

Confirmatory components regarding the competencies of informal community leaders in health promotion: Mixed methods study

Araya Chiangkhong¹, Suparp Thaitae¹, Pornthip Soonthoranun², Jiraporn Chonmasuk^{3,*}

¹ Kuakarun Faculty of Nursing, Navamindradhiraj University, Bangkok 10300, Thailand

² Nursing personnel and Academic Development Section, Public Health Nursing Division, BMA, Bangkok 10310, Thailand

³ Faculty of Nursing, Suan Dusit University, Bangkok 10700, Thailand

* **Corresponding author:** Jiraporn Chonmasuk, Jiraporn_cho@dusit.ac.th

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Abstract: This study explored the competencies required for informal community leaders to effectively promote health within Thai communities, employing an exploratory sequential mixed-methods design. The qualitative phase, comprising in-depth interviews with thirteen community leaders, identified four critical domains of competency: basic health knowledge, communication skills, network building, and cultural awareness. These domains were subsequently validated through second-order confirmatory factor analysis, which confirmed their reliability and construct validity. The findings highlighted the pivotal role of these competencies in enabling community-led health promotion initiatives. This research provides a robust, evidence-based framework to inform the development of training programs, policy strategies, and targeted interventions aimed at enhancing health outcomes within Thai communities.

Keywords: informal leadership; health promotion; community leaders; competencies; Thailand; confirmatory factor analysis

1. Introduction

Informal community leaders are increasingly recognized as key contributors to advancing health promotion initiatives in public health. Embedded within the social fabric of their communities, these leaders hold considerable influence over behaviors and attitudes, particularly at the grassroots level (Lawson and Fleshman, 2020). Through culturally relevant engagement, informal leaders bridge gaps between health systems and communities, fostering trust and driving health-related behavior change (Peters and O'Connor, 2001; Siawsh et al., 2023). Globally, community leadership has proven instrumental in addressing significant public health challenges, including neglected tropical diseases (NTDs) and other pressing issues. For example, the Community-Directed Treatment with Ivermectin (CDTI) has effectively tackled onchocerciasis in Sub-Saharan Africa through community-directed interventions (Amazigo et al., 2021). Similarly, the Malaria Consortium's community-based approach in Latin America has improved health outcomes, underscoring the critical role of grassroots leadership in health promotion (Consortium, 2023).

Despite their substantial contributions, a critical knowledge gap remains regarding the specific competencies required for informal leaders to function effectively. This gap is particularly relevant in culturally diverse settings such as Thailand, where socio-cultural dynamics necessitate tailored leadership approaches. While contemporary public health challenges often stem from complex lifestyle and environmental factors, there is growing recognition that sustainable health outcomes

require collaborative strategies that integrate formal health systems with community resources (Kumar and Preetha, 2012; Siddiqua et al., 2022). The Thai Ministry of Public Health has emphasized community-based approaches to health promotion as a cornerstone of its policy framework (Tejativaddhana et al., 2018; Thaithae et al., 2021). However, existing leadership frameworks, such as the LEADS framework (Strudsholm and Vollman, 2021) and competency models for public health professionals (Leethongdissakul et al., 2020), largely focus on formal leadership roles and fail to address the nuanced competencies required for informal leaders operating at the community level.

This study employs an Exploratory Sequential Mixed-Methods design to address these gaps. By integrating qualitative and quantitative approaches, the research seeks to define critical competencies for informal community leaders, validate these competencies through empirical analysis, and construct a framework for enhancing their leadership effectiveness. This study's findings are intended to inform training programs and policy development, equipping informal leaders to mobilize resources and foster community engagement. In doing so, it seeks to advance the integration of informal leadership into public health strategies, particularly in culturally diverse and underserved contexts.

The implications of this research extend beyond Thailand, contributing to the broader discourse on community-led health promotion. By addressing a significant gap in the literature, this study underscores the potential of grassroots leadership to enhance public health outcomes and offers a framework for scaling community-based interventions across diverse settings.

2. Literature review

2.1. Community leadership in global health

Community leadership has played an essential role in health promotion programs worldwide, particularly in addressing neglected tropical diseases (NTDs) and other public health challenges. Programs such as the Community-Directed Treatment with Ivermectin (CDTI) have demonstrated the effectiveness of engaging local leaders to improve health outcomes. For instance, the CDTI program successfully leveraged community-driven strategies to combat onchocerciasis in underserved populations across Sub-Saharan Africa (Amazigo et al., 2021). Similarly, the Malaria Consortium in Latin America has highlighted the importance of community leadership in managing malaria and strengthening public health systems (Consortium, 2023). These examples illustrate the scalability and global relevance of community leadership in health promotion.

2.2. Informal community leadership competency

Although community-led health initiatives have demonstrated significant impact, there is a dearth of research on the specific competencies required for informal community leaders to be effective. This gap is particularly pronounced in culturally diverse settings such as Thailand, where socio-cultural nuances shape community dynamics. While existing leadership frameworks, including the LEADS framework

(Strudsholm and Vollman, 2021) and competency models for public health professionals (Leethongdissakul et al., 2020) offer valuable insights, they primarily focus on formal leadership roles and do not adequately address the unique competencies needed for informal leaders to drive community-level health promotion.

