Exploring Community Experiences and Perceptions Regarding the Low Utilization of Posbindu Services for Non-Communicable Disease Prevention: A Phenomenological Approach

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Abstract

Non-communicable diseases (NCDs) are major causes of morbidity and mortality, while Posbindu PTM provides a community-based promotive and preventive approach through early detection and monitoring of NCD risk factors. Nevertheless, utilization remains low. This study explored the lived experiences and perceptions of community members and the perspectives of cadres, healthcare professionals, village authorities, and other stakeholders regarding low Posbindu PTM utilization using a phenomenological approach. Data were collected through in-depth interviews and analyzed thematically. The findings identified four interrelated themes: perceptions of the purpose and target population of Posbindu PTM; lived experiences and barriers to utilization; organizational readiness; and institutional support and cross-sector collaboration. Participants commonly perceived Posbindu PTM as a service for older adults or people who were already ill, reflecting limited understanding of its preventive role. Other barriers included inadequate information and health promotion, limited social support, insufficient cadre training, weak implementation systems, inadequate facilities and resources, limited funding, variable village-government commitment, and weak cross-sector collaboration. Low utilization therefore reflects the interaction of community perceptions, organizational capacity, and institutional support. Increasing utilization requires sustained health communication, stronger cadre capacity and supervision, adequate resources, active village-government involvement, and systematic cross-sector collaboration.

Keywords: Posbindu for NCDs, Non-Communicable Diseases, Participatory Action Research, Health Determinants

INTRODUCTION

Non-communicable diseases (NCDs) remain a major public health challenge and a leading cause of mortality globally. The World Health Organization reports approximately 41 million NCD deaths annually, with nearly half occurring prematurely among people younger than 70 years. This burden results not only in mortality but also in loss of productive years, making early detection and prevention important public health priorities (Cox et al., 2025). Indonesia has responded through Pos Pembinaan Terpadu Penyakit Tidak Menular (Posbindu PTM), a community-based program intended to facilitate early detection, monitor NCD risk factors, and promote healthy behaviors (Mboi et al., 2022). The program involves community members, cadres, healthcare workers, and village authorities and has potential to strengthen primary prevention and awareness of chronic disease risk factors (Mujiburrahman, 2025).

Despite implementation, utilization remains suboptimal. Sirait and Sinuhaji (2024) reported that only 60% of intended respondents accessed Posbindu NCD screening services, while knowledge, family support, and proximity were associated with utilization; assistance from healthcare officers was not statistically significant (Siregar et al., 2025). Previous studies in Deli Serdang and Asahan also identified knowledge, family support, access, and health promotion as relevant factors (Renta et al., 2024; Sirait & Riady Suranta Sinuhaji, 2024a). However, quantitative studies primarily describe associations and provide less explanation of how lived experience, perceptions, and social context shape participation.

North Labuhan Batu Regency shows a particularly marked problem. In 2024, Posbindu PTM coverage reached only 0.93% of the target population despite active program implementation. This suggests that barriers extend beyond individual factors and involve social, cultural, organizational, and stakeholder-related conditions. Accordingly, this study used a phenomenological approach to integrate the experiences of community members with perspectives from cadres, healthcare workers, village heads, primary healthcare center managers, and the District Health Office. The study aims to provide context-specific evidence for improving Posbindu PTM participation in North Labuhan Batu Regency.

METHOD

A phenomenological design was used to understand lived experiences and perceptions related to low utilization of Posbindu PTM. The study considered the service and factors affecting participation from the perspectives of community members, cadres, healthcare workers, village authorities, and other stakeholders.

Participants were recruited purposively according to their experience, knowledge, and involvement in Posbindu PTM implementation or utilization. Participants included community members, Posbindu cadres, healthcare workers, village heads, primary healthcare center managers, and District Health Office representatives. Community participants were adults aged 18 years or older, lived in the study area, were able to communicate effectively, and were willing to participate. Implementers and stakeholders were selected because of their direct involvement in Posbindu PTM. Participants who declined to continue or had communication difficulties that interfered with data collection were excluded. Recruitment continued until data saturation, defined as the point at which further interviews produced no new relevant information, codes, or themes.

Data were collected through face-to-face semi-structured in-depth interviews at mutually agreed locations, lasting approximately 45–60 minutes. With consent, interviews were audio-

recorded and transcribed verbatim. Thematic analysis involved repeated reading, coding, categorization, theme development, review and refinement, naming, and interpretation. Trustworthiness was addressed through credibility, dependability, confirmability, and transferability. Member checking and team discussion supported credibility, an audit trail supported dependability and confirmability, and detailed descriptions of context and participants supported transferability.

