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Research Article

Factors Associated with Prolanis Participation at Payo Selincah Health Center

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ABSTRACT

Payo Selincah Community Health Center is the Community Health Center with the lowest number of Prolanis participants in 2022. Based on data from the Jambi City Health Service, there are 923 hypertension sufferers and 157 diabetes mellitus sufferers at Payo Selincah Health Center. Researchers aim to look at factors related to the use of the Chronic Disease Management Program (Prolanis) at the Payo Selincah Community Health Center. This research uses a correlational quantitative method with a cross-sectional research approach. The number of samples was 92, using accidental sampling technique. The research was conducted by interviewing respondents to see the relationship between age, gender, employment, education, knowledge, family support, the role of health workers, accessibility, and the need for services on the use of Prolanis. There is a relationship between employment (p = 0.034), knowledge (p = 0.000), family support (p = 0.000), the role of health workers (p = 0.001), and the need for services (p = 0.023) with the use of Prolanis. There was no relationship between age (p = 0.069), gender (p = 0.297), education (p = 0.752), and accessibility (p = 0.371) with the use of Prolanis.

INTRODUCTION

World Health Organization(2018) stated that the biggest health challenge in the 21st century is non-communicable diseases (NCDs). Non-communicable diseases cause 41 million or 71% of the total 57 million global deaths. Of the total deaths that occur, more than 80% occur due to cardiovascular disease and diabetes. According to the World Health Organization (2023), hypertension is also the

leading cause of death at a young age worldwide. It is estimated that around 1.28 billion adults aged 30-79 years experience high blood pressure globally (WHO,2023).

Findings from Riskesdas in 2018 showed that the incidence of non-communicable diseases in Indonesia increased when compared to 2013 (Yuliaristi, 2023). This increase includes the prevalence of hypertension which increased from 25.8% to 34.1% and diabetes mellitus which increased from 6.9% to 8.5%. Report from the P2PTM section of the Jambi Provincial Health Office in 2022 on Hypertension cases, the Regency/City with the largest number of sufferers was Jambi City, namely 114,170 cases of Hypertension and 21,127 cases of Diabetes Mellitus. (Section N-CD Jambi, 2023).

In addition, of all the Community Health Centers in Jambi City, the cases of Non-Communicable Diseases with the highest percentage are Hypertension (7,172 cases) and Diabetes Mellitus (2,686 cases). (Maulidati, 2022). The high increase in cases of chronic diseases of Hypertension and Diabetes Mellitus in Indonesia every year and the large deficit of costs incurred, so that the Ministry of Health and BPJS Kesehatan make various efforts to prevent complications and overcome Diabetes and Hypertension through comprehensive actions involving promotion, prevention, treatment, recovery, and palliative care efforts to detect early and follow up risk factors in health care facilities through the Chronic Disease Management Program (Prolanis) (Aswar S, 2023).

The estimated number of Hypertension sufferers at the Payo Selincah Health Center in 2022 is the Health Center with the second highest cases. Meanwhile, in the case of Diabetes Mellitus in 2022 at the Payo Selincah Health Center, it is the sixth highest Health Center out of 20 Health Centers in Jambi City. However, the large number of Hypertension and Diabetes Mellitus incidents at the Payo Selincah Health Center is not comparable to the number of sufferers registered as Prolanis participants, which is only 3 people.

The health system model developed by Anderson (1975) in Notoatmodjo (2014) is a health belief model. According to this model, there are three main characteristics that influence the use of health services, namely predisposition, support, and needs.[5]In a study conducted by Sophian Aswar (2023), this study found a relationship between education level, knowledge level, employment, accessibility, and Prolanis Utilization at the Ridge Health Center, Papua. (Aswar S, 2023).

