Increasing Community Knowledge Regarding Hypertension in Kanreapia Village, Gowa Regency

Rimawati Aulia Insani Sadarang1, Muhammad Rusmin2, Andi Hajra3, Mukhtarul Ahadits4, Putri Ramadani5, Leoni Amanda Putri6

1, 2, 3, 4, 5, 6 Department of Public Health, Universitas Islam Negeri Alauddin, Makassar, Indonesia
Correspondence: ahaditsmukhtarul@gmail.com

ABSTRACT
Hypertension is a major health problem that can affect people in developing countries, especially rural communities. This disease can result in health problems in the body's internal organs such as the heart, brain and kidneys. This activity aims to increase public knowledge regarding hypertension and implement preventive methods to prevent hypertension. Counseling regarding hypertension was carried out using the lecture method in Balanlohe Hamlet, Kanreapia Village, Kuncio Pao District, Gowa Regency. By displaying a PPT (Power Point) which contains material about hypertension. Pre and post tests were given to determine changes in knowledge before and after the counseling was given. Shows that based on the difference in pre-test and post-test results, there was an increase in knowledge from 6.7% who had good knowledge before counseling to 80% after being given counseling. Based on the results of the Paired Samples T Test, it shows that there is a significant difference in knowledge both before and after hypertension education. The results of this activity recommend that people adopt a healthy lifestyle, use iodized salt, exercise regularly, and have regular health checks at the nearest health facility.

Keywords : counseling; healthy lifestyle; hypertension; iodized salt; rural population

ABSTRAK
Penyakit hipertensi merupakan masalah kesehatan besar yang dapat menimpa masyarakat di negara berkembang terutama masyarakat pedesaan. Penyakit ini dapat berakibat pada gangguan kesehatan organ dalam tubuh seperti jantung, otak, dan ginjal. Kegiatan ini bertujuan untuk menambah pengetahuan masyarakat terkait hipertensi dan menerapkan cara-cara pencegahan agar tidak terkena penyakit hipertensi. Penyuluhan mengenai penyakit hipertensi dilakukan dengan metode ceramah di Dusun Balanlohe, Desa Kanreapia, Kecamatan Tombolo Pao, Kabupaten Gowa. Dengan menampilkan PPT (Power Point) yang berisi materi mengenai hipertensi. Dilakukan pemberian pre dan post test untuk mengetahui perubahan pengetahuan sebelum dan sesudah diberikan penyuluhan. Menunjukkan bahwa berdasarkan perbedaan nilai hasil pre test dan post test terjadi peningkatan pengetahuan dari 6,7% yang berpengetahuan baik sebelum penyuluhan meningkat menjadi 80% setelah diberi penyuluhan. Berdasarkan hasil uji Paired Samples T-Test menunjukkan adanya perbedaan pengetahuan secara signifikan baik sebelum dan sesudah penuluhan hipertensi. Hasil kegiatan ini merekomendasikan masyarakat agar dapat menerapkan pola hidup yang sehat, menggunakan garam beryodium, berolahraga yang teratur, serta rutin memeriksakan kesehatan di fasilitas kesehatan terdekat.

Kata Kunci: penyuluhan; gaya hidup sehat; hipertensi; garam beryodium; populasi desa
INTRODUCTION

High blood pressure, also known as hypertension, occurs when the number on a blood pressure monitor exceeds 140/90 mmHg in three different days. This can harm important organs such as the heart, brain, and kidneys, and can even be fatal. So it is called the disease the main cause of death or silent killer. (Sons & Society, 2022)

In Indonesia, there are a lot of people who suffer from high blood disease which is a big problem at 34.1%. Some of the causes are smoking, increasing age, being a man or having family members suffering from high blood pressure (Kurnia & Prayogi, 2015). In addition, hypertension is caused by consuming too much salt and fat, drinking too much alcohol, being overweight, not exercising, and taking certain drugs can also cause high blood pressure (Widiyanto et al., 2020). Some of these things we can change, such as exercising more and eating healthier. However, there are some things, such as genes, age, and sex, that we cannot change (Febriawati et al., 2023).