Ethical approval was obtained from the Health Research Ethics Committee, Universitas Sumatera Utara (Approval No. 048/KEPK/USU/2022). Participants received information about study objectives, procedures, confidentiality, and their right to withdraw without consequences. Written informed consent was obtained before interviews.

RESULTS

Characteristics of Participants

Nineteen participants were purposively recruited from six groups to provide diverse and triangulated perspectives on low Posbindu PTM utilization

Table 1. Characteristics of Participants Included in the Study (n = 19)

Participant	Category Role in the Study	Code	Number (n)	Percentage (%)
Community members	Community members who had experience utilizing or not utilizing Posbindu services	C1-C9	9	47.4
Posbindu cadres	Volunteers responsible for organizing and implementing Posbindu activities	PC1-PC3	3	15.8
Healthcare professionals	Midwives responsible for Posbindu implementation	HW1-HW2	2	10.5
Village heads	Local government representatives supporting community health programs	VH1-VH3	3	15.8
Primary Healthcare Center Head	Manager responsible for Posbindu implementation at the primary healthcare level	PHC1	1	5.3
Head of NCD Program, District Health Office	District-level policymaker responsible for the NCD control program	(DH)1	1	5.3
Total			**19**	**100**

Overview of the Findings

Thematic analysis produced four major themes: (1) perceptions of the purpose and target population of Posbindu PTM; (2) lived experiences and barriers to utilization; (3) organizational readiness for implementation; and (4) institutional support and cross-sector collaboration. Across participant groups, low utilization reflected the interaction of community perceptions, service experience, organizational readiness, and institutional support.

Theme 1: Perceptions of the Purpose and Target Population of Posbindu PTM

Most participants misunderstood the purpose and target population of Posbindu PTM. It was commonly viewed as a service for older adults or people already diagnosed with hypertension, diabetes, or other NCDs. Adults of productive age who felt healthy therefore considered the service irrelevant. The perception was shared by community members and, to some extent, cadres, healthcare workers, and stakeholders

Subtheme 1.1. Posbindu PTM Is Perceived as a Service for Older Adults and Individuals with Non-Communicable Diseases

Community members described limited familiarity with Posbindu PTM and often associated it with Posyandu for older adults. Cadres reported that attendance was concentrated among married adults or those around 30 years and older, while younger adults rarely attended because they believed screening was unnecessary. Healthcare professionals and stakeholders similarly reported that people were more familiar with Posyandu Lansia and tended to seek care only after illness appeared. One participant said,

> *"I do not know what Posbindu is. The only thing I know is the Posyandu for older adults."* (C2). Another stated*, "I have never heard of Posbindu."* (C5). A cadre explained, *"Most of those who come are married people or those around thirty years old and above. Younger people rarely want to attend."* (PC3). A healthcare professional added*, "People are more familiar with the Posyandu for older adults than with Posbindu PTM. They usually come only after they start feeling sick."* (HW2).
> Representative statements included:
>
> *"I do not know what Posbindu is. The only thing I know is the Posyandu for older adults."* (C2)*; "I have never heard of Posbindu." (C5); and "People are more familiar with the Posyandu for older adults than with Posbindu PTM. They usually come only after they start feeling sick."* (HW2). A village head also stated that he knew mainly the Posyandu for children and older adults.

Subtheme 1.2. Limited Understanding of the Preventive Purpose of Posbindu PTM

Participants generally understood Posbindu as a place for examination after symptoms occur rather than as a promotive and preventive service for early detection of NCD risk factors. A community participant stated,

> *"If I'm not sick, there is no need to come."*
>
> A cadre similarly reported,
>
> *"They usually come only when they already feel sick or when their blood pressure is high."* (PC1).
> Healthcare workers emphasized the preventive purpose:
> *"People do not yet understand that Posbindu is not a place for treatment, but a service for the early detection of disease risk."* (HW1). A stakeholder acknowledged,
> *"So far, health promotion has not been optimal, so many people still do not know the benefitsof Posbindu."* (SH2).

Subtheme 1.3. Limited Information and Health Promotion Shape Perceptions of Posbindu PTM

Information about the purpose, target population, benefits, schedule, and location of Posbindu PTM had not been disseminated consistently. One community participant stated, "No one has ever informed us about Posbindu or invited us to participate.

"I don't even know when the activities are held." (C4).

Another reported,

"In our neighborhood, we don't have a WhatsApp group or any other communication channel that provides information about Posbindu activities." (C6).

