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Original Articles

The Role of Healthcare Professionals in Implementing Health Promotion for Hypertension Prevention: A Qualitative Study

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ABSTRACT

Background: *Hypertension remains one of the leading causes of morbidity and mortality worldwide and represents a major public health challenge in Indonesia. Despite the implementation of various health promotion programs at the primary healthcare level, hypertension prevention remains suboptimal, particularly in rural areas where community participation, health literacy, and access to preventive services are limited. Healthcare professionals play a crucial role in promoting healthy behaviors; however, evidence regarding their experiences and perspectives in implementing health promotion is still limited.*
Research Objective: *This study aimed to explore the role of healthcare professionals in implementing health promotion for hypertension prevention in Primary Healthcare Centers in Jeneponto Regency, South Sulawesi, Indonesia.*
Methods: *A qualitative study with a phenomenological approach was conducted between January and March 2026. Fifteen healthcare professionals, including physicians, nurses, public health officers, nutritionists, and health promotion officers, were purposively recruited. Data were collected through semi-structured in-depth interviews and analyzed using Braun and Clarke's thematic analysis supported by NVivo 14.*
Results: *Five major themes emerged from the analysis: (1) healthcare professionals as health educators; (2) community participation as a determinant of program success; (3) barriers to implementing health promotion, including limited human resources, heavy workloads, and low public awareness; (4) the importance of culturally appropriate communication in promoting behavioral change; and (5) strengthening community-based health promotion through multisectoral collaboration and digital health strategies. Participants emphasized that sustainable hypertension prevention requires continuous education, community empowerment, and institutional support.*
Conclusion: *Healthcare professionals play indispensable roles in hypertension prevention through education, counseling, advocacy, and community empowerment. Strengthening healthcare capacity, enhancing community participation, improving communication strategies, and fostering multisectoral collaboration are essential for developing effective and sustainable hypertension prevention programs at the primary healthcare level.*

Keywords: *Hypertension Prevention; Health Promotion; Healthcare Professionals; Qualitative Study; Primary Healthcare.*

BACKGROUND

Hypertension remains one of the most significant public health challenges worldwide because of its high prevalence, chronic nature, and substantial contribution to premature mortality and disability (Mwimo et al., 2023). Often referred to as the "silent killer," hypertension frequently develops without obvious symptoms, allowing vascular damage to progress unnoticed until serious complications such as stroke, coronary heart disease, heart failure, chronic kidney disease, and peripheral vascular disease occur. The World Health Organization (WHO) estimates that approximately 1.28 billion adults aged 30–79 years are living with hypertension globally, with nearly two-thirds residing in low- and middle-income countries (Katena et al., 2023). Alarmingly, almost half of individuals with hypertension are unaware of their condition, while only a minority achieve adequate blood pressure control despite the availability of effective preventive and therapeutic interventions. Hypertension is responsible for millions of deaths each year and remains one of the leading modifiable risk factors for cardiovascular disease (Shimada et al., 2022). These facts highlight that controlling hypertension requires not only clinical treatment but also sustainable health promotion efforts that encourage healthy lifestyles, early detection, and continuous adherence to preventive behaviors (Rodrigues et al., 2019).

Indonesia faces a similar challenge as the prevalence of hypertension continues to increase alongside population aging, rapid urbanization, unhealthy dietary patterns, reduced physical activity, obesity, smoking, and psychosocial stress. According to the 2023 Indonesian Health Survey (SKI), hypertension remains one of the most prevalent non-communicable diseases and constitutes a major contributor to morbidity, mortality, and healthcare expenditure. Although the Ministry of Health has implemented various national strategies through the Healthy Living Community Movement (GERMAS), Integrated Guidance Posts for Non-Communicable Diseases (Posbindu PTM), routine blood pressure screening, and health education at primary healthcare facilities, the achievement of optimal hypertension prevention remains uneven across regions (Sun et al., 2021). Many individuals still have limited awareness regarding hypertension risk factors, underestimate the importance of regular blood pressure monitoring, and fail to adopt healthy lifestyle behaviors consistently. Consequently, hypertension prevention continues to represent an urgent public health priority requiring more effective and context-sensitive health promotion approaches (Zhang et al., 2022).

