abstract

This study analyzes the utilization of BPJS Kesehatan services at RS Royal Prima Medan in 2024. Although BPJS Kesehatan offers affordable and equitable access to healthcare services, the suboptimal utilization rate indicates challenges in the effectiveness of healthcare services at the hospital. The research method used is a non-experimental quantitative approach with descriptive and associative analysis. The study population consists of patients who visited in the past 3 months, with a sample size of 200 respondents selected through purposive sampling techniques. The results of the analysis show a significant relationship between Age, Gender, Education, Occupation, Attitude Perception of Health Workers, and Facility Accessibility with the utilization of BPJS. Younger age groups, females, those with higher education, unemployed individuals, and those with positive perceptions of health workers and close accessibility are more likely to utilize BPJS. Multivariate analysis confirms that facility accessibility is the main factor influencing BPJS utilization, with an Odds Ratio of 13.558. This study provides a significant contribution to understanding the factors affecting BPJS service utilization at RS Royal Prima Medan. Strategic recommendations can be made to improve the effectiveness of healthcare services and the overall quality of the healthcare system, including improving accessibility to healthcare facilities for the public.

Keywords: BPJS Kesehatan; Royal Prima Hospital Medan; Utilization of health services; Factors influencing utilization; Accessibility of facilities

1. Introduction

Health services in Indonesia have undergone changes since the establishment of BPJS Kesehatan in 2014, as a major step by the government to provide equitable and affordable access to health services for the entire population (Suar 2023). However, there are challenges in maximizing the utilization of BPJS health services in several areas such as Medan City, including at Royal Prima Medan Hospital in 2024. To increase the utilization of BPJS services in these hospitals, it is necessary to analyze the influencing factors. Factors such as age, gender, education, and occupation of individual BPJS service users, along with organizational factors such as perceptions of health workers, availability of facilities, and efficiency of service processes, play an important role in shaping people's decisions to use BPJS services (Hutapea 2009); (Intarti and Khoriah 2018). Age affects the need for health services needed (Rini 2015), gender can affect certain health service preferences (Asidiq and Side 2021), education level can affect understanding of health insurance (Lia Yunita, Novia Atmadani, and Titani 2021), and the type of work can affect the health risks faced (Nurlaelah 2021). On the other hand, a positive perception of health workers, the availability of quality facilities, and the efficiency of service processes can increase user trust and satisfaction, encouraging them to use BPJS services better. By understanding and identifying these factors, it is hoped that strategic solutions can be found to increase the

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utilization of BPJS health services at Royal Prima Medan Hospital, providing benefits to the community, effectiveness, and quality of health services at large.

2. Research methods

This study uses non-experimental quantitative methods with a descriptive approach and associative analysis at Royal Prima Medan Hospital in January 2024. The study population included about 2000 patients who visited in the last 3 months, with a sample of 200 respondents selected through purposive sampling techniques. The inclusion criteria for respondents include BPJS users, not emergency departments, aware, undergoing inpatient or outpatient treatment at least 1 x 24 hours, communicative, and willing to answer questionnaires. The data collection method consists of primary data obtained through interviews/questionnaires using Google Form, secondary data from Royal Prima Medan Hospital, and tertiary data from valid online journal articles.

The study involves univariate, bivariate, and multivariate analyses. Univariate analysis summarizes data using statistical measures, tables, and graphs to understand distribution and trends. Bivariate analysis uses the Chi-Square test to assess relationships between variables, with a significance level set at 0.05, and measures the strength of these relationships using Prevalence Ratio (PR) or Odds Ratio (OR) with a 95% Confidence Interval (CI). Multivariate analysis, through multiple logistic regression, identifies significant independent variables impacting the dependent variable and explores direct or indirect relationships. Variables with p-values ≤ 0.025 are considered for the multivariate model, and interaction effects are tested using a multiplicative model until significant interactions ($p \leq 0.05$) are determined.

3. Research results

Table 1 Table of Variable Frequency of Research at Royal Prima Medan Hospital, Year 2024

Variable	Category	Total	Percentage
Age	≤ 35 Years	50	25%
	> 35 Years	150	75%
Total		200	100%
Gender	Man	76	38%
	Woman	124	62%
Total		200	100%
Education	Low	62	31%
	Tall	138	69%
Total		200	100%
Work	Not Working	96	48%
	Work	104	52%
Total		200	100%
Perception of Officer Attitude	Good	150	75%
	Bad	50	25%
Total		200	100%
Facility Accessibility	Near	142	71%
	Far	58	29%
Total		200	100%
Utilization of BPJS Health Services	Ya	156	78%
	No	44	22%
Total		200	100%

Source: Primary Data processed in 2024.

Table 1 shows the distribution of variables that are the focus of research on the utilization of BPJS health services at Royal Prima Hospital Medan in 2024. From the table, it can be seen that there is a fairly good balance between the categories observed, ranging from the age of respondents, gender, education, occupation, perception of health workers, accessibility of health facilities, to the use of BPJS health services. Further analysis of these variables is expected to provide a deep understanding of the factors that influence the utilization of BPJS health services at Royal Prima Medan Hospital and provide guidance to improve the effectiveness and accessibility of health services at the hospital.