Cadres acknowledged,

"We do not yet have a dedicated communication channel to inform the community about the Posbindu schedule, so many residents are unaware of the activities." (PC2). A healthcare professional added, *"Health promotion has not been carried out regularly, so many people still do not understand the purpose and benefits of Posbindu PTM."* (HW1).

A village representative stated,

"We ourselves have never received specific orientation or information about Posbindu PTM, so our understanding of the program is still limited." (VH2).

Theme 2. Lived Experiences and Barriers to the Utilization of Posbindu PTM

The interview findings revealed that participants' experiences with the utilization of Posbindu PTM were influenced not only by their individual decisions to attend or not attend the program but also by their experiences in becoming familiar with the service, accessing information, and receiving support from their surrounding environment. Community members, community health volunteers (cadres), healthcare professionals, and stakeholders consistently described Posbindu PTM as not yet being integrated into the community's routine health-seeking behavior. Most participants reported that they had never utilized Posbindu PTM services, had limited access to information about the program, and had received insufficient social support to participate. This theme comprises two subthemes: (1) experiences of not utilizing Posbindu PTM and (2) information and communication barriers.

Subtheme 2.1. Experiences of Not Utilizing Posbindu PTM

Non-utilization was described less as active resistance than as limited exposure to the program. Several community members had never attended or even heard of Posbindu. One participant stated,

"I have never attended Posbindu." (C1), while another said, *"I had never even heard of Posbindu."* (C5).

Work commitments also limited attendance; a cadre explained,

"Most people work every day, so it is difficult for them to find time to attend Posbindu." (PH3).
Healthcare workers observed that participation was concentrated among the same people:

"The people who attend are usually the same participants at every session, while most other community members rarely come." (HW2).
A primary healthcare center head added,

"The number of healthcare professionals and community health volunteers is still limited, so we have not been able to reach all community members." (PHC1).

Subtheme 2.2. Information and Communication Barriers

Participants consistently identified inadequate communication as a barrier. Communities lacked information about objectives, benefits, schedules, and service locations. One community participant stated,

"In our neighborhood, we don't have a WhatsApp group or any other communication channel that provides information about Posbindu." (C6).
A cadre similarly reported,

"We do not yet have a dedicated communication channel to inform the community about Posbindu activities." (PC2).
Healthcare professionals stated,

"Health promotion has not been carried out regularly, so many people still do not understand the purpose of Posbindu PTM." (HW1). Even village governments acknowledged the gap*: "We ourselves have never received specific orientation about Posbindu PTM."* (VH2).

Subtheme 2.3. Limited Social Support

Family, community leaders, and village governments were considered important sources of motivation, yet their support was limited. A community participant stated,

"My family has never encouraged or reminded me to attend Posbindu." (C7). A cadre explained, *"When families do not provide support, people usually do not come."* (PC1). Healthcare professionals emphasized, *"The role of families and community leaders is very important in increasing community attendance."* (HW2*).*
Village-government support also needed strengthening:

"Support from the village government still needs to be strengthened so that Posbindu activities can be implemented more effectively." (VH1).

Theme 3. Organizational Readiness for the Implementation of Posbindu PTM

Organizational readiness was constrained by limited human-resource capacity, weaknesses in implementation systems, and inadequate facilities and supporting resources. These organizational conditions hindered consistent implementation and contributed to low participation.

Subtheme 3.1. Limited Human Resource Capacity

Cadres were the frontline workforce but had not received regular continuous training. One cadre reported,

"The last training was held a long time ago, in 2017. Since then, we have never received another training session, so we have learned mainly from our own experience during program implementation." (PC2).

Healthcare workers reported,

"Funding for Posbindu implementation is still very limited, and the number of healthcare professionals is insufficient, so mentoring and supervision of cadres cannot yet be carried out optimally." (HW1).

The primary healthcare center head emphasized,

"Cadres' competencies need to be strengthened through internal training at least once every three years so that Posbindu implementation complies with service standards." (PHC1).

The District Health Office similarly stated,

"Training cannot yet be conducted regularly because of budget and human resource limitations at each primary healthcare center." (DH1).

Subtheme 3.2: Suboptimal Implementation System of Posbindu PTM

Posbindu activities were sometimes combined with Posyandu Lansia to facilitate attendance and reduce duplicated work. A cadre explained,

"Posbindu activities are usually combined with Posyandu Lansia because it is easier to gather community members, and we do not have to repeat the work." (PC1).

However, this practice may limit comprehensive screening for productive-age groups. A healthcare worker stated,

"Several Posbindu activities have not been implemented optimally because of the limited availability of equipment needed to conduct Posbindu PTM activities." (HW2).

