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Design and Community Implementation of a Hypertension Calendar to Promote Awareness and Routine Control in Panjang Jiwo, Surabaya

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ABSTRACT

Introduction: The Tenggilis Public Health Center (Puskesmas Tenggilis) is devoted to implementing Community Health Efforts (UKM) to ensure the provision of high-quality healthcare services, focusing on the measurement, monitoring, and supervision of local health problems. A Self-Assessment Survey (Survey Mawas Diri" (SMD) in Indonesian language) was conducted in Panjang Jiwo Village, Surabaya, revealing hypertension as a primary health issue. Characterized by a systolic blood pressure ≥140 mmHg and a diastolic pressure ≥90 mmHg, hypertension remains widespread, with many residents unaware of the necessity for lifelong medication adherence and routine blood pressure monitoring.
Methods: To address this health challenge, a thorough analysis was conducted, examining the root causes through the "man, method, machine, and material" framework. This approach informed the development of a targeted intervention strategy.
Results: The intervention involved designing and distributing a Hypertension Calendar, providing an accessible means for residents to record their blood pressure readings and track medication adherence throughout the year. The calendar serves as a useful tool during healthcare visits, fostering enhanced dialogue between patients and healthcare providers regarding hypertension management.
Conclusion: The introduction of the Hypertension Calendar aims to empower individuals with essential knowledge and tools for effective hypertension management, ultimately contributing to improved health outcomes in the Panjang Jiwo community.

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INTRODUCTION

Community Health Efforts (UKM) are one of the important efforts organized by community health centers as health service facilities that are closely related to promotive, preventive, curative and rehabilitative efforts in their working areas(1,2). Puskesmas is responsible for organizing and implementing integrated health development under the supervision of the local health service(3). Community Health Efforts (Upaya Kesehatan Masyarakat / UKM) is one of the important efforts as a form of realization of puskesmas as a health service facility that is closely related to organizing promotive, preventive, curative and rehabilitative efforts in its working area, responsible for integrated health development under the supervision of the local health department(4,5).

Mandatory or essential health efforts (*Upaya Kesehatan Masyarakat Esensial/UKM Esensial*) cover 6 main areas, namely health promotion, environmental health, nutrition services, maternal and child health (MCH), family planning (KB), prevention and control of non-communicable diseases(6). Furthermore, development health

initiatives encompass oral health, mental health, eye health, and the promotion of traditional medicine, tailored to address local public health issues and aligned with the capabilities of the puskesmas(7). The objective of the comprehensive and sustainable initiatives is to empower the community to foster physical and mental well-being, enabling them to confront significant global issues in economic, social, cultural, and political domains in the future(8). Tenggilis Puskesmas organizes public health efforts, one of which is through the Self-Inspection Survey ("Survey Mawas Diri" (SMD) in Indonesian) to realize quality health services and find out health problems by measuring, monitoring and monitoring public health in the Tenggilis District area, Surabaya City. The SMD is an activity of introducing, collecting and assessing health carried out by cadres and local community leaders under the guidance of the head of the village / kelurahan and health workers / puskesmas officers, aiming to get a complete picture of the health condition of a certain area(5,9). The conducted survey indicates that hypertension is the primary issue under discussion.

Hypertension is defined as a condition characterized by a systolic blood pressure of 140 mmHg or higher and/or a diastolic blood pressure of 90 mmHg or higher, with diagnosis validated through 2 to 3 clinical visits over a span of 1 to 4 weeks(10). Hypertension is a significant global public health issue, impacting approximately 1.13 billion individuals worldwide, with two-thirds residing in low- and middle-income nations. This figure is projected to rise by 30%, reaching 1.56 billion adults with hypertension by 2025, with 75% of this population from developing countries(11). Linked risk factors include being overweight, drinking alcohol, eating poorly, and not being active enough(12). Hypertension, commonly referred to as high blood pressure, often presents asymptomatically in many individuals, leading to a lack of specific complaints. However, some patients may report discomfort, which can include headaches, dizziness, heart palpitations, chest pain, anxiety, blurred vision, easy fatigue, insomnia, and may also be accompanied by symptoms such as nausea, vomiting, anxiety, and nosebleeds(13). This condition is often ignored even though if blood pressure continues to be high for a long time it can worsen with complications or develop into a risk factor for other dangerous diseases, such as stroke, myocardial infarction, heart failure, atrial fibrillation and even death(14).

