

Factors Affecting Community Participation in the Use of Health Services in Primary Care

Original Article

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Abstract

The main problem in this study is the low participation of the community in utilizing health services at the Bandar Baru Health Center, Deli Serdang Regency, even though facilities and programs are available. Barriers such as difficult access to transportation, low ownership of health insurance, and inappropriate perceptions of the disease are the main inhibiting factors. The purpose of this research is to examine the various factors that impact the involvement of the community in utilizing health services at the health center. Utilizing a quantitative approach with a cross-sectional framework, the study gathered a sample of 96 participants using accidental sampling methods. The collected data underwent analysis through the chi-square test to determine the association between independent and dependent variables. The findings indicated a notable correlation between accessibility ($p=0.001$), ownership of health insurance ($p=0.031$), and perception of diseases ($p=0.014$) with the utilization of health services. Conversely, factors such as age, gender, education, occupation, and the presence of health professionals did not display a significant relationship ($p>0.05$). The implications of this study indicate the importance of community-based interventions to improve physical and financial access to health services and public health education. These interventions need to involve cross-sectors and consider local cultural factors so that the use of health services becomes more equitable and sustainable.

Keywords: Accessibility, Community Participation, Disease Perception, Health Insurance, Primary Care.

1. Introduction

Health services are efforts made to improve, maintain and restore the health of the community as a whole, including promotive, preventive, curative and rehabilitative aspects (Ministry of Health of the Republic of Indonesia, 2012). The Health Law emphasizes that the provision of health services aims to improve access and quality of services as part of human rights guaranteed in Law of the Republic of Indonesia Number 17 Concerning Health (2023).

The utilization of healthcare services involves the utilization of health facilities for various purposes, such as outpatient care, inpatient treatment, and other health services (Fitriani et al., 2021). Access to healthcare is a fundamental entitlement outlined in the 1945 Constitution, ensuring that every individual has the opportunity to enhance their personal and communal well-being through medical services (Sinarsari & Sutana, 2021). Improving public health requires careful consideration of various factors. One significant aspect that is believed to play a key role is ensuring access to quality healthcare services. Village development is the development, utilization, and maintenance of health facilities and infrastructure, village health services, and other health facilities and infrastructure (Wiasa, 2022).

Health services are a concept used in providing health services to the community. According to Anderson and Newman's theory (1979), the purpose of utilizing health services



is to describe the relationship between determining factors for utilizing health services, planning future needs or health service targets, and determining the existence of imbalances in services from utilizing health services (Yulianti et al., 2021). Andersen and Newman's theory (1979) explains that the use of health services is influenced by predisposing factors, supporting factors, and individual needs factors (Widiyastuty et al., 2023). Healthcare is a crucial component in assessing the overall public health status. A major focus is placed on the Community Health Center, which plays a key role in coordinating community health initiatives and providing primary healthcare services, particularly in promoting preventive measures within its jurisdiction (Ministry of Health of the Republic of Indonesia, 2012).

In the health service system in Indonesia, Community Health Service or Puskesmas is included in the category of Primary Health Facilities (FKTP) (Hilmi et al., 2022). FKTP is a healthcare center offering a range of general health services for the purposes of monitoring, advocating, preventing, diagnosing, treating, and providing other medical services to individuals (Minister of Health Regulation Number 3 of 2023). In addition to FKTP, there are also Advanced Referral Health Facilities (FKRTL). FKRTL is a healthcare institution that offers specialized health services from experts in specific fields, such as enhanced outpatient treatment, advanced hospital care, and specialized inpatient care in designated rooms (Minister of Health Regulation Number 3 of 2023).

The primary healthcare system in Indonesia primarily relies on community health centers and class A primary care hospitals, whereas secondary care is typically administered at level B/C hospitals and national level class D hospitals (Wenang et al., 2021). The number of health centers in Indonesia in 2023 is 10,180 health centers, consisting of 4,210 inpatient health centers and 5,970 non-inpatient health centers. This number has decreased compared to 2022, which was 10,374. The provision of basic healthcare services can be evaluated by examining the ratio of health centers to sub-districts. In 2023, the ratio of health centers to sub-districts was 1.4. This indicates that the desired ratio of at least one health center in each sub-district has been achieved on a national level. However, it is important to consider the equitable distribution of these health centers among sub-districts (Statistics of Deli Serdang Regency, 2019).

The number of health centers in North Sumatra province in 2023 is 619 units, with details of the number of inpatient health centers as many as 185 and non-inpatient health centers as many as 434 units. Meanwhile, Deli Serdang Regency has 34 units spread across 22 sub-districts with a ratio of 1.36 health centers per sub-district, which reflects the challenges of accessibility of health services for the community (Statistics of Deli Serdang Regency, 2024). Based on the 2021 health profile of Deli Serdang Regency, the number of outpatient visits to first-level health service facilities (Puskesmas) totaled 1,342,222. With a total population of 2,318,961, this indicates that only 57.88% of the population accessed outpatient services at these facilities. Bandar Baru Puskesmas, a non-inpatient health center, has been fully accredited since January 2024.