Based on the results of an initial survey conducted by researchers at the Payo Selincah Health Center on 10 respondents, it was found that only 30% of respondents routinely utilized Prolanis activities. Respondents stated that the reasons they did not participate in Prolanis activities were the distance between their homes and the Health Center, no vehicles, and no one to drive them. When viewed from the results of the initial survey and the study, age, gender, occupation, education, knowledge, accessibility, family support, the role of health workers, and the need for services had varying results. Thus, based on this description, researchers are interested in re-examining the Factors Related to the Utilization of the Chronic Disease Management Program (Prolanis) at the Payo Selincah Health Center in Jambi City.

METHOD

This study employed a quantitative correlational research design with a survey data collection technique and a cross-sectional approach. The study was conducted at the Payo Selincah Public Health Center in Jambi City between December and January 2024. The research population consisted of 1,080 individuals (923 with hypertension and 157 with diabetes mellitus). To determine the representative sample size, the Slovin formula was applied, resulting in a total of 92 respondents. The sampling technique used

was accidental sampling, with inclusion criteria being individuals diagnosed with hypertension or diabetes mellitus and registered with the Indonesian National Health Insurance (BPJS). The exclusion criteria were individuals with hypertension or diabetes mellitus who were not registered as BPJS participants.

Data were collected using a questionnaire, which was a modified version of the instrument developed by Happy Mira Jodanti (2022) from a study conducted at Sei Baung Health Center, Palembang. Data analysis was performed using SPSS.

RESULTS

1. UNIVARIATE ANALYSIS

a. Respondents' Overview Based on Independent Variables

Table 1. Distribution of Respondents Independent Variables

No	Independent Variables	Frequency	Percentage (%)
1	**Age**		
	Elderly	40	43.5%
	Pre-elderly	52	56.5%
	Total	92	100%
2	**Gender**		
	Man	24	26.1%
	Woman	68	73.9%
	Total	92	100%
3	**Work**		
	Work	31	33.7%
	Doesn't work	61	66.3%
	Total	92	100%
4	**Education**		
	No school, elem entary school, middle school, high school	78	84.8%
	D3, S1, S2, and S3	14	15.2%
	Total	92	100%
5	**Knowledge**		
	Not enough	46	50.0%
	Good	46	50.0%
	Total	92	100%
6	**Family Support**		
	Does not support	56	60.9%
	Support	36	39.1%
	Total	92	100%
7	**The Role of Health Workers**		
	Not good	41	44.6%
	Good	51	55.4%
	Total	92	100%
8	**Accessibility**		
	Difficult	17	18.5%
	Easy	75	81.5%
	Total	92	100%
9	**Need for Service**		
	No Need	51	55.4%
	Need	41	44.6%
	Total	92	100%

Source: Primary Data Processed in 2024

Based on table 1. shows that the description of respondents based on the age variable is mostly pre-elderly with a percentage of 56.5%. The description of respondents on the gender variable is mostly female at 73.9%, then the description of respondents based on the employment variable is 66.3% unemployed (the majority are housewives and retirees). In the education variable, the majority are elementary, junior high and high school graduates at 84.8%, based on the knowledge variable 50% have low knowledge. Furthermore, from the family support variable with the results of families who do not support 60.9%. In the variable of the role of health workers, 55.4% of the role of health workers is stated as good, the description of the accessibility variable is 18.5% of respondents with difficult access. Then, in the variable of the need for services, the results showed that 55.4% needed services at Prolanis.

b. Respondent Description Based on Dependent Variables

Table 2. Distribution of Respondents Dependent Variable

Utilization of Prolanis	Medical History				Total	
	Hypertension		DM		N	%
	N	%	N	%		
Not Taking Advantage	40	67.8	19	32.2	59	100
Utilise	16	48.5	17	51.5	33	100
Total	56	60.9	36	39.1	92	100

Source: Primary Data Processed in 2024

Based on table 2. it can be seen that out of 92 respondents, most respondents did not utilize Prolanis available at Payo Selincah Health Center with the largest percentage of 67.8% being from Hypertension sufferers and DM sufferers of 32.2%. Meanwhile, for respondents who utilized 51.5% of Diabetes Mellitus sufferers and 48.5% of Hypertension sufferers. So, for the total respondents who did not utilize it was 59 (64.1%), and respondents who utilized it were 33 (35.9%) respondents.