According to the World Health Organization the incidence of hypertension worldwide in 2021 is estimated to reach 1.28 million adults aged 30-79 worldwide, with the majority (two-thirds) living in countries with low birth rates and low birth weight (Wulandari et al., 2023). It is estimated that more and more people will suffer from high blood pressure every year until 2025. About 1.5 million people will be diagnosed with high blood pressure, and 9.5 million people will die from the disease. (Main, 2021)

According to the results of Basic Health Research (Riskesdas) in 2018, the prevalence of hypertension in South Sulawesi was 31.68%. South Sulawesi is the province that has a high rate of hypertension cases after South Kalimantan province with a rate of 44.1% and the lowest prevalence in Papua with a rate of 22.2%. While the prevalence according to female sex has the highest prevalence of 36.9% compared to men as much as 31.3%. The prevalence of hypertension rates between urban and rural areas has significant differences, the prevalence of hypertension in urban areas is 34.4% compared to rural areas, the prevalence is quite low compared to urban areas which is as much as 33.7%. (Susanti et al., 2022)

From the results of observations in field learning activities, data was obtained that around 7.8% of the people of Balanglohe Hamlet were affected by hypertension from all people living in this Hamlet. After determining the priority of the problem and conducting focus group discussion with the local community, hypertension activities need to be carried out targeting people who work as farmers. The purpose of this activity is to increase public knowledge related to hypertension and apply prevention patterns for hypertension.

METHODS

Counseling on hypertension was carried out on October 10, 2023 with a lecture method in Balanglohe Hamlet, Kanreapia Village, Tombolo Pao District, Gowa Regency. By displaying PPT (Power Point) which contains material about hypertension, the number of respondents as many as 30 people work as farmers. Increasing public knowledge about hypertension is carried out by providing material related to hypertension then providing pre and post tests to determine changes in knowledge before and after counseling. Some of the material provided is related to efforts to risk factors for disease, efforts to prevent and control hypertension. With this counseling activity, it is hoped that the community will understand more about hypertension and apply preventive ways to avoid hypertension.
The test used in this program is the T-Test. This service is carried out in several stages, namely the preparation stage, namely the preparation of material and questionnaires, the implementation of activities, namely providing pre-tests, counseling and giving post tests; and finally the activity evaluation stage, namely checking and processing data (See Figure 1).

![Figure 1. Extension Activities Flow Chart](image)

**RESULTS AND DISCUSSION**

The high blood pressure counseling took place on Tuesday 10 October 2023 at the house of the head of Balanglohe Hamlet. The purpose of this activity is to provide information to the community in Balanglohe Hamlet about what high blood pressure is and how to prevent it. And this activity was attended by 30 people.

The success of this counseling activity can be seen from the increase in respondents’ knowledge and attitudes regarding hypertension as well as efforts to prevent and control hypertension. Evaluation is carried out by pre-test and post-test methods, which are carried out before and after counseling, to assess the success of the service. Data analysis was carried out using SPSS software with a T Test.

Hypertension prevention education is one form of intervention to overcome the gap in public knowledge and mindset about high blood pressure or hypertension. The physical assets that we provide and utilize in this educational program are: equipment such as LCDs, laptops, etc. The physical assets of Balanglohe Hamlet are houses used as hypertension counseling sites, and financial assets, namely students provide financial assistance to cover the consumption funds of participants who visit the counseling site.