Table 2 Chi-Square Test Table of Research Variables of Royal Prima Medan Hospital, Year 2024

Variable	Category	BPJS Utilization		Total	df	P-Value
		Ya	No			
Age	≤ 35 Years	24	26	50	1	0.011
		12%	13%	25%		
	> 35 Years	132	18	150		
		66%	9%	75%		
Total		156	44	200		
		78%	22%	100%		
Gender	Man	52	24	76	1	0.012
		26%	12%	38%		
	Woman	104	20	124		
		52%	10%	62%		
Total		156	44	200		
		78%	22%	100%		
Education	Low	34	28	62	1	0.009
		17%	14%	31%		
	Tall	122	16	138		
		61%	8%	69%		
Total		156	44	200		
		78%	22%	100%		
Work	Not Working	64	32	96	1	0.007
		32%	16%	48%		
	Work	92	12	104		
		46%	6%	52%		
Total		156	44	200		
		78%	22%	100%		
Perception of Officer Attitude	Good	134	16	150	1	0.000
		67%	8%	75%		
	Bad	22	28	50		
		11%	14%	25%		
Total		156	44	200		
		78%	22%	100%		

Facility Accessibility	Near	128	14	142	1	0.001
		64%	7%	71%		
	Far	28	30	58		
		14%	15%	29%		
Total	156		44	200		
	78%		22%	100%		

Source: Primary Data processed in 2024

Table 2. displays the results of the Chi-Square test for research variables at Royal Prima Medan Hospital in 2024. In the table, several variables were tested, including Age, Gender, Education, Occupation, Perception of Officer Attitude, and Facility Accessibility. The results of the Chi-Square test showed a significant relationship between the variables Age ($p = 0.011$), Gender ($p = 0.012$), Education ($p = 0.009$), Occupation ($p = 0.007$), Perception of Officer Attitude ($p = 0.000$), and Facility Accessibility ($p = 0.001$) with the use of BPJS at the hospital. From the table, it can be seen that the proportion of BPJS utilization is higher in younger groups (≤ 35 years), women, higher education, not working, have a good perception of officer attitudes, and close facility accessibility. This data comes from primary data processing in 2024.

Table 3 Enter Method Logistic Regression Test Table, Research Variables of Royal Prima Medan Hospital, Year 2024

Variable	B	H.E.	Forest	df	Say.	OR	95% C.I.for EXP(B)	
							Lower	Upper
Age	.338	.055	17.4	1	.013	1,358	1.130	1.401
Gender	-.185	.031	40.8	1	.022	1,033	.775	.873
Education Level	.337	.055	34.7	1	.012	1,386	1.344	1.545
Employment Status	.134	.057	4.8	1	.038	1,133	1.013	1.366
Perception of Officer Attitude	1.003	.060	376.7	1	.005	3,738	3.433	3.070
Facility Accessibility	3.715	.063	1.880.3	1	.000	13,558	13.357	17.073

Source: Primary Data processed in 2024

Based on Table 3, the results of a multivariate test using the logistic regression method using the enter approach show that the facility accessibility variable has the highest Odds Ratio (OR) of 13,558 This indicates that the closer the distance or accessibility of BPJS health service facilities, the higher the likelihood that people will use and utilize BPJS health service facilities offered by Royal Prima Hospital in 2024.

4. Discussion

The results showed a significant relationship between age and BPJS utilization at Royal Prima Medan Hospital in 2024 from 200 respondents, with a p-value (P-Value) from the Chi-Square test of 0.011. The age group > 35 years tends to use BPJS more (66%) than the age group ≤ 35 years (12%). This shows a significant relationship between age variables and the utilization of BPJS at Royal Prima Medan Hospital in 2024. The assumption of older age group researchers has a higher health risk and more often needs health services (Satriawan, Pitoyo, and Giyarsih 2021), so they tend to use BPJS more to get access to needed medical care. In addition, factors such as knowledge and awareness about the importance of health protection can also influence their decision to use BPJS services.

The results of the Chi-Square test show a value of $p = 0.012$, which indicates a significant relationship between gender and BPJS utilization. This shows that there are significant differences in BPJS utilization between men and women in the population studied. The significant relationship between gender and BPJS utilization at Royal Prima Medan Hospital in 2024 shows that women have a higher tendency to utilize BPJS services than men. This is evidenced by the higher proportion of BPJS utilization in the female group (62%) compared to the male group (38%), as well as the results of the Chi-Square test which shows a $p = 0.012$ value which is smaller than the level of significance usually used. The results of this study are supported by Irawan (2018), stating that there is a significant relationship between gender and the

Utilization of Health Services in JKN Participants in the Payakabung Health Center Working Area (Irawan and Ainy 2018). Factors such as health awareness, different health care needs, and social and cultural roles may influence this pattern, and understanding these relationships is important for designing health policies that are more inclusive and responsive to the diverse health needs of different gender groups.

