Original Article

Analysis of Factors Influencing the Utilization of the Non-Communicable Diseases Community Health Post (Posbindu) in the South Purwokerto Community Health Center, Banyumas Regency

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ABSTRACT

Background: Non-communicable diseases (NCDs) are the leading cause of global death. The Non-Communicable Diseases Community Health Post (Posbindu PTM) aims to prevent and control NCDs, but utilization at the South Purwokerto Community Health Center remains low. The average attendance rate at each Posbindu was only 2.6 %, far below the 100% target. This study aims to analyze the factors influencing the utilization of Posbindu PTM in the region.

Methods: This study analyzes the influence of variables such as gender, education level, employment status, income, knowledge, individual perception, availability of facilities, access to health services, access to information, cadre support, and family support on the utilization of Posbindu PTM in the South Purwokerto Community Health Center area. The research design used is cross-sectional, the population is the productive age community with sampling using proportional random sampling technique of 110 people. Data collection through observation and questionnaire interviews. Research data analysis consists of univariate analysis, bivariate analysis, and multivariate analysis.

Results: The utilization of Posbindu PTM in the Purwokerto Selatan Community Health Center Working Area was significantly influenced by access to information (p = 0.021; OR = 5.000; CI 95% = 1.268 – 19.714).

Conclusions: Access to information is a significant factor influencing the utilization of Posbindu PTM in the South Purwokerto Community Health Center working area. Therefore, the dissemination of information regarding Posbindu PTM should be expanded through routine community activities and by strengthening the role of health cadres as key implementers. Enhancing these efforts will enable the South Purwokerto community to gain a better understanding of Posbindu and recognize the importance of preventing non-communicable diseases through early detection at Posbindu PTM.

Keywords: *Non-communicable Diseases, Posbindu, Utilization of Posbindu*

INTRODUCTION

The epidemiological transition has marked a shift in current disease incidence patterns. The shift in disease patterns from being dominated by infectious diseases has shifted to non-communicable diseases, which have a high morbidity rate and are one of the main causes of death globally (1). *World Health Statistics 2024* report released by *the World Health Organization* (WHO) revealed that Non-Communicable Diseases (NCDs) were responsible for 74% of all deaths in 2019 (2) .

According to the 2016 National Health Indicator Survey (SIRKESNAS), several cases of NCDs occur more frequently in the productive age group, such as hypertension, chronic kidney failure, type 2 diabetes mellitus, and asthma, where the most cases occur in the 35-59 age group. Other diseases such as bronchial and lung cancer are most common in the 35-59 age group and obesity is most common in the 40-49 age group (3). According to the 2020 Indonesian Health Profile data, early detection efforts in the productive age group have only reached 38 million people, or a national average of only 16.26 percent (4) . Weak control of risk factors and early detection can influence the increase in cases every year, thereby exacerbating the health burden nationally and globally (5) .

The Non-Communicable Diseases Community Health Post (Posbindu PTM) is a way for the community to be involved in monitoring and early identification of NCD risk factors in an integrated, regular and periodic manner (6) . The South Purwokerto Community Health Center (Puskesmas) is

one of the community health centers that also has a Posbindu PTM to support the government's program to address non-communicable diseases. The average annual visit rate to Posbindu in South Purwokerto remains low, accounting for only 2.6% of the target population. Previous research examining enabling factors have primarily focused on access to the posbindu, whereas this research also investigates other aspects such as access to information and the availability of posbindu facilities, which may serve as enabling factors for posbindu utilization behavior (7). Furthermore, previous research has not examined which factors have a significant influence among those associated with posbindu utilization. Therefore, this study aims to determine the factors influencing the utilization of Posbindu PTM in the South Purwokerto Community Health Center area.

METHODS

This study used a cross-sectional design with a sample size of 110 respondents from six sub-districts in South Purwokerto, Banyumas Regency. The sample size in this study was determined using Slovin's formula $n = \frac{N}{1+N\,(e)^2}$, with a total population of productive-age in South Puwokerto District (N = 38,216) and a margin of error (e) of 10%. To anticipate possible dropouts, the calculated sample size was increased by 10%, resulting in a total of 110 respondents.