Lifestyle modifications encompass healthy dietary practices, including the reduction of sodium and fat intake, abstaining from alcohol and sugary beverages, engaging in aerobic and physical exercise, maintaining an optimal weight, and managing stress and sleep duration. Additionally, promoting healthy living behaviors, such as minimizing exposure to pollution and cigarette smoke, constitutes a primary focus of recommended patient management, alongside the prescription of antihypertensive medications as per medical guidelines and recommendations(15). The prevalence of hypertension in Indonesia has risen, likely attributable to population density and individual risk factors, with varying incidence rates among regions, potentially impacted by lifestyle, socio-cultural elements, and research methodologies employed. The frequency of females is somewhat greater than that of males, and a family history of hypertension also exerts an influence(16). Factors contributing to rising morbidity and mortality rates include non-compliance with treatment protocols and inappropriate use of antihypertensive medications(17). The long-term effects of regulated blood pressure via regular monitoring and adherence to medication are crucial for managing hypertension, emphasizing the necessity for ongoing control and treatment of this condition. Ultimately, patients should possess the knowledge, desire, and capability to manage their blood pressure through regular monitoring to prevent complications(18).

In Panjang Jiwo, several local factors may explain the persistence of low awareness and suboptimal hypertension control. Based on SMD data and questionnaire findings, 28,1% of residents were unaware that hypertension requires lifelong medication. The majority of respondents had only completed high school (57.3%), and 28,2% reported long travel times or difficulty accessing healthcare facilities. Additionally, cultural beliefs about the dangers of long-term medication and a reliance on symptom-based treatment contribute to poor adherence.

Therefore, this UKM ("Upaya Kesehatan Masyarakat" in Indonesian language, meaning Community Health Efforts or CHE) activity was organized with the aim of knowing the picture of knowledge and awareness about the importance of routine control and taking hypertension medication for residents of Panjang Jiwo Village. Also, it is hoped that with this activity, residents of Panjang Jiwo Village can be more aware of the importance of routine control and taking hypertension medication.

METHOD

This study employs a community-based approach to identify and address health issues in Panjang Jiwo village, Tenggilis sub-district, Surabaya.

Research Type

This study used a community health effort (CHE) approach, which involves a series of activities aimed at identifying and addressing health problems in a specific community. The CHE approach is a form of action research that combines community engagement, problem identification, and intervention.

Population and Sample/Informants

The study population included residents of Panjang Jiwo village, Tenggilis sub-district, Surabaya. The sample consisted of community members who participated in the Self-Assessment Survey (SMD) and subsequent interventions. A total of 96 household representatives were selected using simple random sampling from the list of eligible SMD participants.

1. **Inclusion criteria** included: (1) residents aged 18 years or older, (2) willingness to actively participate in the educational activities.
2. **Exclusion criteria** included: (1) unwillingness to provide written or verbal informed consent, or (2) inability to complete the intervention due to serious illness or relocation during the study period.

Research Location

The study was conducted in Panjang Jiwo village, Tenggilis sub-district, Surabaya, which provided a unique context for understanding community health issues and developing targeted interventions.

Instrumentation or Tools

The study used a questionnaire to collect data on the most common diseases in the community. The questionnaire was developed based on consultations with doctors and officers at Tenggilis Health Center. The questionnaire aimed to assess community knowledge, awareness, and behaviors related to key health issues, particularly hypertension, diabetes mellitus, and diarrhea, as well as Clean and Healthy Living Behaviors (PHBS).

For hypertension-specific content, the questionnaire included items related to medication adherence, lifestyle modifications, complications, dietary knowledge, and prior health education. These questions are detailed in the Results section (Table 3 and Table 4), along with participant responses.

Additionally, the Urgency, Seriousness, Growth (USG) method was used to prioritize problems, and the fishbone method was used to identify causes. The Capability, Accessibility, Readiness, Leverage (CARL) method was used to formulate an action plan.

Data Collection Procedures

Data were collected through a series of activities as shown in **Table 1**, including:

1. Coordination with doctors and officers at Tenggilis Health Center to identify the most common diseases.
2. Self-Assessment Survey (SMD) with community members through home visits.
3. Identification of main problems, causes, and follow-up plans.

