



Public Perception of Patient Referral Services

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Article Info

Article history:

Received 4 May 2026

Received in revised form 25

May 2026

Accepted 30 June 2026

Keywords:

Patients

Healthcare and Social

Security Participants

Referrals

Knowledge

Availability of Facilities and

Infrastructure

Availability of Human

Resources

Abstract

Referral is the transfer of responsibility for patient care between health service units, either vertically or horizontally, to ensure appropriate management of health problems. Data from Padang Tiji Health Center showed that patient referrals remained an important issue. In 2018, the number of visits to the health center reached 45,246, while the number of referrals was 6,511. Therefore, this study aimed to identify factors influencing patient referrals at Padang Tiji Health Center in 2020. This study used a cross-sectional survey design involving 100 respondents. The relationship between independent variables and patient referral was analyzed using the Chi-square test with a 95% confidence level and a significance value of $p < 0.05$. The results of multivariate analysis showed that knowledge had a significant relationship with patient referral, with a p -value of 0.000. Health information also showed a significant relationship, with a p -value of 0.049. Meanwhile, the availability of facilities and infrastructure, availability of human resources, attitudes of health workers, and public perception did not show significant relationships with patient referral. Among all variables, knowledge was found to be the most dominant factor influencing patient referral. This study concludes that knowledge and health information are associated with patient referrals, while facilities, human resources, health worker attitudes, and public perception are not significantly related. It is recommended that Padang Tiji Health Center improve health education and strengthen referral service competence to ensure that referrals are conducted according to established standards and mechanisms.

Introduction

Health development is a national effort across all areas of life, essentially undertaken by all components of the nation to achieve the highest possible level of public health (Zeeb et al., 2025; Klepp et al., 2025; Terefe et al., 2025). Health development is expected to achieve a high, advanced, and prosperous quality of life for the Indonesian people, as well as a competitive nation, as envisioned in the 2015-2019 national development vision and mission. Success in health development will encompass factors such as easy access to health care and continuous improvement in the quality of health services. Access to health services is demonstrated by an increase in the number, network, and quality of health facilities (Alolayyan et al., 2025; Serchen et al., 2025; Thacharodi et al., 2024).

In the era of JKN (National Health Insurance), a policy was implemented in accordance with the Regulation of the Minister of Health of the Republic of Indonesia No. 5 of 2014 concerning a disease diagnosis policy that must be completed in primary health facilities. In this Policy 144 (disease diagnosis) must handle 144 disease diagnoses with a level of capability of four in

accordance with the Competency of General Practitioners that can be handled in FKTP (First Level Health Facilities). However, if the patient has complications, the severity (severity of illness) is three or above, the presence of other chronic diseases and the patient's immune system is weakened, all of which require further treatment, then the service doctor The primary care provider must quickly and accurately make considerations and decide whether to make a referral (Levkovich & Elyospeh, 2023; Huang et al., 2022; Rodriguez et al., 2026).

Health services under the National Health Insurance (JKN) currently focus more on primary care to reduce the high number of patients visiting hospitals (Gunawan, 2026; Fatimah et al., 2026; Soetono & Kurtanty, 2026). Therefore, the quality of primary care facilities must be maintained and strengthened, considering that the future impact of JKN implementation will result in increased public demand for health services because of the certainty of guarantees. If community health centers (Puskesmas) are not strengthened, the public will access advanced health facilities, resulting in a recurrence of the phenomenon of hospitals as giant community health centers (Puskesmas). Visits to primary care facilities are much higher than to advanced health facilities. In 2014, based on data, patient visits to primary care facilities reached 61.7 million, and to advanced care facilities 21 million. The referral rate to advanced care facilities is also quite low, below 30 %. (2) The National Health Insurance (JKN) Program roadmap targets at least 75% of patients to express satisfaction with health services provided by health facilities (faskes). This study aims to analyze the factors that influence patient referrals to community health centers in general (Cameron et al., 2026; Zhao et al., 2026; Mnisi et al., 2026).

Based on 2018 data obtained from the Pidie District Health Office, the number of visits to the Community Health Center was 45,246 visits, while the number of referrals was 6,511. Based on 2018 data obtained from the Padang Tiji Community Health Center, the number of visits to primary care was 2,219 visits, while the number of referrals was 291. And in 2019 data, the number of visits to the Community Health Center was 2,347 visits, while the number of referrals was 289.

Based on the number of patient visits per day and per month at Padang Tiji Community Health Center, the number of visits fluctuates (Ritonga & Rangkuti, 2022). Therefore, the researchers chose this community health center as the research location based on the number of patient visits, the number of referrals, and its accredited status (Dartey et al., 2026; Ahmed et al., 2026; Avraham et al., 2026).

The above situation indicates that community health centers in Aceh Pidie Regency have not been able to effectively fulfill their gatekeeper function. This is evident in the still high primary referral ratio. A high referral ratio for National Health Insurance (JKN) patients will result in increased utilization of advanced care facilities.

The diversity and ease of access for Indonesian people to choose existing healthcare facilities is one indicator of the improvement in the quality of healthcare in Indonesia, which also signifies a paradigm shift in healthcare facilities, from a necessity to a choice for the community. Thus, this paradigm shift can also be used as a driver for healthcare providers and managers to always compete in providing good, quality and high-quality healthcare services (Kehyayan et al., 2025; Sand-Svartrud et al., 2025; Rafi'I et al., 2025). As every healthcare facility that provides good, quality and high-quality services is an obligation that has been regulated in the Minimum Service Standards (SPM) in the regulation of the Ministry of Health No. 828 / MENKES / SK / IX / 2008, in addition, quality healthcare services are the dream of the community that can provide satisfaction for the community of healthcare service users or patients. Services that can increase satisfaction are generally known in the Scale for Measuring Service Quality (Servqual) theory which Parasuraman, Zeithaml, and Berry (1988) summarized into 5 main dimensions, including Tangibles, Reliability, Responsiveness,

Assurance, and Empathy.(1) National Health which has been managed by BPJS Kesehatan since January 2014, which means that this program has been running for 6 (six) years, researchers need to analyze the factors that influence patient referrals in Padang Tiji District.

