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Community empowerment model for hypertension control through integrated health post services for the elderly

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Abstract

Background: Hypertension is a major public health problem among the elderly, requiring community-based promotive and preventive approaches. The Elderly Integrated Health Post serves as a community empowerment strategy for hypertension control at the village level.

Purpose: To analyze the implementation of community empowerment in hypertension management through the Elderly activities.

Method: A descriptive qualitative approach was employed. In-depth interviews were conducted with eight informants consisting of health workers, the elderly integrated health post, village officials, and elderly participants as program beneficiaries. Data were analyzed thematically to identify implementation processes as well as supporting and inhibiting factors.

Results: The findings indicate that community empowerment has been implemented through cadre involvement in blood pressure screening, health education, and monitoring of elderly health status. The Elderly the elderly integrated health post serves activities cover promotive and preventive aspects, including healthy lifestyle education and early detection of hypertension. Cross-sector collaboration between the primary health center and the village government supported program implementation. However, limited elderly participation, inadequate cadre training, and the reduction of supporting activities such as elderly exercise programs due to the elderly integrated health post serves integration have hindered optimal implementation.

Conclusion: Community empowerment in hypertension management through the Elderly has been implemented but has not yet achieved optimal outcomes. Strengthening cadre capacity, providing continuous training, and developing more persuasive communication strategies are essential to enhance elderly participation and ensure program sustainability.

Keywords: Community Empowerment; Elderly the Elderly Integrated Health Post Serves; Hypertension; Health Promotion; Primary Health Care.

INTRODUCTION

Hypertension remains one of the most prevalent non-communicable diseases (NCDs) and continues to pose a serious global public health challenge. The World Health Organization (WHO, 2023) reports that approximately 46% of adults with hypertension are unaware of their condition, highlighting a substantial gap in early detection and management. Hypertension is defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg (Mauer, Geldsetzer, Manne-Goehler, Davies,

Stokes, McConnell, & Sudharsanan, 2022). Due to its asymptomatic progression, hypertension is widely referred to as a “silent killer,” as it significantly increases the risk of cardiovascular diseases, stroke, and kidney failure (Fatmah, 2020). Recent global analyses indicate that uncontrolled hypertension remains one of the leading risk factors for premature mortality and disability-adjusted life years (DALYs) worldwide (World Health Organization, 2022). In Indonesia, hypertension prevalence remains high

despite slight improvements in national data. The 2023 National Basic Health Research reports a prevalence of 30.8%, decreasing from 34.1% in 2018. However, prevalence increases substantially with age, reaching nearly 60–80% among older adults (Faradiza, 2026). The Indonesian Health Survey (SKI) further confirms an age-related upward trend, with prevalence rising from 27.2% in adults aged 35–44 years to 57.8% among those aged 65–74 years. Women demonstrate higher prevalence rates (34.7%) compared to men (26.9%). At the regional level, Minahasa Regency reports hypertension as the most dominant NCD, accounting for 26,675 cases (35.4%) (Hidayat, 2020). Specifically, data from the Wolaang Health Center indicate an increasing trend from 1.544 cases in 2023 to 1.654 cases in 2024, with Desa Teep recording 317 cases among the highest in the area.

Multiple modifiable and non-modifiable risk factors contribute to the high burden of hypertension, including excessive salt intake, unhealthy dietary patterns, smoking, alcohol consumption, physical inactivity, aging, and genetic predisposition (Zhou, Carrillo-Larco, Danaei, Riley, Paciorek, Stevens, & Breckenkamp, 2021). Moreover, limited health literacy and inadequate routine blood pressure monitoring reduce early detection and treatment adherence (World Health Organization, 2024). Recent studies emphasize that strengthening primary health care and community-based prevention strategies is essential for improving hypertension control, particularly in low- and middle-income countries (Rimer & Viswanath, 2024).

Community empowerment has emerged as a strategic approach in NCD prevention and management. Empowerment-based interventions enhance health literacy, encourage self-care behaviors, and strengthen community participation in health programs (Herlinawati, Mutiah, Hikmat, & Dwiyantri, 2025). In the Indonesian context, (Integrated Health Posts for the Elderly) serve as community-based platforms delivering promotive and preventive services, including blood pressure screening, health education, lifestyle modification counseling, and physical activity promotion (Syafutri, 2025). Evidence suggests that structured training for community health cadres significantly improves their knowledge and skills in hypertension management, dietary counseling, and exercise facilitation (Sari, Khoeriyah, & Lukman, 2024). Furthermore, sustained

community engagement and social support have been associated with improved treatment adherence and better blood pressure control among older adults (Peltzer & Pengpid, 2018).

Despite its potential, the implementation of the elderly integrated health post in Village Teep faces several challenges. The integration of elderly services with general the elderly integrated health post activities has led to declining elderly attendance, decreasing from 20–30 visits per month in 2024 to 6–10 visits per month between January and July 2025. This decline potentially undermines early detection and continuous monitoring of chronic conditions such as hypertension. In addition, limited cadre training, insufficient technical supervision, and suboptimal empowerment strategies restrict program effectiveness. Previous research indicates that low elderly participation in community health programs is influenced by factors such as low educational background, limited social support, reduced motivation, and physical or geographical barriers (Hamonangan, Dachi, Sitorus, Nababan, & Sinaga, 2025).