Data Analysis

Data were analyzed using a combination of quantitative and qualitative methods. Quantitative data from the structured questionnaires—including respondent characteristics, lifestyle behaviors, and knowledge about hypertension and other health topics—were analyzed descriptively using Microsoft Excel. Frequencies and percentages were calculated for each variable and are presented in tabular format (Tables 2, 3, and 4).

Informed Consent

Informed consent was obtained from all participants before their involvement in the study. For participants with limited literacy, the consent form was read aloud by trained community health cadres in the local dialect.

Ethical Approval

This study was conducted in accordance with the principles of community-based research. This study was approved by the Hang Tuah University Faculty of Medicine Ethical Research Committee (Letter Number: No. I/004/UHT.KEPK.03/II/2024). All participation was voluntary, and informed consent was obtained from all participants prior to their involvement in the study. The data collected were strictly used for research purposes, and measures were taken to maintain information confidentiality and anonymity throughout the research process.

Table 1. Schedule of CHE implementation

Activities	***Date of Activity December 2023***									
	20	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**
Questionnaire development										
Self-Assessment Survey										
Data management										
Follow-up plan										
Writing report										

RESULTS

This Community Health Effort (CHE) engaged 96 family representatives across 96 households in Panjang Jiwo village, Tenggilis sub-district, Surabaya. The SMD implementation occurred on December 22-23, 2023. The community's demographic features are presented in Table 2. According to data from the Tenggilis puskesmas, the ailments necessitating greater attention are diarrhea, hypertension, and diabetes mellitus, with the highest patient distribution in Panjang Jiwo village. The questionnaire was developed with an emphasis on Clean and Healthy Living Behavior ("Perilaku Hidup Bersih dan Sehat"/ PHBS in Indonesian language) and knowledge pertaining to the three disorders. The questionnaire findings are presented in Table 3.

Table 2. Respondents Characteristics

Respondents' Characteristics	***N (%)***
Age (years old)	
<30	11 (11,5)
30-39	19 (19,8)
40-49	29 (30,2)
50-59	23 (23,9)
≥ 60	14 (14,6)
Genders	
Female	65 (67,7)
Male	31 (32.3)
Education Level	
Elementary school	8 (8,4)
Junior High School	20 (20,8)
Senior High School	55 (57,3)
Undergraduate (Bachelor) program	13 (13,5)

There were 96 respondents total for this CHE—65 men (67.7%), 31 women (32.3%). Respondents' average age was 45 years, mostly between the 40–49 year range (30.2%). Most respondents' last degree of education is high school (57.3%).

Table 3. Characteristics of lifestyle and knowledge based on questionnaire results

Questionnaire	*Respondents n(%)* Yes	No
1. CHLB (Clean & Healthy Living Behaviors)/ PHBS (*Perilaku Hidup Bersih & Sehat*)		
Childbirth is assisted by a health worker	92 (95,8)	4 (4,1)
Children are exclusively breastfed	80 (83,3)	16 (16,6)
Toddlers are weighed every month	83 (86,4)	13 (13,5)
Always use clean water	96 (100)	0 (0)
Wash hands with clean water and soap	95 (99)	1 (1)
Use healthy latrines	96 (100)	0 (0)
Eradicate larvae once a week	95 (99)	1 (1)
Always eat fruits and vegetables	91 (94,7)	5 (5,2)