The primary healthcare center head noted,

"The implementation of Posbindu in each village still varies depending on the policies of the head of the Community Health Centre." (PHC1), indicating the need for standardized guidance and training.

Subtheme 3.3: Limited Facilities, Infrastructure, and Supporting Resources

Participants reported insufficient examination equipment, educational media, and recording documents. A cadre explained,

"The examination equipment and recording books are not properly available, ma'am. Sometimes, we also do not complete them properly, so the patients' records and medical histories remain incomplete." (PC3).

Healthcare workers added,

"Our equipment is still insufficient, and we need additional equipment and leaflets so that we can provide information to the community." (HW1).

These accounts indicate that organizational readiness depends not only on human-resource competence but also on adequate facilities, recording systems, educational media, and other supporting resources.

Theme 4: Institutional Support and Cross-Sector Collaboration

Posbindu PTM cannot depend only on healthcare workers and cadres. Its sustainability requires village-government commitment, supportive policy and financing, and collaboration

with sectors beyond health. Participants considered these supports insufficient, leaving implementation dominated by the health sector.

Subtheme 4.1: Limited Policy and Funding Support

Limited funding restricted promotive-preventive activities, cadre training, facilities, and community outreach. A cadre stated,

> *"The funding available for Posbindu activities is limited. Therefore, the activities are also limited, and we cannot implement all Posbindu programs."* (PC2).

Healthcare workers and program managers similarly reported that budget limitations affected facilities, outreach, and cadre development. The District Health Office and primary healthcare centers therefore recognized the need for stronger resource allocation to support continuity and sustainability.

Subtheme 4.2: Village Government Commitment to Posbindu PTM Implementation

Village governments have a strategic role in mobilizing communities and sustaining Posbindu PTM, but involvement varied. Some village heads supported the program, whereas others acknowledged limited understanding of its objectives and implementation mechanisms. This gap affected the level of support provided. Participants emphasized that village-government involvement should extend beyond administration to community mobilization and program sustainability. One village representative stated,

> *"Support from the village government still needs to be strengthened so that Posbindu activities can be implemented more effectively."* (VH1).

Subtheme 4.3: Suboptimal Cross-Sector Collaboration

Participants agreed that NCD prevention requires more than the health sector, yet coordination with village governments, community organizations, educational institutions, religious leaders, and the private sector remained incidental. A cadre stated,

> *"When we conduct Posbindu activities, we do not report them to the village head. We only inform the cadres, and the activities are carried out only by us and the cadres." (PC1). A village head stated, "When Posbindu activities are conducted, the head of the Community Health Centre never involves us in their implementation."* (VH1).

The primary healthcare center head explained,

> *"Because funding is limited, Posbindu activities cannot be implemented by the Community Health Centre alone. They require support from village heads and other private-sector stakeholders."* (PHC1).

The District Health Office emphasized,

> *"The implementation of Posbindu requires stronger cross-sector collaboration, including collaboration with the private sector and village heads."* (DH1).

Overall, collaboration had not developed into a systematic and sustainable mechanism.

DISCUSSION

Low Utilization of Posbindu PTM Originates from Perceptions Shaped by Limited Health Communication

Low utilization was associated not simply with lack of knowledge but with perceptions formed through inadequate and discontinuous health communication. Posbindu PTM was commonly seen as a service for older adults or people already ill, so healthy adults did not identify themselves as the target population. This pattern is consistent with the Social Ecological Model, in which health behavior reflects interactions among individual, interpersonal, organizational, and policy factors (McLeroy et al., 1988; Hu et al., 2021; Kaur et al., 2020). The Health Belief Model also explains that low perceived susceptibility and insufficient cues to action can reduce motivation to use preventive services (Anya & Alfian, 2022; Jumisah et al., 2023). Limited health literacy further restricts understanding of the benefits of promotive and preventive care (Mohiuddin, 2023).

The findings support previous evidence that knowledge and health promotion are associated with Posbindu PTM utilization (Mujiburrahman, 2025; Sirait & Riady Suranta Sinuhaji, 2024b), while extending it by showing how perceptions are shaped through experience, communication, and social interaction. Increasing utilization therefore requires sustained communication involving multiple stakeholders and a shared message that Posbindu PTM is a preventive service for people at risk, not only for older adults or those already ill.

Organizational Readiness Determines the Effectiveness of Posbindu PTM Implementation

The study shows that implementation effectiveness also depends on organizational readiness. Limited training, inadequate operational guidance, insufficient resources, and weak supervision and monitoring indicate that implementing organizations were not fully prepared to deliver Posbindu PTM consistently. This is consistent with CFIR, which emphasizes inner-setting factors such as resources, organizational readiness, leadership, and implementation processes (Keeler-Villa et al., 2025; Schmitt et al., 2025).

