



# COMMUNITY SERVICE DEMONSTRATION OF HYPERTENSION EXERCISES AND FOOT MASSAGE THERAPY AT POSYANDU ELDERLY TAMELANG DUSUN MEKARJAYA VILLAGE PURWASARI DISTRICT KARAWANG DISTRICT

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## ABSTRACT

Community service activities are carried out to educate the community about complementary therapies that can be done as an alternative for elderly people with hypertension, one of which is non-pharmacological medicine, namely hypertension exercises and foot massage. Hypertension is a cardiovascular disease that can cause complications in the brain, eyes, heart, kidneys, and peripheral blood vessels. Hypertension is a condition where a person experiences an increase in blood pressure above normal which can result in morbidity and mortality. This community service was carried out for 3 days at the Dusun Tamelang Elderly Posyandu which was carried out on 20 respondents of hypertension gymnastics and 20 respondents of foot massage. This community service activity involves students, lecturers and cadres of Dusun Tamelang. The stages of activities discussed were blood pressure checks, as well as demonstrating hypertension exercises and foot massage for elderly people with hypertension. The evaluation results of the implementation of this complementary alternative medicine activity are that most of the community understands and is able to demonstrate hypertension gymnastics and foot massage independently and wants to continue activities at their respective respondents' homes. The result of this community service is a decrease in blood pressure in the elderly with hypertension in Mekarjaya Village. This community service activity can be a hypertension prevention program in lowering blood pressure, one of which is by doing complementary therapy, namely hypertension exercises and foot massage

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## 1. INTRODUCTION

Community service is one of the Tridharma of Higher Education which functions to shape and develop the social spirit of lecturers and students. One of the community service activities is a form of social service to the community. Community service is an activity that shows concern or a sense of humanity towards others. Where this activity can strengthen a sense of kinship towards other people. Therefore, the student affairs and community service department feels they have the responsibility to apply all of this so that Sehati Indonesia University holds community service activities for elderly citizens in the hope of lightening the burden a little.

people in the elderly category. This social service activity was carried out in the UPTD work area of the Purwasari Community Health Center. The background is that hypertension is a non-communicable disease that has the highest incidence, especially in the elderly.

This epidemiological transition to disease patterns in Indonesia has occurred. Previously, the pattern of disease and death dominated infectious and contagious diseases, now infectious diseases have also become a health problem with high mortality rates. The number one cause of death every year globally is disease

cardiovascular. One of them is hypertension from cardiovascular disease. There are several factors that cannot be controlled, such as age, gender, ethnicity/race, heredity. Meanwhile, factors that can be controlled are obesity, stress, smoking, lack of exercise, consuming alcohol, excessive salt consumption, and high cholesterol. If hypertension is not treated seriously, it can cause complications, namely myocardial infarction, stroke, kidney failure and encephalopathy.

Hypertension is referred to as *silent killer* because most cases of hypertension do not show any symptoms, so one day complications occur which are caused by damage to the endothelium and accelerate the occurrence of atherosclerosis. This can cause hypertension sufferers to experience strokes and heart attacks so that sufferers die.

Sports activities by doing hypertension exercises and *foot massage* This is thought to improve the body's metabolism and improve blood circulation, maintain body weight and maintain body fitness, and can also reduce the hormone cortisol which triggers stress. Exercise can increase the hormone endorphins which can provide a feeling of happiness and relaxation. Regular exercise has been proven to lower blood pressure and reduce the risk of stroke, heart attack, heart failure and other blood vessel diseases.

The role of nurses in providing nursing services has a role in improving the family's nursing ability to care for sick members. Family involvement is really needed, especially those closest to you, especially family members who live in the same house, to monitor the client's hypertension. This will have an impact on minimizing treatment costs and preventing hospitalization if your hypertension worsens or complications from hypertension itself occur. Non-pharmacological nursing interventions that are easy to teach and carry out by clients and family members, such as hypertension exercises and foot massage, will be safe to do and will not cause side effects. Complementary therapy such as drinking herbs, namely soaking roselle flowers every day, is also an alternative non-pharmacological therapy for treating hypertension.

## 2. METHODS

The method used in this community service activity consists of 2 types of activities, namely hypertension exercise and *foot massage* in Dusun Tamelang.

**1. Hypertension exercise and hypertension counseling activities in Krajan Hamlet** Hypertension exercise and hypertension education activities in Dusun Tamelang are divided into 3 stages, namely:

1) The first stage is preparation; Conduct a survey of the place where the activity will be carried out to look for health problems that exist in the community through village meetings, then coordinate verbally with the coordinator and community service implementation team at Sehati Indonesia University, determine the type of activity, namely hypertension exercise, then provide counseling material according to needs, namely about hypertension in Dusun Tamelang, prepare stationery, register books, activity minute books, attendance, leaflets, speakers and banners for community service activities as well as those needed during activities. This community service activity will be carried out in the first week of November 2023, 07.00-10.00 WIB, at POSYANDU Dusun Tamelang.