Questionnaire	*Respondents n(%)* Yes	No
Doing physical activity every day	80 (83)	16 (16,6)
No one smokes in the house	57 (59,4)	39 (40,6)
2. Exclusive breastfeeding (*ASI eksklusif*)		
Knowing the importance of exclusive breastfeeding	90 (93,7)	6 (6,2)
Knowing how long to give exclusive breastfeeding	86 (89,5)	10 (10,4)
Knowing how to give breast milk properly	88 (91,6)	8 (8,3)
Knowing how to store breast milk at home	82 (85,4)	14 (14,5)
Weighing toddlers every month		
Knowing the importance of weighing toddlers every month	90 (93,7)	6 (6,2)
Knowing where to weigh babies and toddlers	88 (91,6)	8 (8,3)
Knowing about KMS charts	78 (81,25)	18 (18,75)
Knowing the signs of undernutrition	88 (91,6)	8 (8,3)
3. Clean Water		
Knowing the requirements of clean water	95 (99)	1 (1)
Knowing the consequences of using unclean water	93 (96,8)	3 (3,1)
Knowing how to dispose of waste water properly	91 (94,7)	5 (5,2)
Cooking clean water before drinking	93 (96,8)	3 (3,1)
Having clean water that meets the clean water needs of you and your family	95 (99)	1 (1)
4. Hand Hygiene/ Hand washing		
Knowing when to wash your hands	94 (97,9)	2 (2,08)
Knowing how to wash hands properly	89 (92,7)	7 (7,2)
Knowing the consequences of not getting used to washing hands properly and correctly	93 (96,8)	3 (3,1)
Healthy Latrine		
Latrines do not contaminate drinking water sources	80 (83,3)	16 (16,6)
The latrine does not smell	79 (82,2)	17 (17,7)
The latrine is not touched by rats and insects	69 (71,8)	27 (28,1)
The latrine does not contaminate the surrounding soil	78 (81,25)	18 (18,75)
The latrine is easy to clean and safe to use	93 (96,8)	3 (3,1)
The latrine has walls and a roof	92 (95,8)	4 (4,1)
The latrine is well lit and ventilated	84 (87,5)	12 (12,5)
The latrine has adequate space	90 (93,75)	6 (6,25)
The latrine is equipped with clean water, soap and cleaning tools	93 (96,8)	3 (3,1)
Latrine closet / sitting	96 (100)	0 (0)
5. Healthy Diet		
Know the benefits of eating fruits and vegetables	95 (99)	1 (1)
Eat 2-3 servings of fruits and vegetables every day	75 (78,12)	21 (21,87)
Knowing balanced nutrition food	93 (96,8)	3 (3,1)
Eat a variety of foods / balanced menu	92 (95,8)	4 (4,1)
Often consume fast/instant food	39 (40,6)	57 (59,3)
Drink mineral water at least 2 L per day	87 (90,6)	9 (9,3)
6. Physical Activities		
Knowing the minimum amount of time required for physical activity	76 (76,1)	20 (20,8)
Knowing how to do physical activity correctly	77 (80,2)	19 (19,8)
Make it a habit to walk	82 (85,4)	14 (14,58)
7. Smoking Habit		
Understanding the risks of smoking	91 (94,8)	5 (5,2)
able to chastise those who smoke	77 (80,2)	19 (19,8)
A few of family members smoke.	57 (59,4)	39 (40,6)

Questionnaire	*Respondents n(%)* Yes	No
8. Hypertension		
Family members possess a history of hypertension.	47 (48,9)	49 (51,1)
Knowing that Individuals with hypertension must adhere to lifelong drug regimens.	69 (71,8)	27 (28,1)
Understanding the consequences of irregular hypertension (high blood pressure) medication adherence	68 (70,8)	28 (29,2)
Understanding the requisite healthy lifestyle for managing hypertension (elevated blood pressure)	79 (82,2)	17 (17,7)
Identifying foods to be avoided by those with hypertension (elevated blood pressure)	80 (83,3)	16 (16,6)
Have received advice on hypertension (elevated blood pressure).	77 (80,2)	19 (19,8)
9. Diabetes Mellitus		
Family members possess a history of diabetes.	26 (27,1)	70 (72,9)
Knowing that individuals diagnosed with diabetes are required to adhere to lifelong treatment regimens.	67 (69,8)	29 (30,2)
Understanding the consequences of irregular diabetes medication adherence	64 (66,6)	32 (33,3)
Understanding the requisite healthy lifestyle for diabetes management	68 (70,8)	28 (29,1)
Identify the foods that should be excluded for those with diabetes.	72 (75)	24 (25)
Have received counseling regarding diabetes.	77 (80,2)	19 (19,8)
10. Diarrhea		
Aware of diarrhea diseases	88 (91,6)	8 (8,3)
Know the causes of diarrhea sickness.	84 (87,5)	12 (12,5)
Mengetahui cara penularan penyakit diare	88 (91,6)	8 (8,3)
Mengetahui cara mencegah diare	90 (93,75)	6 (6,25)
Mengetahui akibat dari penyakit diare	88 (91,6)	8 (8,3)
11. Healthcare Facilities		
Distance from home to healthcare services is far	26 (27,1)	70 (72,9)
Have transportation to the health service	92 (95,8)	4 (4,2)
Travel time from your home to the health center is long	69 (71,8)	27 (28,2)
Able to go to health services alone	82 (85,4)	14 (14,6)

