

Empowerment and Partnership Programs in Healthy Community Movements Through Integrated Development Posts (IDP) of Non-Communicable Disease (NCD)

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Abstract

Optimizing the role of the community in the Healthy Community Movement (HCM) through the facilitation of health cadres at the Integrated Development Post (IDP) of non-communicable diseases (NCDs) to become an effective solution of health promotion program using empowerment and partnerships in the community as a form of active participation in health. The purpose of this community service was to increase community empowerment and partnerships in overcoming NCDs problems through HCM to reduce hypertension in Glagahwero Village, Panti District, Jember Regency. The activities were carried out for 3 months (August - November 2020) in the form of education and health counseling about HCM and hypertension, anti-hypertensive exercise, hypertension diet, empowerment of family cooking in the management of family salt consumption, and IDP of NCDs. The fostered village service activities involved 70 target groups. The results were found that the community was able to do HCM to control blood pressure by doing anti-hypertensive exercises once a week, mothers were able to prepare a low-salt menu in their families, and IDP of NCDs activities were carried out once a month. The further impact was a decrease in mean systolic blood pressure (130.5 ± 22.5 mmHg Vs. 122.3 ± 18.3 mmHg; $p < 0.001$) and diastolic (81.83 ± 10.4 mmHg Vs. 79.4 ± 9.1 mmHg; $p = 0.015$), decreased body weight (60.6 ± 12.1 kg Vs. 59.7 ± 12 kg; $p < 0.001$), and decreased abdominal circumference (88.5 ± 14.2 cm Vs 82.7 ± 14.1 cm; $p < 0.001$) after 3 months of community service development. Thus, it can be concluded that the partnership and empowerment of the community in HCM is able to prevent PTM, so it is suggested that IDP of NCDs activities need to be carried out in a sustainable manner in the community.

Keywords: HCM, IDP, NCDs, Empowerment, Partnership

I. INTRODUCTION

Families and communities in Indonesia experience various health problems that result in conditions of vulnerability to disease¹, especially in non-communicable diseases (NCD), so a comprehensive effort is needed from every element in society in achieving quality healthy living through the Healthy Community Movement (HCM). Health promotion efforts in changing people's lifestyles to be healthy² with community empowerment and partnership movements through community-based healthy life programs³ can be used as solutions in overcoming health problems in the community. One form of community based program as a form of Community Based Health Business (CBHB) through social health services in the community is the Integrated Development Post (IDP) of non-communicable diseases (NCDs).

The increase in the prevalence of non-communicable diseases (NCDs or PTM) is a serious threat to development, because it threatens national economic growth. For this reason, a community-based PTM control model was developed through the PTM Posbindu. Posbindu PTM is a form of community participation in an effort to control risk factors independently and continuously. The development of PTM Posbindu can be combined with the efforts that have been held in the community. Through Posbindu PTM, prevention of PTM risk factors can be carried out as soon as possible so that the incidence of PTM in the community can be suppressed. Efforts to control PTM are built on the joint commitment of all elements of society who care about the threat of PTM through the PTM Posbindu. The development of PTM Posbindu is an integral part of the health care system, organized based on PTM problems that exist in the community and includes various promotive and preventive efforts as well as referral patterns.

One of the strategies to improve health development is to empower and increase the role of the community, including the business world. The community is given facilities and guidance in developing a forum to play a role, equipped with knowledge and skills to recognize problems in their area, identify, formulate and solve their own problems based on existing priorities and potential. In determining problem priorities, planning, implementing, monitoring and assessing activities, the community needs to be involved from the start. The potential and community participation can be explored to the fullest, so that problem solutions are more effective and can ensure the continuity of activities.

Conditions in Glagahwero Village, Panti District based on data from the Faculty of Nursing, University of Jember and Panti Health Center in December 2019 for productive age (17-55 years) found people with hypertension (37.4%), consuming foods high in sodium (88.2%), consuming caffeine in the form of coffee (48.9%), and smoking (93.2%). The high problem of unhealthy community behavior at productive age in

¹ Siti Nur Kholifah et al, "Structural model of factors relating to the health promotion behavior of reproductive health among Indonesian adolescents" (2017) 4:4 Int J Nurs Sci 367–373.