This study was conducted in December 2024. The sampling technique used was proportional random sampling so that the determination of the number of samples in each group had an equal proportion. The variables studied were gender, education level, employment status, income level, knowledge, individual perception, availability of facilities, access to health services, access to information, cadre support, and family support for the use of Posbindu. Data collection was conducted using questionnaire-based interview. Research data analysis consisted of univariate analysis, bivariate analysis, and multivariate analysis. This study has obtained permission from the Health Research Ethics Commission of the Faculty of Health Sciences, Jenderal Soedirman University number 1696/EC/KEPK/XI/2024 and the South Purwokerto District Government number 000.9.2/1861/2024.

RESULTS

a. Respondent Characteristics
The results of the univariate analysis of respondent characteristics based on the survey results can be seen as follows:

Table 1. Frequency Distribution of Respondent Characteristics

Respondent Characteristics	f	%
Age		
1. 12 – 16 (Early Teens)	2	2.0
2. 17 – 25 (Late Teens)	16	15.0

Respondent Characteristics	f	%
3. 26 – 35 (Early Adulthood)	32	29.0
4. 36 – 45 (Late Adulthood)	31	28.0
5. 46 – 55 (Early Elderly)	18	16.0
6. 56 – 55 (Late Elderly)	11	10.0
Gender		
1. Male	17	15.0
2. Female	93	85.0
Level of education		
1. Low Education (Did not graduate from elementary school/equivalent and junior high school/equivalent)	28	25.0
2. Higher Education (high school/equivalent and D3/S1/S2/S3)	82	75.0
Employment Status		
1. Work	32	29.0
2. Not Working	78	71.0
Income (2024 Banyumas Minimum Wage)	47	43.0
1. Less than the minimum wage (< Rp. 2,195,690)	63	57.0
2. More than the minimum wage (≥ Rp. 2,195,690)		
Total	**110**	**100**

Based on Table 1. The average respondent is in early adulthood (29%), most respondents are female (85%), have at least a high school education (75%), are not working (71%), and have a family income more than the minimum wage (57%).

b. Univariate Analysis
The results of the univariate analysis of the dependent and independent variables based on the survey results can be seen as follows:

Table 2. Frequency Distribution of Dependent and Independent Variables

Independent Variables	f	%
Utilization of Posbindu		
1. Not Utilizing	87	79.0
2. Take Advantage of	23	21.0
Knowledge		
1. Not Good	49	45.5
2. Good	61	55.5
Perception		
1. Negative	45	41.0
2. Positive	65	59.0
Availability of Facilities		
1. Incomplete	49	44.5
2. Complete	61	55.5
Access to Health Services		
1. Difficult	22	20.0
2. Easy	88	80.0
Access to Information		

Independent Variables	f	%
1. Difficult	54	49.0
2. Easy	56	51.0
Cadre Support		
1. Not Good	37	34.0
2. Good	73	66.0
Family Support		
1. Not Good	58	53.0
2. Good	52	47.0
Total	**110**	**100**

Table 2 shows that the majority of respondents did not utilize Posbindu (79%). Most respondents had good knowledge (55.5 %), had a positive perception (59%), and believed that Posbindu facilities were complete (55.5%). In addition, the majority of respondents also had easy access to health services (80%), easy access to information (51%), had good support from cadres (66%), and had poor family support (53%).

c. Bivariate Analysis

The following are the results of a bivariate analysis of the use of Posbindu PTM in the South Purwokerto Community Health Center area:

Table 3. Results of Bivariate Analysis of the Utilization of Posbindu PTM in the South Purwokerto Community Health Center Area

Variables	Utilization of Posbindu				Total		P
	Not Utilise		Utilise				
	n	%	n	%	n	%	
Gender 1. Male 2. Female	13 74	76.5 80.0	4 19	23.5 20.0	17 93	100 100	0.752
Education 1. Low 2. Height	24 63	86.0 77.0	4 19	14.0 23.0	28 82	100 100	0.424
Employment Status 1. Work 2. Not Working	26 61	81.0 78.0	6 17	19.0 22.0	32 78	100 100	0.801
Income 1. < UMK 2. ≥ UMK	38 49	81.0 78.0	9 14	19.0 22.0	47 63	100 100	0.814
Knowledge 1. Not Good 2. Good	43 44	88.0 72.0	6 17	12.0 28.0	49 61	100 100	0.059
Perception 1. Negative 2. Positive	40 47	89.0 72.0	5 18	11.0 28.0	45 65	100 100	0.055
Availability of Facilities 1. Incomplete 2. Complete	40 47	82.0 77.0	9 14	18.0 23.0	49 61	100 100	0.641

