

## Analysis of the Utilization of Posbindu for Non-Communicable Diseases among the Elderly in the Region Kerja Public Health Center Kuta Krueng District of Pidie Jaya

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### ABSTRACT

The Integrated Development Post for Non-Communicable Diseases (Posbindu PTM) is one of the facilities that involves community participation in carrying out early detection and monitoring of NCD risk factors. Quantitative research with a cross-sectional approach. The population of all elderly people in the Kuta Krueng Health Center working area is 581 people. The sample was 85 people. The research results showed that 76.5% did not utilize Posbindu PTM. The research conclusion is that there is a relationship between family support (p-value 0.034), physical condition (p-value 0.016), perceived benefits (p-value 0.000), knowledge (p-value 0.004) and the use of Posbindu PTM. Efforts are needed to increase family support, improve physical condition, perception of benefits, and increase knowledge of elderly people about non-communicable diseases and efforts to prevent them.

## **INTRODUCTION**

Humans will naturally experience the process of aging or becoming old, humans who have become old will experience physical, mental and social decline (Kusumawardani, Andanawarih, 2018). Population aging brings various implications from social, economic, legal, political and especially health aspects (Ritayani, Hariana, 2021). One form of Community Health Effort (UKM) that has just been developed by the Government in accordance with WHO recommendations to focus on preventing NCDs through three main components, namely risk factor surveillance, health promotion and prevention through innovation and reform of health service management is an integrated development post for non-communicable diseases. infectious (Posbindu PTM) (Ginting, 2019).

The World Health Organization (WHO) noted that in the Southeast Asia region in 2013 the elderly population was 8% or around 142 million people. In 2050, it is estimated that the elderly population will increase 3 times from this year. In 2010 the number of elderly people was 24,000,000 (9.77%) of the total population (Ningsih R.W., Setyowati S., 2020). The prevalence of PTM in the elderly in the world according to the World Health Organization (WHO) in 2020 shows that around 1.13 billion people in the world suffer from hypertension and 700 million people do not receive treatment. The prevalence of hypertension in Africa is 27%, Southeast Asia 25.5%, Europe 23% and America 18%. Apart from that, the prevalence of diabetes mellitus is 2%, heart disease is 1.5%, high cholesterol is 8%, stroke is 10.9%, chronic kidney failure is 0.41%, joint disease is 7.42. (Rumawas & Bukhori, 2023).

Based on 2018 Basic Health Research (Riskesdas) data, the prevalence of hypertension cases in Indonesia was 34.1%, diabetes mellitus at 2%, heart disease at 1.5%, high cholesterol at 8%, stroke at 10.9%, chronic kidney failure. amounted to 0.41%, joint disease amounted to 7.42% (RI Ministry of Health, 2020). Based on the 2019 Health Facilities Research (Rifaskes), nationally the percentage of Community Health Centers that have active Elderly Posbindu is 78.8% and in Aceh Province it is only 11.8% (RI Ministry of Health, 2021).

The prevalence of hypertension cases in Aceh Province is 32%, diabetes mellitus is 62%, asthma is 2.2%, cancer is 2%, heart disease is 1.6%, high cholesterol is 3.4%, stroke is 0.4% , chronic kidney failure at 0.1%, joint disease at 13.2 (Aceh Health Office, 2021). Based on data from the Aceh Provincial Health Service in 2021, it is known that the number of elderly people is 169,915 people. The number of elderly people visiting posbindu/posyandu for the elderly is 65,206 people (38.38%) (Aceh Health Office, 2021)

Data obtained from the Pidie Jaya Health Service in 2022, the number of PTM sufferers in the elderly was 19,876 cases, consisting of hypertension of 7,359 people (37%), high cholesterol of 2,494 people (12.5%), diabetes mellitus of 2,396 people ( 12.1%), high uric acid as many as 1,779 people (8.9%), kidney problems as many as 43 people (0.2%), vision problems as many as 3,482 people (17.5%), hearing problems as many as 1,250 people (6 .2%) and others as many as 1,073 people (5.3%) (Aceh Health Office, 2021). Meanwhile, the number of elderly people receiving health services at Posbindu out of 6,414 elderly people

who received health services was 2,966 people (46.9%), which shows that it is still below the target of 50% (Aceh Health Office, 2021).