² J Pender Nola, Carolyn L Murdaugh & Ann Parsons Mary, "Health Promotion in Nursing Practice" (2014) Pearson Educ.

³ E T Anderson & J McFarlane, "Community as Partner: Theory and Practice in Nursing (6th ed.). Philadelphia: Wolters Kluwer Health. Lippincott Williams & Wilkins" (2011) Med Chir Dig.

Glagahwero Village is caused by ignorance, unwillingness, and the inability of the community in implementing a healthy lifestyle for PTM in Glagahwero Village.

Germas can be used as a solution in preventing and tackling PTM as well as improving people's healthy lifestyles. Germas can be efficient and effective through empowerment and joint partnerships between the community and the health sector (Puskesmas). Optimizing the role of the community in the health sector through the facilitation of health cadres at IDP NCDs is a solution for an effective health promotion program in the community. Fostering community participation through the healthy development program at IDP NCDs can increase the community's active participation in health. The IDP NCDs in the assisted village program is designed through community empowerment and partnership. Community empowerment is involved in early detection of PTM through active activities at Posbindu. Meanwhile, community partnerships are manifested in the establishment, implementation of activities, and evaluation of IDP NCDs.

II. REVIEW OF THE PROBLEM

The IDP NCDs solution is implemented in an effort to maintain the community's line of defense against disease stressors and unhealthy behavior, so that people are able to realize the potential and threats that exist in their environment. The fulfillment of the biological, psychological, social, cultural, and spiritual needs of the community is strengthened by various activities within the IDP NCDs. Primary, secondary, and tertiary prevention levels are carried out within the Germas framework so that there is a change in people's lifestyles in the prevention and control of NCD based on community based prevention^{4 5}. Therefore, the purpose of this community service is to increase empowerment and community partnerships in overcoming NCD problems through Germas to reduce hypertension problems in Glagahwero Village, Panti District, Jember Regency.

III. IMPLEMENTATION

The program, which was introduced as a solution to NCD problems in Mitra Desa Glagahwero as the Development of Fostered Villages, is the IDP NCDs through empowerment and partnerships in Germas. This solution has been researched by the head of the proposer⁶, so that in the development of the assisted villages, a system model transfer is carried out from the results of research or research based community services^{7 8 9}. HCM can be used as a solution in preventing and tackling NCD as well as

⁴ Tantut Susanto, Iis Rahmawati & Wantiyah, "A community-based friendly health clinic: An initiative adolescent reproductive health project in the rural and urban areas of Indonesia" (2016) 3:4 Int J Nurs Sci 371–378.

⁵ Tantut Susanto et al, "Occupational Health Nursing Model-Based Agricultural Nursing: A Study Analyzes of Farmers Health Problem" (2016) 11:1 Sosiol Pedesaan 45–50.

⁶ Susanto, Rahmawati & Wantiyah, *supra* note 4.

⁷ Susanto et al, *supra* note 5.

improving people's healthy lifestyles. Germas can be efficient and effective through empowerment and joint partnerships between the community and the health sector (Puskesmas). Optimizing the role of the community in the health sector through the facilitation of health cadres at IDP NCDs is a solution for an effective health promotion program in the community. Fostering community participation through the healthy development program at IDP NCDs can increase the community's active participation in health.

The Indonesian government designed the Healthy Indonesia Program with a Family Approach (PIS-PK) in an effort to achieve the fifth agenda of President Jokowi's 10 agenda or what is known as Nawa Cita. Nawa Cita Indonesia is related to 17 indicators of the Sustainable Development Goals (SDGs) to improve the quality of life in Indonesia. Quality of life is an important element in health indicators, especially for healthy families and communities. On the other hand, families and communities in Indonesia experience various health problems that result in conditions of vulnerability to disease, especially non-communicable diseases (NCDs). Therefore, a comprehensive effort is needed from every element in society in achieving a healthy quality of life through the Healthy Community Movement (Germas).

A. Preparation Stage

This village development program is carried out for 3 months. The activity began with the implementation of the Village Community Meeting I (VCM I) in identifying the magnitude of the problem, MMD II in the preparation of the IDP NCDs work program, and VCM III in evaluating program implementation.