2. BIVARIATE ANALYSIS

a. Relationship between Age and Prolanis Utilization at Payo Selincah Health Center

Table 3. Relationship between Age and Prolanis Utilization

Age	Utilization of Prolanis				Total		95% CI	*P-Value*
	Not Taking Advantage		Utilise		N	%		
	N	%	N	%				
Elderly	21	52.5	19	47.5	40	100	0.170 - 0.974	0.069
Pre-elderly	38	73.1	14	26.9	52	100		
Total	59	64.1	33	35.9	92	100		

Source: Primary Data Processed in 2024

b. Relationship between Gender and Prolanis Utilization at Payo Selincah Health Center

Table 4. Relationship between Gender and Prolanis Utilization

Gender	Utilization of Prolanis				Total		95% CI	*P-Value*
	Not Taking Advantage		Utilise		N	%		
	N	%	N	%				
Man	18	75.0	6	25.0	24	100	0.696 - 5.611	0.297
Woman	41	60.3	27	39.7	68	100		
Total	59	64.1	33	35.9	92	100		

Source: Primary Data Processed in 2024

c. Relationship between Work and Prolanis Utilization at Payo Selincah Health Center

Table 5. Relationship between Work and Prolanis Utilization

Work	Utilization of Prolanis				Total		*P-Value*
	Not Taking Advantage		Utilise		N	%	
	N	%	N	%			
Work	25	80.6	6	19.4	31	100	0.034
Doesn't work	34	55.7	27	44.3	61	100	
Total	59	64.1	33	35.9	92	100	

Source: Primary Data Processed in 2024

d. The Relationship between Education and Prolanis Utilization at Payo Selincah Health Center

Table 6. The Relationship between Education and Prolanis Utilization

Education	Utilization of Prolanis				Total		*P-Value*
	Not Taking Advantage		Utilise		N	%	
	N	%	N	%			
Low	33	62.3	20	37.7	53	100	0.830
Middle to High	26	66.7	13	33.3	39	100	
Total	59	64.1	33	35.9	92	100	

Source: Primary Data Processed in 2024

e. Relationship between Knowledge and Prolanis Utilization at Payo Selincah Health Center

*Table 7.*Relationship between Knowledge and Prolanis Utilization Prolanis

Knowledge	Utilization of Prolanis				Total		*P-Value*
	Not Taking Advantage		Utilise		N	%	
	N	%	N	%			0,000
Not enough	43	93.5	3	6.5	46	100	
Good	16	34.8	30	65.2	46	100	
Total	59	64.1	33	35.9	92	100	

Source: Primary Data Processed in 2024

f. Relationship between Family Support and Prolanis Utilization at Payo Selincah Health Center

Table 8. Relationship between Family Support and Prolanis Utilization Prolanis

Family Support	Utilization of Prolanis				Total		*P-Value*
	Not Taking Advantage		Utilise		N	%	
	N	%	N	%			0,000
Does not support	47	83.9	9	16.1	56	100	
Support	12	33.3	24	66.7	36	100	
Total	59	64.1	33	35.9	92	100	

Source: Primary Data Processed in 2024

g. The Relationship between the Role of Health Workers and the Utilization of Prolanis at the Payo Selincah Health Center

Table 9. Relationship between the Role of Health Workers and the Utilization of Prolanis

Role of Health Services	Utilization of Prolanis				Total		*P-Value*
	Not Taking Advantage		Utilise		N	%	
	N	%	N	%			0.023
Not good	32	78.0	9	22.0	41	100	
Good	27	52.9	24	47.1	51	100	
Total	59	64.1	33	35.9	92	100	

Source: Primary Data Processed in 2024

h. The Relationship between Accessibility and Prolanis Utilization at Payo Selincah Health Center

Table 10. The Relationship between Accessibility and Prolanis Utilization

Accessibility	Utilization of Prolanis				Total		*P-Value*
	Not Taking Advantage		Utilise		N	%	
	N	%	N	%			0.371
Difficult	13	76.5	4	23.5	17	100	
Easy	46	61.3	29	38.7	75	100	
Total	59	64.1	33	35.9	92	100	