Bandar Baru Health Center is one of the primary health care facilities that serves various health programs in its area. Based on the 2021 Deli Serdang Regency Health Profile, the number of outpatient visits at Bandar Baru Health Center was recorded at 13,089 visits. Data from Bandar Baru Health Center activity reports in the last two years show that the number of patient visits in early 2024 was higher than in 2023. However, there was a decrease in visits in the middle of the year (June–August) in both years. After August, the fluctuation in visits tended to increase again until the end of the year.

Initial observations show that the majority of people around the Bandar Baru Health Center work as farmers and gardeners. These activities take up their time on weekdays,

making it difficult to visit the health center regularly. As a solution, many people choose to wait for market days, namely Friday, to come for treatment. This causes a significant spike in visits on Fridays compared to weekdays, and creates an uneven pattern of visits. This irregularity risks delaying disease treatment, especially if the symptoms experienced require immediate medical attention.

On the other hand, the outcome of interviews conducted with 15 participants at the Sibolangit Health Center indicated that certain members of the community continue to turn to traditional healing methods in times of illness. For instance, they use *param*, a traditional Karo herbal remedy made from rice and aromatic ginger or *kencur* leaves, as well as alun oil or Karo oil, to treat minor ailments. This practice highlights an important cultural dimension in understanding the health behaviors of the local population.

Based on this background, this research endeavor is directed towards determining the elements that impact the engagement of community members in accessing healthcare services at local health facilities. The primary emphasis of this study lies on demographic aspects, such as age, educational attainment, and financial standing, which are believed to be influential in shaping individuals' healthcare-seeking behavior. In addition, the study will also explore the role of health insurance ownership in increasing access, as well as community perceptions of the importance of health services and ease of transportation access.

The phenomenon of a significant increase in visits on Fridays at the Bandar Baru Health Center is an important highlight in this study because it has not been widely studied in previous studies. The low participation of the community in utilizing health center services, even though facilities and programs are available, indicates the need for a comprehensive evaluation of existing obstacles. Therefore, this study is expected to be the basis for formulating strategies to increase the utilization of primary health services evenly and sustainably.

2. Literature Review

2.1. Health Belief Model Theory

The theoretical basis used as a reference in this study is the Health Belief Model (HBM) theory and the Precede-Proceed theory. The HBM theory was first proposed by Rosenstock (1966). This theoretical model places greater emphasis on internal factors within the individual. The core elements of the Health Belief Model (HBM) encompass perceived susceptibility, which pertains to an individual's assessment of their likelihood of acquiring a disease; perceived severity, or their perception of the potential seriousness of the disease's outcomes; perceived benefits, which involve the perceived advantages of following a specific health-related behavior; and perceived barriers, which refer to the hurdles they anticipate may impede adherence to such behavior. The model also includes modifying variables, such as cultural background, education level, past experiences, skills, and motivation, which influence personal perceptions. Cues to action such as encouragement from family, spouse, or peers act as triggers that prompt health behavior. Lastly, the model incorporates self-efficacy, or the individual's belief in their ability to successfully perform the recommended behavior.

In the context of health service utilization in community health center (Puskesmas), HBM theory provides a comprehensive understanding framework of the factors that influence community participation. The community will consider their perceptions of vulnerability and severity of disease and the benefits of health center services (such as free treatment, easy access, and comprehensive services) compared to the barriers faced (such as travel distance, waiting time, and quality of service). Modifying variables such as demographic, socio-

economic, and cultural characteristics of the community will affect perceptions of health center services, while cues to action in the form of recommendations from health workers, family support, or public health campaigns become external stimuli that encourage service utilization. Meanwhile, the Precede-Proceed Model theory developed by Green and Kreuter provides a multi-level analysis framework by identifying predisposing factors (knowledge, attitudes, beliefs), supporting factors (availability of resources, accessibility of services), and reinforcing factors (social support, policies). The combination of these two theories offers a comprehensive comprehension of how community involvement impacts the utilization of health services in a community health center. This understanding encompasses individual, environmental, and systemic factors that play a role in influencing the use of primary health services within the community.

2.2. Anderson's Theory (Health Service Utilization Model)

Andersen describes the health system model as a health belief model called the behavioral model of health service utilization. Andersen groups the determinant factors in the utilization of health services into 3 main categories, namely:

a. Predisposing Characteristics

Include individual characteristics that influence the tendency to use health services, namely demographic characteristics (gender, age, marital status), social structure (education, occupation, race, religion), and health beliefs (belief in the cure of disease).

b. Enabling Characteristics

Accessing health services depends on a person's ability to utilize both family and community resources, such as income, access to health insurance, and awareness of health information. The availability of health facilities, healthcare professionals, the ratio of healthcare workers to the population, and the location of the settlement also play a crucial role in determining access to healthcare services. The more health facilities and workers, the more health service utilization will increase.

c. Need Characteristics

The factors most directly related to the utilization of health services. This need is assessed from two sources including individual assessment (perceived need) in the form of individual perception of their health condition and level of fear of disease, and clinical assessment (evaluated need) in the form of a medical assessment from a doctor through examination and diagnosis of the disease (Ilyas, 2003).