In South Sulawesi, the burden of hypertension is also considerable. Provincial health reports consistently identify hypertension as one of the leading causes of outpatient visits at primary healthcare centers and one of the most frequently reported chronic diseases within non-communicable disease surveillance systems (Poli et al., 2023). The increasing prevalence of obesity, excessive salt consumption, tobacco use, and sedentary lifestyles has contributed to the growing number of hypertension cases throughout the province. Although health promotion activities are routinely conducted through community health centers, integrated health posts, village health cadres, and public campaigns, the effectiveness of these interventions often varies according to local socioeconomic conditions, educational attainment, health literacy, cultural beliefs, and the availability of healthcare resources (Prevolnik Rupel et al., 2023). Therefore, strengthening the role of healthcare professionals in designing and implementing culturally appropriate health promotion strategies has become increasingly important to improve community engagement and preventive behaviors (Willms et al., 2023).

Jeneponto Regency represents one of the districts in South Sulawesi where hypertension has become an increasingly important public health concern. Local health office reports indicate that hypertension consistently ranks among the most common diseases managed in primary healthcare facilities (Kroeger et al., 2021). The regency is characterized by diverse socioeconomic conditions, varying educational levels, rural geographical settings, and strong cultural traditions that may influence community

perceptions toward chronic disease prevention (Mundra et al., 2023). In many communities, routine blood pressure examination is still performed only after symptoms appear, while preventive practices such as reducing salt intake, maintaining regular physical activity, avoiding tobacco use, and adhering to balanced nutrition remain inconsistent (Park et al., 2020). Community participation in health promotion programs also differs considerably between villages, suggesting that behavioral change cannot rely solely on information dissemination but requires effective communication, trust, community empowerment, and continuous support from healthcare professionals (Ahn & Hyun, 2019).

Healthcare professionals, particularly nurses, public health practitioners, physicians, nutritionists, and community health workers, occupy a strategic position in hypertension prevention because they serve as educators, facilitators, counselors, advocates, motivators, and coordinators of community-based health promotion (Bezzubtseva et al., 2022). Beyond delivering health education, healthcare professionals are expected to build meaningful relationships with community members, identify barriers to behavioral change, encourage family participation, empower local health volunteers, and develop culturally relevant educational strategies (Lowe Beasley et al., 2023). Their interactions with patients and communities influence not only knowledge acquisition but also motivation, self-efficacy, and long-term adherence to healthy lifestyles. Nevertheless, the implementation of these roles is often affected by workload, limited human resources, inadequate health promotion media, insufficient community participation, organizational constraints, and cultural beliefs that may hinder effective communication (Tang et al., 2022).

Previous studies on hypertension prevention have predominantly employed quantitative approaches focusing on the effectiveness of educational interventions, prevalence estimation, risk factors, medication adherence, lifestyle modification, or clinical outcomes (Porter et al., 2022). While these studies provide valuable epidemiological evidence, they offer limited understanding of how healthcare professionals experience, interpret, and implement health promotion activities within diverse community settings (Li et al., 2022). Likewise, existing qualitative studies have more frequently explored patients' perceptions, treatment adherence, or barriers to hypertension management rather than comprehensively examining the perspectives and lived experiences of healthcare professionals responsible for delivering preventive interventions (Pinto et al., 2021). Consequently, there remains insufficient evidence regarding how healthcare professionals negotiate cultural challenges, organizational limitations, communication strategies, and community expectations during the implementation of hypertension health promotion programs, particularly in rural districts such as Jeneponto.

The present study addresses this research gap by adopting a qualitative approach to explore the experiences, perceptions, challenges, and adaptive strategies of healthcare professionals involved in hypertension health promotion within primary healthcare settings in Jeneponto Regency. Rather than measuring program outcomes quantitatively, this study seeks to understand the processes underlying successful and unsuccessful health promotion practices from the perspectives of those directly responsible for implementation. Such an approach enables a richer understanding of contextual factors influencing health promotion effectiveness and provides evidence that cannot be captured through survey-based research alone (Rodrigues et al., 2019).