Based on the Kuta Krueng Community Health Center report in August 2023, it is known that the number of elderly people is 836 people, with 168 elderly people visiting Posbindu (20%), while based on non-communicable diseases experienced by elderly people, of the 836 elderly people, it is known that 142 (16%) are overweight, undernourished. 27 (3.2%), hypertension 164 (19.6%), cholesterol 14 (1.7%), DM 4 (0.4%), gout 8 (0.9%) and visual impairment 5 (0.5%). Meanwhile, the average number of elderly visits to Posbindu PTM elderly every month in 2020 is (13.2%), in 2021 (22.3%) and in November 2022 it is (23%) which shows Posbindu PTM visits in the community health center area Kuta Krueng continues to decline, still below the target of 50% (Puskesmas Kuta Krueng, 2022). The results of research by Klaudia, Mardjan, Trisnawati, (2015) in the Sekadau Community Health Center working area found that only 43% of elderly people 81 actively used the elderly posbindu, whereas at the Sekijang Community Health Center it was only 33.3%. Melita's 2018 research in the Puskesmas Working Area, Bintara Subdistrict, Bekasi City, showed that there were several factors related to elderly visits to Posbindu Lansia, namely knowledge, family support and support from health workers.

## LITERATURE REVIEW

### Posbindu PTM

Posbindu for non-communicable diseases (PTM) is the community's role in carrying out early detection and monitoring activities for the main NCD risk factors which are carried out in an integrated, routine and periodic manner. Risk factors for non-communicable diseases (NCDs) include smoking, consumption of alcoholic drinks, unhealthy eating patterns, lack of physical activity, obesity, stress, hypertension, hyperglycemia, hypercholesterolemia and early follow-up on risk factors discovered through health counseling and immediate referral to a facility. basic health services. The main NCD groups are diabetes mellitus (DM), cancer, heart and blood vessel disease (PJPD), chronic obstructive pulmonary disease (COPD), and disorders due to accidents and acts of violence (RI Ministry of Health, 2021).

There are several factors that influence the low utilization of PTM posbindu, including age, gender, education, employment, knowledge, attitude towards health duties, distance from home, family support, facilities and infrastructure supporting the implementation of posbindu, economic income, and support from health workers. (Sari & Savitri, 2018)

According to the behavioral model and access to medical care theory Andersen, 1995) which was developed since 1960 to be able to determine whether or not individuals use health services. This theory was reviewed in 1995 and developed so that it has four stages. And has three characteristics, namely (Melita & Nadjib, 2018)

1. Supporting factors (predisposing factors), namely the socio-cultural characteristics of individuals divided into three groups, namely:
  - a. Demographic factors, namely: age and gender
  - b. Social structural factors, namely: education, social interaction, ethnicity/race and culture
  - c. Health Benefit Factors, namely: attitudes, knowledge, beliefs, perceptions of health/illness and the belief that health services can help the process of healing disease.
2. Enabling factors, namely a person's ability to seek health services, consist of:
  - a. Family resources, namely the family's ability to access health services, health insurance, knowledge about needed health services.
  - b. Community resources, namely the availability of health facilities and health workers in the area of residence.
3. Need factors, namely factors that are directly related to the use of health services. Supporting and enabling factors for seeking treatment can manifest in action if this is felt as a need. This means that need is the basis and direct stimulus for utilizing health services, the components consist of:
  - a. Individual perceptions regarding their own health status, symptoms of illness and perceived worries
  - b. Evaluation of the severity of the disease after diagnosis by health workers.