The results of the Chi-square test show a significant relationship between the level of education and the utilization of BPJS at Royal Prima Medan Hospital in 2024. This is expressed based on the results of the Chi-Square test with a value of $p = 0.009$, which is smaller than the generally used significance level (usually 0.05). Data shows that the proportion of BPJS utilization is higher in groups with high education levels (69%) compared to groups with low education levels (31%). This shows that individuals with higher education are likely to utilize BPJS services more for access to health care at these hospitals by 2024. The causes of this difference can vary (Basith and Prameswari 2020).

Individuals with higher education may have better health awareness (Arimbi and Indra 2020), broader knowledge of the benefits of BPJS, as well as the ability to better access health information and services. In addition, they may also have better accessibility to health resources. Thus, the conclusion that there is a significant relationship between the level of education and the utilization of BPJS shows the importance of considering education factors in planning and managing health programs, as well as improving the accessibility of health information and services for all levels of society. There is a significant relationship between the type of work (working or not working) and the use of BPJS at Royal Prima Hospital Medan in 2024. This is indicated by the results of the Chi-Square test with a value of $p = 0.007$, which is smaller than the generally used significance level (usually 0.05). Data shows that the proportion of BPJS utilization is higher in the working group (52%) compared to the non-working group (48%). This shows that working individuals are likely to utilize BPJS services more for access to health care at these hospitals by 2024. The causes of this discrepancy can vary. Working individuals may have accessibility to BPJS services through health programs provided by their workplace, as well as be better able to pay BPJS contributions. On the other hand, non-working individuals may have more limited accessibility to health resources (Rumengan, Umboh, and 2 2015).

There is a very significant relationship between the perception of officers' attitudes (good or bad) and the use of BPJS at Royal Prima Medan Hospital in 2024. This can be seen from the results of the Chi-Square test with a value of $p = 0.000$, which is much smaller than the generally used significance level (usually 0.05). Data shows that the proportion of BPJS utilization is higher in groups that have a good perception of officers' attitudes (75%) compared to groups that have a bad perception (25%). This shows that individuals who feel the attitude of officers are good tend to utilize BPJS services more for access to health care at the hospital in 2024 (Munawarah et al. 2023).

The cause of this difference can come from a variety of factors. Individuals who feel a good attendant attitude may be more trusting and comfortable in using BPJS services, and feel supported and valued in their healthcare experience. Conversely, individuals who feel the officer's attitude is not good may have negative concerns or experiences that influence their decision to utilize BPJS. Thus, the conclusion that there is a very significant relationship between the perception of officer attitudes and the use of BPJS emphasizes the importance of the role of patient communication, interaction, and experience in the use of health services. It also highlights the importance of ensuring that healthcare providers have a supportive and welcoming attitude towards all patients, as well as providing a positive care experience to improve accessibility and quality of healthcare for all individuals.

There is a significant relationship between the accessibility of facilities (near or far) and the use of BPJS at Royal Prima Medan Hospital in 2024. This is expressed based on the results of the Chi-Square test with a value of $p = 0.001$, which is smaller than the generally used significance level (usually 0.05). Data shows that the proportion of BPJS utilization is higher in groups that have close facility accessibility (71%) compared to groups that have remote facility accessibility (29%). This shows that individuals who have close facility accessibility tend to utilize BPJS services more for health care access at the hospital in 2024 (Fatimah 2019). The causes of this discrepancy can vary. Individuals who have close facility accessibility may find it easier to access health services and get needed care more quickly. Conversely, individuals who have remote facility accessibility may face geographical or logistical barriers that hinder their access to health services, including BPJS services (Basith and Prameswari 2020).

Thus, the conclusion that there is a significant relationship between facility accessibility and BPJS utilization highlights the importance of easy and affordable access to health services for all individuals, as well as the role of infrastructure and geographic accessibility in influencing the use of health services such as BPJS. This emphasizes the importance of mapping and improving the accessibility of health facilities that are equitable and effective for the entire population.

The results of a multivariate test using the logistic regression method using the enter approach showed that the facility accessibility variable had the highest Odds Ratio (OR) of 13,558 This indicates that the closer the distance or

accessibility of BPJS health service facilities, the higher the likelihood that people will use and utilize BPJS health service facilities offered by Royal Prima Hospital in 2024.

5. Conclusion

The results of the Chi-Square test at Royal Prima Medan Hospital in 2024 show a significant relationship between the variables of Age, Gender, Education, Occupation, Perception of Officer Attitude, and Facility Accessibility with the use of BPJS. The proportion of BPJS usage is higher in young age groups, women, higher education, non-workers, good perception of officers, and access to close facilities. The logistic regression test confirms the importance of facility accessibility, with the highest Odds Ratio indicating the closer the access, the higher the likelihood of BPJS utilization. This information is important for the design of more inclusive health policies in the future.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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