The novelty of this study lies in its comprehensive exploration of healthcare professionals' roles in hypertension prevention by integrating individual experiences, organizational support, community participation, cultural influences, and implementation challenges into a single qualitative framework (Kleiner et al., 2022). Unlike previous studies that primarily emphasize patient behavior or intervention effectiveness, this research positions healthcare professionals as the central source of knowledge to identify practical strategies for strengthening community-based hypertension prevention. The findings are expected to contribute to the development of culturally responsive and sustainable health

promotion models that can be implemented in rural Indonesian settings while supporting primary healthcare policy and strengthening non-communicable disease prevention programs.

Therefore, this study aims to explore the role of healthcare professionals in implementing health promotion for hypertension prevention in Jeneponto Regency, South Sulawesi, by examining their experiences, perceptions, responsibilities, challenges, and strategies in promoting healthy behaviors within the community, with the ultimate objective of generating evidence-based recommendations to strengthen culturally appropriate, community-centered, and sustainable hypertension prevention programs at the primary healthcare level.

METHODS

This study employed a qualitative research design using a phenomenological approach (Konlan et al., 2021) to explore the roles, experiences, and perspectives of healthcare professionals in implementing health promotion for hypertension prevention. The study was conducted between January and March 2024 at selected Primary Healthcare Centers (Puskesmas) in Jeneponto Regency, South Sulawesi, Indonesia.

Participants were recruited through purposive sampling based on predefined inclusion criteria. Eligible participants were healthcare professionals who had been directly involved in hypertension prevention and health promotion programs for at least one year and were willing to participate voluntarily. A total of 15 participants were included, comprising physicians, nurses, public health officers, nutritionists, and health promotion officers. Data collection continued until thematic saturation was achieved.

Data were collected through semi-structured, in-depth interviews lasting approximately 45–60 minutes. An interview guide was developed based on the World Health Organization's health promotion framework and relevant literature on hypertension prevention. The interviews explored participants' experiences in implementing health promotion, perceived roles and responsibilities, communication strategies, barriers encountered, facilitating factors, community responses, and recommendations for improving hypertension prevention programs. All interviews were conducted in Indonesian, audio-recorded with participants' permission, and transcribed verbatim.

Data were analyzed using thematic analysis following Braun and Clarke's six-step approach: (1) familiarization with the data, (2) generation of initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the final report. Coding and data organization were supported using NVivo 14 to enhance systematic data management and facilitate theme development.

To ensure the trustworthiness of the findings, credibility was established through member checking and prolonged engagement with participants. Dependability and confirmability were enhanced by maintaining an audit trail and peer debriefing among the research team, while transferability was supported through rich descriptions of the study context and participants.

RESULTS

Characteristics of Informants

A total of 15 healthcare professionals participated in this study. The participants consisted of physicians, nurses, public health officers, nutritionists, and health promotion officers working at Primary Healthcare Centers (Puskesmas) in Jeneponto Regency. Their ages ranged from 28 to 54 years, with working experience between 3 and 25 years. Most participants were female (66.7%) and held a bachelor's degree in their respective health professions.

Table 1.
Characteristics of Informants (n = 15)

Characteristic	Category	n
Gender	Male	5
	Female	10
Age (years)	25–34	4
	35–44	6
	≥45	5
Profession	Physician	2
	Nurse	5
	Public Health Officer	3
	Nutritionist	3
	Health Promotion Officer	2
Working Experience	1–5 years	4
	6–10 years	5
	>10 years	6

The diverse professional backgrounds enabled the researchers to obtain comprehensive perspectives regarding the implementation of hypertension health promotion in primary healthcare settings

Themes

Thematic analysis identified five major themes describing the roles, experiences, and challenges of healthcare professionals in implementing health promotion for hypertension prevention.

