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Prevention of Hypertension Emergency Through Community Empowerment in the Working Area of Puskesmas Pacar Keling, Pucang Sewu and Tambakrejo Surabaya

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ABSTRACT Hypertension is a chronic disease that has earned the title of the silent killer because its symptoms are often without complaint. Many people with hypertension are unaware of their disease for a long time, as the appearance or recognition of symptoms of the disease takes some time. Patients realise their disease after experiencing complications. The target is expected to have good knowledge and understanding of the care and prevention of hypertension patient emergencies, can apply in their daily lives as an effort to manage their disease in order to obtain optimal blood pressure, continue to carry out routine controls to the Puskesmas and take medicine regularly, consume appropriate food in the right amount and do regular and sufficient physical activity. Activities were carried out from June to August 2022, targeting 75 people and health cadres. Methods used in the implementation of activities in the form of lectures and questions and answers about healthy living behaviour to prevent emergencies in hypertensive patients, demonstrations of measuring blood pressure, BMI, determining salt requirements, regulating daily diet, and hypertension exercises. The media used are modules on healthy living behaviour to prevent emergencies and demonstrations of hypertension exercises. The results and outcomes of community service that have been carried out almost all (86.7%) participants are female, most (52.1%) are ≥61 years old, almost all (93.3%, 97.3%) are Muslim and Javanese, most (58.7%) in the family have no history of hypertension, most (64%) systole pressure ≥ 140 mmHg, most (56%) diastole pressure ≥ 90 mmHg and most (50.7%) cholesterol levels ≥ 200 mmHg. The results of this community service can be used as a motivation to increase community participation in making efforts to prevent and treat hypertension emergencies early in the Pucang Sewu, Pacar Keling, and Tambak Rejo Puskesmas areas, becoming a starting point for the realisation of residents who are able to control blood pressure by regulating diet, obeying taking medication, and hypertension exercises as well as regular activity and materials to improve Puskesmas performance while increasing the range of health services for Puskesmas.

INDEX TERMS Hypertension, Emergency, Prevention, Community Empowerment, Pacarkeling, Pucang Sewu, Tambak Rejo

I. INTRODUCTION

Puskesmas Pacarkeling, Pucang Sewu and Tambak Rejo are UPT of the Surabaya City Health Office, Pacar Keling is a Puskesmas in the Tambak Sari sub-district area, Puskesmas Tambak Rejo is a puskesmas in the Simokerto sub-district area, and Puskesmas Pucang Sewu in the Gubeng sub-district area. Surabaya is one of the cities with the highest prevalence in Indonesia, with 45,015 patients. Hypertension patient visits every month at the Pacar Keling National Health Centre reached 200-300 patients during 2018, indicating a high number of patients in the work area of the National Health Centre.

Hypertension is a chronic disease that has earned the title of the silent killer because its symptoms are often without complaint[1]. Many people with hypertension are unaware of their disease for a long time, as it may take some time for symptoms to appear or be recognised. Patients realise their disease after developing complications. The most common complications and have a high risk of death are cardiovascular including stroke[2][3][4].

Poltekkes Kemenkes Surabaya as a health education institution that continues to strive to carry out the tri darma of higher education whose goal is to make people live healthy

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lives, continues to facilitate its staff to always look for

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breakthroughs to assist the community towards a healthy Indonesia. After receiving appropriate information and training in the prevention of emergencies in hypertensive patients and food management, it is hoped that cadres and the community[5][6][7]: have good knowledge and understanding of the care and prevention of emergencies for hypertensive patients, can apply in their daily lives as an effort to manage their disease in order to obtain optimal blood pressure, continue to carry out routine controls to the Puskesmas and take medicine regularly, consume appropriate food in the right amount and do regular and sufficient physical activity In terms of government health services,