Among the 96 respondents, 47 family members reported a history of hypertension, representing 48.9%, while 26 family members reported a history of type 2 diabetes mellitus, accounting for 27.1%. Table 4 presents the lifestyle and treatment patterns for individuals with a history of hypertension and diabetes mellitus.

Table 4. Lifestyle and treatment patterns of patients with hypertension and type 2 DM

Lifestyle and treatment patterns	***Respondents n (%)***	
	Yes	**No**
Hypertension (n=47)		
Patients take blood pressure medication regularly	40 (85,1)	7 (14,9)
Patients with regular blood pressure control	40 (85,1)	7 (14,9)
Diabetes mellitus type 2 (n=26)		
Patients take diabetes medication regularly	23 (88,5)	3 (11,5)
Patients are given insulin treatment	7 (27)	19 (73)
Patients check their blood sugar regularly	23 (88,5)	3 (11,5)

Based on the results of the questionnaire, we took 6 main problems in Panjang Jiwo urban village as follows:

1. Not knowing about hypertension and the need for regular medication and lifelong control.
2. Not knowing that diabetes should be taken regularly and controlled for life.
3. Not having a healthy toilet

4. Seldom do physical activity and do not know the optimal time and the right way to do physical activity.
5. Frequent consumption of fast food.
6. There are family members who smoke in the house.

Based on these 6 problems, we used the USG (Urgency-Seriousness-Growth) method to select the main problems that need more attention. The scores on the USG criteria were weighted from 1 to 5, based on agreement. The USG results can be seen in **Table 5.**

Table 5. Prioritization Scoring of Health Problems according to USG method

No	*Problems*	*Criteria Value*			*Total*
		U (Urgency)	S (Seriousness)	G (Growth)	
1	Not knowing about hypertension should take medication regularly and lifelong control.	4	5	5	100
2	Do not know about diabetes and should take medication regularly and control for life.	4	5	4	80
3	Not having a healthy toilet	3	5	4	60
4	There are family members who smoke in the house.	4	4	3	48
5	Frequent consumption of fast food.	2	4	2	16
6	Seldom do physical activity and do not know the optimal time and the right way to do physical activity.	2	3	2	12

Based on the USG method, the number of people who do not know about hypertension, especially related to taking lifelong medication and lifelong routine blood pressure control, is a major problem in Panjang Jiwo village. We describe the cause of the problem using the fish bone through 4 problem points namely man, material, machine and method. The fishbone can be seen in **Figure 1.**