From the initial survey interview data at Padang Tiji Community Health Center, there are several problems, including : 1) The Head of the Community Health Center revealed that the available human resources in several rooms do not match their competencies. As happened in the laboratory room, there is no Health Analyst officer available to examine complete laboratory tests and be responsible for the laboratory. The Head of the Community Health Center reviewed that the doctor responsible for the dental section is also not available so that many dental patients who are actually able to be treated at the Community Health Center, must be referred to the district/city hospital (FKTRL). Also, the general practitioner staff at the Community Health Center are only 2 people even though this Community Health Center has an inpatient room, so with the limited number of doctors, patients have no choice but to be referred to the District Hospital. The Head of the Community Health Center revealed that there are still many lacking facilities at the Community Health Center, including the lack of a Radiology Room, Physiotherapy Room and only 2 inpatient rooms, while many visiting patients require inpatient care at the Community Health Center. The Head reviewed that the available medicines were insufficient for services at the Community Health Center due to obstacles in procuring medicines due to delays in BPJS claims, there are regulations that require medicines to be used, such as injections for inpatients, anesthetics for injured patients in the Emergency Room are not available and high alert/lasa medicines are also not yet available at the Community Health Center. This hampers the handling of 144 at the Community Health Center and many patients prefer to go to the Hospital. 2) Doctors at the Community Health Center expressed the same problem regarding the ministerial regulation regarding 144 which must be handled at the Community Health Center. The doctor said that in order to optimally implement this regulation, the Community Health Center must provide a minimum of 6 doctors for effective and efficient treatment. The Padang Tiji Community Health Center has 2 doctors who are tasked with treating 22,446 people in the Padang Tiji area. The Community Health Center must collaborate with stakeholders to procure facilities and infrastructure that are not yet available. Doctors also criticized the delay in BPJS claims in payments affecting the procurement of medicines needed by patients. 3) Researchers interviewed a patient who was visiting the Community Health Center, the patient told his complaints about receiving treatment at the Community Health Center that the patient expressed dissatisfaction with the service at the Community Health Center because the service provided by the Community Health Center staff was less friendly to patients, the staff were more busy with their own activities. The patient said that the doctor who handled him was only one and there were no doctors on standby in the afternoon or evening for inpatient needs. The patient also revealed that the infrastructure was inadequate at the Community Health Center and sometimes there was a lack of stock of medicines available at the Community Health Center. So the patient said he preferred to take a referral at the Community Health Center to a State Hospital or a Private Hospital in the Regency, because the service at the Hospital was more satisfactory and the service and infrastructure were very adequate (Chahyanti et al., 2026; Masitoh et al., 2026; Fajriyah, 2025).

To better understand the causes of the high referral ratio of National Health Insurance participants at community health centers, this study was conducted to explore the causes of the high referral ratio (Nurfikri & Roselina, 2022; Antari et al., 2026; Abere et al., 2021). The results of this study are expected to serve as a reference in finding solutions to this high referral ratio.

Therefore, researchers want to know more deeply what are the "Factors that Influence Patient Referrals at Padang Tiji Community Health Center in 2020"

Based on a circular issued by BPJS Kesehatan, which states that the maximum referral rate from community health centers to hospitals is 15%. Given the current high referral rate at community health centers, the cause of this high referral rate must be investigated, including the availability of facilities and infrastructure, medicines, medical devices, and healthcare personnel (Al Saffer et al., 2021; Gupta et al., 2020; Woldeyohanins et al., 2025).

In addition, external factors, such as the patient's status as a BPJS participant, also influence the referral rate from primary healthcare facilities/community health centers to advanced healthcare facilities (hospitals). For example, these patients typically receive medication from specialist doctors at the hospital, or their illnesses cannot be treated at the community health center due to limited medical equipment. Government Program on Insurance.

Methods

This study used a quantitative analytical survey with a cross-sectional design. The study was conducted at Padang Tiji Health Center, Pidie Regency, in 2020. This design was used because the independent and dependent variables were measured at the same time to identify factors associated with patient referral status.

The population of this study consisted of patients who visited Padang Tiji Health Center and were related to referral services. A total of 100 respondents were included as the study sample. Primary data were collected using a structured questionnaire. The questionnaire covered respondent characteristics, including age, gender, and education, as well as study variables consisting of knowledge, availability of facilities and infrastructure, availability of human resources, attitudes of health workers, information about referrals, public perception, and referral status.

The dependent variable in this study was patient referral status, categorized as referred and not referred. The independent variables were knowledge, availability of facilities and infrastructure, availability of human resources, attitudes of health workers, information about referrals, and public perception. Each variable was categorized based on the respondents' answers and then presented in frequency and percentage distributions.

Data were analyzed using univariate, bivariate, and multivariate analyses. Univariate analysis was used to describe the frequency distribution of respondent characteristics and each study variable. Bivariate analysis was conducted using the Chi-square test to examine the relationship between each independent variable and patient referral status, with a significance level of $p < 0.05$. Variables with p-values less than 0.25 in the bivariate analysis were considered for inclusion in the multivariate analysis. Multiple logistic regression was then used to identify the most dominant factor influencing patient referrals at Padang Tiji Health Center.

Result and Discussion

Frequency Distribution Based on Respondent Characteristics

The characteristics of respondents in this study include age, gender, and education, which can be seen in table.1 below:

Table 1. Frequency Distribution of Respondent Characteristics Based on Age Group, Gender and Education

No.	Variable	Frequency	(%)
	Age		
	18-25 Years	25	25.8
	26-35 Years	39	39.0
	36-45 Years	21	21.1
	45-55 Years	4	4.3

56-65 Years		11		11.2
Total		100		100.0
Gender				
Man		52		52.0
Woman		48		48.0
Total		100		100.0
Education				
Elementary and Middle School		27		26.5
SENIOR HIGH SCHOOL		51		51.0
D3 and S1		22		22.4
Total		100		100.0
Source: Primary data				

Based on table.1 Based on age characteristics. Based on the age grouping of respondents, the majority of the 26-35 year age group is 39 respondents or 39%, the 18-25 year age group is 25 respondents or 25%, in the 36-45 year age group there are 21 respondents or 21%, the 45-55 year age group has 4 respondents or 4%, and the 56-65 year age group as many as 11 respondents or 11%.