PTM Posbindu can be implemented integrated with existing community-sourced health efforts, at work or at company clinics, in educational institutions, other places where a certain number of people gather/have regular activities, for example in mosques, churches, sports clubs, meetings of political and social organizations. The integration in question is to combine the implementation of Posbindu PTM with activities that have been carried out including the suitability of time and place, as well as utilizing existing facilities and personnel.

B. Implementation Stage

The form of implementation of the activities carried out was in the form of education and health counseling about Germas and hypertension through refreshment and empowerment of health cadres, anti-hypertensive exercise, hypertension diet, empowerment of family cooking in the management of family salt consumption, and PTM posbindu compiled in a Free Secrets Guidebook Hypertension (Figure 1). This guidebook reviews five aspects in overcoming the ignorance, unwillingness, and inability of the community in handling hypertension NCD. This handbook contains (1)

⁸ Tantut Susanto, Retno Purwandari & Emi Wuri Wuryaningsih, "Prevalence and associated factors of health problems among Indonesian farmers" (2017) 4:1 Chinese Nurs Res 31–37.

⁹ Tantut Susanto & Nur Widayati, "Quality of life of elderly tobacco farmers in the perspective of agricultural nursing: a qualitative study" (2018) 22:3 Work with Older People 166–177.

Introduction to Hypertension; (2) Hypertension menu; (3) Progressive Muscle Relaxation; (4) Stretching Exercises; and (5) Hypertension Gymnastics. This module is accompanied by several self-detecting questions related to the risk of hypertension and the development of blood pressure which can be monitored regularly. In addition, this module is accompanied by pictures and uses simple language in the health sector in the hope that it can be easily absorbed by the community.

C. Evaluation Stage

The final result of this village development program is the measurement of blood pressure, weight and abdominal circumference of the target group after coaching through this service. The target of the activity is the participants of IDP NCDs in Galagahwero Village. In addition, all community empowerment and partnership activities in the IDP NCDs will be measured as a form of increasing community knowledge and skills during the 3-month coaching.

If at the next visit (after 3 months) the condition of the risk factor does not change (remains in a bad condition), or according to the referral criteria, then to get better treatment, you must be referred to a Puskesmas or Private Clinic according to the needs and desires of the person concerned. Even though they have received the necessary treatment, cases that have been referred are still recommended to monitor PTM risk factors at the PTM Posbindu.

IV. RESULT AND DISCUSSION

The implementation of the Assisted Village program during the COVID-19 pandemic was carried out once a month with refresher activities and training for the target group of health cadres and PKK mothers. Service activities in the form of education and training of target groups related to hypertension management. The activity was carried out with a health protocol procedure during the new normal COVID-19, where each participant came to have their body temperature measured, then asked to wash their hands, use a mask and keep a distance during the activity. related to hypertension, hypertension exercise, and preparation of hypertension diet menu. The results of the measurement of activities for 2 months are presented in the following results.

a. Refreshment and empowerment of health cadres and PKK mothers

Refreshment activities for health cadres and PKK related to Germas and the implementation of IDP NCDs were carried out in the first week. This activity is carried out in order to evaluate whether the implementation of IDP NCDs activities can still run according to the provisions in order to help overcome the problem of hypertension. This activity was attended by 70 women, both health cadres and PKK women. This activity is also carried out in order to prepare trained cadres in developing the

implementation of IDP NCDs activities every month. The limited time and human resources of trained health cadres are an obstacle to the high prevalence of hypertension. Meanwhile, based on the results of FGDs with midwives, nurses, and outpatients, it was found that IDP NCDs still experienced limitations related to equipment in detecting the health of the target group and activities did not run regularly due to the busyness of cadres and the limited number of trained cadres. The characteristics of the participants of this service target group are described in Table 1.

The activity of extracting information on risk factors with simple interviews about the history of PTM in the family and participants, physical activity, smoking, lack of eating vegetables and fruit, the potential for injury and domestic violence, as well as other information needed to identify health problems related to the occurrence of PTM. This activity carried out at the first visit and periodically once a month.

The output targets of Pospindu PTM through empowerment and partnerships in Germas are carried out in overcoming the two problems of the Glagahwero Village Partners. Community based prevention is carried out to control PTM in the community through the provision of social and health services at the PTM Posbindu. Germas in PTM Posbindu activities are packaged in health education activities, group processes, and health promotion. The implementation of health in the community in improving a healthy lifestyle is carried out in the provision of healthy food or diet, regular exercise activities, stress management, and a referral system for health problems at the puskesmas.