Source: Primary Data Processed in 2024

i. Relationship between Need for Services and Prolanis Utilization at Payo Selincah Health Center

*Table 11.*Relationship between Need for Services and Prolanis Utilization

Service Needs	Utilization of Prolanis				Total		*P-Value*
	Not Taking Advantage		Utilise		N	%	
	N	%	N	%			0,000
No Need	46	90.2	5	9.8	51	100	
Need	13	31.7	28	68.3	41	100	
Total	59	64.1	33	35.9	92	100	

Source: Primary Data Processed in 2024

DISCUSSION

1. Overview of Prolanis Utilization at Payo Selincah Health Center

Based on a study conducted on 92 respondents with Hypertension and Diabetes Mellitus at the Payo Selincah Health Center, there was a proportion of respondents who did not utilize Prolanis as many as 59 respondents and those who utilized it as many as 33 respondents. Based on information obtained from the person in charge of Prolanis at BPJS Kesehatan Kota Jambi,

participants are said to utilize Prolanis if they routinely participate in at least two Prolanis activities and one of the main activities that must be routinely followed is a health check and health consultation every month.

2. **Relationship between Age and Prolanis Utilization**

   Based on the statistical analysis, there was no significant association between age and the utilization of the Chronic Disease Management Program (Prolanis) at Payo Selincah Health Center in Jambi City, as indicated by a P-value of 0.069 (P > 0.05). However, observational findings during the study showed that elderly participants tended to use Prolanis services more frequently than those in the pre-elderly group. This may be due to the fact that pre-elderly individuals are still actively engaged in work and household responsibilities. Additionally, they often perceive themselves as being in good health and do not yet feel the need for regular medication. The results of this study are also in line with research conducted by Nena Mardiana (2021) which found no relationship between age factors and the utilization of health services. (Section of Prevention N-CD Jambi, 2022)

3. **Relationship between Gender and Prolanis Utilization**

   In the gender variable, p 0.297 was obtained, which means there is no relationship between gender and the use of prolanis at the Payo Selincah Health Center in Jambi City. Although the gender variable does not have a significant relationship to the use of prolanis, female respondents use prolanis more than male respondents, this is because male respondents are heads of families who are still busy working, often feel lazy to go to the Health Center, and are indifferent to disease also tend to occur in male respondents.[3]This study is in line with Silvi Sari's (2021) study at the Kedai Durian Health Center which stated that there was no significant influence between gender and the use of chronic disease management programs with a P-Value of 0.380. (Amelia S, 2021)

4. **Relationship between Work and Prolanis Utilization**

   From the results of the statistical tests that have been carried out previously, It was concluded that there is a significant relationship between employment status and the utilization of the Prolanis program at the Payo Selincah Health Center, as indicated by a P-value of 0.034, and respondents who work are 3.31 times more likely not to use Prolanis compared to respondents who do not work. In this study, respondents who do not work tend to use Prolanis more than those who do, this is because respondents who do not work tend not to be busy and can still take the time to visit health facilities to do health checks, take medicine, do supporting examinations or participate in Polanis gymnastics and education. The results of this study are in line with the research of Rosmin Ilham (2022) where work has a significant relationship with the use of Prolanis at the Batumoito Health Center with a P-Value of 0.04. (Ilham R, 2023)

5. **The Relationship between Education and Prolanis Utilization**

   The results of this study stated that there was no relationship between education and the use of Prolanis at the Payo Selincah Health Center with a P-Value of 0.830. Based on the results of data collection and interviews using a questionnaire, respondents with low and middle education (elementary, junior high and high school) utilized Prolanis more than those with higher education (minimum D3). This could happen because respondents with low education preferred services provided by first-level health care facilities, while respondents with higher education preferred to go to a doctor's practice or

hospital for their health consultations. In fact, respondents with higher education tended to choose alternative herbal medicines to control their blood pressure and blood sugar because they did not want to rely too much on chemical medicines. This study is in line with research conducted by Fenly Ameina which stated that there was no relationship between education and the use of health services. (Ameina, 2022)