Before counseling, students ask questions in the form of a pre-test to find out how much people know about high blood pressure (see Figure 2). In addition, we also share information by using Power Point to help more people. We also check people's blood pressure before giving advice. Then after that will discuss what high blood pressure is, how high blood pressure can harm the body, things that can worsen or improve blood pressure, and how much salt should be consumed. After the education, we asked more questions in the form of post-tests to see if people learned something and whether participants’ knowledge increased after listening to the explanations given.
After the presentation of the material, we shared a post test that aims to measure knowledge about hypertension, hypertension prevention, and hypertension management. The characteristics of respondents in counseling are described in table 1. Based on table 1, the distribution of respondents based on age in counseling activities in Balanglohe Hamlet was 3 people (10%) with vulnerable age 15-20 years, 11 people (36.7%) with vulnerable age 21-30, 8 people (26.7%) with vulnerable age 31-40 years, 7 people (23.3%) with vulnerable age 41-50 years, and 1 person (3.3%) with vulnerable age >=50 years. Meanwhile, the distribution of respondents based on gender in Hypertension counseling activities in Balanglohe Hamlet was 4 people (13.3%) male and 26 people (86.7%) female.

Table 2 shows the results of counseling on hypertension in Balanglohe Hamlet. Before counseling on hypertension, most people in Balanglohe Hamlet did not have enough knowledge about hypertension, which was 28 people (93.9%). After counseling, more and more people have good knowledge about hypertension, which is as many as 24 people (80%). To ensure the accuracy of the data, testing is carried out with paired T tests and the condition is that the data must show that the data is normally distributed. The result of the significancy number for pre-test data is p = 0.008 and post test is p = 0.013. Because of the two pre and post test values of p>0.05, it can be concluded that the data is normally distributed and a parametric test is carried out using the Paired Sample T Test. Other trials showed that there was a significant difference in knowledge before and after counseling with the significancy number obtained at p = 0.000. This means that counseling has a positive impact on people’s knowledge.

<table>
<thead>
<tr>
<th>Table 1. Characteristics of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>15 - 20 Year</td>
</tr>
<tr>
<td>21 - 30 Year</td>
</tr>
<tr>
<td>31 - 40 Year</td>
</tr>
<tr>
<td>41 – 50 Year</td>
</tr>
<tr>
<td>&gt;=51 Year</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
</tr>
<tr>
<td>Man</td>
</tr>
<tr>
<td>Woman</td>
</tr>
</tbody>
</table>
### Table 2. Categories Regarding Knowledge Before and After Counseling

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Pre test</th>
<th>Post test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>2 (6.7%)</td>
<td>24 (80%)</td>
<td>0.000</td>
</tr>
<tr>
<td>Less</td>
<td>28 (93.9%)</td>
<td>6 (20%)</td>
<td></td>
</tr>
</tbody>
</table>

In research conducted by Astuti, et al. (2022), it was found that public knowledge increased before and after counseling about hypertension in 80% of all participants. The same results were also obtained in a study conducted by Kurniasari & Alrosyidi (2020) which stated that there was an increase in knowledge before and after being given hypertension counseling material, namely before counseling was given the average value of participants was 73.85% and after counseling was given 93.7%.

Hypertension generally has irreversible risk factors, such as age, sex, and age factors (Kurnia & Prayogi., 2015; Tumanduk et al., 2019). In addition, hypertension has modifiable risk factors, such as obesity, lack of physical activity, smoking, and unhealthy lifestyles (Laily et al., 2017; Shaumi & Achmad, 2019). The control efforts that can be done are by doing physical activity, consuming balanced nutritious foods, and maintaining a healthy lifestyle (Marbun et al., 2020; Rihianforo & Widodo, 2017).

### CONCLUSIONS

The results of the activity found an increase in knowledge from 6.7% who were well informed before counseling increased to 80% after being given counseling. In addition, there were significant differences in respondents' knowledge before and after hypertension counseling. Health counseling programs related to hypertension are something important to be carried out in almost every region, because there are people who do not know what hypertension is. Advice to the community in Balanglohe Hamlet is to care more about health by applying a healthy lifestyle, using salt that has iodine, exercising regularly, routinely checking themselves at the nearest health facility.

### REFERENCES


