




Peci Tensi: Public education efforts on the dangers of hypertension in Cipayung Urban Village, West Java

Dyah Utari , Fandita Tonyka Maharani, Azizah Musliha Fitri
Universitas Pembangunan Nasional Veteran Jakarta, Jakarta, Indonesia

 dyahutari@upnvj.ac.id

 <https://doi.org/10.31603/ce.5790>

Abstract

Hypertension is a dangerous degenerative disease that is often asymptomatic, so it is dubbed the silent killer. Increasing public knowledge about the dangers of hypertension is the key to controlling this disease. The purpose of this community service activity is to increase people's knowledge about the dangers and efforts to prevent hypertension. The activity was carried out by providing counseling, cardiac exercise, and checking the participants' blood pressure. The result of this activity is an increase in public knowledge and commitment to take steps to prevent hypertension through efforts to change a healthier lifestyle. It is hoped that this activity can be carried out continuously by cadres and residents of Cipayung Urban Village

Keywords: *Hypertension; Prevention efforts; Increasing knowledge*

Peci Tensi: Upaya edukasi masyarakat tentang bahaya hipertensi di Kelurahan Cipayung, Jawa Barat

Abstrak

Hipertensi merupakan penyakit degeneratif berbahaya yang sering kali tanpa gejala, sehingga dijuluki sebagai *silent killer*. Peningkatan pengetahuan masyarakat tentang bahaya hipertensi menjadi kunci pengendalian penyakit ini. Tujuan dari kegiatan pengabdian masyarakat ini adalah untuk meningkatkan pengetahuan masyarakat tentang bahaya dan upaya pencegahan hipertensi. Kegiatan tersebut dilakukan dengan memberikan penyuluhan, senam jantung, dan pengecekan tekanan darah. Hasil dari kegiatan ini adalah peningkatan pengetahuan dan komitmen masyarakat untuk melakukan langkah-langkah pencegahan hipertensi melalui upaya perubahan pola hidup yang lebih sehat. Diharapkan kegiatan ini dapat terus dilakukan oleh kader dan warga Kelurahan Cipayung.

Kata Kunci: Hipertensi; Upaya pencegahan; Peningkatan pengetahuan

1. Introduction

Hypertension or high blood pressure is a disease with the greatest prevalence in the world. In 2021, it is estimated that 1.28 billion people will suffer from hypertension (Zhou et al., 2021). The prevalence of hypertension in Indonesia reached 34.1% in 2018 (Kementerian Kesehatan Republik Indonesia, 2019).

Hypertension is a condition of increasing systolic blood pressure 140 mmHg and diastolic 90 mmHg (Whelton et al., 2018). Hypertension is often asymptomatic so it is important to be aware and take preventive measures (CDC, 2021). Hypertension can

cause various complications such as stroke, heart disease, to an increased risk of kidney failure (Whelton et al., 2018).

Hypertension is closely related to a person's lifestyle. Excessive sodium consumption, overweight and obesity, a sedentary lifestyle, to stress and exposure to psychosocial hazards are risk factors that are often not realized (Beilin et al., 1999). Knowledge affects a person's attitude, behavior, and lifestyle. Low public knowledge about the dangers of hypertension, low early detection, and inappropriate treatment contribute greatly to complications and death from this disease (O' Donnell et al., 2020).

Preventive and promotive efforts are the key in preventing and treating hypertension. Preventive efforts are carried out through primary, secondary, and tertiary prevention. Primary prevention begins with improving health status and changing lifestyles to become healthier. Secondary prevention is carried out by early detection of hypertension cases, with early detection it is hoped that hypertension can be controlled and not until further disease manifestations occur. While tertiary prevention efforts are efforts carried out so that patients do not become complications and rehabilitative efforts for post-complicated patients.

The public health approach has proven to be effective in reducing the prevalence and morbidity of hypertension (Ferdinand et al., 2020). Knowledge improvement can be carried out through continuous health education ranging from how to prevent hypertension to the importance of proper treatment and management to prevent complications and death (Ampofo et al., 2020).

According to data obtained during the Field Learning Practice (PBL) in 2019, hypertension sufferers in the area of RT 011-015 RW 006 showed a very large number. However, there are still many residents who do not realize that they have hypertension, this indicates that the level of knowledge of residents regarding their health problems is still lacking. The purpose of this community service activity is to increase public knowledge about hypertension and increase public awareness of the importance of health checks and exercise in preventing hypertension. It is hoped that by increasing knowledge through the provision of health education and at a later stage it can change people's behavior to be healthier.