Based on gender characteristics, the number of male respondents was 52 respondents or 52% and the number of female respondents was 48 respondents or 48%. The number of respondents in this study was predominantly male.

Based on educational characteristics, the majority of respondents' highest education was high school graduates, namely 51 respondents (51%), and respondents whose highest education was only elementary and junior high school graduates were 27 respondents (26%). Respondents whose highest education was D3 and S1 were 22 respondents (22%).

Knowledge

The results of the research up to the data analysis obtained a frequency distribution of respondents' knowledge which is a factor that influences the desire to be referred, for more details please see table 2 below:

Table 2. Distribution of Respondents' Knowledge Categories at Padang Tiji Community Health Center, Padang Tiji District, 2020

No	Knowledge	f	%
1	Not good	48	48.0
2	Good	52	52.0
	Total	100	100

Source: Primary Data

Based on Table 2 above, it can be seen that more respondents are categorized as having good knowledge. Of the 100 respondents, the majority, 52 respondents (52.0%), have good knowledge, and the minority, 48 respondents (48.0%) have poor knowledge.

Availability of Facilities and Infrastructure

Table 3. Distribution of Facilities and Infrastructure Availability Categories at Padang Tiji Community Health Center, Padang Tiji District, 2020

No	Availability of Facilities and Infrastructure	F	%
1	Incomplete	30	30.0
2	Complete	70	70.0

	Total	100	100
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Source: Primary data

Based on Table 3 above, it can be seen that the majority of 70 respondents (70.0%) are of the opinion that the availability of facilities and infrastructure at the Padang Tiji Health Center is included in the complete category, while the minority of 30 respondents (30.0%) are of the opinion that the availability of facilities and infrastructure at the Padang Tiji Health Center is incomplete.

Availability of human resources

The results of the research up to the data analysis obtained a frequency distribution of the availability of human resources which is a factor that influences the desire to be referred, for more details can be seen in table 4 below:

Table 4. Distribution of Categories of Number and Type of Human Resources at Padang Tiji Health Center, Padang Tiji District in 2020

Human Resources Availability	F	%
Not Available	44	42.9
Available	56	57.1
Total	100	100

Source: Primary data

Based on Table 4 above, it can be seen that the majority of 56 respondents (56.0%) are of the opinion that the availability of human resources at the Padang Tiji Health Center is included in the available category, while the minority of 44 respondents (44.0%) are of the opinion that the availability of human resources at the Padang Tiji Health Center is not available.

Attitude of Health Workers

The results of the research up to the data analysis obtained a frequency distribution of the attitudes of health workers which is a factor that influences the desire to be referred, for more details please see the table. 4.9 following:

Based on table 4. above, it shows that the question with the most Agree answers was the question "The officer explained the purpose of the polyclinic and the results of the doctor's diagnosis?" at 37.0%, while the question with the most Disagree answers was the question "The officer provided clear information regarding the questions you asked" at 50.0%.

Table 5. Distribution of Health Worker Attitude Categories at Padang Tiji Community Health Center, Padang Tiji District, 2020

Health Officer Attitude	F	%
Not Good	29	29.0
Good	71	71.0
Total	100	100

Source: Primary data

Based on Table 5 above, it can be seen that the majority of 71 respondents (71.0%) think that the attitude of the officers at Padang Tiji Health Center is in the good category, while the minority of 29 respondents (29.0%) think that the attitude of the Padang Tiji Health Center health officers is not good.

Information About References

The results of the research up to the data analysis obtained a frequency distribution of information about referrals which is a factor that influences the desire to be referred, for more details please see table 6 below:

Table 6. Distribution of Referral Information Categories at Padang Tiji Community Health Center, Padang Tiji District, 2020

Reference Information	F	%
Not Good	51	51.0
Good	49	49.0
Total	100	100

Source: Primary data

Based on table 6. above, it can be seen that of the 100 respondents, a minority of 49 respondents (49.0%) said they received information about good referrals and the majority of 51 respondents (51.0%) said they received information about bad referrals.

Public Perception at Padang Tiji Community Health Center, Padang Tiji District in 2020

The results of the research and data analysis obtained a frequency distribution for the Community Perception variable, divided into two, namely the desire to be reconciled and the desire not to be reconciled. More details can be seen in Table 7 below:

Table 7. Distribution of Respondents' Public Perceptions at Padang Tiji Community Health Center in 2020

Public Perception	Frequency (F)	Percentage (%)
Requesting a referral	59	59.0
Requesting not to be referred	41	41.0
Total	100	100.0

Source: Primary data

Based on table 7 above, it can be seen that of the 100 respondents, the majority, 59 respondents (59.0%), asked to be referred and the minority, 41 respondents (59.0%) asked to be referred.

respondents (41.0%) who asked not to be referred to Padang Tiji Health Center

Referrals at Padang Tiji Community Health Center, Padang Tiji District in 2020

The results of the research up to the data analysis obtained a frequency distribution of the variable desire to be referred, divided into two, namely the desire to be referred and the desire not to be referred. More details can be seen in Table 8 below:

Table 8. Distribution of Respondents' Desire to be Referred at Padang Tiji Community Health Center in 2020

Referral Status	Frequency (F)	Percentage (%)
Referred	66	66.0
Not referred	34	34.0
Total	100	100.0

Source: Primary data

Based on table 8 above, it can be seen that of the 100 respondents, the majority, 66 respondents (66.0%) were referred and the minority, 34 respondents (34.0%) were not referred to the Padang Tiji Health Center.

Bivariate Analysis

The results of the bivariate analysis were used to determine the influence between the dependent and independent variables studied. In this study, the results of the bivariate analysis will show the influence of knowledge, availability of facilities and infrastructure, availability of human resources, attitudes of health workers and information on the desire to be referred at the Padang Tiji Community Health Center, Padang Tiji District, Pidie Regency in 2019.

Cross-tabulation of Patient Knowledge and Desire for Referral at Padang Tiji Community Health Center in 2020

Table 9. Cross Tabulation Between Patient Knowledge and Desire for Referral at Padang Tiji Community Health Center in 2020

Knowledge	Not Referred F	Not Referred %	Referred to F	Referenced %	Number of F	Amount %	P Value
Not good	28	58.3	20	41.7	48	100	0,000
Good	6	11.5	46	88.5	52	100	
	Total	34	34.0	66	66.0	100	100

Table 9 shows that the majority of those with good knowledge desired referral. Of the 52 respondents, 6 (11.7%) were not referred, and 46 (88.3%) were referred.