2.3. Previous Research

Tunnizha et al. (2022) in their study entitled "Factors Related to Community Participation in the Utilization of Health Promotion Services in the Enrekang Mountains," found that there was no relationship between education and community participation in the utilization of health promotion services. However, there was a significant relationship between employment, income, trust in health promotion services, availability of facilities and infrastructure, accessibility, and disease perception with community participation in the utilization of health promotion services, with accessibility being the most influential factor on community participation in the Enrekang Mountains. Furthermore, the study Abd Rijal Lapodi et al. (2023) in their study entitled "Factors Affecting the Utilization of Health Services at the Sikes Clinic of Pattimura Air Force Base, Ambon" found that there was a significant relationship between the attitude of health workers ($p = 0.000$), accessibility ($p = 0.003$), and health facilities ($p = 0.000$) with the utilization of health services. However, the level of education ($p = 0.763$) and the availability of health workers ($p = 0.887$) did not show a

significant relationship with the use of health services at the Sikes Clinic of Pattimura Air Force Base, Ambon.

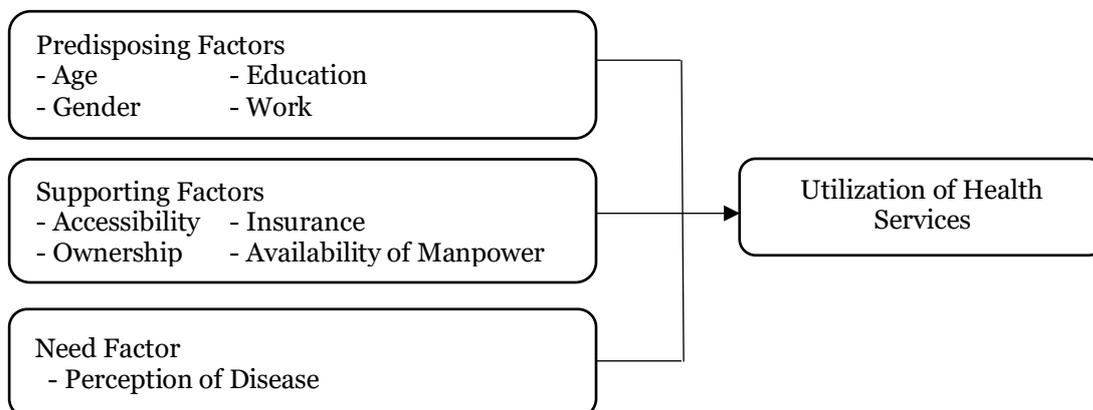


Figure 1. Andersen Theory (1995)

Based on the theory and results of previous studies, the hypothesis that can be developed in this study is:

H1: There is a significant relationship between accessibility and participation in utilizing health services.

H2: There is a significant relationship between health insurance ownership and participation in utilizing health services.

H3: There is a significant relationship between perception of disease and participation in utilizing health services.

H4: Demographic factors (age, gender, education, occupation) are not significantly related to the use of health services.

H5: Availability of health workers is not significantly related to utilization of health services.

3. Methods

3.1. Research Design

This research employs a quantitative method utilizing a cross-sectional framework, specifically an observational approach where data on both the independent and dependent variables are gathered simultaneously in a single instance (Vionalita, 2020). The aim of this approach is to evaluate the relationship between certain factors and the level of health service utilization in the community. The research took place at the Bandar Baru Health Center in the Sibolangit District of North Sumatra, from December 2024 to March 2025. It employed a quantitative approach with a cross-sectional research design, which involves observing risk factors and effects simultaneously (Vionalita, 2020).

3.2. Population and Sample

The research population includes all people living in the Bandar Baru Health Center work area, totaling 21,328 people (Statistics of Deli Serdang Regency, 2024). Determination of sample size was carried out using the Lemeshow formula (1997) with the result of 96 respondents selected by accidental sampling. This technique was used because the respondents met at the research location were considered to represent the population in the context of the use of health services.

3.3. Data Collection

The data was gathered by a structured survey that was previously validated and tested for accuracy and consistency by conducting a trial within the Sibolangit Health Center's community area. This questionnaire was designed to measure the variables: Respondent characteristics (age, gender, education, occupation), Availability of Health workers, Accessibility, Ownership of Health insurance, Perception of disease, Utilization of health services (dependent variable). Each question is structured on a nominal and ordinal scale aimed at describing the extent to which people have utilized health facilities in the last 3 months.

3.4. Research Procedures

The research process began with obtaining official permission from the Health Center and other relevant authorities. Following this, a brief training session was conducted for enumerators to ensure standardized and consistent data collection. The questionnaires were then distributed directly to respondents who met the established inclusion criteria. Data collection was carried out over a period of three weeks. Once the responses were gathered, data checking was conducted to ensure completeness and consistency of the answers.

