

# MODEL OF ASSISTANCE IN THE REVIEW COMMUNITY IN EARLY DETECTION OF NON-CONNECTED DISEASES (NCD) AT AKBAR ISLAMIC FOUNDATION SAKO PALEMBANG

Azwaldi<sup>1</sup>, Ismar Agustin<sup>2</sup>, Imelda Erman<sup>3</sup>

Prodi Sarjana Terapan Keperawatan Poltekkes Kemenkes Palembang <sup>1</sup> <u>azwaldi@poltekkespalembang.ac.id</u>, <sup>2</sup> <u>barofagustin@gmsil.com</u>, <sup>3</sup> <u>imeldaerman@gmail.com</u>

## Abstract

The prevalence of PTM in Indonesia has shown an increase when compared to Riskesdas 2013, including cancer, stroke, chronic kidney disease, diabetes mellitus and hypertension. The prevalence of cancer rose from 1.4% (Riskesdas 2013) to 1.8%; the prevalence of stroke rose from 7% to 10.9%; and chronic kidney disease rose from 2% to 3.8%. Based on blood sugar examination, diabetes mellitus rose from 6.9% to 8.5%; and the results of blood pressure measurement, hypertension increased from 25.8% to 34.1%. Increasing the pattern of behavior for Early Detection of Non-communicable Diseases (PTM) for the community is obliged to reduce the number of cases of disease and complications that occur, especially in the Community Recitation at the Grand Mosque of the Sako Palembang Islamic Foundation. Through mentoring activities for Early Detection of Diseases. Through efforts to examine risk factors such as blood pressure, body mass index (BMI), abdominal circumference, blood sugar levels (GDS), uric acid and cholesterol as well as education by distributing non-communicable disease leaflets. The results of the average age is 60.06 years, the BMI value obtained the average value is 23.0673, the GDS value for diabetes is 10.6% while non-diabetic is 89.4%, systolic blood pressure is 55.3% hypertension and diastolic blood pressure by 17.7% hypertension, abdominal circumference 31.2% abnormal and 4.2% normal and 64.5% not measuring the results of uric acid examination by 14.2% abnormal, 27.7% normal and 58.1% were not tested for uric acid with a PTM risk questionnaire. The results obtained from 41 who filled out the questionnaire were 6.4% with medium risk, 17.7% with slightly increased risk and 5% with low risk. Assistance activities for early detection of PTM risk factors are very necessary for the community to always remind them of their health and various threats to their health through various risk factors.

Keywords: Early Detection of Non-Communicable Diseases, Mentoring Models, Education.

## **INTRODUCTION**

Non-communicable diseases (NCDs) are the leading cause of death globally. WHO data shows that of the 57 million deaths that occurred in the world in 2008, 36 million or almost two thirds were caused by non-communicable diseases (NCDs). PTM also kills younger people. In countries with low and middle economic levels, of all deaths that occur in people aged less than 60 years, 29% are caused by NCDs, while in developed countries, it causes 13% of deaths. The proportion of causes of death from PTM in people aged less than 70 years,

cardiovascular disease is the largest cause (39%), followed by cancer (27%), while chronic respiratory diseases, digestive diseases and other NCDs together cause about 30% of deaths., as well as 4% of deaths due to diabetes (Buletin-Ptm, 2012).

The prevalence of PTM in Indonesia has shown an increase when compared to Riskesdas 2013, including cancer, stroke, chronic kidney disease, diabetes mellitus and hypertension. The prevalence of cancer rose from 1.4% (Riskesdas 2013) to 1.8%; the prevalence of stroke rose from 7% to 10.9%; and chronic kidney disease rose from 2% to 3.8%. Based on blood sugar examination, diabetes mellitus rose from 6.9% to 8.5%; and the results of blood pressure measurement, hypertension increased from 25.8% to 34.1%. The estimated number of hypertension cases in Indonesia is 63,309,620 people, while the death rate in Indonesia due to hypertension is 427,218 deaths (Kemenkes RI, 2018).

Indonesia also faces a diabetes threat situation similar to the world. The International Diabetes Federation (IDF) Atlas 2017 reports that the Diabetes epidemic in Indonesia is still showing an increasing trend. Indonesia is the sixth ranked country in the world after China, India, the United States, Brazil and Mexico with the number of people with diabetes aged 20-79 years around 10.3 million people (Ministry of Health of the Republic of Indonesia, 2020).