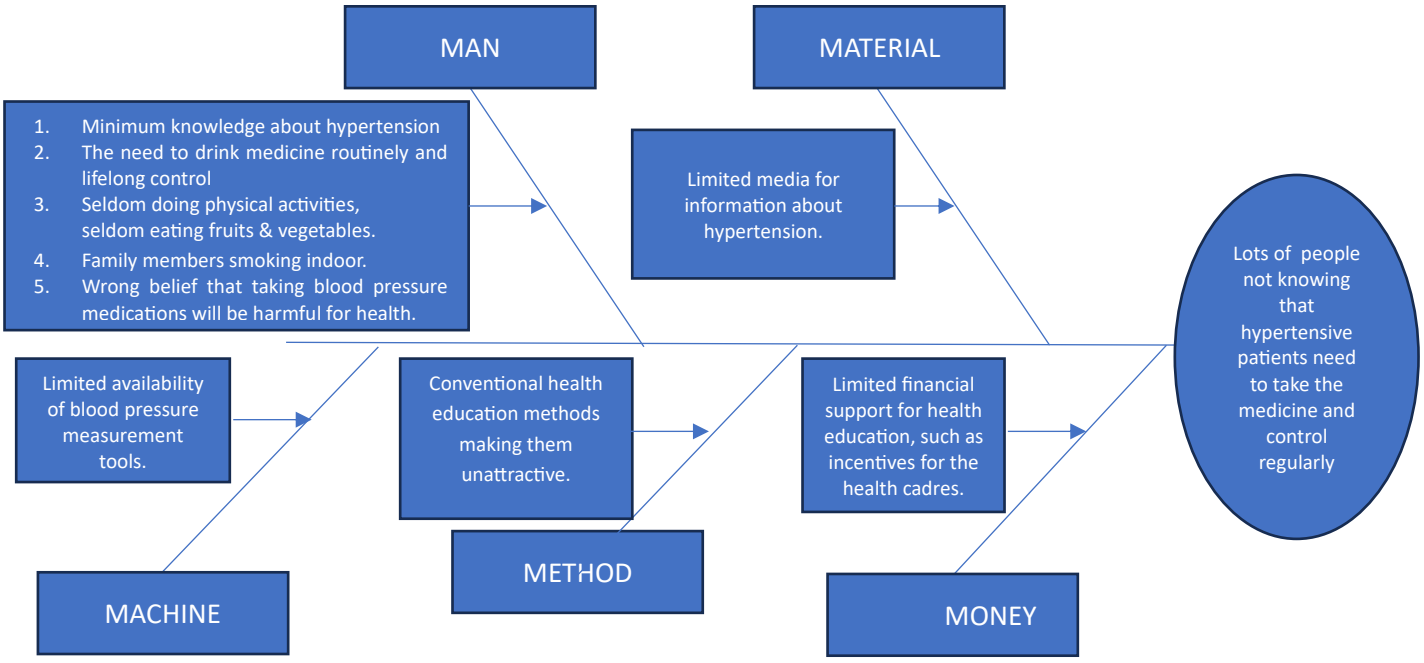

Figure 1. Fishbone lack of knowledge about hypertension

Follow-up plans are established based on the results of the Community Health Survey (SMD) and the problem formulation using the USG (Urgency, Seriousness, Growth) and fishbone methods. The determination of follow-up plans is carried out using the CARL (Capability, Accessibility, Readiness, Leverage) method to prioritize problem-solving. We provide three alternative problem-solving options and conduct priority scaling using the CARL method with weights of 1-10, as shown in **Table 6.**

Table 6. Determination of Problem-Solving Priority Scale using the CARL Method

Problem-Solving Solution	C	A	R	L	Total	Order
Creating a hypertension calendar containing daily blood pressure check results for a year	8	8	7	9	4032	1
Providing hypertension education to the community using posters/leaflets	8	8	7	8	3584	2
Checking blood pressure weekly door-to-door	8	6	6	9	2592	3

We developed a hypertension calendar that records daily blood pressure readings for a year, aiming to enhance knowledge and motivation among hypertensive individuals to regularly monitor and manage their condition. The 2024 calendar features a custom design to track blood pressure and medication adherence, along with information on hypertension definition, symptoms, complications, self-measurement techniques, and calendar usage guidelines. The calendar is designed to be wall-mounted, serving as a year-round reminder for hypertension management. Patients are encouraged to bring the calendar to the community health center (Puskesmas) monthly for medication refills, allowing healthcare providers to track progress and offer feedback and appreciation for consistent blood pressure monitoring and medication adherence. The Hypertension Calendar is illustrated in Figure 2. We distributed 50 calendars to Puskesmas Tenggilis and Panjang Jiwo district, with plans for further dissemination to hypertensive individuals through direct distribution at Puskesmas or indirectly via community health workers and cadres. Although formal post-intervention evaluation was not conducted, preliminary informal feedback from community health cadres suggested that the Hypertension Calendar helped initiate conversations within households. For example, some participants reported that family members reminded them to record their blood pressure or inquired about their medication routine, indicating early signs of increased engagement.