The PTM Posbindu can be held once a month, if needed more than once a month for other PTM risk factor control activities, such as joint sports, workshops and others. The day and time chosen is in accordance with the agreement and may be adjusted according to local circumstances.

Table 1. Characteristics of health data from the target group (n= 70)

Variable	Mean	Standard Deviation
Age (year)	43.5	12.5
Blood Pressure (Pre, mmHg)	Systolic	130.5
	Diastolic	81.83
Blood Pressure (Post, mmHg)	Systolic	122.3
	Diastolic	79.4
Temperature (°C)	Pre	36.4
	Post	36.5
Weight (kg)	Pre	60.6
	Post	59.7
Belly Circumference (cm)	Pre	88.5
	Post	82.7

The participants had temperature measurements and all were within normal limits. The average age of health cadres and PKK mothers is 43.5 years. Judging from the average blood pressure is still within normal limits and there are some who enter into hypertension degree I. From the results of measurements of body weight and abdominal circumference, the majority were obese (abdominal circumference more than 80 cm).

Lack of recognition and control of hypertension can be influenced by low knowledge about various aspects of high blood pressure. Therefore, being a community nurse has an important role in conveying information and knowledge to the community as one of the predisposing factors for the formation of health behavior. Access to quality health information increases knowledge about hypertension management and control. Health workers play a major role in increasing patient knowledge about their disease, most of the village community cites the media and health promotions by health workers as sources of health information. Therefore, this module is expected to be able to provide a source of information for the community in controlling blood pressure and overcoming hypertension in farming communities.

The implementation of the PTM Posbindu is carried out by existing health cadres or several people from each group/organization/institution/workplace who are willing to organize the PTM Posbindu, who are specially trained, fostered or facilitated to monitor PTM risk factors in each group. or the organization. The criteria for the PTM Posbindu Cadre include minimum high school education, willing and able to carry out activities related to PTM Posbindu.



Figure 1. Guidebook



Figure 2. Health Education



Figure 3. Medical Check

b. Health education related to Germas and Hypertension

Health education and counseling activities related to Germas and hypertension are provided in the target group. For the target group classified as *high risk*, it is given health counseling related to CERDIK Program in overcoming disease problems non-communicable like hypertension (Figure 2).

In health education, the target group of the community is given health education about the meaning, signs and symptoms, manifestations, and process of hypertension disease. The community is given understanding and understanding with the aim of being able to recognize the problem, so that they will be able to make decisions in hypertension treatment.

Counseling and outreach activities must be carried out in every implementation of PTM Posbindu. This is important because monitoring risk factors is less useful if people do not know how to control them. In counseling hypertensive clients, the "CERDIK" program is carried out. This counseling emphasizes checking blood pressure regularly, eliminating smoking behavior, weighing and measuring body mass index continuously, regulating a low salt diet, and regulating physical activity. The implementation of this action can be facilitated every month through PTM Posbindu activities.

c. Medical examination

The examination is carried out on high-risk target groups which include: examination of blood sugar levels, uric acid levels, and cholesterol levels (Fig. 3). Based on the results of the examination, if unhealthy data is obtained, then the group The target is referred to the Puskesmas. But if the result is not very significant with signs and symptoms experienced, it will get a simple treatment from Panti Health Center staff. Activities for measuring weight, height, Body Mass Index (BMI), abdominal circumference, body fat analysis, and blood pressure should be held once a month. Body fat analysis can only be done at the age of 10 years and over. For children, the measurement of blood pressure is adjusted to the size of the cuff with upper arm size.

d. Anti hypertension exercise

Anti-hypertensive gymnastics training and refreshment for health cadres and mothers-to-be PKK mothers with the aim of reducing peripheral resistance which can lead to increase in blood pressure. In addition, this gymnastics training aims to make the cadres health can lead gymnastics in their respective areas in improving life Germas in his family and RT/RW environment (Fig. 4). Physical activities and or sports together, should not only be done if there is a PTM Posbindu but need to be done regularly every week.