Theme 1. Healthcare Professionals as Health Educators

Participants consistently described health education as their primary responsibility in preventing hypertension. Educational activities included counseling, group discussions, community outreach, Posbindu PTM services, home visits, and health campaigns emphasizing healthy lifestyles, reduced salt intake, regular physical activity, smoking cessation, and routine blood pressure monitoring.

Participant 3 (Nurse):

"Every Posbindu activity is an opportunity to educate people. We explain that hypertension often has no symptoms, so regular blood pressure checks are very important."

Participant 8 (Physician):

"Health promotion is not limited to delivering information. We try to change people's attitudes and motivate them to adopt healthier lifestyles."

Theme 2. Community Participation Determines Program Success

Participants emphasized that community involvement significantly influenced the effectiveness of health promotion activities. Family support, village leaders, religious leaders, and health volunteers played important roles in encouraging healthy behaviors.

Participant 6 (Public Health Officer):

"Programs become much more successful when community leaders actively participate. People trust messages delivered by respected local figures."

Participant 11 (Nutritionist):

"Family involvement is essential because dietary habits are determined at home."

Theme 3. Barriers to Implementing Health Promotion

Participants identified several challenges that limited the effectiveness of hypertension prevention programs, including inadequate human resources, heavy workloads, insufficient educational materials, low public awareness, and persistent cultural beliefs.

Participant 1 (Health Promotion Officer):

"We have many responsibilities besides health promotion, so sometimes education activities cannot be conducted as frequently as planned."

Participant 13 (Nurse):

"Some community members only seek medical care after experiencing symptoms. Preventive behavior is still relatively low."

Theme 4. Effective Communication Enhances Behavioral Change

Participants highlighted the importance of communication strategies tailored to local culture and educational background. Simple language, practical demonstrations, visual media, and interpersonal communication were considered more effective than conventional lectures.

Participant 5 (Nutritionist):

"Using simple examples from daily life makes people understand much better than complicated medical explanations."

Participant 9 (Physician):

"We always adapt our communication to local culture because every community has different beliefs and ways of understanding health."

Theme 5. Strengthening Community-Based Health Promotion

Participants suggested strengthening collaboration among healthcare workers, local government, community leaders, schools, and religious institutions to improve hypertension prevention. Continuous training, increased resources, and digital health promotion were also recommended.

Participant 4 (Public Health Officer):

"Health promotion should become a shared responsibility involving all sectors, not only healthcare workers."

Participant 15 (Health Promotion Officer):

"Digital media such as WhatsApp groups and social media can help us reach more people with consistent health education."

Table 2.
Themes Identified from Thematic Analysis

Theme	Description
Healthcare professionals as health educators	Providing education, counseling, screening, and behavior change interventions.
Community participation determines program success	Collaboration with families, community leaders, and health volunteers enhances program effectiveness.
Barriers to implementing health promotion	Human resource shortages, workload, limited facilities, and low public awareness hinder implementation.
Effective communication enhances behavioral change	Culturally appropriate communication and simple educational approaches improve understanding.
Strengthening community-based health promotion	Multi-sector collaboration, continuous training, and digital innovation are needed for sustainable hypertension prevention.

The findings demonstrate that healthcare professionals play multifaceted roles as educators, counselors, facilitators, motivators, and community partners in hypertension prevention. However, effective implementation of health promotion remains influenced by organizational capacity, community participation, communication strategies, and local cultural contexts. Participants consistently emphasized that sustainable hypertension prevention requires collaborative, culturally sensitive, and community-centered health promotion supported by adequate institutional resources and cross-sector partnerships.

DISCUSSION

This study explored the role of healthcare professionals in implementing health promotion for hypertension prevention in primary healthcare settings in Jeneponto Regency. The findings demonstrate that healthcare professionals play multifaceted roles as educators, counselors, facilitators, motivators, and advocates for healthy lifestyles. These findings reinforce the concept of health promotion proposed in the Ottawa Charter, which emphasizes empowering individuals and communities to increase control over the determinants of health. In the context of hypertension prevention, health promotion extends beyond disseminating information to facilitating sustainable behavioral change through continuous education, community engagement, and supportive environments.