3.5. Data Processing and Analysis

The Chi-Square test was utilized to analyze the data, employing statistical software like SPSS to examine the correlation between independent and dependent factors. The evaluation of the findings was determined by the significance level, with a p-value of less than 0.05 considered noteworthy. The Prevalence Ratio (PR) and Confidence Interval (CI 95%) were utilized to gauge the intensity of the connection.

4. Results and Discussion

4.1. Research Results

4.1.1. Univariate Analysis

Table 1. Characteristics of Respondents Based on Age, Gender, Education, Occupation (n=96)

Variables	n	%
Age		
18-40 years	36	37.50%
41-79 years	60	62.50%
Gender		
Male	39	40.60%
Female	57	59.40%
Education		
Attending School	90	93.80%
Not Attending School	6	6.30%
Occupation		
Working	63	65.60%
Unemployed	33	34.40%

Based on the distribution of respondent characteristics in table 1, the majority are in the 41–79 age group, as many as 60 people (62.5%), while the 18–40 age group is 36 people (37.5%). Based on gender, there are more female respondents, namely 57 people (59.4%) compared to male respondents, as many as 39 people (40.6%). In terms of education, most

respondents attended school, as many as 90 people (93.8%), while those who did not attend school were only 6 people (6.3%). Meanwhile, in terms of employment, there were more respondents who worked, namely 63 people (65.6%) compared to those who did not work, as many as 33 people (34.4%). These data show that most respondents are women of adult to elderly age, educated, and have jobs.

Table 2. Respondent Characteristics Based on Influencing Factors (n=96)

Variables	n	%
Health Service Utilization		
Utilizing	27	28.10%
Not Utilizing	69	71.90%
Availability of Health Workers		
Getting Services	71	74%
Not Getting Services	25	26%
Accessibility		
Easy	44	45.80%
Difficult	52	54.20%
Insurance Ownership		
Having Insurance	21	21.90%
Not Having Insurance	75	78.10%
Perception of Illness		
Positive	28	29.20%
Negative	68	70.80%

Table 2 presents the descriptive results, indicating that most respondents did not utilize formal health services, as they did not make direct visits to the health center. However, they had participated in the elderly posyandu (integrated health service post) program within the past three months. The availability of health workers has been recognized by the majority of respondents, but this has not been able to encourage increased utilization of services. Accessibility to health centers is still a significant obstacle, as indicated by more than half of the respondents who stated that they had difficulty reaching the service. Low health insurance ownership is also an important obstacle, reflecting limited financial security in accessing services. In addition, the majority of respondents do not have an adequate understanding of disease perception, which includes an understanding of the importance of medical care and treatment when experiencing illness and believing that medical care can cure the disease. This can result in delayed decision-making in utilizing health services.

4.1.2. Bivariate Analysis

To establish the significance of the connection between the independent and dependent variables, a statistical examination is conducted through the Chi-Square test.

Table 3. Distribution of the Relationship between Utilization of Health Services and Individual Characteristics (and=96)

Variables	Utilization of Health Services				P value	PR (95% CI)
	Taking Advantage of		Not Taking Advantage of			
	n	%	n	%		
Age						
18-40 years	9	25.00%	27	75.00%	0.598	0.833 (0.420-1.653)
41-79 years	18	30.00%	42	70.00%		
Gender					0.634	

Male	12	30.80%	27	69.20%	0.114	1,169 (0,616-2,219)
Female	15	26.30%	42	73.70%		
Education						
Attending	27	30.00%	63	64.70%	0.114	0.700 (0.611-0.801)
Not Attending School	0	0.00%	6	100.00%		
Occupation						
Working	15	23.80%	48	76.20%	0.194	0.655 (0.348-1.231)
Unemployed	12	36.40%	21	63.60%		

After examining the table 3, it was determined that there is no significant correlation between age and the use of healthcare services ($p = 0.598$). Although descriptively, respondents aged 41–79 years had a higher percentage of healthcare utilization (30.0%) compared to those aged 18–40 years (25.0%), this result was not significant (PR = 0.833; 95% CI: 0.420–1.653). This means that younger and older individuals were relatively equal in their likelihood of utilizing healthcare services.

Furthermore, no significant difference was found in healthcare utilization by gender ($p = 0.634$). Healthcare utilization was 30.8% for men and 26.3% for women. The prevalence ratio (PR) of 1.169, with a 95% confidence interval of 0.616 to 2.219, indicates that gender is not a strong determinant of healthcare utilization in this population.

The education variable showed an interesting trend, although it was not yet statistically significant ($p = 0.114$). Respondents who attended school showed a 30.0% health service utilization rate, while none of those who did not attend school used health services (0%). Although the PR = 0.700 (95% CI: 0.611–0.801) is below 1, indicating that individuals who did not attend school were less likely to utilize health services, this result was still not statistically significant and requires further study with a larger sample size.