The results of the chi-square test obtained a p value of 0.000, this means $p > 0.05$, which states that there is a relationship between knowledge and the desire to be referred.

Table 10. Cross Tabulation Between Availability of Facilities and Infrastructure and Desire to be Referred to Padang Tiji Community Health Center in 2020

Availability of Facilities and Infrastructure	Not Referred F	Not Referred %	Referred F	Referred %	Total F	Total %	P-Value
Incomplete	8	26.7	22	73.3	30	100	0.311
Complete	26	37.1	44	62.9	70	100	
Total	34	34.0	66	66.0	100	100	

Source: Prime Data

Based on table 10 above, it can be seen that the majority of those with complete facilities and infrastructure want to be referred.

Of 70 respondents, 26 respondents (37.1%) were not referred and 44 respondents (62.9%) were referred.

The results of the chi-square test obtained a p value of 0.311, this means $p > 0.05$, which states that there is no relationship between the availability of facilities and infrastructure and the desire to be referred.

Cross-tabulation of the relationship between human resource availability and referral intentions at Padang Tiji Community Health Center in 2020

Table 11. Cross Tabulation Between Human Resource Availability and Desire for Referral at Padang Tiji Community Health Center in 2020

Availability of human resources	Not Referred F	Not Referred %	Referred to F	Referenced %	Number of F	Amount %	P Value
Not available	16	36.4	28	63.6	44	100	0.658
Available	18	32.1	38	67.9	56	100	

Total	34	34.0	66	66.0	100	100	
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Based on table 11, above, it can be seen that the majority of those with available human resources have a desire to be referred. As many as 56 respondents, as many as 18 respondents (19.0%) were not referred and as many as 38 respondents (37.0%) were.

The results of the chi-square test obtained a p value of 0.658, this means $p > 0.05$, which states that there is no relationship between the availability of human resources and the desire to be referred.

Cross-tabulation of Officers' Attitudes Towards the Desire for Referral at Padang Tiji Community Health Center in 2020

Table 12. Cross Tabulation of Officers' Attitudes towards the Desire for Referral at Padang Tiji Community Health Center in 2020

Attitude of Health Workers	Not Referenced F	Not Referenced %	Referred to F	Referred %	Total F	Total %	P-Value
Not Good	11	37.9	18	62.1	29	100	0.596
Good	23	32.4	48	67.6	71	100	
Total	34	34.0	66	66.0	100	100	

Based on Table 12 above, it can be seen that the majority of those with good officer attitudes have a desire to be referred. Of the 71 respondents, 23 respondents (24.1%) were not referred and 48 respondents (46.9%) were.

The results of the chi-square test obtained a p value of 0.596, this means $p > 0.05$, which states that there is no relationship between the attitude of health workers and the desire to be referred.

Cross-tabulation of Referral Information on Referral Intentions at Padang Tiji Community Health Center in 2020

Table 13. Cross Tabulation Between Referral Information and Intention to be Referred at Padang Tiji Community Health Center in 2020

Reference Information	Not Referenced F	Not Referenced %	Referred to F	Referenced %	Number of F	Amount %	P Value
Not good	22	43.1	29	56.9	51	100	0.049
Good	12	24.5	37	75.5	49	100	
Total	34	34.0	66	66.0	100	100	

Source: Primary data processed September 2020

Based on table 13 above, it can be seen that the majority of those who received information about referrals that was not good wanted to be referred. Of the 51 respondents who thought the information about referrals was not good, as many as

22 respondents (17.3%) were not referred and 29 respondents (33.7%) were referred.

The results of the chi-square test obtained a p value of 0.049, this means $p > 0.05$, which states that there is no relationship between information about referrals and the desire to be referred.

Cross-tabulation of community perceptions of referrals at Padang Tiji Community Health Center in 2020

Table 14. Cross-tabulation of Patient Knowledge and Community Perception at Padang Tiji Community Health Center in 2020

Public Perception	Not Referenced F	Not Referred %	Referred F	Referred %	Total F	Total %	P-Value
Request Not to be Referred	13	31.7	28	68.3	41	100	0.687
Requesting Referral	21	35.6	38	64.4	59	100	
Total	34	34.0	66	66.0	100	100	

Based on Table 14, it can be seen that the majority of those who requested a referral were referred. Of the 66 respondents, 28 respondents (27.1%) were not referred, and 38 respondents (38.9%) were referred.

The results of the chi-square test obtained a p value of 0.687, this means $p > 0.05$, which states that there is a relationship between knowledge and the desire to be referred.

Multivariate Statistical Analysis Results

Table 15. Candidate Variable Results

No	Variables	Sig. P	Information
1	Knowledge	0,000	There is a relationship
2	Availability of Facilities and Infrastructure	0.311	No connection
3	Availability of human resources	0.658	No connection
4	Attitude of Health Workers	0.596	No connection
5	Information about References	0.034	There is a relationship

The steps taken in logistic regression analysis are selecting the variables to be included in the multivariate analysis. The variables included in the analysis

Multivariate analysis is a variable with a Sig P value of <0.25 . Based on the results in table 4.20, it shows that the Availability of Human Resources has a Sig P value of $0.658 > 0.25$ and the Attitude of Health Workers has a Sig P value of $0.596 > 0.25$, which means that the Availability of Human Resources and the Attitude of Health Workers are not candidates and are excluded from the multivariate analysis, while the variables Knowledge, Availability of Facilities and Infrastructure and Information about Referrals are variables selected for inclusion in the multivariate because they have a Sig P value of <0.25 . However, the availability of facilities and infrastructure is included in the first stage of regression modeling because the researcher wants to use 3 variables, namely knowledge, availability of facilities and infrastructure and information about referrals.