RESEARCH METHOD

A qualitative research method with a descriptive exploratory approach to obtain an in-depth understanding of how community empowerment is implemented in hypertension prevention through the elderly integrated health post activities. The research was conducted in Village Teep, Langowan Timur, from July 2025 to January 2026. A total of eight informants were selected purposively based on their direct involvement and relevance to the research topic, consisting of one health promotion officer, one officer responsible for the Non-Communicable Disease Control Program (P2PTM) for hypertension, two the elderly integrated health post cadres, three elderly the elderly integrated health post participants, and one village official. The focus of this study was the implementation of community empowerment activities in hypertension prevention through the elderly integrated health post. Data collection involved both secondary and primary data; secondary data included records of hypertension cases from January to December 2024 obtained from Community Health Center Wolaang and related health reports, while primary data were collected through staged in-depth interviews. Data analysis was conducted using qualitative analytical procedures.

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RESEARCH RESULTS

Table 1. Characteristics of Research Informants

Informant	Age (Years)	Gender	Role	Education Level
I1	37	Female	Health Promotion Officer	Bachelor's Degree
I2	39	Female	Hypertension P2PTM Program Officer	Bachelor's Degree
I3	53	Female	The Elderly Integrated Health Post	Junior High School
I4	61	Female	The Elderly Integrated Health Post	Junior High School
I5	66	Female	Elderly (Non-Hypertensive)	Elementary School
I6	76	Female	Elderly (Hypertensive)	Elementary School
I7	50	Female	Elderly (Hypertensive)	Elementary School
I8	42	Male	Village Official	Senior High School

Table 2. Observation Results at the Elderly Posyandu

Observed Aspect	Indicators	Description
Community Empowerment	a. Community and Cadre Involvement	The health center consistently involves cadres as the main driving force in encouraging community attendance at the elderly integrated health post activities.
	b. The elderly integrated health post activities in Hypertension Prevention Efforts	Activities include blood pressure measurement, regular health education on hypertension, measurement of height and weight, and screening for non-communicable diseases (NCDs).
	c. Accessibility of Health Activities	The elderly integrated health post is considered very helpful because it is located close to residents' homes, thereby reducing transportation costs and travel time to the health center.
	d. Cross-Sectoral Partnership	The health center collaborates with cadres, the head of the health center, and the village government. The village government provides facilities, consumption budgets, and disseminates information to residents.

DISCUSSION

Findings indicate that cadres, village government, and elderly participants play significant roles in the program. Cadres act as frontline implementers, organizing activities, registering participants, assisting with measurements, recording results, and conducting home visits. They also function as intermediaries between the health center and the community, ensuring effective dissemination of health information. The program operates more effectively when cadres actively mobilize and accompany

participants. Active cadre engagement can double health intervention coverage (Wiliani, Tasalim, & Irawan, 2025). The effectiveness of community-based programs led by local facilitators (Sumasto, Wisnu, Septianti, & Mentari, 2025).. Village government support, including provision of facilities and logistical assistance, further strengthens program sustainability. However, elderly participation remains partly driven by external motivation (e.g., incentives or cadre invitations), indicating that participation is still

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at a mobilization stage rather than fully based on health awareness. Strengthening health education and empowerment strategies is therefore necessary to promote sustained and self-motivated participation (Rini & Hidayati, 2022).

The elderly integrated health post plays a significant role in promotive, preventive, and monitoring efforts. Monthly blood pressure screening serves as an early detection mechanism. Screening identified 48% of elderly participants with hypertension, enabling timely referral and prevention of complications such as stroke and heart disease. Health education is another essential component, increasing awareness of risk factors such as excessive salt intake, physical inactivity, stress, and obesity. Educational interventions improved elderly knowledge from 55% to 85%, demonstrating the effectiveness of direct counseling and interactive discussion (Sulastri, Adhani, Shadiqi, Ringoringo, & Febriana, 2024). Additional activities include weight monitoring, supplementary feeding, and home visits. The planned reactivation of elderly exercise programs is supported by evidence, reductions in systolic (137 to 130 mmHg) and diastolic (88 to 80 mmHg) blood pressure following regular exercise, with high participation and satisfaction rates (Snider & Hijazi, 2020).

Accessibility involves not only physical proximity but also affordability, information access, and social support. The strategic location and the absence of transportation costs facilitate participation. That 64.4% of elderly individuals perceived access as easy, which correlated with attendance rates. However, physical access alone does not guarantee participation (Sutrisno, Sari, Ariastuti, & Ananda, 2023). Barriers such as poor health conditions, lack of transportation, and limited family support continue to affect attendance (Ariyanti, Preharsini, & Sipolio, 2020). Elderly individuals receiving consistent schedule information were twice as likely to attend (Asri, Salamah, Putri, Khairunnisa, Afifah, & Kusumastuti, 2022). WHO also emphasizes that flexible scheduling aligned with community routines enhances service utilization. Therefore, accessibility must be understood comprehensively, including physical, informational, and social dimensions.

Effective empowerment requires strong collaboration among health workers, village government, and the community. The Puskesmas

provides medical services, health education, and cadre training, while the village government contributes financial, infrastructural, and administrative support. Demonstrated that cross-sectoral collaboration in community-based NCD programs reduced systolic blood pressure from 130.5 to 122.3 mmHg and diastolic from 81.83 to 79.4 mmHg, while improving adherence to healthy lifestyles (Rosita, Wijaya, & Mutiarahati, 2023). WHO highlights that a whole-of-society approach is essential in addressing chronic diseases such as hypertension. Overall, cross-sectoral partnership is not merely supportive but foundational to sustaining services. Strengthening collaboration through continuous cadre training, improved coordination, and sustained community engagement is essential to enhance hypertension control efforts.

CONCLUSION

Has been implemented through cadre involvement, routine screening, health education, and cross-sector collaboration. These efforts support early detection and increase awareness of hypertension among older adults. However, elderly participation remains inconsistent, and empowerment efforts are not yet fully optimal due to limited internal motivation and cadre capacity. Strengthening continuous training, enhancing health communication strategies, and reinforcing multi-sector collaboration are essential to ensure sustainable hypertension control and improved elderly health outcomes.

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