2. Method

Community service activities carried out at RT 011-015 RW 006 Bojong Pondok Terong Urban Village, Cipayung Sub-District, Depok, West Java are part of the Field Learning Practice (FLP) activities in 2019 Public Health Undergraduate Program at Pembangunan Nasional Veteran University of Jakarta. A series of intervention activities for health education and cardiac exercise for residents. Servants serve as the main extension agents who provide education to the public on how to prevent and manage hypertension.

The method used in this activity is a discussion with the community regarding the problems being faced then followed by intervention with the stages of activities including:

a. Preparation and Problem Identification

Preparation for community service activities was carried out in tandem with PBL starting with collecting health data and then discussing with local community leaders including RT and health cadres.

b. Implementation

The main activities are checking participants blood pressure, counseling, and cardiac exercise. The counseling and cardiac exercise implementation took place on the futsal field in front of the Abu Bakar Ash-Siddiq Mosque in the RW 006 area on February 2, 2020. The total time for the counseling and cardiac exercise activities lasted approximately 150 minutes. The target participants were 70 residents of RT 011-015 and, 60 participants attended.

This activity checks blood pressure before and after exercise and blood sugar, lasting for approximately 40 minutes. Then it was continued with cardiac exercise, which was guided by a professional cardiac gymnastics' instructor and representatives from the Cipayang Health Center. Cardiac exercise activities last for approximately 60 minutes and are followed by a 15-minute break.

After heart exercise, the next activity is counseling related to hypertension. The type of communication used is verbal or verbal communication and non-verbal communication to strengthen the delivery of messages. This counseling uses PowerPoint media. The material was delivered by three people, namely the author and two representatives of group 8. The series of activities ended with blood pressure checks after exercise and blood sugar checks for participants who had not checked blood sugar at the beginning of the activity.

3. Result and Discussion

The implementation of counseling and cardiac exercise activities took place on the futsal field in front of the Abu Bakar Ash-Siddiq Mosque in the RW 006 area on February 2, 2020. The counseling and cardiac exercise activities lasted for approximately 150 minutes. The target participants were 70 communities of RT 011-015 and 60 participants attended.

This activity begins with checking blood pressure before starting cardiac exercise, then continues with cardiac exercise guided by a professional cardiac exercise instructor. After cardiac exercise, the next activity is counseling related to hypertension and cardiac exercise, and ends with blood pressure checks after exercise.

3.1. Preparation and problem identification

The first stage of the "Peci Tensi" activity is problem identification and preparation. Problem identification begins with a rapid survey method to the community as part of PBL activities to identify the most dominant health problems. This survey phase lasts approximately 1 week. The next step of problem identification is discussion with community leaders and community representatives to determine what health problems will be intervened. The results of the discussion set the prevention and management of hypertension as a top priority.

Hold preparation includes site preparation, media, and tools to be used. The media used in the intervention activities are: a) banner, b) brochure, and c) power point (Figure 1).

Meanwhile, the equipment prepared includes: a) sound system, b) tensimeter, and c) projector.



Figure 1. Counselling with power point

3.2. Implementation of health counseling activities regarding hypertension and cardiac exercise

Prior to the counseling activity, the counseling participants were given free blood pressure measurements by their group 8 PBL 2019 (Figure 2). This blood pressure measurement is expected to be useful as an early detection of hypertension cases, so that people who have blood pressure in the hypertension category can immediately consult a doctor and carry out lifestyle changes. Of the 51 participants whose blood pressure measurements were taken, 24 of them were categorized as hypertension (systolic > 140mmHg and/or diastolic > 90mmHg).



Figure 2. Blood pressure check

The activity continued with the provision of health education regarding hypertension disease which was carried out by the servant which lasted for approximately 60 minutes (Figure 3). The type of communication used is verbal or verbal communication and non-verbal communication to strengthen the delivery of messages. The material presented includes symptoms of hypertension, namely headache/heavy feeling in the neck, nausea (vertigo), restlessness, heart palpitations, chest pain, dizziness, blurred vision, ringing in the ears (tinnitus), and nosebleeds. Risk factors for hypertension include factors that cannot be modified or cannot be changed and factors that can be modified or can be changed. Non-modifiable factors such as age, gender, family history, genetics. While the modifiable factors such as smoking habits, salt consumption, consumption of saturated fat, used cooking oil, consumption habits of drinking alcoholic beverages, obesity, lack

of physical activity, stress, use of estrogen. Complications of hypertension and prevention and control of hypertension.