Logistic Regression Test

Table 16. Results of Multiple Logistic Regression Analysis Stage 1

Variables	B	P	Exp(B)	95% CI Lower	95% CI Upper
Knowledge	2,568	0,000	13,035	3,946	43,067
Availability of Facilities and Infrastructure	-0.580	0.314	0.560	0.181	1,732
Availability of human resources	0.470	0.359	1,600	0.586	4,367

Attitude of Health Workers	0.904	0.120	2,471	0.783	7,799
Information about References	0.058	0.917	1,060	0.356	3,157
Public Perception	-0.182	0.723	0.833	0.305	2,280
Constant	-4.040	0.048	0.018		

Tabel 17. Hasil Analisis Regresi Logistik Berganda Tahap II

Variable	B	P	Exp(B)	95% CI Lower	95% CI Upper
Knowledge	2,386	0.000	10,866	3,532	33,431
Availability of Facilities and Infrastructure	-0.449	0.414	0.638	0.218	1,872
Information about References	0.043	0.936	0.957	0.329	2,785
Constant	-1,894	0.178	0.151		

Table 18. Results of Stage III Multiple Logistic Regression Analysis

Variables	B	P	Exp(B)	95% CI Lower	95% CI Upper
Knowledge	2,372	0,000	10,733	3,847	29,950
Constant	0.127				

Source: Processed Primary Data, 2020

Based on table 18. above, the step 1 logistic regression test conducted in this study used Sig P <0.05. Knowledge has a ρ value <0.05 so that the results of the analysis can be concluded that from all independent variables suspected to have a relationship to referrals with subvariables, namely knowledge with a ρ value of 0.000 <0.05. The results of this test indicate that the knowledge factor has a significant influence on referrals at the Padang Tiji Health Center. The results of the knowledge variable are indicated by an OR value of 10.733, meaning that the knowledge of respondents who request referrals is lacking has a 10-fold chance of having an influence on the respondent's knowledge on referrals. The B value of the Natural logarithm is from 3.847 - 29.950. Because the B value is positive, knowledge has a positive influence on referrals at the Padang Tiji Health Center.

Based on the results of research and data processing using statistical tests, each variable will be discussed and described one by one as follows:

The Relationship Between Knowledge and Patient Referrals at Padang Tiji Community Health Center in 2020

Based on the results of the research that has been carried out, each respondent's knowledge will be categorized according to the score determined by the researcher and the categorization shows that out of 100 cross-tabulation results between knowledge and the desire to be referred, it shows that 52 respondents have good knowledge, 6 respondents (17.7%) who are not referred and 48 respondents (34.3%) who are referred.

The chi-square test results yielded a p-value of 0.000, meaning $p > 0.05$, indicating a relationship between knowledge and the desire to be referred. A person's level of knowledge will vary depending on their interest or curiosity. This interest is reflected in the intensity of their interaction with information sources. The greater their desire to learn, the greater their knowledge will be. Theoretically, the knowledge they possess will shape their attitudes and behavior.

After the survey was conducted, many patients already understood about the diseases that can be referred, some patients said this was because it was easy for patients to gain knowledge through special socialization activities for patients about diseases that can be referred, and some patients said that they did not want to know this because they thought that hospitals were more

effective in treating patients than going to the community health center so that patients came to the community health center only to ask for a referral.

This is in line with Zuhrawardi's research (2007) which states that knowledge will shape attitudes, and attitudes will influence behavior. It can be seen that the high or low level of patient knowledge influences the patient's understanding of the action plan for treatment, thus causing the patient to form an attitude of acceptance or rejection. The attitude that has been formed by the patient will influence behavior, such as in terms of taking referrals.

This is in line with research conducted by Sartika (2017) which shows that there is a relationship between motivation and work performance in educational staff at special schools with a p-value of 0.003 and an OR value of 7.892, while the motivation of the workers is a big responsibility so that the students are able to hone their skills despite the limitations they have.

This is in line with research conducted by Yuniar Simanjutak (2017) which shows the results of statistical tests using the Chi Square test with a p value of 0.011 because the p value > 0.05 means there is a relationship between the attitudes of officers and referrals.

The Relationship between the Availability of Facilities and Infrastructure and Patient Referrals at Padang Tiji Community Health Center in 2020

Based on the research results, it shows that out of 98 respondents, 50 respondents were of the opinion that the availability of facilities and infrastructure was complete, 19 respondents (20.4%) were not referred and 31 respondents (29.6%) were referred, out of 48 respondents who were of the opinion that the availability of facilities and infrastructure was incomplete, 21 respondents (19.6%) were not referred and 27 respondents (28.4%) were referred.

The results of statistical tests using the Chi-Square test obtained a p value = 0.709 because the p value > 0.05 means there is no relationship between the availability of facilities and infrastructure to the desire to be referred to the Padang Tiji Community Health Center. The results of field research show that the majority of respondents have facilities and infrastructure are not available. The availability of facilities and infrastructure in health services is an important factor in achieving diagnosis and supporting the implementation of quality services for the community. Available health equipment facilities can improve the performance of the community health center in conducting examinations to patients and it is a necessity to provide referrals due to the limitations of these facilities, if the facilities and health support facilities are incomplete then the process of diagnosing patients will be disrupted and this causes health workers to refer patients to hospitals so that it will have an impact on increasing referrals at the hospital.

This is in line with Utami's research (2016) which states that the availability of facilities and infrastructure in conducting health checks is very important in order to achieve diagnosis and provide appropriate treatment. If the supporting health facilities and infrastructure are incomplete, the process of diagnosing the patient's illness will be disrupted and this causes health workers to have to refer patients to hospitals so that it will have an impact on increasing the number of referrals to hospitals. The availability and adequacy of drugs affects the ability of community health centers to handle various types of diseases, drugs and consumables that do not meet the needs cause doctors and health workers to ask patients to buy drugs outside the community health center and even decide to refer patients. handling various types of diseases, drugs and consumables that do not meet the needs cause doctors and health workers to ask patients to buy drugs outside the community health center and even decide to refer patients

This is in line with research conducted by Muzafar (2012) which shows the results of statistical tests using the Chi-Square test obtained a p value = 0.250 because the p value > 0.05 means there is no relationship between the availability of facilities and infrastructure.

The Relationship between Human Resource Availability and Patient Referrals at Padang Tiji Community Health Center, Padang Tiji District in 2020

Based on the research results, it shows that out of 100 respondents, 56 respondents were of the opinion that the availability of human resources was available, 24 respondents (22.9%) were not referred and 32 respondents (33.1%) were referred, out of 42 respondents who were of the opinion that the availability of human resources was not available, 16 respondents (17.1%) were not referred and 26 respondents (24.9%) were referred.