Regarding the employment variable, it was observed that unemployed respondents utilized health services more often (36.4%) than employed respondents (23.8%), but this difference was also not statistically significant ($p = 0.194$). The prevalence ratio of 0.655 (95% CI: 0.348–1.231) indicates that employed individuals are less likely to utilize health services, but this relationship was not statistically strong enough.

Table 4. Relationship between Utilization of Health Services and Availability of Health Workers (n=96)

Variables	Utilization of Health Services				P value	PR (95%CI)
	Taking Advantage of		Not Taking Advantage of			
	n	%	n	%		
Availability of Health Workers						
Getting Services	21	29.60%	50	70.40%	0.796	1,232 (0,562-2,701)
Not Getting Services	6	24%	19	76%		

The Table 4 findings from studying the connection between the presence of healthcare providers and access to healthcare revealed that 21 participants (29.6%) who reported having access to healthcare workers also utilized healthcare services. Meanwhile, 6 respondents (24%) continued to utilize health services even though they stated that there was no availability of health workers.

The p value obtained from the statistical test was 0.796, indicating that H_0 could not be rejected. This suggests that there is no notable correlation between the presence of healthcare workers and the use of healthcare services at the Bandar Baru Health Center. With a PR value of 1.232, it can be interpreted that respondents who stated that there were health workers were

1.232 times more likely to utilize health services compared to those who stated that there were no health workers.

However, the result is not considered statistically significant because the p value is greater than 0.05, suggesting that the observed difference is probably random. The conclusions of this research align with the discoveries of Aridah et al. (2022), which reported a chi-square test result with a p-value of 0.457. Since the p-value is greater than the significance level ($\alpha = 0.05$), the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected. This indicates that there is no statistically significant relationship between the role of health workers and the utilization of health services in Paya Baro Ranto Panyang Village, Meureubo District, West Aceh Regency.

Table 5. Relationship between Health Service Utilization and Accessibility (n=96)

Variables	Utilization of Health Services				P value	PR (95% CI)
	Taking Advantage of		Taking Advantage of			
	n	%	n	%		
Accessibility						
Easy	20	45.50%	24	54.50%	0.001	3,377 (1,577-7,230)
Difficult	7	13.50%	45	86.50%		

The analysis in table 5 findings indicated a noteworthy correlation between the availability of health services and their usage ($p = 0.001$). Out of 20 participants surveyed (45.5%), those who mentioned that accessing health services was straightforward, ended up utilizing the services at the Bandar Baru Health Center. Meanwhile, only 7 respondents (13.5%) continued to utilize the services even though they felt that access to the health center was difficult. The Prevalence Ratio (PR) value of 3.377 (95% CI: 1.577–7.230) indicated that respondents with easy access were 3.377 times more likely to utilize health services than those who experienced difficulty in accessing them.

The statistical test results show a p value = 0.001 ($p < 0.05$), which means H_0 is rejected. Thus, there is a significant difference in proportion between respondents who feel easy access and those who feel difficult access in terms of utilizing health services. Statistical evidence shows that improved accessibility at the Bandar Baru Health Center leads to a higher utilization of health services.

Table 6. Relationship between Health Service Utilization and Health Insurance Ownership (n=96)

Variables	Utilization of Health Services				P value	PR (95%CI)
	Taking Advantage of		Taking Advantage of			
	n	%	n	%		
Insurance Ownership						
Having Insurance	10	47.60%	11	52.40%	0.031	2,101 (1,138-3,879)
Not Having Insurance	17	22.70%	58	77.30%		

The examination of insurance ownership and health service usage revealed that 47.6% of respondents have insurance and utilize health services, while 22.7% do not have insurance but still use health services. The statistical analysis showed a significant difference in the proportion of individuals with insurance compared to those without insurance using health

services at Bandar Baru Health Center, as indicated by a p value of 0.031 leading to rejection of Ho. There is a significant relationship between respondents who have health insurance and respondents who do not have health insurance in utilizing health services. While the results of the analysis obtained a PR value = 2.101, which means that respondents who have health insurance are 2.101 times more likely to utilize health services than respondents who do not have health insurance. Because the p value = 0.031 (less than 0.05), this result is statistically significant, which means that health insurance ownership is significantly related to the utilization of health services. In other words, respondents who have health insurance significantly increase the chances of someone using health services at the Bandar Baru Health Center compared to those who do not have health insurance.

Table 7. The Relationship between Utilization of Health Services and Perception of Illness (and=96)

Variables	Utilization of Health Services				P value	PR (95%CI)
	Taking Advantage of		Taking Advantage of			
	n	%	n	%		
Pain Perception						
Positive	13	46.40%	15	53.60%	0.014	2,255 (1,221-4,164)
Negative	14	20.60%	54	79.40%		

The study found that 14 (20.6%) respondents had negative perceptions of the disease but still used health services, while respondents who stated positive perceptions and utilized health services were 13 (46.4%). The statistical test yielded a p value of 0.014, indicating a correlation between perceptions of disease and the use of healthcare services. Additionally, the analysis revealed a PR value of 2.255, meaning that individuals who are knowledgeable about disease perception are 2.255 times more likely to use healthcare services compared to those who are not familiar with disease perception.