The first theme identified healthcare professionals as health educators. Participants described educational activities such as counseling, blood pressure screening, home visits, Posbindu PTM services, and community health campaigns as routine components of hypertension prevention (Ali et al., 2023). This finding is consistent with previous studies indicating that effective health education significantly improves public knowledge, awareness, and preventive behaviors related to hypertension (Foumakoye et al., 2023). Education delivered by healthcare professionals enhances individuals' understanding of modifiable risk factors, including excessive salt intake, physical inactivity, obesity, smoking, and alcohol consumption (Gerbild et al., 2021). Furthermore, regular educational interactions increase the likelihood of early blood pressure monitoring and encourage adherence to healthy lifestyle recommendations. These findings highlight that the educational role of healthcare professionals remains fundamental in reducing the burden of non-communicable diseases at the community level (Durán-Sáenz et al., 2022).

The second theme emphasized that community participation is a key determinant of successful health promotion. Participants reported that family members, village leaders, religious leaders, and community health volunteers substantially influenced public acceptance of hypertension prevention programs (Njue et al., 2022). This finding supports community empowerment theory, which argues that sustainable health behavior change is more likely to occur when communities actively participate in identifying health problems and implementing locally appropriate solutions (van den Houdt et al., 2023). In rural settings such as Jeneponto, social relationships and community trust strongly influence health-related decision-making. Consequently, involving respected local figures enhances the credibility of health messages and facilitates broader community engagement (Almeida Sousa et al., 2021). Collaborative approaches between healthcare professionals and community stakeholders may therefore increase program sustainability and improve hypertension prevention outcomes (Chen et al., 2023).

Another important finding concerns the barriers encountered during health promotion implementation. Participants reported shortages of healthcare personnel, excessive workloads, limited educational materials, inadequate financial resources, and insufficient community awareness as major challenges (Akintunde et al., 2021). Similar barriers have been documented in previous studies conducted in low- and middle-income countries, where healthcare professionals frequently balance curative services with preventive responsibilities despite limited institutional support (Beussink-Nelson et al., 2022). These structural limitations reduce opportunities for continuous health education and individualized counseling. Additionally, low health literacy and cultural misconceptions regarding hypertension often discourage preventive practices, as many individuals seek medical attention only after symptoms appear. These findings indicate that strengthening organizational capacity is essential for improving the quality and consistency of hypertension health promotion (Piot et al., 2022).

Communication emerged as another critical component influencing behavioral change. Participants emphasized the importance of using culturally appropriate language, practical demonstrations, visual educational media, and interpersonal communication to

improve public understanding. This finding aligns with the Health Belief Model, which suggests that individuals are more likely to adopt preventive behaviors when they clearly perceive disease susceptibility, severity, benefits of action, and minimal barriers. Effective communication enables healthcare professionals to translate complex medical information into messages that are easily understood within local cultural contexts. Moreover, culturally sensitive communication promotes trust between healthcare providers and community members, increasing receptiveness to preventive advice. Therefore, communication skills should be considered a core competency in health promotion practice (da Graça da Costa et al., 2021).

The study also identified the importance of strengthening community-based health promotion through multisectoral collaboration. Participants highlighted the need for partnerships involving healthcare institutions, local governments, educational institutions, religious organizations, and community leaders. Such collaboration reflects the socio-ecological perspective of health promotion, recognizing that health behaviors are shaped by interactions between individuals, families, communities, organizations, and public policies (Tabriz et al., 2021). Hypertension prevention cannot rely solely on healthcare facilities because lifestyle determinants are strongly influenced by broader social and environmental conditions. Community-based interventions supported by multiple sectors have demonstrated greater effectiveness in promoting physical activity, healthy dietary practices, smoking cessation, and routine health screening compared with isolated educational activities (Stowell et al., 2023).