(2) The second stage is implementation; starting with data collection on the elderly who were present, then carrying out blood pressure checks before the hypertension exercise activity was carried out and re-evaluated by checking blood pressure after the hypertension exercise was carried out with a 10 minute break after the activity was carried out along with health education on the topic of hypertension, and



3) The third stage, namely evaluation, is carried out for each stage by collecting and



## 2. Foot massage activities for elderly people with hypertension in Serang Hamlet and Cilalung Hamlet

Foot massage and hypertension education activities in Krajan and Cilalung hamlets are also divided into 3 stages, namely:

1) The first stage is preparation; Conduct a survey of the place where the activity will be carried out to look for data on elderly people suffering from hypertension in coordination with Dusun Tamelang Posyandu cadres. Then the Sehati Indonesia University community service team will hold a type of therapy activity *foot massage* in Dusun Tamelang. Prepare stationery, register books, activity minute books, attendance, leaflets, speakers, lotion, blood pressure monitors, stethoscopes and banners for community service activities. This community service activity will be held in June 2024, at 15.00-17.00 WIB, at Posyandu Cempaka 6

(2) The second stage is implementation; starting with data collection on elderly people present, checking their blood pressure before the activity *foot massage* carried out and re-evaluated with blood pressure checks carried out with a break of 15 minutes after therapy *foot massage*. Therapeutic activities *foot massage* carried out for 3 consecutive days where it is carried out in the afternoon from 15.00 to 17.00 WIB.



3) The third stage, namely evaluation, is carried out for each stage by collecting and summarizing data from each activity stage. And check your blood pressure after doing it *foot massage* for 15 minutes

## 3. RESULTS AND DISCUSSION

Results of community service regarding hypertension exercise and therapy activities *foot massage* This is illustrated in the following table:

**Table 1. Demographic Data (n=24)**

| Demographic Data |          | Total<br>(n) | Frequency |
|------------------|----------|--------------|-----------|
| Age              | 56-68 th | 24           | 100%      |

|                  |                          |    |     |
|------------------|--------------------------|----|-----|
| <b>Education</b> | Education                | 20 | 80% |
|                  | Elementary-Middle School |    |     |
|                  | High                     | 4  | 20% |
| <b>Work</b>      | Not Work                 | 20 | 75% |
|                  | Self Employed            | 4  | 25% |

Table 1 describes the number of participants as many as 40 people in the age range 56-68 years. The majority of seniors' education is primary to secondary education and the majority of seniors are no longer working.

Table 2 illustrates the increase in respondents' ability to carry out activities demonstrated before and after hypertension control activities were carried out. There is a known level of ability of the elderly in carrying out complementary therapies, namely hypertension exercises and *foot massage* increases and can be proven by a fast and appropriate response when the elderly demonstrate hypertension exercises and therapy again *foot massage* independently. From the results, respondents agreed to continue routine activities at home after being taught how to do hypertension exercises and carry out therapy *foot massage* at home because it is known that most elderly people experience a decrease in blood pressure after activities are carried out.

Hypertension gymnastics activities are carried out by teaching gymnastics movements starting from exercises on the spot, clapping hands, clapping fingers and intertwining fingers, letter I hands, crossed thumbs, little finger and index finger, letter I hands, tapping the wrist, making a fist, clapping waist and calves, pat your stomach alternately, tiptoe with your hands clenched into fists then continue with upward and downward movements.

After completing the activity, blood pressure was checked again and asked how the respondent felt. Respondents said that the body felt fresher and felt healthier and lighter. This is because after doing hypertension exercises there is an increase in cardiac output and better and smoother distribution of oxygen throughout the body. The average decrease in systole and diastole is around 15-30 for systole and 10-15 mmHg for diastole. This decrease in blood pressure will have a vasodilation effect so that blood flow to cells and tissues becomes better. Hypertension gymnastics

It also stimulates the secretion of melatonin which has a relaxing effect and improves sleep quality, thereby helping prevent hypertension. Therapeutic activities *foot massage* carried out at the Posyandu for the Elderly in Dusun Tamelang where the activity was carried out by giving massage to points on the soles of the respondents' feet. The procedure is carried out by placing a towel under the patient's thighs and heels, smearing both palms with lotion/baby oil, massaging the soles of the feet down to the toes for 15 minutes on each part of the foot while observing the patient's comfort during the massage. This therapy is carried out in 12 movements for 15 minutes on each right and left leg. Activities were carried out for 3 consecutive days at the Elderly Posyandu in the afternoon from 15.00 to 17.00 WIB.

The activity was carried out by explaining the benefits of therapy *foot massage* to help lower blood pressure. Activities were carried out using leaflets, videos, and direct practical demonstrations by the community demonstration team from Sehati Indonesia University. After the activities were carried out for 3 consecutive days, it was discovered that respondents said their leg muscles became relaxed, more comfortable and walking felt lighter. Complaints of stiffness have reduced and the client is strong in the morning to do light exercise such as walking around his neighborhood. This is because of therapy *foot massage* It can improve blood circulation to the joints and relax muscle tension so that blood returns to the heart better, thus stabilizing blood pressure.

#### 4. CONCLUSION

Community service activities have been carried out smoothly and very well according to the expected achievements/targets, all respondents who took part in a series of activities were able to carry out the activities that had been taught and were willing to continue the activities independently at their respective homes in succession. Their level of ability

To overcome increased hypertension, namely by doing hypertension exercises and therapy *foot massage*. For the next activity, elderly posyandu cadres will collaborate with partners in related sectors regarding the schedule for holding hypertension exercises in the Posyandu elderly environment in Dusun Tamelang.

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