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Community Service Report

Hypertension Prevention Education as a Promotive and Preventive Effort in the Community in Sunggumanai Hamlet

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ABSTRACT

Hypertension is a non-communicable disease that remains a major public health problem due to its high prevalence and low detection rate. Limited community knowledge regarding risk factors and hypertension prevention contributes to increased cardiovascular complications. This community service activity aimed to improve public knowledge about hypertension prevention through health education. The program was conducted in Sunggumanai Hamlet, Belapunranga Village, Gowa Regency, involving 30 community members. The method applied was interactive lectures supported by visual media and discussions, accompanied by pre-test and post-test assessments to measure knowledge levels. The results indicated a significant improvement in participants' knowledge. Prior to the intervention, 90.0% of respondents had low knowledge, while after the education session, 96.7% demonstrated adequate knowledge. Statistical analysis using the Wilcoxon test showed a significant difference before and after the intervention (p=0.000). These findings indicate that health education is effective in increasing community knowledge regarding hypertension prevention. Continuous and sustainable educational programs are recommended to support long-term healthy lifestyle changes in the community.

1. Introduction

Hypertension is a non-communicable disease that poses a major challenge to public health development. Known as a silent killer because it often has no symptoms, it can lead to serious complications such as stroke, coronary heart disease, and kidney failure. The World Health

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Organization (WHO, 2023) reports that more than 1.28 billion adults worldwide suffer from hypertension, and nearly half are unaware of their condition.

In Indonesia, the prevalence of hypertension among people aged 18 years and older reached 34.1%, according to the 2018 Basic Health Research (Riskesdas). This high prevalence is exacerbated by low levels of medication adherence and limited public awareness of hypertension prevention. Risk factors such as excessive salt consumption, lack of physical activity, obesity, stress, and smoking are still prevalent, particularly in rural areas.

Sunggumanai Hamlet, Belapunranga Village, is one of the rural areas with limited access to health information and education. Initial observations indicate that most people do not understand the risk factors and preventative measures for hypertension. This situation indicates a gap between the public's need for health information and available educational efforts.

Therefore, community service activities in the form of hypertension prevention education are necessary as a promotional and preventive effort. The goal of this activity is to increase public knowledge about the risk factors, dangers, and prevention efforts for hypertension, thereby encouraging behavioral changes toward a healthy lifestyle.

2. Method

This community service activity was held on October 5, 2025, in Sunggumanai Hamlet, Belapunranga Village, Gowa Regency. The target group was 30 community members who agreed to participate in a series of outreach programs. The method used was an interactive lecture with a community-based health education approach.

The activity began with a pre-test to determine participants' initial knowledge of hypertension. The outreach program then used visual media in the form of presentation slides, discussing the definition of hypertension, risk factors, impacts, and preventive measures through a healthy lifestyle. Discussion and question-and-answer methods were used to encourage active participant participation.

Following the outreach, a post-test was administered to measure the increase in participants' knowledge. The data were analyzed descriptively and tested using the Wilcoxon test due to the non-normal distribution of the data. This analysis aimed to determine the effectiveness of the outreach program in increasing community knowledge.

3. Results & Discussion

A community service activity in the form of hypertension prevention counseling was conducted in Sunggumanai Hamlet, Belapunranga Village, Gowa Regency, with 30 participants. The results of the activity are presented in the form of respondent characteristics and changes in knowledge levels before and after the counseling, which are then discussed based on related theories and research findings.

Respondent Characteristics

Respondent characteristics are presented based on age group and gender to describe the profile of participants in hypertension prevention counseling.

Table 1. *Distribution of Respondents by Age Group*

Age	Number	Percentage (%)
21-40	5	16,7
41-60	12	40
61-80	12	40
81-100	1	3,3
Total	30	100

Based on Table 1, the majority of respondents were in the 41–60 and 61–80 age groups, accounting for 40.0% of each. This age group is at high risk of developing hypertension due to increasing age and declining physiological function. This indicates that the outreach program was targeted appropriately, as the majority of participants are in the group susceptible to hypertension.

Table 2. *Distribution of Respondents by Gender*

Gender	Number	Percentage (%)
Male	11	36,7
Female	19	63,3
Total	30	100

Based on Table 3, there were more female respondents than male respondents, at 63.3%. The high level of female participation in health education activities demonstrates their active role in maintaining their own and their families' health. Women tend to be more responsive to health promotion and prevention activities, thus having the potential to become agents of change in healthy behaviors within their families and communities.

Respondents' Knowledge Level Before and After Counseling

The effectiveness of hypertension prevention counseling is measured by comparing the level of knowledge of respondents before and after being given health education.

Table 3. *Distribution of Respondents' Knowledge Level Before and After Counseling*

Knowledge	Pre-Test		Post-Test		p-Value
	N	%	N	%	
Poor	27	90	1	3,3	
Sufficient	3	10	29	96,7	0,000
Total	30	100	30	100	

Based on Table 4, the pre-test results indicate that the majority of respondents, 27 (90.0%), had inadequate knowledge regarding hypertension prevention. After the counseling session, there was a significant improvement, with 29 respondents (96.7%) having sufficient knowledge at the post-test. This 86.7% increase in knowledge indicates that the counseling material was well understood by the participants.

The statistical test using the Wilcoxon test showed a p-value of 0.000 (<0.05), indicating a significant difference between the levels of knowledge before and after the counseling session. This

finding indicates that the hypertension prevention counseling session significantly improved the knowledge of the Sunggumanai Hamlet community.



Figure 1. Hypertension Counseling Activity Process

This increase in knowledge aligns with Lawrence Green's theory of behavior change, which states that knowledge is a predisposing factor that plays a crucial role in shaping health behaviors. With increased knowledge, individuals are expected to be able to recognize risk factors for hypertension and be encouraged to adopt a healthy lifestyle, such as reducing salt intake, increasing physical activity, maintaining a healthy weight, and having regular blood pressure checks. These results also align with previous research, which found community-based health education to be effective in increasing public knowledge and awareness regarding hypertension prevention. Interactive lectures, combined with discussions and visual media, have been shown to increase participant participation and facilitate understanding of the material presented.

However, changes in health behavior cannot be achieved through a single intervention. Environmental factors, dietary habits, and lifestyle remain challenges in hypertension prevention efforts. Therefore, ongoing education and support from health cadres, community leaders, and village governments are needed to ensure that increased knowledge translates into sustainable behavior change.

4. Conclusion

Hypertension prevention education programs in Sunggumanai Hamlet have proven effective in increasing community knowledge about risk factors and prevention efforts. There was a significant increase in knowledge after the education, demonstrating that interactive educational methods can be an effective promotive and preventive strategy. Sustainable health education programs are essential to encourage healthy lifestyle changes and reduce the risk of hypertension in the community.

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