One of the factors that have an important role in influencing farmers to do self-management to control blood pressure is the patient's knowledge of the health problem of hypertension. Patients with good knowledge will be able to have a high level of self-confidence and build patient confidence in the effectiveness of hypertension treatment. The understanding and level of knowledge of hypertensive patients about their disease

can support the success of therapy so that blood pressure can be controlled properly. The more patients know about their disease, the more they will understand and be aware of maintaining a healthy lifestyle, and adherence to medication consumption will increase.



Figure 4. Hypertension
Gymnastics



Figure 5. Menu of cuisine



Figure 6. Preparation of Diet

e. *Preparation of hypertension menu sourced from local Glagahwero food and Empowerment in cooking low-salt family dishes*

The target groups for this service learned how to prepare a hypertension free menu using local food sources in Glagahwero Village. In the preparation of the menu, it was agreed that the Siamese Pumpkin menu was created according to the needs of the target group. Besides that, cucumber juice with basil fruit was also made to help lower blood pressure in the target group (Figure 5). The preparation of this menu is outlined in a special guide book in which each target group tries to develop a hypertension diet for a week with the economic capacity of the family. From the results of the FGD, it was found that the mothers had understood the basic menu of hypertension, where food should be low in salt, but still did not understand how to measure salt in every dish or daily consumption in the family. For this reason, further monitoring is needed in the food menu prepared by the family (Figure 6). One of the factors that cause hypertension is high sodium intake. The recommended salt intake is <math>< 5 \text{ g/person/day}</math> (<math>< 2 \text{ g sodium/person/day}</math>) or about 1 teaspoon per day, although it is undeniable that many other foods contain salt so that salt consumption increases.^{10,11} Salt intake is one of the factors causing hypertension problems where from research that has been done,

¹⁰ Kamal Ghimire et al, "Knowledge, attitudes, and practices related to salt consumption in Nepal: Findings from the community-based management of non-communicable diseases project in Nepal (COBIN)" (2019) 21:6 J Clin Hypertens 739–748.

¹¹ REGIONAL OFFICE FOR Europe World Health Organization (WHO), "Dietary Salt Intake Survey" (2016).

increased blood pressure is caused by increased salt intake and decreased blood pressure is caused by decreased salt intake.¹²

Glagahwero Village, Panti District, is included in the development of the Panti Health Center's working area. Glagahwero Village already has 15 trained health cadres, one midwife in regional development, 6 posyandu that serve maternal and child health activities as well as the elderly. But until now, Glagahwero Village does not yet have a PTM Posbindu in health development for productive groups. This is very risky for health problems in this population, considering that there are already many vulnerable and risky behaviors from the productive age group in Glagahwero Village. For this reason, there is a need for guidance in social health services with the existence of Germas in community empowerment and partnerships in a PTM Posbindu forum in Glagahwero Village.

The Healthy Community Movement (GERMAS) can be used as a solution in preventing and tackling NCDs and improving people's healthy lifestyles. GERMAS can be efficient and effective through empowerment and joint partnerships between the community and the health sector (Puskesmas). Optimizing the role of the community in the health sector through facilitation of health cadres at the PTM Integrated Development Post (Posbindu) is a solution for effective health promotion programs in the community. Fostering community participation through the healthy development program at Posbindu PTM can increase the community's active participation in health.

f. Final Parameter Measurement

The results of measuring the health condition of the target group for 3 months are presented in Table 2 below.

Table 2. Health condition of the target group week I and Week XII

	Sebelum		Sesudah		t	p-value	95% CI	
	Mean	SD	Mean	SD			Min	Max
Systolic BP (mmHg)	130.5	22.5	122.3	18.3	7.849	<0.000	6.158	10.356
Diastolic BP (mmHg)	81.83	10.4	79.4	9.1	2.491	0.015	0.478	4.322
Body temperature	36.4	0.4	36.5	0.1	-0.515	0.608	-0.1253	0.0739
Weight (kg)	60.6	12.1	59.7	12	4.222	<0.000	0.4514	1.2601
Belly Circumference	88.5	14.2	82.7	14.1	8.277	<0.000	0.5931	0.9698

From Table 2, it can be seen that there was a decrease in blood pressure in the target group after doing Germas Hypertension. Blood pressure, both systolic and diastolic, was significantly different between before and after educational activities and empowerment of health cadres and PKK mothers in health care management. Hypertension exercise or progressive muscle relaxation (PMR) is used to reduce stress