Variables	Utilization of Posbindu				Total		P
	Not Utilise		Utilise				
	n	%	n	%	n	%	
Access to Health Services 1. Difficult 2. Easy	21 66	95.5 75.0	1 22	4.5 25.0	22 88	100 100	0.040
Access to Information 1. Difficult 2. Easy	51 36	94.0 64.0	3 20	6.0 36.0	54 56	100 100	0,000
Cadre Support 1. Not Good 2. Good	36 51	97.0 70.0	1 22	3.0 30.0	37 73	100 100	0,000
Family Support 1. Not Good 2. Good	52 35	90.0 67.0	6 17	10.0 33.0	53 57	100 100	0.005

The results of the bivariate analysis showed that there were four variables related to the total of eleven research variables. The variables that had a significant relationship were access to health services (0.040), access to information (0.000), cadre support (0.000), and family support (0.005) with the utilization of Posbindu in the South Purwokerto Community Health Center area.

d. Multivariate Analysis

The following are the final modeling results of the multivariate analysis of the use of Posbindu PTM in the South Purwokerto Community Health Center area:

Table 4. Results of Multivariate Analysis of the Utilization of Posbindu PTM in the South Purwokerto Community Health Center Area

Variables	P	OR	95% CI
Knowledge	0.498	1,534	0.444 – 5.298
Perception	0.279	2,000	0.570 – 7.019
Access to Health Services	0.325	3,111	0.325 – 29.812
Access to Information	**0.021**	**5,000**	**1,268 – 19,714**
Cadre Support	0.112	5,811	0.662 – 51.020

The analysis results show that access to information significantly influences the utilization of Posbindu PTM in the South Purwokerto Community Health Center (p= 0.021; OR=5.000; 95% CI=1.268–19.714). Therefore, it can be interpreted that after controlling for the variables of knowledge, individual perception, access to health services, and cadre support, someone who has difficulty accessing information is five times more likely to not utilize Posbindu compared to someone who has easy access to information.

DISCUSSION

Based on multivariate analysis access to information significantly influences the utilization of Posbindu PTM in the South Purwokerto Community Health Center Area. Limited access to information can lead to people being unaware of the benefits, procedures, or schedule of Posbindu services. This lack of information results in low participation in non-communicable disease prevention and control programs provided by Posbindu. Research by Wardhana, Husaini, and Barkatullah (2024) states that people will be encouraged to participate if they receive information (8).

Providing accurate information is essential, as communication plays a crucial role in increasing knowledge and correcting misconceptions about health and disease (9). Low community participation in the implementation of Posbindu PTM is influenced by a lack of adequate socialization and information regarding the program (10). Based on interviews with those responsible for the Posbindu program, the dissemination of information related to Posbindu is carried out through direct education or recommendations to patients visiting the community health center. However, due to the vastness of the South Purwokerto region, some areas are quite far from the community health center. This makes the dissemination of information that is only focused on community health center patients less effective in reaching the entire community in the South Purwokerto region. Ease of information has an impact on the utilization of health services because no matter how good the quality of available health services is, if the service information does not reach the community as the target of the health service object, the community will not utilize the service (11).

These results are supported by previous research which stated that there was a significant influence between the ease of information on the reuse of health services during the COVID-19 pandemic with a p value = 0.020 and OR = 1.974 (12). Other research also supports this finding with the result that there was a significant influence between exposure to information and the utilization of health services for BPJS participants (p = 0.000) (13). The community needs health services and information about the health problems they face. Exposure to information can determine the extent to which a person is influenced by information (13).