The results of statistical tests using the Chi-Square test obtained a p value = 0.789 because the p value > 0.05 means there is no relationship between the availability of facilities and infrastructure and the desire to be referred to the Padang Tiji Community Health Center. Based on the results of the interview, respondents often received referrals due to the lack of human resources available at the community health center. Respondents said that they received referrals due to the lack of personnel at the community health center such as the absence of dentists and laboratory personnel which resulted in referrals to hospitals. In addition, other respondents also said that the medical equipment facilities in the laboratory were incomplete which made doctors give referrals to hospitals.

This also aligns with research by Simarmata (2016), which states that the availability of facilities and equipment is a crucial factor in achieving a diagnosis. A lack of healthcare human resources can hamper disease diagnosis, resulting in referrals. Furthermore, medication also significantly impacts referrals, as community health centers often experience shortages or run out of medication, particularly antibiotics, which often leads to referrals from hospitals.

This is in line with research conducted by Masykur Alawi (2015) which shows the results of statistical tests using the Chi Square test with a p value of 0.858 because the p value > 0.05 means there is no relationship between the availability of human resources and referrals.

The Relationship Between Health Workers' Attitudes and Patient Referrals at Padang Tiji Community Health Center in 2020

Based on the results of the research that has been carried out, each respondent's answer to the attitude of the officers shows that 70 respondents thought the attitude of the health officers was good, 28 respondents (28.6%) were not referred and 42 respondents (41.4%) were referred, of the 28 respondents who thought the attitude of the health officers was not good, 12 respondents (11.4%) were not referred and 16 respondents (16.6%) were referred.

The results of the statistical test using the Chi Square test showed a p value of 0.596 because the p value > 0.05 means there is no relationship between the officer's attitude and the desire to be referred.

According to Bustami (2011), good staff attitudes significantly contribute to effective counseling. Furthermore, staff attitudes also impact patient psychology. This is because patients who come to community health centers expect a speedy recovery. Friendly staff attitudes lead to patient satisfaction with the healthcare services provided, which indirectly impacts patient recovery and the quality of community health center services.

Based on research and data processing, the background and attitudes of staff did not influence the number of BPJS patient referrals at Padang Tiji Community Health Center. BPJS patients perceived the staff's attitude toward patients as quite good in their service.

This is in line with research conducted by Ermi Girsang (2018) which shows the results of statistical tests using the Chi Square test with a p value of 0.174 because the p value > 0.05 means there is no relationship between the attitudes of officers and referrals.

Relationship of Information About Referrals to Patient Referrals at Padang Tiji Community Health Center in 2020

Based on the results of the study, it can be seen that from 98 respondents, it shows that from 100 respondents, the results of cross-tabulation between Information About Referrals and Desire to be Referred show that respondents who think Information About Referrals is good are 49 respondents, as many as 12 respondents (16.7%) who are not referred and as many as 37 respondents (32.3%) who are referred, from 51 respondents who think Information About Referrals is not good, as many as 22 respondents (17.3%) who are not referred and as many as 29 respondents (33.7%) who are referred. The results of statistical tests using the Chi-Square test obtained a p value = 0.049 because the p value <0.05 means there is a relationship between information about referrals and Desire to be Referred. Multivariate analysis shows that there is no influence of information about referrals on the number of referrals of BPJS participant patients.

Based on the research results, many respondents never received information about referral service procedures and the referral process. As stipulated by the BPJS, referral service procedures must comply with the referral process to prevent high referral rates at primary healthcare levels and to prevent overcrowding at secondary healthcare levels, namely hospitals. The lack of information patients receive about which diseases can be referred to a health care provider leads them to prefer secondary healthcare due to low levels of trust in primary healthcare.

Respondents reported a lack of specific outreach to patients about BPJS referral services. This lack of information leads to low utilization of health services at community health centers, leading the public to consistently utilize more advanced referral health facilities.

This is in line with Sopar's (2011) research, which stated that there is no significant relationship between information and the community's utilization of Jamkesmas. Information is related to the level of knowledge, which varies depending on a person's interest or curiosity. This interest is indicated by the intensity of their interaction with information sources. The higher the intensity of their search, the greater their knowledge will be. This is in line with research conducted by Yuniar Simanjuntak (2017), which showed statistical test results using the Chi-Square test with a p-value of 0.008. Because the p-value <0.05 indicates a relationship between the attitude of officers and referrals.

The Relationship Between Public Perceptions and BPJS Patient Referrals at Padang Tiji Community Health Center in 2020

Based on the research, it can be seen that of the 100 respondents, the majority, 59 respondents (59.0%) asked to be referred and the minority, 41 respondents (41.0%) asked not to be referred to the Padang Tiji Health Center.

Based on the research, it can be seen that the majority of those who requested a referral were referred. Of the 66 respondents, 28 respondents (27.1%) were not referred and 38 respondents (38.9%) were referred. The chi-square test results obtained a p-value of 0.687, this means $p > 0.05$, which indicates a relationship between knowledge and the desire to be referred.

The results of this study align with the theory proposed by Walgito (1997), who explains that perception is a stimulus sensed by an individual, organized, and then interpreted so that the individual is aware of and understands what is sensed. In other words, perception is the process involving the entry of messages or information into the human brain. Perception is an individual's integrated state of response to the stimulus they receive. What exists within an individual thoughts, feelings, and experiences will actively influence the perception process.

The results of this study are consistent with research conducted by Malahayati (2011) on primary health care services, with 62.2% receiving positive referrals and 51.3% not receiving

referrals. This is due to the hospital's good accountability in handling patients referred to the Aceh Health Insurance (JKA) program.

Based on several theories above and research results, the researcher assumes that there is a relationship between perception and JKA medical referrals because health services for patients participating in the Aceh Health Insurance (JKA) at the Peudada Health Center are considered optimal, this is indicated by the presence of patients who say that the Aceh Health Insurance (JKA) participants regarding services at the Peudada Health Center include :

The Community Health Center management has established clear standards for patient service, thereby shortening waiting times. The waiting room is also equipped with a roof to protect patients from the sun and rain.