Figure 3. Hypertension counseling

After the counseling was finished, it was followed by a question and answer session, the enthusiasm of the participants was seen from 13 people who asked questions. The activity was then continued with cardiac exercises (Figure 4). This exercise is guided by a gymnastics instructor who has received recommendations from the local health center assisted by servants, and all members of the 2019 PBL group of 8



Figure 4. Cardiac exercise

4. Conclusion

The implementation of the "Peci Tensi" activity on February 2, 2020 received great enthusiasm from the communities. There were 60 of the 70 target participants and there were 13 questions in the counseling question and answer session. Participants who attended stated that they were very satisfied with the outreach activities that were carried out because they opened the community's discourse regarding hypertension. Participants hope that similar activities can be carried out regularly so that they can bring sustainable benefits to the community. Participants also hoped that the activities would not only be carried out in RT 011-015 RW 006, Bojong Pondok Terong Urban Village, Cipayang Sub-District, Depok, West Java, but also in other RT and RW. From the enthusiasm of the community, the devotees hope that a change in health behavior will occur for the better. It is hoped that the head of the RT, the head of the RW, and the local health center can help sustain the activities that have been initiated. The community is expected to be able to make lifestyle changes towards healthier behavior in order to prevent hypertension.

Acknowledgement

We would like to say thank you to group 8 of PBL 2 of 2019, to the Public Health Undergraduate Program at Pembangunan Nasional Veteran University of Jakarta, and to all communities and community leaders in Cipayung Urban Village, Depok, West Java.

References

- Ampofo, A. G., Khan, E., & Ibitoye, M. B. (2020). Understanding the role of educational interventions on medication adherence in hypertension: A systematic review and meta-analysis. *Heart Lung, 49*(5), 537–547.
- Beilin, L. J., Puddey, I. B., & Burke, V. (1999). Lifestyle and hypertension. *Am. J. Hypertens., 12*(9 Pt 1), 934–945.
- CDC. (2021). High blood pressure symptoms and causes. In *Centers for Disease Control and Prevention*.
- Ferdinand, D. P., Nedunchezian, S., & Ferdinand, K. C. (2020). Hypertension in African Americans: Advances in community outreach and public health approaches. *Prog. Cardiovasc. Dis., 63*(1), 40–45.
- Kementerian Kesehatan Republik Indonesia. (2019). Hipertensi Penyakit Paling Banyak Diidap Masyarakat. In *Kemkes.go.id*.
- O' Donnell, M., Hankey, G. J., Rangarajan, S., Chin, S. L., Rao-Melacini, P., Ferguson, J., Xavier, D., Lisheng, L., Zhang, H., Pais, P., Lopez-Jaramillo, P., Damasceno, A., Langhorne, P., Rosengren, A., Dans, A. L., Elsayed, A., Avezum, A., Mondo, C., Smyth, A., ... Yusuf, S. (2020). Variations in knowledge, awareness and treatment of hypertension and stroke risk by country income level. *Heart, 107*(4), 282–289.
- Whelton, P. K., Carey, R. M., Aronow, W. S., Casey Jr, D. E., Collins, K. J., Dennison Himmelfarb, C., DePalma, S. M., Gidding, S., Jamerson, K. A., Jones, D. W., MacLaughlin, E. J., Muntner, P., Ovbigele, B., Smith Jr, S. C., Spencer, C. C., Stafford, R. S., Taler, S. J., Thomas, R. J., Williams Sr, K. A., ... Wright Jr, J. T. (2018). 2017 {ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA} guideline for the prevention, detection, evaluation, and management of high blood pressure in adults: A report of the American college of cardiology/American heart association task force on clinical. *Hypertension, 71*(6), e13–e115. <https://doi.org/10.1161/HYP.0000000000000066>
- Zhou, T., Su, J., Tao, R., Qin, Y., Zhou, J., Lu, Y., Hua, Y., Jin, J., Guo, Y., Chen, Z., Li, L., & Wu, M. (2021). The association between daily total physical activity and risk of cardiovascular disease among hypertensive patients: a 10-year prospective cohort study in China. *BMC Public Health, 21*(1), 517.



This work is licensed under a Creative Commons Attribution Non-Commercial 4.0 International License