¹² Maria E Marketou et al, "Salt-induced effects on microvascular function: A critical factor in hypertension mediated organ damage" (2019) 21:6 J Clin Hypertens 749–757.

on various physical and mental problems. This technique was developed by Jacobson in 1934¹³ and later adapted by Bernstein and Borkovec in 2000.¹⁴ The mechanism of action of the PMR technique is to focus on the difference between feelings of anxiety or stress and relaxation.^{15,16,17,18,19} Feeling control causes relaxation and reduces self-pressure,²⁰ then controls the hemodynamics of BP. Therefore ROP is very safe and easy is a behavioral intervention that is highly recommended, because it does not require special technical expertise.²¹

Posbindu PTM in this guided village program is designed through community empowerment and partnership. Community empowerment is involved in early detection of PTM through active activities at Posbindu. Meanwhile, community partnerships are manifested in the establishment, implementation of activities, and evaluation of PTM Posbindu. This village development program is planned for 2 years. The first year's activities began with the implementation of the Village Community Meeting I (MMD I) in identifying the magnitude of the problem, MMD II in preparing the PTM Posbindu work program, and MMD III in evaluating program implementation. For the second year, independent activities were carried out through community empowerment and community partnerships in an effort to empower the community in carrying out the PTM Posbindu program with Germas within the framework of achieving the Healthy Indonesia Program with a Family Approach (PIS-PK).

The method of implementing PTM Posbindu through Germas is carried out cyclically and continuously and regularly every month in an effort to suppress stressors in the community and reduce the degree of reaction from the community due to exposure to these stressors (Figure 3). The stressors in society are the result of an imbalance of the host, agent, and environment which results in unhealthy lifestyles in the community. This condition will cause a reaction in the form of increasing PTM problems in the community. For this reason, in the first year, the implementation of the village development activities at Mitra Desa Galgahwero focused on problem analysis, the establishment and implementation of PTM Posbindu, and Germas intervention. In

¹³ Paula Parás-Bravo et al, "Does Jacobson's relaxation technique reduce consumption of psychotropic and analgesic drugs in cancer patients? A multicenter pre-post intervention study" (2018) 18:1 BMC Complement Altern Med 1–9.

¹⁴ UC Unger, D Busse & IS Yim, "The Effect of Guided Relaxation on Cortisol and Affect: Stress reactivity as a Moderator" (2017).

¹⁵ Lilianna Jaworska et al, "Effect of Progressive Muscle Relaxation on Pain Threshold and Effectiveness of Footballers' Training" (2015) 16:4 Hum Mov 225–228.

¹⁶ Sulastini Sulastini et al, "Effect of Progressive Muscle Relaxation on Anxiety in Congestive Heart Failure Patients" (2019) 14:2 J Keperawatan Soedirman.

¹⁷ Parás-Bravo et al, *supra* note 13.

¹⁸ RS Guraf & SK Nahar, *Effect of Progressive Muscle Relaxation on Anxiety in Geriatric Population* (2019).

¹⁹ Unger, Busse & Yim, *supra* note 14.

²⁰ Thatsanee Limsanon & Rasmon Kalayasiri, "Preliminary Effects of Progressive Muscle Relaxation on Cigarette Craving and Withdrawal Symptoms in Experienced Smokers in Acute Cigarette Abstinence: A Randomized Controlled Trial" (2015) 46:2 Behav Ther 166–176.

²¹ *Ibid.*

the second year, village development activities focused on community empowerment and partnership in achieving community independence in implementing Community Based Health Business (UKBM) based on Community based Prevention for PTM problems in the community

Table 3. Differences in the Proportion of Hypertension Before and After Health Empowerment

Measurement	Measurement	Pre		Post		X ²	p-value
		n	%	n	%		
Diastolic Blood Pressure	Optimal	37	52.9	55	78.6	51.35	<0.001
	Normal	4	5.7	0	0		
	Normal High	7	10	11	15.7		
Hypertension	Grade I	17	24.3	4	5.7		
	Grade II	5	7.1	0	0		
Systemic Blood Pressure (mmHg)	Optimal	25	35.7	29	41.4	35.695	<0.001
	Normal	14	20	18	25.7		
	High	11	15.7	9	12.9		
	Hypertension	n Grade I	11	15.7	9		
	Grade II	5	7.1	4	5.7		
	Grade III	4	5.7	1	1.4		