Conclusion

Knowledge is related to referrals because good public knowledge and frequent reading will increase public knowledge, thus broadening the public's thinking power. The availability of facilities and infrastructure greatly supports the services provided in health facilities, allowing for appropriate examinations and services that are in accordance with medical diagnoses.

The availability of human resources that meet the standards and competencies possessed by health workers greatly assists in the process of patient care and recovery. Furthermore, a good attitude of officers will provide attention and a sense of emotional closeness to patients, thus influencing the patient's recovery rate when treated at the community health center. Based on the referral flow, patients are given if further examinations are needed with supporting equipment that is more complete than at the community health center and this will be explained to patients before being referred to the hospital.

Suggestion

The head of the community health center must provide outreach on the referral system to provide the community with information and an understanding of the referral system at the community health center. Furthermore, the head of the community health center must optimize the planning of facilities, infrastructure, and human resources to ensure that facilities and human resources are available according to the needs and competencies required at the community health center, ensuring that referral services comply with established standards and mechanisms.

References

- Abere, T. M., Atnafu, D. D., & Mulu, Y. (2021). Self-referral and associated factors among patients attending adult outpatient departments in Debre tabor general hospital, North West Ethiopia. *BMC health services research*, 21(1), 607. <https://doi.org/10.1186/s12913-021-06642-7>
- Ahmed, N., Dahal, M., Crocket, H., & Strasser, R. (2026). Factors Influencing Community Members' Perception of Primary Health Care Services Delivered by Community Health Workers in Rural Areas: A Systematic Review. *Australian Journal of Rural Health*, 34(1), e70142. <https://doi.org/10.1111/ajr.70142>
- Al Saffer, Q., Al-Ghaith, T., Alshehri, A., Al-Mohammed, R., Al Homidi, S., Hamza, M. M., ... & Alazemi, N. (2021). The capacity of primary health care facilities in Saudi Arabia: infrastructure, services, drug availability, and human resources. *BMC health services research*, 21(1), 365. <https://doi.org/10.1186/s12913-021-06355-x>
- Alawi, M., Junadi, P., & Latifah, S. N. (2017). Analisis faktor-faktor yang berhubungan dengan tingginya rujukan kasus non spesialisik pasien Jaminan Kesehatan Nasional pada puskesmas di Kabupaten Sukabumi tahun 2015. *Jurnal Ekonomi Kesehatan*

- Alolayyan, M. N., Alnabelsi, A. B., Salameh, W. E. M. K. B., Al-shanableh, N., Alzyoud, M., Alhalalmeh, M. I.,... & Aldaihani, F. M. F. (2025). The mediating role of medical service geographical availability between the healthcare service quality and the medical insurance. In *Intelligence-Driven Circular Economy: Regeneration Towards Sustainability and Social Responsibility Volume 2* (pp. 281-296). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-74220-0_21
- Antari, I. A. S., Sastrawan, S., & Khalik, L. A. (2026). Case Study: Factors Causing the High Referral Ratio of BPJS Outpatients at the Mataram Police Primary Clinic in 2025. *Jurnal Penelitian Pendidikan IPA*, 12(4), 967-981. <https://doi.org/10.29303/jppipa.v12i4.14756>
- Avraham, R., Van Dijk, D., Kerub, O., Asayag, Z., & Grinstein-Cohen, O. (2026). Telenursing use in mother and child community health centers: A qualitative study among public health nurses. *Digital Health*, 12, 20552076251406317.
- Bustami. (2011). *Penjaminan mutu pelayanan kesehatan & akseptabilitasnya*. Erlangga.
- Cameron, L., Sutton, M., Parkinson, B., & Meacock, R. (2026). Short Delays in Time to First Contact With Community Health Services and Risk of Emergency Hospital Attendance: Retrospective Observational Study. *Journal of Advanced Nursing*. <https://doi.org/10.1111/jan.70488>
- Chahyanti, U. K., Abidin, Z., & Salam, A. Y. (2026). The Relationship Between Satisfaction and Expectations of the Healthcare Community and the Quality of Services in the Emergency Unit of the Klakah Community Health Center, Lumajang. *Journal of Rural Community Nursing Practice*, 4(1), 132-151. <https://doi.org/10.58545/jrcnp.v4i1.631>
- Dartey, A. F., Doe, T. A., Klutsey, E. E., Johnson, B. B., Titiati, P., Agbalenyo, E.,... & Ankomah, R. A. (2026). A Qualitative Study of Community Health Nurses' Home Visiting Experiences in the Keta Municipality, Ghana. *Journal of Community Health Nursing*, 43(1), 10-21. <https://doi.org/10.1080/07370016.2025.2527657>
- Fajriyah, F. (2025). The influence of service quality on customer satisfaction at Sukowono Community Health Center, Jember Regency. *Publik: Jurnal Manajemen Sumber Daya Manusia, Administrasi dan Pelayanan Publik*, 12(4), 1448-1459. <https://doi.org/10.37606/publik.v12i4.2062>
- Fatimah, S., Sholahudin, A., & Hariyanto, T. (2026). Implementation of National Health Insurance Through the National Health Insurance Mobile Application. *International Journal of Research in Social Science and Humanities (IJRSS) ISSN: 2582-6220, DOI: 10.47505/IJRSS*, 7(3), 22-30. <https://doi.org/10.47505/IJRSS.2026.3.3>
- Gunawan, S. (2026). -Cost Driver of Diabetes Mellitus Care in JKN Healthcare Facilities: A Case Study from Indonesia:-. *Jurnal Kesehatan*, 17(1), 111-125. <https://doi.org/10.35730/jk.v17i1.1243>
- Gupta, N., Coates, M. M., Bekele, A., Dupuy, R., Fénelon, D. L., Gage, A. D., ... & Bukhman, G. (2020). Availability of equipment and medications for non-communicable diseases and injuries at public first-referral level hospitals: a cross-sectional analysis of service provision assessments in eight low-income countries. *BMJ open*, 10(10), e038842.
- Huang, P. H., Kim, K. H., & Schermer, M. (2022). Ethical issues of digital twins for personalized health care service: preliminary mapping study. *Journal of Medical Internet Research*, 24(1), e33081.