### **Research Hypothesis**

1. Ha: There is a relationship between family support and the use of PTM posbindu for the elderly in the work area of the Kuta Krueng Community Health Center, Pidie Jaya Regency.
2. Ha: There is a relationship between service access and the use of PTM posbindu for the elderly in the work area of the Kuta Krueng Community Health Center, Pidie Jaya Regency.
3. Ha: There is a relationship between physical condition and the use of PTM posbindu for the elderly in the work area of the Kuta Krueng Community Health Center, Pidie Jaya Regency.
4. Ha: There is a relationship between perceived benefits and the use of PTM posbindu for the elderly in the work area of the Kuta Krueng Community Health Center, Pidie Jaya Regency.
5. Ha: There is a relationship between the role of cadres and the use of PTM posbindu for the elderly in the work area of the Kuta Krueng Community Health Center, Pidie Jaya Regency.
6. Ha: There is a relationship between knowledge and the use of PTM posbindu for the elderly in the work area of the Kuta Krueng Community Health Center, Pidie Jaya Regency

### **METHODOLOGY**

This research is a descriptive study with a cross sectional approach. The population of all elderly people aged 60-70 years in the Kuta Krueng Health

Center working area is 581 people. Determining the number of samples was taken using the formula proposed by Slovin (1960) (Didik, 2013) thus obtaining a sample of 85 people, sampling was carried out by accidental sampling with the sample criteria being elderly aged 60-70 years. Data analysis using the Chi-Square statistical test was carried out using SPSS.

## RESEARCH RESULT

The number of respondents in this study was 85 elderly people in the Kuta Krueng Community Health Center working area. The characteristics of the respondents in this study can be seen in bold 1, below

Table 1. Univariate Analysis of Respondent Characteristics

Variable	n	%
<b>Gender</b>		
Man	35	43,7
Woman	50	56,3
<b>Job</b>		
IRT	38	44,7
Farmer	42	49,4
Self-employed/sales	2	2,4
Retired	3	3,5
<b>Education</b>		
Elementary/Middle School	56	65,9
SENIOR HIGH SCHOOL	21	24,7
D-3	5	5,9
Bachelor	3	3,5

The distribution of sample characteristics is known to be the majority of 56.3% female respondents, 43.7% male. The majority of respondents' occupations are housewives 44.7%, farmers 49.4%, self-employed/sales 2.4% and retirees 3.5% and the majority of respondents have completed elementary/high school education, namely 65.9%.

Table 2. Bivariate analysis of the relationship between independent variables and the use of Posbindu PTM

Variable	Utilization of Posbindu PTM				Total		P value
	Not enough		Good		N	%	
	n	%	n	%			
Family support							
Does not support	56	81,2	13	18,8	69	100,0	0,034
Support	9	56,3	7	43,8	16	100,0	

Variable	Utilization of Posbindu PTM				Total		P value
	Not enough		Good		N	%	
	n	%	n	%			
<b>Posyandu access</b>							
Difficult	17	25,8	49	74,2	66	100,0	0,036
Easy	3	15,8	16	84,2	19	100,0	
<b>Physical condition</b>							
Not enough	11	17,2	53	82,8	64	100,0	0,016
Good	9	42,9	12	57,1	12	100,0	
<b>Perception</b>							
Wrong	19	41,3	27	58,7	46	100,0	0,000
Correct	1	2,6	38	97,4	38	100,0	
<b>Cadre Role</b>							
not enough	15	29,4	36	70,6	51	100,0	0,11
Good	5	14,7	29	85,3	34	100,0	
<b>Knowledge</b>							
Not enough	2	6,3	30	93,8	32	100,0	0,004
Good	18	34,0	35	66,0	53	100,0	

Based on table 2, bivariate analysis shows that there are 4 (five) variables that have a significant relationship with the utilization of Posbindu PTM in the Kuta Krueng Health Center Working Area, Pidie Jaya Regency, namely family support ( $p=0.032$ ), physical condition ( $p=0.016$ ), perception ( $0.000$ ) and knowledge ( $p=0.004$ ).

## DISCUSSION

### 1. Relationship between family support and the use of Posbindu PTM

The research results showed that respondents who did not utilize Posbindu PTM with less supportive families were 81.2% higher than those with supportive families of 56.3%. The results of statistical tests using the Chi Square test obtained a value of  $p = 0.034$ , indicating that there is a relationship between family support and the use of Posbindu PTM among the elderly in the Kuta Krueng Community Health Center Working Area.