4.2. Discussion

4.2.1. The Relationship Between Availability of Health Workers and Utilization of Health Services at Community Health Centers

The results of the statistical analysis showed a p-value of 0.796, indicating that the null hypothesis was not rejected. This suggests that there is no significant correlation between the presence of health workers and the use of health services at the Bandar Baru Health Center. A PR value of 1.232 suggests that individuals who reported the presence of health workers were 1.232 times more inclined to seek health services compared to those who reported no health workers on the premises. However, due to the p value being greater than 0.05, the outcome is deemed not statistically significant, suggesting that any observed difference is likely attributed to random factors. The findings from this research align with previous studies conducted by Aridah et al. (2022) which states the results of the chi-square test with P value = 0.457 and this is greater than $\alpha = 0.05$ (P value = 0.457 > $\alpha = 0.05$) Ho is accepted and Ha is rejected, so there appears to be no notable correlation between the involvement of healthcare workers and the utilization of health services in Paya Baro Ranto Panyang Village, located in the Meureubo District of West Aceh Regency.

The behavior and approaches of healthcare professionals play a crucial role in the recovery of patients from their illnesses. Diminished provision of healthcare services can also influence the frequency and nature of healthcare utilization among individuals in need of ongoing attention and monitoring (Harju et al., 2023). Efficient health services can serve more

patients (Maidar & Hasana, 2022). However, although humans live in their own mindset that assumes that disease comes and heals because of our own thoughts, there are also respondents who state that disease comes because we bring it. The existence of good and caring treatment is a special attraction in providing services to patients. This provides psychological strength for patients and fosters motivation to utilize the health services provided.

4.2.2. Relationship between Accessibility and Utilization of Health Services at Health Centers

The analysis findings indicated a strong correlation between access and the use of healthcare services ($p = 0.001$). A total of 20 respondents (45.5%) who stated that access to health services was easy, utilized the services at the Bandar Baru Health Center. Meanwhile, only 7 respondents (13.5%) continued to utilize the services even though they felt that access to the health center was difficult. The Prevalence Ratio (PR) value of 3.377 (95% CI: 1.577–7.230) indicated that respondents with easy access were 3.377 times more likely to utilize health services than those who experienced difficulty in accessing them.

The statistical analysis indicates strong evidence against the null hypothesis, with a p -value of 0.001 ($p < 0.05$). Therefore, it can be concluded that there is a noteworthy disparity in the proportion of individuals who perceive easy access compared to those who perceive difficult access when it comes to accessing healthcare services. Statistical evidence shows that improved accessibility at the Bandar Baru Health Center leads to higher usage of health services. This discovery aligns with previous research by Saprianti et al. (2024) which also showed a significant relationship between accessibility and utilization of health services ($p = 0.024$).

Accessibility is indeed an important factor in determining a person's decision to access health services. When access to health facilities is difficult to reach, people tend to postpone or even not use the service, especially if the health complaints they feel are still relatively mild. Some respondents stated that to reach the health center, they had to wait for transportation for a long time or travel by motorcycle taxi at a cost of around IDR 10,000–IDR 40,000 per trip.

This condition is certainly burdensome, especially for people who need routine services. Therefore, a behavioral pattern has emerged in the community to postpone visits to the health center until Friday, coinciding with the weekly market, so that they can shop or sell agricultural products at the same time. This shows that in limited access, people adapt by combining economic and health needs at one time. Thus, the use of health services is greatly impacted by the ease of accessibility. Ease of access not only increases the likelihood of someone coming to a health facility, but also forms a more proactive behavior in maintaining health.

4.2.3. Relationship Between Insurance Ownership and Utilization of Health Services at the Health Center

The analysis results show that 47.6% of respondents who have health insurance also use health services, while 22.7% of respondents use health services even without health insurance. The statistical analysis findings related to health insurance ownership at the Bandar Baru Health Center showed a p -value of 0.031, leading to the rejection of the null hypothesis. This indicates a notable contrast in the number of people using health services based on whether they have health insurance or not. Put differently, a statistically notable connection exists between owning health insurance and availing health services.

The examination also revealed a prevalence ratio (PR) of 2.101, indicating that individuals with health insurance are 2.101 times more inclined to use health services than

those lacking insurance. Since the p-value is below 0.05, these results show statistical significance and indicate that having health insurance is crucial in improving health service accessibility. In other words, respondents who have health insurance significantly increase the chances of someone using health services at the Bandar Baru Health Center compared to those who do not have health insurance.

According to the research by Widiyastuty et al. (2023), findings from the analysis of the link between health insurance and the use of healthcare services reveal that individuals with insurance are more inclined to utilize services at health centers by 47.5% compared to those without insurance who utilize services at a rate of 33.3%. The statistical analysis resulted in a P value of 0.033, indicating a significant relationship between health insurance and the utilization of health services with a confidence level of $p < 0.05$. Additionally, the PR value was calculated to be 2.101, suggesting that individuals with health insurance are 2.101 times more likely to utilize healthcare services compared to those without insurance.

