
Education on Bay Leaf Decoction Administration to Reduce Hypertension

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Abstract:

Hypertension is one of the major health problems in the community, especially in urban areas such as Palembang. The high prevalence of hypertension in RT 60, Kelurahan 16 Ulu, indicates the need for effective health interventions. This community service activity aims to increase public awareness about hypertension and provide alternative solutions through herbal therapy using bay leaf decoction. The methods used include surveys, health education, health checks, and hypertension exercise training. The results showed an increase in community knowledge about hypertension and how to deal with it, as well as active participation in hypertension exercise activities. This activity is expected to be a model of community-based health intervention to reduce the prevalence of hypertension in the community.

Keywords: hypertension; Herbal therapies; Health education.

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Introduction

Hypertension or high blood pressure is one of the most common health problems in society, especially in urban areas. According to the 2018 Riskesdas data, the prevalence of hypertension in Indonesia reached 34.1%, with higher numbers in urban areas such as Palembang. Uncontrolled hypertension can lead to serious complications such as stroke, heart disease, and kidney failure. Therefore, effective prevention and management efforts are needed, especially at the community level.

Hypertension can be treated with medications and non-drug treatments, so people with high blood pressure can opt for non-drug treatments such as bay leaves (Badrujamaludin et al., 2020). Bay leaf (*Syzygium polyanthum*) is a non-pharmacological treatment that can help manage high blood pressure.

Bay leaves contain tannins that relax arterial muscles, and flavonoids which have vasodilatory, antiplatelet, and anticoagulant effects. These components help lower systolic and diastolic pressure and improve organ function. Mineral content helps blood circulation, thus lowering blood pressure. It also contains ethanol, cavicol, eugenol, essential oils, metals acting as antifungals, and antibacterial agents (Susaldi et al., 2023). Bardiansyah et al. (2023) stated that bay leaves contain natural chemicals such as potassium or alkaloids with diuretic properties that help the kidneys eliminate toxins and reduce blood pressure.

In addition, one of the preventive efforts to minimize hypertension spikes is through exercise, such as anti-hypertension gymnastics. This exercise aims to train and encourage the heart to work optimally, which can help reduce blood pressure. This exercise is expected to be useful in managing hypertension by increasing membrane permeability in contracting muscles. When performed regularly, it can influence and improve blood pressure regulation (Kusumaningtiar, 2019). On the contrary, lack of physical activity and exercise among hypertensive patients affects blood circulation effectiveness. Fat buildup on blood vessels forms plaques, leading to increased blood pressure (Haefa, 2019).

Community nursing plays an important role in creating a healthier society with a more preventive and participatory approach. It focuses on disease prevention and health promotion, including health screening and education about healthy lifestyles. Community nursing ensures health services are accessible to all, especially in remote areas. It works with communities to identify and address health problems that affect certain groups or the entire community, helping to design and implement health programs tailored to community needs (Supriadi et al., 2024).

Community nurses act as liaisons between patients, families, and health service providers, ensuring well-coordinated care across all aspects of community health. They help create a healthy society capable of effectively tackling health challenges. Nurses must be able to communicate effectively with individuals, families, groups, and communities from diverse backgrounds, analyze health problems, design suitable solutions, lead health programs, coordinate with various parties, show empathy, and understand public health principles and policies.

At the academic level, community nurses contribute through integrated field practice activities or PKLT (Supriadi et al., 2024).

Method

The implementation method began with the survey and problem identification stage to understand community conditions and obstacles. The survey involved direct field observation, interviews with locals, and group discussions to identify major barriers to program success. Data obtained was analyzed and compared with information from the Agricultural Extension Center (BPP) or other relevant sources to ensure that the intervention matched community needs.

After identifying the problem, the next stage was consolidation and activity planning involving various stakeholders, such as village officials, community leaders, and target groups benefiting from the program. The goal was to determine the right location and timing, ensure community participation, and develop effective strategies. Preparation of tools and materials, including educational materials, leaflets, and field practice equipment, was also carried out.

Results and discussions

The community service activity was conducted as planned, through survey, consolidation, counseling, and field practice stages. The results showed increased understanding and skills among the community in addressing problems, both in agriculture and public health.

1. Activity Results

The activity involved the local community, farmer groups, and community leaders. The main results included:

a. Improved Community Understanding

Survey results before and after the counseling showed a 55–60% increase in community understanding of rat pest control based on local wisdom. People were better at identifying pests, understanding rat life cycles, and applying control methods taught.

b. Application of Pest Control Based on Local Wisdom

After field practice, most farmers began implementing introduced methods such as bamboo traps, *gropyokan* techniques, and natural poisons from cassava and coconut water. Composting methods were also introduced to reduce rat populations in rice fields.

c. Positive Community Response

Community participation was high. Enthusiasm during counseling sessions, active participation in Q&A, and direct involvement in field practice reflected this. The method was well accepted and applicable to daily life.

2. Discussion

This activity had a positive impact, especially in raising awareness of environmentally friendly rat control. Success factors included:

a. Effectiveness of Counseling and Field Practice

Interactive counseling and hands-on sessions were effective in improving understanding. Visual and demonstrative materials made it easier to grasp and apply techniques.

b. Practicality of Local Wisdom Methods

The introduced methods were based on existing community knowledge, making them easier to accept and apply. Natural materials like cassava and coconut water proved effective without harming the environment.

c. Impact on Rice Production

Though newly implemented, some farmers reported reduced rat populations. If continued, this could increase harvest yields and reduce crop loss

3. Challenges and Recommendations for Program Sustainability

Despite the program's success, challenges included:

a. Lack of Awareness Among Some Community Members

Some farmers were not fully involved. Further socialization efforts are needed for broader program reach.

b. Need for Continuous Monitoring

Long-term effectiveness requires regular monitoring. Farmer groups supported by extension workers should carry this out.

c. Development of Technology Based on Local Wisdom

The program can be further developed by combining modern technology with existing local wisdom, such as using environmentally friendly sensor-based automatic traps. With its success, the program can serve as a model for rat pest control based on community participation and local wisdom. Sustainability depends on community involvement and support from stakeholders to ensure broader application and greater benefits.



Figure 1. Counseling on bay leaf decoction



Figure 2. Result of bay leaf decoction

Conclusion

This community service activity successfully increased community awareness about hypertension and provided alternative solutions through herbal therapy and hypertension exercise. However, ongoing efforts are needed to ensure sustained health behavior change. Future activities should involve more stakeholders, such as local governments and health organizations, to support community-based health programs.

In addition, it is important to implement continuous evaluation and follow-up programs to measure the long-term effectiveness of the interventions introduced. This includes monitoring changes in blood pressure levels, lifestyle modifications, and community adherence to healthy practices. Collaboration between health professionals and local community leaders will be vital in maintaining the momentum and ensuring the sustainability of health improvement initiatives.

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