II. METHOD AND IMPLEMENTATION

A. METHOD

The time and place for the implementation of community service was carried out from June to August 2022 in the PKM work area. Pucang sewu, PKM. Pacar keling and Tambak Rejo Surabaya city, with a target community of 75 people. Methods and media used in the implementation of community service in the form of lectures and questions and answers about healthy living behaviour to prevent emergencies in hypertensive patients, demonstrations of measuring blood pressure, BMI, determining salt requirements, managing daily diet, and hypertension exercises[8][9][10]. The media used were modules on healthy lifestyle to prevent emergencies and demonstrations of hypertension exercises. Increased knowledge in community service participants in the form of lectures or providing material on how to prevent hypertension emergencies, diet, determining salt requirements, demonstrations of hypertension exercises[8][11][12].

B. IMPLEMENTATION

In the preparation stage, the implementation of community service activities is carried out in the following stages, starting from coordination with the heads of Pacarkeling, Pucang Sewu and Tambak Rejo health centres, health cadres in the health centre area[13][5][14]. The team leader and team members consisting of lecturers and students prepare activity materials with basic equipment and other supporters. After the preparation of officers and other equipment in the form of scales and measuring height. At the participant registration desk, attendance administration and temperature measurement were prepared..

Figure 1. Registration activities for community service participants

After the participants fill in the attendance list containing name, age, gender and signature, as participant data and data is documented. The next stage is measuring temperature, blood pressure and measuring body weight and height. Data is documented

Figure 2. Blood pressure measurements of participants

Figure 3. Measurement of participants' weight and height

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After participants took temperature, blood pressure, weight and height measurements, they sat in the room that had been provided and conducted a pre-test before giving material about hypertension and its prevention, proper diet for hypertension, and hypertension emergencies[15][16].

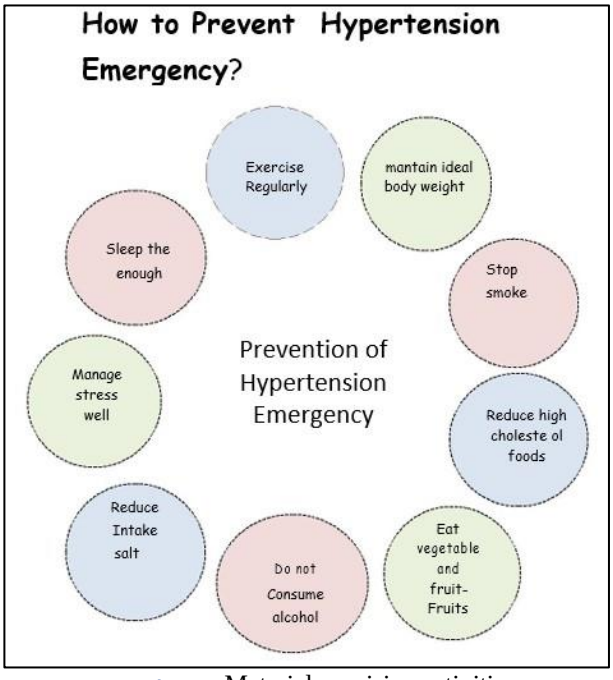

Figure 4. Material provision activities

The next stage after giving the material was a demonstration of BMI calculation and hypertension exercise, as well as giving material on prevention of hypertension emergencies including the definition of hypertension, classification, causes, signs and symptoms, risk factors for hypertension, hypertension treatment, how to control hypertension, and how to prevent hypertension emergencies.