Tegegn & Negeri (2022) stated that individuals who do not have health insurance tend to face financial barriers in obtaining medical services, thus requiring more attention regarding health protection policies. However, it turns out that there are still patients who think that the treatment facilities provided using health insurance are not optimal. For example, such as complicated administration, very long waiting times, and some also feel that it is not urgent enough to require health insurance in order to still feel able to utilize general health. The existence of health insurance plays an important role in providing a sense of security and easy access to health services in order to enhance the overall well-being of the community.

4.2.4. Relationship between Perception of Pain and Utilization of Health Services at Community Health Centers

The study found that 14 respondents (20.6%) had negative perceptions of the disease but still ended up using health services, while respondents who stated positive perceptions and utilized health services were 13 (46.4%). The statistical analysis revealed a p value of 0.014, indicating a correlation between how diseases are perceived and the utilization of health services. Meanwhile, the results of the analysis obtained a PR value = 2.255 which means PR = 2.255 means that respondents who know about disease perception are 2.255 times more likely to utilize health services than respondents who do not know disease perception.

In this study, a PR value of 2.255 was obtained, which means that respondents who do not know the perception of the disease will increase the risk of utilizing health services by 2.255 times greater than respondents who know the perception of the disease. Similar results were reported in the study by Yunizar & Nasution (2020) which shows the Chi Square test between respondent perception and BPJS utilization at $\alpha = 0.05$ obtained p-value = 0.003 < 0.05. This means that there is a significant relationship between respondent perception and BPJS utilization.

From the results of this study, the perception of several respondents stated that medical treatment was needed when the body was operated on and seriously injured. Therefore, they tend to postpone visits to health facilities, even the same for people who do not have obstacles to accessing health services (Nurmailah et al., 2025). If the public's perception of a health program is good, it will encourage the public to use it by choosing the health service facilities provided, such as Community Health Centers.

5. Conclusion

This study revealed that accessibility factors, health insurance ownership, and disease perception have a significant relationship with the utilization of health services at the Bandar Baru Health Center. Meanwhile, the variables of age, gender, education, occupation, and availability of health workers did not show a significant influence. This finding provides an important contribution in enriching the literature related to the determinants of public health behavior in primary care facilities, especially in the context of rural areas with uneven visit patterns. Practically, these results serve as a basis for policy makers and health centers to improve services that are more geographically accessible, facilitate access to health insurance, and increase public awareness of the importance of treating diseases early. However, this study has limitations, including the cross-sectional design that is unable to explain causal relationships, and the use of accidental sampling techniques that can limit the generalization of results to a wider population. Therefore, further research is recommended to use a longitudinal method with a probabilistic sampling technique, as well as explore other variables such as the role of local culture, family influence, and the effectiveness of health worker communication in increasing community participation in health services.

6. References

- Abd Rijal Lapodi, Herlien Sinay, Sunik Cahyawati, & Dhiya Permata Puluhatumena. (2023). Faktor-Faktor Yang Mempengaruhi Pemanfaatan Pelayanan Kesehatan Di Klinik Sikes Lanud Pattimura Ambon. *USADA NUSANTARA : Jurnal Kesehatan Tradisional*, 2(1 SE-Articles), 162–175. <https://doi.org/10.47861/usd.v2i1.648>
- Aridah, Farisni, T. N., Reynaldi, F., & Darmawan. (2022). Faktor yang Berhubungan dengan Pemanfaatan Pelayanan Kesehatan pada Masyarakat Desa Paya Baro Ranto Panyang Kecamatan Meureubo Kabupaten Aceh Barat. *Jurmakemas: Jurnal Mahasiswa Kesehatan Masyarakat*, 2(2).
- Fitriani, L., Nur, A. A., Rahayu, R., Jinan, R., Selviana, R. E., Rahman, F., & Laily, N. (2021). Keputusan Pemilihan Pelayanan Pengobatan Ditinjau dari Karakteristik Individu dan Aksesibilitas. *Jurnal Penelitian Dan Pengembangan Kesehatan Masyarakat Indonesia*, 2(1), 67–75. <https://doi.org/10.15294/jppkmi.v2i1.47366>
- Harju, E., Speierer, A., Jungo, K. T., Levati, S., Baggio, S., Tancredi, S., Noor, N., Rodondi, P.-Y., Cullati, S., Imboden, M., Keidel, D., Witzig, M., Frank, I., Kohler, P., Kahlert, C., Crivelli, L., Amati, R., Albanese, E., Kaufmann, M., ... Chocano-Bedoya, P. (2023). Changes in Healthcare Utilization During the COVID-19 Pandemic and Potential Causes—A Cohort Study From Switzerland. *International Journal of Public Health*, 68. <https://doi.org/10.3389/ijph.2023.1606010>
- Hilmi, I. L., Salman, S., Sholih, M. G., Ratnasari, D., & Septiani, D. (2022). Penyukia (Penyuluhan Dan Edukasi Kesehatan Ibu Dan Anak) Pada Puskesmas Rawamerta Karawang. *JOURNAL OF SUSTAINABLE COMMUNITY SERVICE*, 2(4), 214–222. <https://doi.org/10.55047/jscs.v2i4.638>
- Ilyas, Y. (2003). *Mengenal asuransi kesehatan: review utilisasi, manajemen klaim dan fraud: kecurangan asuransi kesehatan*. Universitas Indonesia.
- Maidar, A. A., & Hasana, S. N. (2022). Hubungan Mutu Pelayanan Kesehatan Dengan Kepuasan Pasien Di Puskesmas Batoh Kota Banda Aceh Tahun 2022. *Journal of Health and Medical Science*, 2(1), 93–105. <https://doi.org/10.51178/jhms.v2i1.1023>
- Nurmailah, Ginting, C. N., & Liena. (2025). Analysis of the Role of Patient Trust in Improving Health Equity: Case Study at the General Hospital in Aceh Province. *Proceeding of The International Conference of Inovation, Science, Technology, Education, Children, and Health*, 5(1), 12–22. <https://doi.org/10.62951/icistech.v5i1.159>