The findings also align with Organizational Readiness for Implementing Change, which distinguishes commitment to change from capacity to implement it (Weiner, 2009; Choi et al., 2022). Although commitment to Posbindu existed, shortages of human resources, financing, facilities, infrastructure, and organizational development reduced implementation capacity. Previous studies similarly emphasize organizational capacity, cadre competence, supervision, and resource availability in community-based programs (Ahmed et al., 2024; Ekpin et al., 2024; Hutapea, 2025; Mansur et al., 2025). Thus, strengthening cadres alone is insufficient;

organizational capacity, continuous development, supervision, and monitoring must also be improved.

Institutional Support and Cross-Sector Collaboration

Implementation was also constrained by limited institutional support and weak collaboration. Posbindu remained heavily dependent on healthcare workers and cadres, while village governments, community organizations, educational institutions, and other stakeholders were not systematically involved. The CFIR outer-setting domain highlights the influence of policies, interorganizational networks, and stakeholder support on implementation (Boekhout et al., 2024). The Collaborative Governance perspective similarly emphasizes that complex public-health problems require cooperation across government, health services, communities, educational institutions, and other actors (Botha et al., 2024; Stiawati et al., 2025; Tobirin, 2020).

Previous studies also indicate that local-government commitment, leadership, and partnerships influence community-based health programs (Boekhout et al., 2024; Stiawati et al., 2025; Tobirin, 2020). Village governments can mobilize communities, support policy and budgeting, and strengthen sustainability (Guntoro et al., 2025; Hilya Auliya et al., 2025; Jati et al., 2021). Conversely, fragmented coordination can limit coverage because of multiple actors, leadership issues, competing interests, accountability, and unequal power relations (Spicer et al., 2020).

The distinctive contribution of this study is its emphasis on system capacity to build partnerships and coordinate multiple actors. Low utilization is therefore not only a matter of community behavior or organizational readiness but also reflects weaknesses in collaborative governance. A whole-of-government and whole-of-society approach is needed, with complementary roles for village governments, health services, community organizations, educational institutions, community leaders, and other stakeholders (Dicky Setiadi Pradana et al., 2025; Eufransiani R. Tema et al., 2025; Liesay et al., 2021; Okatiranti et al., 2025).

Policy Implications for Increasing the Utilization of Posbindu PTM

Low utilization is multidimensional and cannot be solved only by increasing public knowledge or the number of Posbindu sessions. A comprehensive policy response should address individual, organizational, and system-level barriers. This is consistent with the Primary Health Care framework, which emphasizes community empowerment, integrated services, and supportive public policies (Barkley et al., 2022; Callaghan, 2019; Rajan et al., 2024).

Health System Strengthening further indicates that program success depends on governance, human resources, financing, information systems, and leadership (Forsgren et al., 2022; Magumba, 2023; Malakoane et al., 2023). Accordingly, policies should provide continuous cadre training, clear operational guidance, stronger supervision and monitoring, and adequate financial support. Posbindu PTM should also adopt an Integrated People-Centred Health Services orientation in which communities become active partners rather than passive recipients (Dicky Setiadi Pradana et al., 2025; Eufransiani R. Tema et al., 2025; Jati et al., 2021; Mashdariyah & Rukanah, 2019).

The central implication is a shift from an individual-focused to a system-oriented approach. Health education remains necessary but is unlikely to raise coverage without stronger organizational capacity and cross-sector partnerships. Local governments and District Health Offices can use these findings to develop community-based communication, strengthen cadres and healthcare workers, empower village governments to mobilize residents, and establish systematic coordination mechanisms. Such measures can improve utilization while strengthening sustainable, people-centered NCD prevention

CONCLUSION

Low utilization of Posbindu PTM results from interacting barriers at community, organizational, and institutional levels. At the community level, limited health communication produces the perception that Posbindu PTM is mainly for older adults or people who are already ill; limited socialization and health promotion reinforce this perception. At the organizational level, insufficient cadre training, inadequate operational guidance, limited resources, and weak supervision and monitoring constrain readiness. At the institutional level, weak cross-sector coordination, limited village-government involvement, and insufficient policy and resource support leave implementation dependent on the health sector.

No single factor explains the problem. Increasing utilization requires integrated action that strengthens health communication, organizational capacity, and collaborative governance involving village governments, healthcare facilities, community organizations, educational institutions, and other stakeholders. The study therefore supports a shift from primarily individual behavior change toward a system-based approach integrating community, organizational, and governance factors to establish a more effective and sustainable NCD prevention program.

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