In line with this, Riskesdas showed a significant increase in the prevalence of Diabetes, from 6.9% in 2013 to 8.5% in 2018; so that the estimated number of sufferers in Indonesia reaches more than 16 million people who are then at risk of developing other diseases, such as: heart attack, stroke, blindness and kidney failure which can even cause paralysis and death. Diabetes is a global epidemic problem which if not treated seriously will result in an increase in the impact of significant economic losses, especially for developing countries in Asia and Africa. IDF data also shows that the direct costs of diabetes treatment reach more than 727 billion USD per year or about 12% of global health financing. National Health Insurance (JKN) data also shows an increase in the number of cases and financing for Diabetes services in Indonesia from 135,322 cases with a financing of Rp 700.29 billion in 2014 to 322,820 cases with a financing of Rp 1.877 trillion in 2017. (Ministry of Health of the Republic of Indonesia, 2020 )

The trend of increasing non-communicable diseases that have occurred in the last few decades at the global level has also occurred in Indonesia, both in terms of morbidity (morbidity) and mortality (mortality). The perception that non-communicable diseases are a problem in developed countries is not true. Estimates of causes of death related to non-communicable diseases developed by WHO show that cardiovascular disease is the highest cause of death in Southeast Asian countries, including Indonesia, at 37% (Table 2.1). More than 80% of deaths are caused by cardiovascular disease and diabetes and 90% of deaths from chronic obstructive pulmonary disease occur in lower-middle income countries. In addition, two-thirds of deaths due to cancer occur in lower-middle income countries (Kemenkes RI, 2017).

From the data presented, the various problems that exist specifically for noncommunicable diseases (NCD) have an increasing trend every year. This is because the efforts made by the community on the quality of their life are still felt to receive less attention, one of which is the Early Detection of Disease which is part of disease prevention efforts aimed at improving the health status of the community. Various obstacles are felt in the early detection of non-communicable diseases, mainly due to behavioral aspects and limited access to health services. Community empowermentbased health programs are the responsibility of all components of the nation, not only the responsibility of the government but all parties including academics in the Tri Dharma of Higher Education activities through Community Service activities.

Early detection of PTM disease should be carried out routinely at least once every 6 months by community members through 6 types of examinations, namely blood pressure checks, blood sugar levels checks, blood cholesterol tests, complete laboratory tests, abdominal circumference measurements and early detection of cervical cancer (Kemenkes, 2009). 2019)

One of the community communities that can be the target of community service activities is the Ibu Ibu Community. The community of mothers referred to in this activity is the community of recitation mothers due to the high risk in this age group, the average age of which is 50 years and over. Based on the above background, community service activities are a model of mentoring in the recitation community in the early detection of non-communicable diseases (PTM) at the Grand Mosque of the Sako Palembang Islamic Foundation in 2022.

### **IMPLEMENTATION METHODOLOGY**

Community Service Activities carried out using the Community Partnership Program (PKM) scheme in the form of efforts to increase public knowledge and understanding of the importance of early detection of PTM and provide assistance in early detection of PTM with a target of 50 communities of the Sako Palembang Islamic Foundation for the Great Mosque Study and those present at the activity totaled 141 people.

The initial stage of community service activities is an initial study to the Multiwahana Health Center to conduct an assessment to obtain data related to PTM in the Multi Wahana Community Health Center Work Area, coordination with the head of the Puskesmas and the person in charge of the program. The next step is to explore the location of the community service at the Grand Mosque of the Sako Islamic Foundation in Palembang and meet with the mosque management and the RW and RT of the area. The next stage is the processing of permits for Community Service activities and coordination related to the technical implementation of Community Service activities.

The next stage is technical and non-technical preparation for the implementation of Community Service activities in the form of preparing PTM Early Detection equipment (BSS, Uric Acid, Cholesterol, Blood Pressure, and BMI), printing leaflets for education about PTM Early Detection and on 15 August 2022 and 15 September In 2022, PTM Early Detection Assistance will be carried out at the Grand Mosque of the Sako Palembang Islamic Foundation.

### **ACTIVITY RESULTS**

The results of the intervention of community service activities (pengmas) which were carried out for 2 days, obtained results in the form of information on age, BMI and GDS scores from community members.

Palembang City $(n = 141)$					
Variable	Mean	Minimum	Maksimum	Std Deviasi	
Age	60,06	20	89	11,382	
Score IMT	23.0673	16.85	34.44	2.62484	
Score GDS	138.62	70.00	359.00	56,541	

 Table 1 Distribution of the average age of community members in community service activities in the recitation community of the Sako Islamic Foundation,

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The information from the table above shows that the average age of community members is 60.06 years with a minimum age of 20 years and a maximum age of 89 years and a standard deviation of 11,382, then for the BMI value, the average value is 23.0673 with a minimum BMI value. 16.85 and a maximum BMI value of 34.44 with a standard deviation of 2.62484 and an average GDS value of 138.62 with a minimum and maximum value of 70 and 359 where the standard deviation is 56.541.