This research is supported by Febriani, Perdana and Sari (2021) who show that there is a relationship between family support and the use of Posbindu PTM in the elderly and in other research Sari & Savitri, (2018) state

that there is a relationship between family support and the use of Posbindu PTM in the elderly. The results of research conducted by Trilianto Arif Eko (2020) and Rahman (2020) also state that there is a relationship between family support and the use of Posbindu PTM for the elderly. This is different from research by Anggraini (2015) which shows that there is no relationship between family support and elderly compliance in attending posyandu for the elderly.

Family support is important in creating elderly people who are physically and mentally prosperous. In the context of family support, it can be a strong motivator for the elderly if they are always ready to accompany or take the elderly to posbindu and pay attention to the elderly (Sumendap et al., 2020). Family support has an important role in creating physical and mental well-being for the elderly (Widianti et al., 2020). Physical support can be provided by anyone, but the emotional and spiritual needs of the elderly require increasingly intensive involvement from their families, and can even strengthen intergenerational relationships (Suardiman, 2011)

According to researchers, the level of support provided by the family still has shortcomings for the elderly, such as reminding the Posbindu schedule but not taking part in delivering it, the family not waiting until the Posbindu service is finished. Some elderly people also still lack the ability to utilize Posbindu PTM activities even though they have support from their families because most elderly people still lack understanding in using Posbindu PTM.

## **2. Relationship between physical conditions and the use of Posbindu PTM**

Based on the research results, it was said that 17.2% of respondents who did not utilize Posbindu PTM were in poor physical condition and 42.9% were in good physical condition, while 82.8% of respondents who were good utilized Posbindu PTM were in poor physical condition. and with good physical condition as much as 57.1%. The statistical test results obtained were  $p=0.016$ , indicating that there was a relationship between physical condition and the use of Posbindu PTM among the elderly in the Kuta Krueng Community Health Center work area. This research is supported by Ningsih Fitria et al (2022) showing that there is a relationship between physical condition and the use of Posbindu PTM in the elderly.

The physical condition of the elderly who are too weak makes them less active and less interested in carrying out activities, work or posbindu activities. This is because the elderly experience a decrease in muscle mass and skeletal density, which affects the condition of the elderly in being able to attend posbindu activities and cannot take advantage of the facilities provided by the government such as measuring BP, HB, and checking blood sugar and cholesterol. The older a person gets, the less functional their body becomes. When the reason for being easily tired is the reason for not using posyandu services for the elderly, this is in line with the statement regarding the decreasing ability of the elderly's body functions, then family support should be increased. (Fadhilah et al., 2022)

According to researchers, elderly people who have limited physical conditions such as not being able to walk long distances, walk fast, farm and climb stairs are reluctant to take part in Posbindu Elderly activities. Elderly people who experience health problems and have limitations in carrying out daily activities tend to be less enthusiastic about attending Posbindu Elderly activities.

### **3. Relationship between Perception and Utilization of Posbindu PTM**

The results of statistical tests using the Chi Square test obtained a p-value of 0.000, these results show that  $H_a$  was accepted and  $H_0$  was rejected so it can be said that there is a relationship between perception and the use of Posbindu PTM among the elderly in the Kuta Krueng Community Health Center working area.

This research is supported by Febriani et al (2021) showing that there is a relationship between perception and the use of Posbindu PTM among the elderly and in other research, Yuliana et al. (2022) stated that there is a relationship between perception and the use of Posbindu PTM in people with hypertension. The results of research conducted by Hussein & Musiana (2019) also state that there is a relationship between perceived benefits and the use of Posbindu PTM for the elderly.

Perceived benefit is an improvement in a person's quality of life which is the goal of an effective strategy to reduce the threat of a disease. If someone has confidence in positive changes in their behavior towards better health. This can reduce the risk of developing a disease and allow them to experience the benefits. An individual's belief in the magnitude of the benefits of an action will motivate him to carry out that action. If someone believes that a certain action will reduce their susceptibility to a disease or reduce the severity of a disease, then they are likely to take that action (Agushybana, 2023)

According to researchers, the elderly's perception of the use of Posbindu PTM can be a motivation for them to adopt a healthy lifestyle. Elderly people who have good perceptions tend to be more open to participating in Posbindu PTM programs such as routine health checks, counseling about healthy lifestyles and assistance in changing patterns. unhealthy life.