Figure 5. Hypertension exercise demonstration activity

III. RESULT

The results and outcomes of community service that have been carried out are almost all (86.7%) female participants, most (52.1%) are ≥61 years old, almost all (93.3%, 97.3%) are Muslim and Javanese, most (58.7%) in the family have no history of hypertension, most (64%) systole pressure ≥ 140 mmHg, most (56%) diastole pressure ≥ 90 mmHg and most (50.7%) cholesterol levels ≥ 200 mmHg. The activities were carried out smoothly and according to the planned time, namely during June to August 2022, Health Cadres and residents who experienced hypertension enthusiastically participated in the activities from the beginning to the closing[7], Similar activities can be carried out in various other health centre areas in Surabaya or outside the city of Surabaya. The results of this community service can be used as a motivation to increase community participation in making efforts to prevent and treat hypertension emergencies early in the Pucang Sewu, Pacar Keling, and Tambak Rejo Puskesmas areas, becoming a starting point for the realisation of residents who are able to control blood pressure by regulating diet, obeying taking medication, and hypertension exercises as well as regular activity and materials to improve the performance of Puskesmas while increasing the range of health services for Puskesmas.

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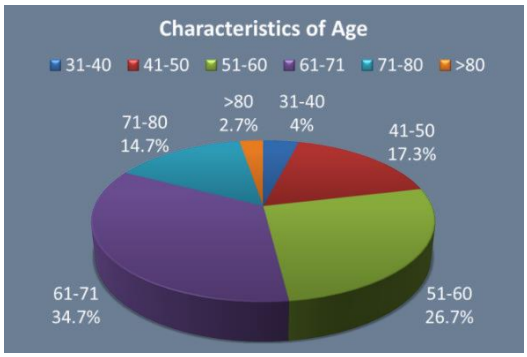