From Table 3, it can be seen that the health empowerment program is very effective in reducing blood pressure in the target group. Germas in hypertension exercise and regulating diet, was able to reduce both systolic and diastolic blood pressure in the target group. Therefore, health cadres and PKK mothers can increase their role in PTM Posbindu activities to reduce PTM in Posbindu through health empowerment programs. Dietary control of hypertension as a Germas in the family can be used as an alternative to control hypertension,²² Controlling salty and fatty foods,²³ and body weight,²⁴ can reduce the incidence of hypertension. Community empowerment in preparing the hypertension education menu can be pursued by making a regular schedule from the family in obedience to the food consumed by the family.

The program which was introduced as a solution to PTM problems in Mitra Desa Glagahwero as a fostered village development is the Integrated Non-Communicable Disease Empowerment Post (Posbindu PTM) through Empowerment and Partnerships in Healthy Community Movements (Germas). This solution has been

²² Indri Andriani et al, “Gambaran Konsumsi Garam pada Petani Hipertensi di Wilayah Kerja Puskesmas Panti Kabupaten Jember” (2020) 8:1 J Citra Keperawatan 30–37.

²³ Dwi Linda Aprilia Aristi et al, “Hubungan Konsumsi Makanan Tinggi Natrium dengan Kejadian Hipertensi pada Buruh Tani di Wilayah Kerja Puskesmas Panti Kabupaten Jember” (2020) 23:1 Bul Penelit Sist Kesehat 53–60.

²⁴ Dewi Negeri Atika Yanti et al, “Hubungan Beban Kerja Dengan Kejadian Hipertensi Pada Petani Di Kecamatan Panti Kabupaten Jember” (2020) 8:2 Skripsi 54–61.

researched by the head of the proposer, so that in the development of the assisted villages, a system model transfer from research results or research based community services is carried out. The Healthy Community Movement (GERMAS) can be used as a solution in preventing and tackling NCDs and improving people's healthy lifestyles. GERMAS can be efficient and effective through empowerment and joint partnerships between the community and the health sector (Puskesmas). Optimizing the role of the community in the health sector through facilitation of health cadres at the PTM Integrated Development Post (Posbindu) is a solution for effective health promotion programs in the community. Fostering community participation through the healthy development program at Posbindu PTM can increase the community's active participation in health.

In implementing the PTM Posbindu in the village/kelurahan setting, partnerships with the Siaga village/kelurahan forum, industry, and private clinics need to be carried out to support the implementation and development of activities. Partnerships with active standby village/kelurahan forums, village/kelurahan health posts and private clinics are beneficial for PTM Posbindu for communication and coordination in getting support from local governments. Support can be in the form of environmental facilities/infrastructure that are conducive to a healthy lifestyle, such as sports facilities or safe and healthy pedestrian facilities. Through the standby village clinic (if it already exists) a referral system can be developed and medical technical assistance can be obtained for health services. On the other hand, for the Desa Siaga forum, the implementation of Posbindu PTM is an acceleration of the achievement of Active Alert Villages/Kelurahan.

The Healthy Community Movement (GERMAS) can be used as a solution in preventing and tackling NCDs and improving people's healthy lifestyles. GERMAS can be efficient and effective through empowerment and joint partnerships between the community and the health sector (Puskesmas). Optimizing the role of the community in the health sector through facilitation of health cadres at the PTM Integrated Development Post (Posbindu) is a solution for effective health promotion programs in the community. Fostering community participation through the healthy development program at Posbindu PTM can increase the community's active participation in health.

Guidelines for implementing non-communicable disease control efforts through the PTM Posbindu are expected to increase the knowledge and skills of officers and cadres, especially in carrying out early detection, monitoring and follow-up activities for non-communicable disease risk factors optimally so that they are expected to assist in suppressing the rate of increase in Non-Communicable Diseases in Indonesia. public. If the role of the community, including the business world and educational institutions, is wider, the scope of activities will be even greater so that the results achieved will be meaningful and have a real impact in reducing morbidity and mortality due to PTM. This effort will be successful if the program managers are able to advocate effectively, all parties are responsive and take concrete actions according to their respective roles.