#### **6.4.5 Relationship between the role of cadres and the use of Posbindu PTM**

The statistical test results obtained were  $p= 0.11$ , indicating that  $H_a$  was rejected,  $H_0$  was accepted, so it can be said that there is no relationship between the role of cadres and the use of Posbindu PTM among the elderly in the Kuta Krueng Community Health Center working area. The role of cadres is to play an active role in Posbindu PTM activities by actively observing the community and encouraging their participation. It is important for cadres to provide information to the community, because without information to the community they will not be able to utilize Posbindu services. Cadre responsibilities include effective communication, motivation and guidance to the community. In improving the quality of cadres, it is important to focus on self-improvement and personal development.

The results of this research are in line with Astriani, D., Duma, K. and Sihotang (2020) who stated that there is no relationship between the role of cadres and the use of Posbindu PTM because people tend to behave according to their own wishes and the majority of people never receive socialization, as well as information about Posbindu PTM from cadres. The results of other research, R.

According to researchers, the role of cadres in utilizing Posbindu PTM is very important, because the role of cadres who are active in utilizing Posbindu PTM can increase awareness among the elderly about the importance of maintaining health and preventing disease. Good cadres always remind the public, especially the elderly, by visiting or contacting the elderly and their families, so that the elderly regularly attend the Posbindu PTM implementation every month.

#### **6.4.6 Knowledge Relationship with Posbindu PTM Users**

The results showed that respondents who did not utilize Posbindu PTM with 6.3% poor knowledge and 34.0% with good knowledge, while respondents who used Posbindu PTM well with 93.8% of poor knowledge and 93.8% with good knowledge. 66.0% Statistical test results obtained p value = 0.004 indicating that there is a relationship between knowledge and the use of Posbindu PTM among the elderly in the Kuta Krueng Community Health Center working area.

These results show that the lower a person's level of knowledge, the lower the level of utilization and the more difficult it is to understand the true meaning of posyandu, and vice versa. The success of the Posbindu program is not only determined by family support but is also influenced by the community's high level of understanding and awareness to apply what has been obtained during the implementation of Posbindu.

Elderly people's lack of knowledge about Posbindu for the Elderly results in a lack of understanding for the Elderly in the use of Posbindu PTM for the Elderly. This limited knowledge will have an adverse impact on the health of the elderly. Elderly people who attend Posbindu activities will receive counseling about how to live a healthy life with all the limitations or health problems that exist in the elderly. This experience increases the knowledge of the elderly, so that it becomes the basis for forming attitudes and can encourage the interest of the elderly to always take part in the Posbindu PTM for the Elderly.

The research results are in line with Nasution (2019) at Posbindu for the Elderly at the Amplas Community Health Center which shows that there is a relationship between knowledge and the use of Posbindu for the Elderly. In other research, Purdiyani (2016) stated that there is a relationship between knowledge and the use of Posbindu PTM for the elderly.

The level of knowledge is an indication that can change a person's attitudes and behavior. The lower a person's level of knowledge, the lower the number of visits to the Elderly Posbindu. Due to the lack of information about

the importance of elderly posbindu activities that elderly people get both from health services and from various media (Aulia, 2019)

Based on the results in the field, elderly people who participated in Posbindu PTM activities aimed at early detection of non-communicable diseases, they thought that Posbindu PTM could cure diseases, even though Posbindu was not a place to cure diseases but for early detection of NCDs themselves.

## CONCLUSIONS AND RECOMMENDATIONS

Based on the results of research that has been carried out on factors related to the use of Posbindu PTM in the Kuta Krueng Community Health Center Work Area, it can be concluded that from the six variables studied there are four variables that are related, namely family support, physical condition, perception and knowledge, while the variables of posyandu access and the role of cadres are not related. by utilizing Posbindu PTM in the Kuta Krueng Health Center Work Area. Health workers need to collaborate with community leaders in the Kuta Krueng Community Health Center working area by holding activities such as discussing about health to understand the perception and needs of the community in utilizing Posbindu and encouraging them to make more use of Posbindu PTM such as reminding them by visiting or calling the elderly/their families.

## ADVANCED RESEARCH

This research has limitations in the interview process because the majority of respondents forget due to age.

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