Figure 6. Characteristics of Age

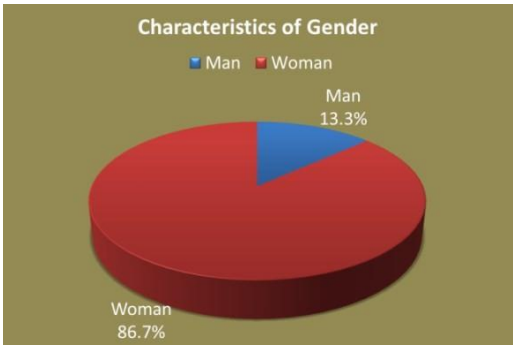

Figure 7. Characteristics of Gender

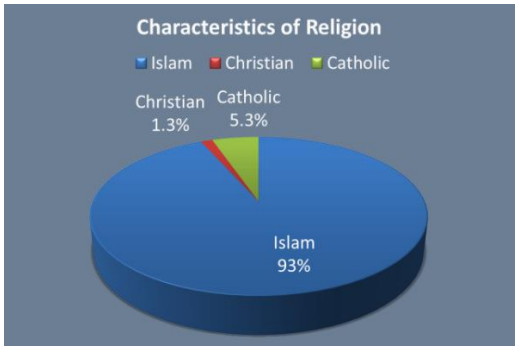

Figure 8. Characteristics of Religion

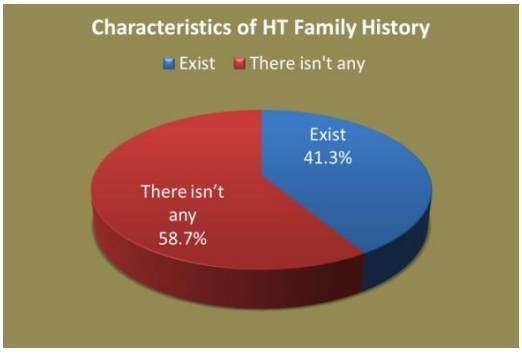

Figure 9. Characteristics of HT Family History

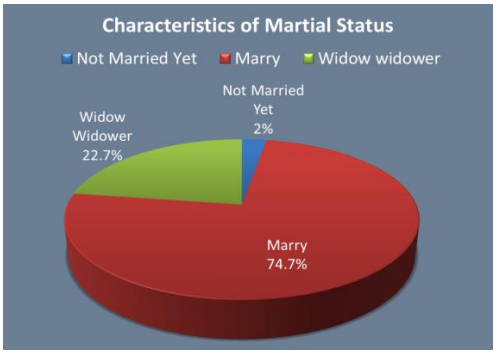

Figure 10. Characteristics of Martial Status

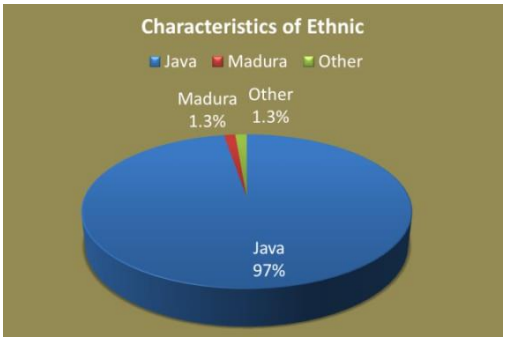

Figure 11. Characteristics of Ethnic

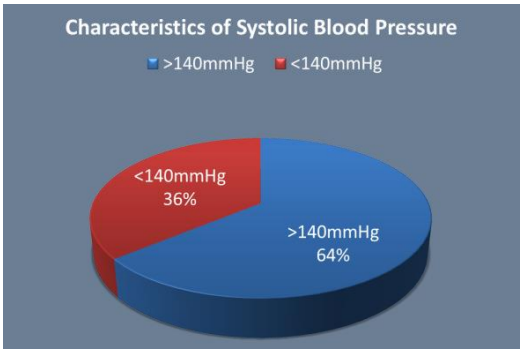

Figure 12. Characteristics of Systolic Blood Pressure

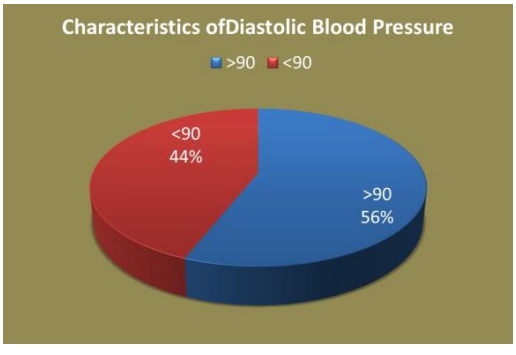

Figure 13. Characteristics of Diastolic Blood Pressure

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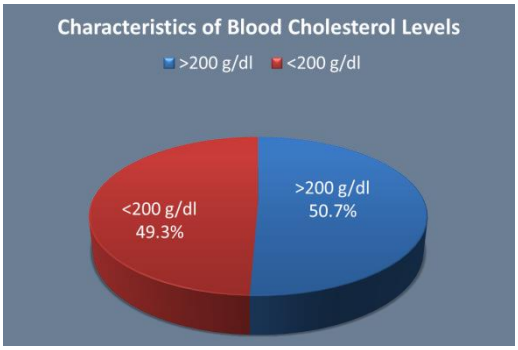

Figure 14. Characteristics ofc Blood Cholesterol Levels

The data in the diagram above shows that most of the participants were more than 51 years old, almost all of them were women, most of them denied having a family history of hypertension, most of the systolic blood pressure was more than 140 mmHg, most of the diastolic blood pressure was more than 90 mmHg, and most of the blood cholesterol levels were more than 200 mg/dl. These conditions indicate that patients are still in a state of hypertension that is not well controlled, so they need counselling and demonstration of various materials to prevent hypertensive emergencies that can be in the form of heart attacks, kidney disease, and strokes..