6. **Relationship between Knowledge and Prolanis Utilization**
   Based on the results of statistical analysis using the Chi-Square test, a significant relationship was found between knowledge and the utilization of the Prolanis program at the Payo Selincah Health Center, with a P-value of 0.000. Respondents with poor knowledge were 28.8 times more likely not to utilize Prolanis compared to those with good knowledge. When analyzed from the results of the study, respondents who had good knowledge tended to use Prolanis more. In line with research conducted by Yuniati, et al. (2021) which stated that the results of the chi square test obtained a p-value of 0.026. So it can be concluded that there is a significant relationship between knowledge and the use of health services (Yuniati, 2022).
7. **Relationship between Family Support and Prolanis Utilization**
   From the results of statistical tests in this study, it was found that there was a significant relationship between family support and the use of Prolanis with a P-Value of 0.000 and respondents who had poor family support were 24.39 times more likely not to use Prolanis compared to respondents who had good family support. If analyzed from the results of the study, the majority of respondents who used Prolanis had good family support, while respondents who did not use it had poor family support. This study is in line with the results of a study by Nenny Parinusa (2022) that there is a correlation between family support (p-value 0.001) and visits by Prolanis participants in the Waai Public Health Center Work Area, Central Maluku. (Parinussa N, 2022)
8. **Relationship between the Role of Health Workers and the Utilization of Prolanis**
   From the results of statistical tests in this study, it was found that there was a significant relationship between the role of health workers and the utilization of Prolanis with a P-Value of 0.023 and respondents who stated that the role of health workers was less likely to be 3.16 times not to utilize Prolanis compared to respondents who stated that the role of health workers was good. Based on the results of interviews with respondents, it was concluded that respondents who utilized Prolanis tended to feel the role of health workers was good during service. This study with research conducted by Aida Yunizar, et al. which stated that there was a significant relationship between health workers and the utilization of health services P-Value 0.008.
9. **The Relationship between Accessibility and Prolanis Utilization**
   The study results indicated that accessibility was not significantly associated with the utilization of the Prolanis program, as demonstrated by a P-value of 0.371. The accessibility that was considered in this study was the condition of a close distance of ≤ 5km and far > 5km, road conditions, and ease of transportation to reach health facilities. Based on the study, all respondents had a distance of only 1km - 4.5km from the Health Center, but for transportation not all respondents had easy transportation, then the road conditions around the Payo Selincah Health Center work area were quite good and there were no problems. A study that is in line with this is the study by Kartika Agustika (2023) which stated that there was no significant relationship

between travel distance and the use of Prolanis services at the Pancasan Health Center in Bogor City with a P-Value of 0.678. (Agustika K, 2023)

10. **Relationship between Need for Services and Prolanis Utilization**

    The variable of need for services has a significant relationship with the utilization of Prolanis at the Payo Selincah Health Center, Jambi City with a P-Value of 0.000 and respondents who do not need services are 33.8 times more likely not to utilize Prolanis compared to respondents who need services. All respondents who utilize Prolanis have high service needs, while respondents who do not utilize more do not need health services. A study that is in line with this is the study by Feronika Whilia (2019) that there is a significant relationship between the need for services and the utilization of Prolanis at the Getasan Health Center, Semarang with a P-Value of 0.02. (Whilia F, 2019)

CONSLUSIONS

There is a relationship between employment (p = 0.034), knowledge (p = 0.000), family support (p = 0.000), the role of health workers (p = 0.023), and the need for services (p = 0.000) with the use of Prolanis. There is no relationship between age (p = 0.069), gender (p = 0.172), education (p = 0.830), and accessibility (p = 0.371) with the use of Prolanis.