Figure 2. The Hypertension Calendar

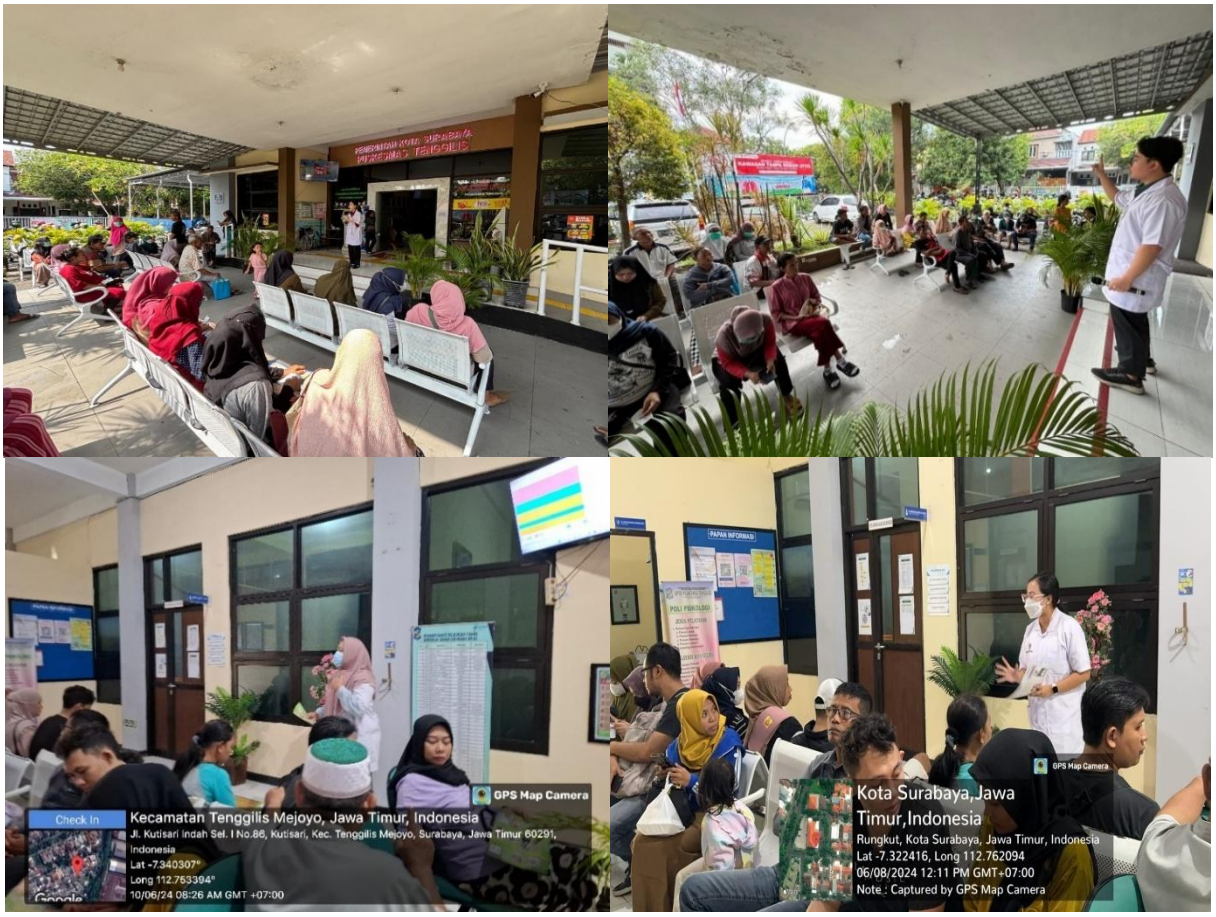

Figure 3. Documentation of the Health Promotion Efforts by Clinical Students of Medical Faculty Hang Tuah University at Puskesmas Tenggilis, Surabaya.

DISCUSSION

Hypertension is a major modifiable risk factor for cardiovascular disease, affecting millions of people worldwide(19). The underlying process involves a combination of inflammation, oxidative stress, vascular, renal, and neural changes, as well as baroreflex activation and impaired natriuresis(20). This condition is a leading risk factor for cardiovascular disease, stroke, and kidney failure(21,22). Treatment encompasses three important phases according to consensus: the initiation phase or failure to start treatment, the implementation phase or discrepancy between prescribed and actual medication dosage, and the persistence phase or treatment continuation(23). Despite the availability of effective medications, many individuals fail to adequately control their blood pressure. This is often attributed to a lack of awareness, poor adherence to prescribed treatment, and unhealthy lifestyle choices(24–26). The complexity of hypertension management underscores the need for multifaceted interventions that address both individual and systemic factors. By leveraging primary healthcare facilities and community-based initiatives, healthcare providers can develop targeted strategies to improve blood pressure control and reduce the burden of hypertension-related complications.