- Kehyayan, V., Yasin, Y. M., & Al-Hamad, A. (2025). Toward a clearer understanding of value-based healthcare: A concept analysis. *Journal of Nursing Management*, 2025(1), 8186530. <https://doi.org/10.1155/jonm/8186530>
- Klepp, K. I., Helleve, A., Høstrup, E., Gabrijelčič Blenkuš, M., Karlsdóttir, S., Ollila, E.,... & Granlund, L. (2025). Scaling up non-communicable disease prevention and health promotion across Europe: The Joint Action PreventNCD. *Scandinavian Journal of Public Health*, 53(3_suppl), 8-17.
- Levkovich, I., & Elyoseph, Z. (2023). Identifying depression and its determinants upon initiating treatment: ChatGPT versus primary care physicians. *Family Medicine and Community Health*, 11(4), e002391. <https://doi.org/10.1136/fmch-2023-002391>
- Masitoh, S., Suci, R. P., & Nuswantari, A. T. R. (2026). Leadership and Organizational Commitment Effects on Service Quality and Inpatient Satisfaction. *International Journal of Multidisciplinary Sciences and Arts*, 5(1), 118-131. <https://doi.org/10.47709/ijmdsa.v5i1.7818>
- Mnisi, T. T., Bongongo, T., & Nkoane, A. M. (2026). Patients' views of the healthcare services during power outages in Pretoria Primary Healthcare. *Journal of the Colleges of Medicine of South Africa*, 4(1), 254.
- Nurfikri, A., & Roselina, E. (2022). Evaluation of Referral Ratios in Facing Universal Health Coverage in Primary Healthcare Centers. *International Journal of Nursing Information*, 1(2), 1-6. <https://doi.org/10.58418/ijni.v1i2.26>
- Rafi'i, M. R., Hanif, S. A. M., & Bin Daud, F. (2025). Exploring the link between healthcare organizational culture and provider work satisfaction: a systematic review. *BMC health services research*, 25(1), 904. <https://doi.org/10.1186/s12913-025-12973-6>
- Ritonga, N., & Rangkuti, J. A. (2022). Proceeding The Tapanuli International Health Conference (TIHC) 2022. In *Tapanuli International Health Conference 2022* (Vol. 1, No. 1).
- Rodriguez, J., Ravi, T., Thompson, E. L., & Ferrer, R. L. (2026). "The resources are there, it's just not sufficient:" Primary Care Team Members and Their Experiences with Connecting Patients to Needed Resources. *Journal of Primary Care & Community Health*, 17, 21501319251413968.
- Sand-Svartrud, A. L., Dagfinrud, H., Fossen, J., Framstad, H., Irgens, E. L., Morvik, H. K., ... & Kjeklen, I. (2025). Impact of provider feedback on quality improvement in rehabilitation services: an interrupted time series analysis. *Frontiers in Rehabilitation Sciences*, 6, 1564346. <https://doi.org/10.3389/fresc.2025.1564346>
- Serchen, J., Johnson, D., Cline, K., Hilden, D., Algase, L. F., Silberger, J. R.,... & Health and Public Policy Committee and the Medical Practice and Quality Committee of the American College of Physicians. (2025). Improving health and health care in rural communities: a position paper from the American College of Physicians. *Annals of Internal Medicine*, 178(5), 701-704. <https://doi.org/10.7326/ANNALS-24-03577>
- Simanjuntak, Y. (2018). *Faktor-faktor yang memengaruhi rujukan pasien BPJS di Puskesmas Medan Johor Kecamatan Medan Johor tahun 2017* [Undergraduate thesis, Universitas Sumatera Utara].
- Soetono, G., & Kurtanty, D. (2026). Pusyankes: A Conceptual Framework for Integrated Primary Care Combining People-Centered Medical Home, Population Health Management, and Value-Based Health Care in Indonesia's JKN Context. *Journal of Public Health and Digital Industry*, 1(1), 61-73.

- Sopar. (2011). *Analisis faktor-faktor yang mempengaruhi pemanfaatan program Jamkesmas di Kabupaten Labuhanbatu*.
- Terefe, B., Bikale Kebede, F., Nigussie Abrha, N., Fentaw Shiferaw, Y., Kahsay Asgedom, D., Keflie Assefa, S., & Tezera Assimamaw, N. (2025). Multilevel modelling of determinants of perinatal mortality in East Africa: a pooled analysis of National health survey data. *BMC Public Health*, 25(1), 2003. <https://doi.org/10.1186/s12889-025-23218-w>
- Thacharodi, A., Singh, P., Meenatchi, R., Tawfeeq Ahmed, Z. H., Kumar, R. R., V, N.,... & Hassan, S. (2024). Revolutionizing healthcare and medicine: The impact of modern technologies for a healthier future A comprehensive review. *Health Care Science*, 3(5), 329-349. <https://doi.org/10.1002/hcs2.115>
- Walgito, B. (2004). *Pengantar psikologi umum* (4th ed.). Andi.
- Woldeyohanins, A. E., Molla, N. M., Mekonen, A. W., & Wondimu, A. (2025). The availability and functionality of medical equipment and the barriers to their use at comprehensive specialized hospitals in the Amhara region, Ethiopia. *Frontiers in Health Services*, 4, 1470234. <https://doi.org/10.3389/frhs.2024.1470234>
- Zeeb, H., Loss, J., Starke, D., Altgeld, T., Moebus, S., Geffert, K., & Gerhardus, A. (2025). Public health in Germany: structures, dynamics, and ways forward. *The Lancet Public Health*, 10(4), e333-e342. [https://doi.org/10.1016/S2468-2667\(25\)00033-7](https://doi.org/10.1016/S2468-2667(25)00033-7)
- Zhao, H., Wang, H., Huang, L., Xie, F., & Yan, J. (2026). Improving the Oral Healthcare Experience for Hong Kong and Macao Residents: A Practical Exploration of Specialized Nurse-Led Oral Care Clinics. *Journal of Public Health Dentistry*.
- Zuhrawardi. (2007). *Analisis pelaksanaan rujukan rawat jalan tingkat pertama peserta wajib PT Askes pada Puskesmas Mibo, Puskesmas Batoh, dan Puskesmas Baiturahman di Kota Banda Aceh tahun 2007*