An important contribution of this study lies in its exploration of healthcare professionals' experiences rather than focusing exclusively on patient outcomes. Previous hypertension research has predominantly examined prevalence, clinical management, treatment adherence, or intervention effectiveness using quantitative methods. While such studies provide valuable epidemiological evidence, they often overlook the practical experiences of healthcare professionals responsible for implementing prevention programs (Strandberg et al., 2023). By employing a qualitative approach, this study provides deeper insights into the contextual challenges, adaptive strategies, and interpersonal dynamics that shape health promotion practices in rural Indonesian communities. Understanding these experiences contributes to a more comprehensive understanding of why certain health promotion interventions succeed while others encounter implementation difficulties (Pitchalard et al., 2022).

The findings also reveal that healthcare professionals increasingly recognize the potential of digital communication platforms, including WhatsApp groups and social media, to complement conventional face-to-face education. Digital health promotion offers opportunities to deliver continuous educational messages, disseminate reminders for blood pressure screening, and strengthen communication with community members beyond healthcare facilities. However, successful implementation requires adequate digital literacy, internet accessibility, and organizational support to ensure equitable access across different population groups. Integrating digital health promotion with existing community-based programs may therefore enhance the reach and sustainability of hypertension prevention initiatives (Sguanci et al., 2023).

The novelty of this study lies in integrating healthcare professionals' perspectives, organizational factors, community participation, communication strategies, and cultural influences into a comprehensive understanding of hypertension health promotion implementation in Jeneponto Regency. Unlike previous studies that primarily evaluate patient behavior or intervention outcomes, this research demonstrates that successful hypertension prevention depends on the interaction between healthcare providers, communities, and health systems. The findings provide practical evidence for strengthening primary healthcare services through capacity building, continuous professional development, culturally responsive communication, and community

empowerment strategies. These insights may inform policymakers in designing more context-specific health promotion interventions for hypertension prevention in rural Indonesian settings.

Despite its contributions, this study has several limitations. The findings were generated from healthcare professionals working within selected primary healthcare centers in one district, limiting the transferability of results to other geographical contexts. Additionally, the study did not include the perspectives of patients, family caregivers, or community leaders, who may provide complementary insights regarding hypertension prevention. Future qualitative studies should incorporate multiple stakeholder perspectives and compare implementation experiences across different regions to develop more comprehensive and evidence-based community health promotion models.

Overall, this study confirms that healthcare professionals play indispensable roles in promoting hypertension prevention through education, counseling, advocacy, community empowerment, and intersectoral collaboration. Strengthening institutional support, improving communication competencies, expanding community participation, and integrating culturally appropriate health promotion strategies are essential to achieving sustainable hypertension prevention. These findings contribute valuable evidence for enhancing primary healthcare practice and developing community-centered interventions aimed at reducing the growing burden of hypertension in Indonesia.

CONCLUSION

This study concludes that healthcare professionals play a central role in implementing health promotion for hypertension prevention by serving as educators, counselors, facilitators, motivators, and advocates for healthy lifestyles within the community. Effective hypertension prevention is supported by active community participation, culturally appropriate communication, and collaboration among healthcare providers, families, community leaders, and local stakeholders. However, the implementation of health promotion remains constrained by limited human resources, heavy workloads, inadequate educational resources, and low community awareness regarding hypertension prevention. The findings demonstrate that successful health promotion requires not only individual behavior change but also organizational support and community empowerment to create sustainable preventive practices.

Based on these findings, it is recommended that primary healthcare centers strengthen the capacity of healthcare professionals through continuous training in health promotion, communication skills, and community engagement. Health promotion programs should be expanded by incorporating culturally sensitive educational approaches, digital health communication, and stronger partnerships with local governments, schools, religious institutions, and community organizations. Policymakers should allocate adequate resources to support community-based hypertension prevention initiatives and improve the availability of educational media and human resources. Future research is recommended to include patients, family members, community leaders, and policymakers from diverse settings to develop a more comprehensive and sustainable model of hypertension health promotion in Indonesia.

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