- Rosenstock, I. M. (1966). Why People Use Health Services. *The Milbank Memorial Fund Quarterly*, 44(3), 94. <https://doi.org/10.2307/3348967>
- Saprianti, L., Ikdafile, I., Khaeriah, Darwis, N., Arni, & Hasan, M. (2024). Hubungan Pengetahuan dan Aksesibilitas dengan Pemanfaatan Pelayanan Kesehatan pada Masyarakat Nelayan di Desa Barangmamase. *Innovative: Journal of Social Science Researchf Social Science Research*, 4(6). <https://doi.org/10.31004/innovative.v4i6.16476>
- Sinarsari, N. M., & Sutana, I. G. (2021). Seni Mendeteksi Penyakit Melalui Lidah Dalam Budaya Pengobatan Tradisional Tiongkok. *Jurnal Yoga Dan Kesehatan*, 4(1). <https://doi.org/10.25078/jyk.v4i1.225>
- Statistics of Deli Serdang Regency. (2019). *Jumlah Desa/Kelurahan Yang Memiliki Sarana Kesehatan Menurut Kecamatan di Kabupaten Deli Serdang, 2011*. Statistics of Deli Serdang Regency.
- Statistics of Deli Serdang Regency. (2024). *Sibolangit District in Figures 2024*. Statistics of Deli Serdang Regency.
- Tegegn, B. D., & Negeri, K. G. (2022). Assessment of utilization of health care services and the associated factors among adult fee-waiver beneficiaries in Hawassa, southern Ethiopia: A community based cross sectional study. *Journal of Public Health Research*, 11(4). <https://doi.org/10.1177/22799036221139940>
- Tunnizha, B. M., Haeruddin, H., Arman, A., Andi Asrina, & Yusriani, Y. (2022). Faktor-Faktor yang Berhubungan dengan Partisipasi Masyarakat dalam Pemanfaatan Layanan Promosi Kesehatan di Daerah Pegunungan Enrekang. In *Journal of Muslim Community Health* (Vol. 4, Issues 3 SE-, pp. 143–156). <https://doi.org/10.52103/jmch.v4i3.1139>
- Vionalita, G. (2020). *Metodologi Penelitian Kuantitatif*. Universitas Esa Unggul.
- Wenang, S., Schaefer, J., Afdal, A., Gufron, A., Geyer, S., Dewanto, I., & Haier, J. (2021). Availability and Accessibility of Primary Care for the Remote, Rural, and Poor Population of Indonesia. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.721886>
- Wiasa, I. N. D. (2022). *Jaminan Kesehatan Nasional yang Berkeadilan Menuju Kesejahteraan Sosial*. CV. Feniks Muda Sejahtera.
- Widiyastuty, F., Suryawati, C., & Arso, S. P. (2023). Pemanfaatan Pelayanan Puskesmas oleh Masyarakat di Daerah Perbatasan Kecamatan Entikong. *Jurnal Manajemen Kesehatan Indonesia*, 11(1), 64–78. <https://doi.org/10.14710/jmki.11.1.2023.64-78>
- Yulianti, E., Musthofa, S. B., & Indraswari, R. (2021). Pengaruh Aksesibilitas Terhadap Praktik Antenatal Care Pada Ibu Hamil Di Wilayah Kerja Puskesmas Bulu Kabupaten Temanggung 2020. *Jurnal Kesehatan Masyarakat*, 9(1). <https://doi.org/10.14710/jkm.v9i1.28529>
- Yunizar, A., & Nasution, N. H. (2020). Faktor-Faktor yang Berhubungan dengan Pemanfaatan BPJS di Desa Pargarutan Tonga Kecamatan Angkola Timur Tahun 2019. *Jurnal Kesehatan Ilmiah Indonesia (Indonesian Health Scientific Journal)*, 5(1), 61–70. <https://doi.org/10.51933/health.v5i1.238>