The increasing complexity of public health challenges, driven by lifestyle and environmental factors, necessitates cohesive strategies that integrate formal health systems with grassroots resources (Kumar and Preetha, 2012; Siddiqua et al., 2022). Recognizing this need, the Thai Ministry of Public Health has prioritized community-based health promotion initiatives (Tejativaddhana et al., 2018; Thaitae et al., 2021). However, the underexplored role of informal leaders in these strategies limits their potential to achieve impactful health outcomes.

Addressing this gap requires a robust exploration of the competencies necessary for informal leaders to mobilize resources, engage communities, and implement health promotion initiatives effectively. By situating the findings within a global context, this study seeks to bridge the gap in understanding informal leadership competencies, enhancing the effectiveness of grassroots health interventions and contributing to sustainable public health strategies.

3. Materials and methods

3.1. Study design

This study utilized a sequential exploratory mixed-methods design to identify and validate leadership competencies for health promotion. The qualitative phase aimed to explore key competencies through in-depth interviews with informal community leaders, while the quantitative phase assessed the generalizability of these competencies in a broader population using a structured survey. The integration of findings occurred at both the design and interpretation stages to ensure coherence and relevance. As shown in **Figure 1**.

3.2. Study setting and participants

Qualitative Phase: The qualitative phase focused on informal community leaders operating in urban areas of Bangkok. Informal leaders were defined as individuals who exert influence within their communities through voluntary or community-based roles, such as health volunteers or community project leaders. These individuals were not affiliated with formal institutions like schools, government agencies, or healthcare organizations. To ensure the inclusion of experienced and impactful leaders, participants were purposively selected based on their significant contributions to health promotion activities and their recognition within the community.

A total of 13 participants were included in this phase. These individuals were aged between 56 and 68 years, with educational backgrounds ranging from secondary school to bachelor's degrees in fields such as public health and community development. Their professional experience in health promotion ranged from 5 to 15 years. All participants had demonstrable success in implementing health promotion initiatives, making them ideal candidates for identifying the core competencies required in this field. To maintain confidentiality, unique codes were assigned to each

participant (e.g., P01-F-58), where “P” denotes the participant, “F/M” indicates gender, and the number reflects their approximate age.

Quantitative Phase: The quantitative phase also focused on informal community leaders but targeted a broader population. A total of 310 participants were recruited using stratified random sampling to ensure diversity across Bangkok’s inner, middle, and outer zones. This stratification allowed for a representative sample of leaders with varying community roles and geographical contexts. All participants were actively engaged in community-based health promotion activities, emphasizing their informal leadership roles. The broader sampling approach ensured the inclusion of diverse perspectives and contexts, enhancing the generalizability of the study findings.

3.3. Data collection

Qualitative Data Collection: In-depth, semi-structured interviews were conducted with the 13 selected participants to explore their experiences, challenges, and strategies in health promotion. Open-ended questions facilitated detailed discussions about their roles, competencies, and the impact of their initiatives on community health. The interviews were audio-recorded and transcribed verbatim for subsequent analysis. The data collection process was guided by a flexible framework that allowed for the emergence of new themes.

Quantitative Data Collection: A structured survey questionnaire was developed based on the findings from the qualitative phase. The survey instrument included items that quantitatively assessed the competencies identified during the interviews. Themes such as communication, cultural sensitivity, and community engagement were operationalized into measurable constructs. The survey was distributed to the 310 participants across Bangkok’s urban zones, ensuring representation of various informal leadership roles and community settings.

3.4. Data analysis

Qualitative Data Analysis: Interview data were analyzed using thematic analysis to identify patterns and themes related to leadership competencies. A rigorous coding process was employed to ensure the reliability of the findings, and sub-themes were developed to capture nuanced insights. Data saturation was reached with 13 participants, consistent with existing recommendations for qualitative studies.

Quantitative Data Analysis: Survey data were analyzed using confirmatory factor analysis (CFA) to validate the competencies identified in the qualitative phase. Both first-order and second-order CFA were conducted to assess the construct validity of the competency framework. Statistical analysis ensured that the model was robust and generalizable across the broader population.

Model fit was evaluated using several key indices. The Comparative Fit Index (CFI) assesses how well the model fits the data compared to a baseline model assuming no relationships among variables. A CFI value closer to 1 indicates a better fit, with values above 0.90 considered acceptable and above 0.95 indicating excellent fit. The Goodness of Fit Index (GFI) represents the proportion of variance explained by the estimated population covariance. Like the CFI, GFI values range from 0 to 1, with values above 0.90 generally regarded as acceptable. The Root Mean Square Error of