The analysis results indicate that knowledge has no effect on the utilization of Posbindu in the Purwokerto Selatan Community Health Center Work Area (p = 0.498). Good knowledge needs to be accompanied by awareness and motivation to act. Based on the analysis, there were respondents (34.5 %) who believed that the purpose of Posbindu was to treat illnesses. This condition reflects a lack of awareness of the importance of disease prevention, this makes people not visit Posbindu if they feel they are not sick. This opinion is in line with a study that stated that the lack of awareness of the importance of utilizing Posbindu PTM is the cause of low utilization of Posbindu even though the majority of respondents already have good knowledge. (14).

This research is supported by a study on the utilization of health posts at Bogor station which concluded that there was no significant relationship between knowledge and utilization of health posts at the station (p = 0.750) (15). This research is consistent with research which stated that there was no relationship between knowledge and utilization of health services at Lingkar Barat Community Health Center (p = 0.351) (16). People who had good knowledge utilized health services more, but there were also respondents with less knowledge who still utilized health services. This shows that the behavior of utilizing health services is influenced by other factors such as individual needs and awareness (14,16).

Individual perceptions did not show a significant influence on the utilization of Posbindu PTM (p value = 0.279). The analysis results showed that there were respondents (18%) who felt that the Posbindu program had no effect on their blood pressure condition, this perception indicates that not all people feel the benefits of the Posbindu program. A study explains that health behavior is influenced by the level of perceived severity, perceived vulnerability, perceived benefits, perceived barriers, and cues for action (17).

Analysis of the questionnaire distribution in this study showed that 45 (41%) respondents did not know the schedule for implementing Posbindu. This indicates that respondents' perceptions of the importance of Posbindu were not supported by sufficient exposure to information about the service. One of the obstacles that often occurs in receiving health services is the lack of information or notification about the service (18). Positive perceptions must be accompanied by good information to enable individuals to utilize health services effectively, including Posbindu PTM.

The analysis results showed no significant influence between access to health services and the use of Posbindu (p-value = 0.325). As many as 30% of respondents stated that they were working or had other activities on the day of the Posbindu implementation, which indicates that inflexible time was a inhibiting factor for them to utilize Posbindu PTM. This statement is supported by research on Posbindu visits in Bengkulu City which stated that the cause of low community participation in Posbindu PTM activities was because the majority of activities were carried out during working hours (19). On average, respondents lived close to the Posbindu (90%) and could get to the Posbindu on foot (86%). This result is consistent with a study which stated that there was no significant influence between the distance from the respondent's house to the Posbindu because the distance was relatively close and access was easy (20).

The next variable is cadre support, which in this study did not affect the utilization of Posbindu PTM in the South Purwokerto Health Center Area (p = 0.112). Another factor that is more influential in increasing Posbindu utilization is community awareness and perception. Several previous studies have shown that social support, including support from cadres, can increase community knowledge and awareness about the importance of health. The results of this study showed that 73 (56%) respondents received good cadre

support, but from the results of the perception variable analysis, 45 (41%) respondents had a negative perception. Previous research stated that although cadres play a good role in providing support in the form of motivation to come to Posyandu, low community awareness is a barrier for individuals to utilize health services that have been provided such as Posyandu or Posbindu (21).

This study has limitation in the potential for respondent bias when answering questions. To minimize this, the researcher explained the purpose of the study and emphasized that the interview was not intended to assess the correctness of the answers, but rather to highlight the importance of honesty in reflecting the community real conditions. This was intended to allow respondents to answers in a relaxed yet truthful manner, without feeling pressured to provide ideal responses. However, this study can be a reference for further research by ensuring a neutral and non-judgemental interview approach and validating responses through supporting data sources such as observations or relevant secondary data.

CONCLUSIONS

The factor influencing the utilization of Posbindu PTM in the South Purwokerto Community Health Center area is access to information (p= 0.021; OR=5.000; 95% CI=1.268 – 19.714). Someone who has difficulty accessing information is five times more likely to not utilize Posbindu compared to someone who has easy access to information. Therefore, for each Posbindu PTM in South Purwokerto, it is hoped that the role of health cadres in conveying information about Posbindu services to the community more actively and widely, so that the people of South Purwokerto have a high awareness of the importance of preventing non-communicable diseases through early detection that can be done at Posbindu PTM.

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