Table 2 Distribution of occupation, marital status, GDS values, systolic blood pressure, diastolic blood pressure, abdominal circumference and uric acid values of community members in community service activities in the recitation community of the Great Mosque of the Sako Islamic Foundation, Palembang City (n = 141)

Variable	Frequency	Percentage (%)	
Work			
Government employees (PNS)	15	10.5%	
Self-employed	28	19.6%	
Employee/Labour	8	5.6%	
Housewife	67	46.9%	
Retired	23	16.1%	
Marital status			
Marry	138	96.5%	
Not Married	3	2.1%	
Score GDS			
Diabetes	15	10.6%	
No Diabetes	126	89.4%	
Blood Pressure (systolic)			
Hypertension	78	55,3%	
No Hypertension	63	44,7%	
Blood Pressure (Diastolic)			
Hypertension	25	17.7%	
No Hypertension	116	82.3%	
Belly Circumference			
Abnormal	44	31.2%	
Normal	6	4.3%	
Not measured	91	64.5%	

Uric Acid Value		
Abnormal	20	14.2%
Normal	39	27.7%
Not measured	82	58.1%
Risk Factor PTM		
Very high risk	0	0
High risk	0	0
Medium risk	7	5.0
Slightly increased	25	17.7
Low risk	9	6.4
Not willing to fill out the questionnaire	100	70.9

The information obtained from the table above shows that of the five categories of work assigned, 46.9% of work as domestic workers, while for each other type of work 10.5% as civil servants, 19.6% as self-employed, 16.1% retirees. and the smallest number is 5.6% of employees/laborers, while for marital status, most of the community members have marital status of 96.5%.

For the GDS value by using the benchmark value, information is obtained that community members have a GDS value of 10.6% for diabetes and 89.4% for non-diabetics. For systolic blood pressure obtained 55.3% hypertension and 44.7% non hypertension and diastolic blood pressure of 17.7% hypertension and 82.7% not hypertension. Furthermore, the abdominal circumference was 31.2% abnormal and 4.2% normal and 64.5% were not measured. The latest information is the uric acid value where 14.2% is not normal, 27.7% is normal and 58.1% is not tested for uric acid.

And for the results of the PTM risk questionnaire, the results obtained from 41 who filled out the questionnaire were 6.4% with medium risk, 17.7% with slightly increased risk and 5% with low risk, while for very high risk and high risk there were no community members who were at that level.



Figure 1. Measurement of blood pressure in community service activities in the recitation community The Grand Mosque of the Sako Islamic Foundation, Palembang City



Figure 2. Measurement of Abdominal Circumference in the recitation community of the Grand Mosque Palembang City Sako Islamic Foundation



Figure 3. Low Impact Gymnastics in the Akbar Mosque recitation community Palembang City Sako Islamic Foundation

From the average age of service participants, the age group is in the elderly group with an average age of 60.06 years with 2 people who are quite extreme, namely 1 person aged 89 years and 1 person aged 20 years. However, the average age of the service participants is in the category of the elderly age group. In line with the community service activities carried out in November 2019 as many as 42 people with the classification of pre-hypertension Blood Pressure 14 people, level I hypertension - 8 people and level II hypertension - 8 people; state of BMI (body mass index) 16 normal people, 14 people (Purwaningsih & Suhartini, 2020).

The increasing cases of Non-Communicable Diseases (NCD) will significantly increase the burden on the community and the government, because the treatment requires a lot of time, large costs and high technology and causes individuals to become unproductive or less productive, NCDs can be prevented by controlling risk factors through early detection. In reducing PTM cases through controlling PTM risk factors in the community, it is necessary to have the same effort and understanding of the division of roles and support for PTM control program management. (Ministry of Health, 2019).

With the extension method, the results showed that there were differences in the level of knowledge of the productive age population in the Karang Bendo hamlet between before and after the extension. The impact of this activity is to increase knowledge, attitudes and public awareness about the importance of implementing healthy living behaviors in productive age with p value = 0.004 (Nuraisyah et al., 2022)

In contrast to the results of community service providers which stated that the results of blood sugar examinations when participants in the WARAS Posbindu were mostly normal (95.24%), only one of the 21 people examined showed abnormal conditions. (Sulistyaningsih & Listyaningrum, 2021).

### CONCLUSION

The implementation of community service activities went smoothly, where assistance activities for early detection of PTM risk factors were carried out by involving multi-wahana health center partners with extraordinary support so that this activity was successfully implemented.

The number of service participants was 141 participants with the Service team consisting of 3 lecturers and 2 students and puskesmas officers. The results of the assistance activities for early detection of PTM risk factors received a very positive appreciation from the community, especially inspection activities such as blood pressure, abdominal circumference, BMI as well as examinations of GDS, cholesterol, uric acid and low impact exercise carried out. The series of activities carried out became a magnet for the community to attend.

This shows that assistance in early detection of PTM risk factors is very necessary for the community to always remind them of their health and various threats to their health through various risk factors.

#### Thank-you note

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