In our community health effort in Panjang Jiwo village, Surabaya, we found that 48.9% of respondents had a family history of hypertension, highlighting the need for targeted interventions to improve awareness and management of this condition. Various factors contribute to lifestyle, control, and treatment adherence in hypertensive patients, including socioeconomic status and education level(27,28). A significant proportion of patients on combination therapy with 2 to 3 or more classes of antihypertensive drugs exhibit poor control and medication adherence, with forgetfulness or lack of motivation being potential reasons(29).

Our study revealed that lack of knowledge about hypertension, particularly regarding the need for regular medication and lifelong control, was a major problem in Panjang Jiwo village. This lack of awareness can lead to poor adherence to treatment, resulting in uncontrolled blood pressure and increased risk of complications. Consequently, one recommended approach is to leverage efforts that can be developed from primary healthcare facilities to effectively reach each individual. Public health efforts are crucial in addressing this challenge and

reducing the prevalence of uncontrolled hypertension. These efforts include health promotion and education that raise awareness about the importance of routine blood pressure monitoring and the health risks associated with untreated hypertension. To address this issue, we developed a hypertension calendar that records daily blood pressure readings for a year, aiming to enhance knowledge and motivation among hypertensive individuals to regularly monitor and manage their condition. This innovative approach has the potential to improve blood pressure control and medication adherence, ultimately leading to better health outcomes. Numerous solutions related to this condition can be implemented as public health initiatives. Health education and social treatment support can improve adherence in hypertensive patients and should be considered as problem-solving strategies(25,30). Community-based interventions, such as public health initiatives, can empower individuals to take proactive steps in managing their blood pressure, ultimately leading to a healthier population and a decrease in the incidence of hypertension-related complications(31). Our study highlights the potential benefits of innovative approaches to health promotion, such as the use of a hypertension calendar that incorporates education and medication reminders. By empowering individuals with knowledge and tools to manage their condition, healthcare providers can foster a sense of ownership and responsibility, ultimately leading to better health outcomes.

Study Limitations

While this study provides valuable insights into the development and community implementation of a hypertension calendar as a health promotion tool, there are important limitations to consider. Most notably, this study did not include pre- and post-intervention measurements, and therefore does not provide empirical evidence of the calendar's effectiveness in enhancing knowledge or awareness. The cross-sectional design and relatively small sample size also limit the generalizability of our findings. In addition, the use of self-reported data may introduce recall or desirability bias.

Nevertheless, the calendar was designed to address observed knowledge gaps and community needs, and its implementation offers a foundation for future studies to evaluate its impact on behavioral and clinical outcomes.

Importance of the Study Findings

The findings of this study underscore the importance of developing targeted interventions to improve hypertension management and reduce the burden of cardiovascular disease. By leveraging primary healthcare facilities and community-based initiatives, healthcare providers can develop effective strategies to promote blood pressure control and improve health outcomes. The use of innovative approaches, such as the hypertension calendar, offers a promising avenue for future research and practice.

CONCLUSION

In conclusion, our study highlights development and initial implementation of a community-based hypertension calendar designed to address gaps in awareness and routine blood pressure control. While this intervention has not yet been formally evaluated for impact, it was developed in direct response to community needs identified through structured assessment. Community-based initiatives and public health efforts are crucial in addressing the challenge of uncontrolled hypertension and reducing the burden of cardiovascular disease. This initiative provides a foundation for future research to evaluate its effectiveness and explore its integration into primary healthcare efforts for hypertension management.

AUTHORS' CONTRIBUTIONS STATEMENT

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

In the preparation of this manuscript, the authors utilized DeepL for translation purposes and ChatGPT for language refinement and wording improvements. While these tools assisted in enhancing the clarity and readability of the manuscript, the authors take full responsibility for the content, intellectual property, and academic integrity of the work. The use of these AI-assisted technologies did not influence the original ideas, research design, or conclusions presented in the manuscript. All authors confirm that they have reviewed and approved the final version of the manuscript and are accountable for its contents. The authors affirm their commitment to academic integrity and adherence to ethical publication standards.

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