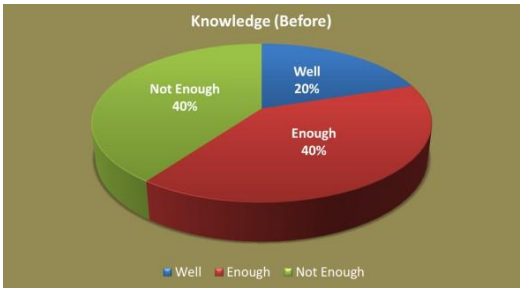

Figure 15. Knowledge (Before)

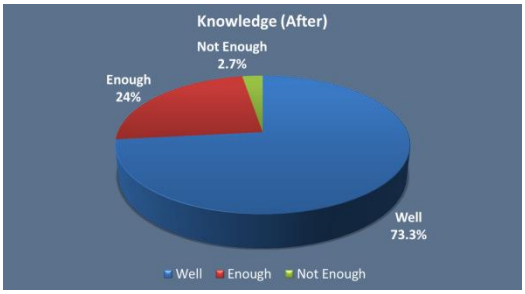

Figure 16. Knowledge (After)

The results of the knowledge test on the material to be provided in community service activities before the material on hypertension, complications of hypertension, hypertension diet, how to calculate BMI, recognise signs of hypertension emergencies and their prevention, almost half (40%) were moderately and poorly knowledgeable, and the knowledge of participants after the provision of material was mostly (73.3%) well knowledgeable and a small proportion (2.7%) were poor[17][18].

IV. DISCUSSION

Community service runs smoothly for 3 months, namely from June to August 2022 carried out in 3 different places namely Puskesmas Pucang Sewu, Pacar Keling, and Tambak Rejo which were attended by 75 participants. The average age of the participants was 61 years (range 61-70 years) and the knowledge of the community after giving the material increased to the majority (73.3%) of good knowledge from almost half (40%) having moderate knowledge and less knowledge before giving the material [19][20].

Health counselling conducted using powerpoint media effectively improves the cognitive of participants. This is in accordance with the results of research by Fuady et al (2018) conducted on XI students that significantly changed knowledge using images and audio visual media. The methods and media used in delivering material in the health counselling process play an important role so that the level of success or acceptance of the material can be achieved optimally. The media is used as an intermediary that carries messages or information with instructional purposes or contains teaching intentions between the source and the recipient.

Things that need to be considered in choosing media such as the ability to accommodate the presentation of the right stimulus, participant response, feedback, selection of primary media and secondary media for presenting information or stimulus and for exercise tests[21]. The results of observations during the activities carried out in 3 sessions, all participants were enthusiastic about participating in the activities and actively asked questions. Additional media used are the media used in the form of healthy living behaviour modules to prevent emergencies and demonstrations of hypertension exercises[22][23].

The average blood pressure measurement is in the range of more than 140/90 mmHg, so it requires counselling and demonstration of various materials to prevent hypertension emergencies that can be in the form of heart attacks, kidney disease, and stroke attacks[23][24]. The recommended education is that the community must increase their knowledge and understanding of the care and prevention of hypertension emergencies, can apply in their daily lives as an effort to manage their disease in order to get optimal blood pressure, continue to carry out routine controls to the Puskesmas and take medicine regularly, consume appropriate food in the right amount, and do regular and sufficient physical activity. In addition, the follow-up plan for this community service activity is to have a module/guidebook that can improve the understanding and skills of the community about preventing emergencies in hypertensive patients[25][10].

V. CONCLUSION

Based on the results of the community service activities that have been carried out at the Pucang Sewu Health Center, the Pacar Keling Health Center, and the Tambak Rejo Health Center in Surabaya, several things can be concluded, namely: The activity was carried out smoothly and according to the planned time, namely from June to August 2022, Health cadres and residents with hypertension enthusiastically participated in the activity from start to closing and the community's knowledge after providing the material increased significantly, namely most (73.3%) had good knowledge. Similar activities can be carried out in various other puskesmas areas in Surabaya and outside city.

The results of this community service can be used as motivation to increase community participation in making efforts to prevent and treat hypertension from an early age in the Pucang Sewu, Pacar Keling, and Tambak Rejo Puskesmas areas. medicines, and hypertension exercises as well as routine activities and materials to improve the performance of the Puskesmas as well as increase the reach of health services for the Puskesmas.

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