REFERENCES

Agustika K, Syari W, Chotimah I. Factors Affecting the Participation of Hypertension Sufferers as BPJS Participants in the Prolanis of the Pancasan Health Center, Bogor City in 2022. Journal of Public Health Students. 2023;6(4):351-359. doi:10.32832/pro

Ameina F. Factors ThatRelated to the Utilization of Public Health Services in Cirimpak Village Rt 02 / 05 Megamendung Village During the Covid-19 Pandemic in 2021. Journal of Public Health. Published online 2022.

Amelia SS.Factors Influencing the Utilization of the Chronic Disease Management Program (Prolanis) at the Kedai Durian Community Health Center. Islam State of North Sumatra; 2021.

Aswar S. Determinants of Prolanis Utilization for Hypertension and Diabetes Mellitus Patients. Journal of Health Science Research Innovation. 2023;2(1)

BodyResearch and Development of Health Ministry of Health of the Republic of Indonesia. National Basic Health Research.(2018). Accessed November 22, 2023. https://repository.badankebijakan.kemkes.go.id/id/eprint/3514/

Ilham R,Nuraina Sudirman A, Dj Maku Y. Factors Influencing the Utilization of Prolanis at the Botumoito Boalemo Health Center in 2022. Journal of Health Science Research Innovation. 2023;1(2):162-173.

Maulidati LF, Maharani C. Evaluation of the Chronic Disease Management Program (Prolanis) During the Covid-19 Pandemic at Temanggung Public Health Center. Journal of Public Health, Diponegoro University. 2022;10(2):233-243. doi:10.14710/jkm.v10i2.32800

Notoatmodjo. Health Promotion and Behavioral Science. Revised Edition 2014. Rineka Cipta; 2014.

Parinussa N, Tubalawony S, Program RM, Nursing S, Health F. Factors Related to Prolanis Visits at the Waai Health Center, Central Maluku. Journal of Public Health Sciences. 2022;18(3):154-159. doi:10.19184/ikesma.v18i1.26510

Rahayu S. The Relationship of Age, Gender, and Body Mass Index with Fasting Blood Glucose Levels in Patients with Type 2 Diabetes Mellitus at Proklamasi Outpatient Primary Clinic, Depok, West Java; 2020.

Section of Prevention and Control of Non-Communicable Diseases and Mental

Health Division of Disease Prevention and Control. Jambi Province Health Profile.; 2022.

Section of Prevention and Control of Non-Communicable Diseases and Mental Health Division of Disease Prevention and Control. Report of Cases of Non-Communicable Diseases (NCDs) in Jambi City.; 2022.

Tjekyan RS. Incidence Rate and Risk Factors of Type 2 Diabetes Mellitus in 78 Neighborhood Units (RT) of Palembang Municipality in 2010. Sriwijaya Medical Journal. 2014;46(2):85–94.

Trisnawati SK, SS. Risk Factors of Type II Diabetes Mellitus at the Cengkareng Subdistrict Public Health Center, West Jakarta. Jurnal Ilmiah Kesehatan. 2013;5(1):6-11.

Usman B, M. Factors Associated with the Utilization of Health Services at UPTD Lakudo Public Health Center, Central Buton Regency. Journal of Community Public Health. 2021;3(1):39–51.

Wahyu Hestiana D. Factors Related to Dietary Management Compliance Among Outpatients with Type 2 Diabetes Mellitus in Semarang City. Journal of Health Education. 2017;2(2).

Whilia F. Factors Related to the Utilization of Chronic Disease Management Program (Prolanis) at Getasan Health Center, Semarang Regency. Semarang State University; 2019.

World Health Organization. SSNoncommunicable Diseases.(2023). Accessed August 31, 2023. https://www.who.int/news-room/fact-sheets/detail/hypertension

Yuliaristi V. Factors Influencing the Utilization of Prolanis in the Working Area of Mandala Public Health Center, Medan Tembung District, 2018. University of North Sumatra; 2020.

Yuniati. Factors Related to the Utilization of Health Services for the Community at the Sambirejo Langkat Health Center 2021. Journal of Health Medicine. 2022;8(1).