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VI. REFERENCES

- Anderson, E T & J McFarlane, "Community as Partner: Theory and Practice in Nursing (6th ed.). Philadelphia: Wolters Kluwer Health. Lippincott Williams & Wilkins" (2011) *Med Chir Dig*.
- Andriani, Indri et al, "Gambaran Konsumsi Garam pada Petani Hipertensi di Wilayah Kerja Puskesmas Panti Kabupaten Jember" (2020) 8:1 *J Citra Keperawatan* 30–37.
- Aristi, Dwi Linda Aprilia et al, "Hubungan Konsumsi Makanan Tinggi Natrium dengan Kejadian Hipertensi pada Buruh Tani di Wilayah Kerja Puskesmas Panti Kabupaten Jember" (2020) 23:1 *Bul Penelit Sist Kesehat* 53–60.
- Ghimire, Kamal et al, "Knowledge, attitudes, and practices related to salt consumption in Nepal: Findings from the community-based management of non-communicable diseases project in Nepal (COBIN)" (2019) 21:6 *J Clin Hypertens* 739–748.
- Jaworska, Lilianna et al, "Effect of Progressive Muscle Relaxation on Pain Threshold and Effectiveness of Footballers' Training" (2015) 16:4 *Hum Mov* 225–228.
- Kholifah, Siti Nur et al, "Structural model of factors relating to the health promotion behavior of reproductive health among Indonesian adolescents" (2017) 4:4 *Int J Nurs Sci* 367–373.
- Limsanon, Thatsanee & Rasmon Kalayasiri, "Preliminary Effects of Progressive Muscle Relaxation on Cigarette Craving and Withdrawal Symptoms in Experienced Smokers in Acute Cigarette Abstinence: A Randomized Controlled Trial" (2015) 46:2 *Behav Ther* 166–176.
- Marketou, Maria E et al, "Salt-induced effects on microvascular function: A critical factor in hypertension mediated organ damage" (2019) 21:6 *J Clin Hypertens* 749–757.
- Nola, J Pender, Carolyn L Murdaugh & Ann Parsons Mary, "Health Promotion in Nursing Practice" (2014) Pearson Educ.
- Parás-Bravo, Paula et al, "Does Jacobson's relaxation technique reduce consumption of psychotropic and analgesic drugs in cancer patients? A multicenter pre-post intervention study" (2018) 18:1 *BMC Complement Altern Med* 1–9.
- Sulastini, Sulastini et al, "Effect of Progressive Muscle Relaxation on Anxiety in Congestive Heart Failure Patients" (2019) 14:2 *J Keperawatan Soedirman*.
- Susanto, Tantut et al, "Occupational Health Nursing Model-Based Agricultural Nursing: A Study Analyzes of Farmers Health Problem" (2016) 11:1 *Sosiol Pedesaan* 45–50.

- Susanto, Tantut, Retno Purwandari & Emi Wuri Wuryaningsih, "Prevalence and associated factors of health problems among Indonesian farmers" (2017) 4:1 Chinese Nurs Res 31–37.
- Susanto, Tantut, Iis Rahmawati & Wantiyah, "A community-based friendly health clinic: An initiative adolescent reproductive health project in the rural and urban areas of Indonesia" (2016) 3:4 Int J Nurs Sci 371–378.
- Susanto, Tantut & Nur Widayati, "Quality of life of elderly tobacco farmers in the perspective of agricultural nursing: a qualitative study" (2018) 22:3 Work with Older People 166–177.
- Unger, UC, D Busse & IS Yim, "The Effect of Guided Relaxation on Cortisol and Affect : Stress reactivity as a Moderator" (2017).
- World Health Organization (WHO), REGIONAL OFFICE FOR Europe, "Dietary Salt Intake Survey" (2016).
- Yanti, Dewi Negeri Atika et al, "Hubungan Beban Kerja Dengan Kejadian Hipertensi Pada Petani Di Kecamatan Panti Kabupaten Jember" (2020) 8:2 Skripsi 54–61.
- Guraf, RS & SK Nahar, *Effect of Progressive Muscle Relaxation on Anxiety in Geriatric Population* (2019).