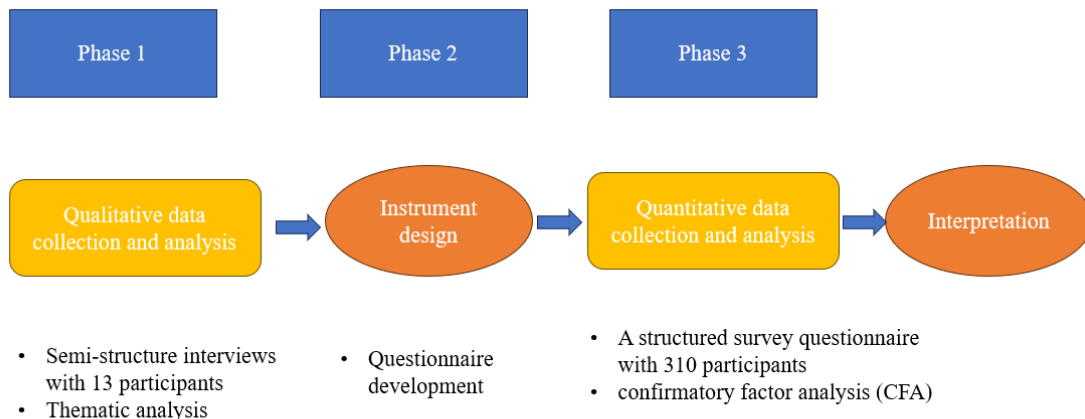
Approximation (RMSEA) measures the discrepancy between the observed and hypothesized covariance matrices, adjusting for model complexity. Lower RMSEA values indicate a better fit, with values less than or equal to 0.05 representing excellent fit, values between 0.05 and 0.08 considered acceptable, and values above 0.10 indicating poor fit. To refine the model and improve fit, Modification Index (MI) values were used to identify areas where adjustments could be made while maintaining theoretical alignment. Following the recommendations of Fornell and Larcker (1981), items with low factor loadings (<0.40) were removed to enhance the scale’s structural validity and reliability. These modifications resulted in a revised model that provided a robust framework for assessing leadership competencies in health promotion.

3.5. Integration of findings

Integration of the qualitative and quantitative findings provided a comprehensive framework for understanding the competencies required for informal community leadership in health promotion.

At the Design Stage: Findings from the qualitative phase informed the development of the survey instrument used in the quantitative phase. This ensured alignment between the two phases and facilitated the validation of the qualitative findings.

At the Interpretation Stage: Results from the qualitative and quantitative phases were synthesized to refine and validate the competency framework. This integrative approach enhanced the applicability of the findings to urban health promotion contexts in Bangkok.



Adapted from the Exploratory Sequential Design (Creswell and Clark, 2011)

Figure 1. Exploratory sequential design

4. Result and discussion

4.1. To investigate the competencies necessary for leadership in health promotion from the perspective of community leaders

This study identified four primary themes representing the essential competencies required for informal community leaders to effectively promote health

in urban contexts. These competencies reflect a comprehensive skill set necessary for addressing the complex health dynamics of urban settings.

4.1.1. Enhancing Community Capacity through Health Knowledge

Participants emphasized that health knowledge forms the foundation for empowering leaders and enabling them to support their communities effectively. Leaders who are well-informed about health issues are better equipped to guide their communities toward improved health outcomes.

Understanding fundamentals of health and self-care

Basic health knowledge was highlighted as essential for personal well-being and reducing disease risks.

“Leaders need to understand basic health concepts so they can share this knowledge effectively and inspire others to take care of themselves.” (P02-M-60)

“Having basic health knowledge is really important. It helps us know how to take care of ourselves and prevent various diseases better.” (P06-F-65)

Recognizing factors affecting health

Participants emphasized the significant influence of urban lifestyle factors, such as diet, exercise, and sleep, on health. Providing practical advice to help community members adapt these factors to fast-paced urban living was seen as crucial.

“Promoting healthy eating habits and regular exercise can improve overall community well-being and prevent lifestyle diseases.” (P03-F-62)

“The food we eat, exercise, and sleep have a huge impact on our health. If we understand and adjust these factors, we can live longer and healthier lives.” (P10-F-58)

Awareness of disease prevention methods

Participants underscored the importance of awareness and implementation of preventive measures, such as vaccination and hand hygiene, in safeguarding public health.

“Raising awareness about disease prevention is crucial, especially in densely populated urban areas where infections can spread quickly.” (P07-M-63)

“Knowing how to prevent diseases, like getting vaccinated and washing hands, is a simple but powerful way to maintain health.” (P09-F-60)

Importance of regular health check-ups and mental health care

Participants emphasized the necessity of regular health screenings and mental health care to address the unique stressors associated with urban living.

“Recognizing the importance of annual health check-ups and mental health care leads to a balanced and happier life.” (P04-M-59)

“Encouraging regular health screenings and mental health support builds resilience and reduces the risk of chronic diseases.” (P12-F-66)

Effective communication for health knowledge dissemination

Good communication skills were viewed as essential for accurately conveying health knowledge and ensuring its application in urban communities.

“Good communication skills enable people to understand and follow health

practices correctly.” (P05-M-63)

“Simplifying complex health information makes it easier for the community to adopt healthier behaviors.” (P13-F-61)

Organizing health workshops and activities

Organizing health workshops was seen as an effective approach for fostering proactive health education and engaging community members.

“Organizing workshops is a great way to raise awareness and impart health knowledge to the community.” (P08-M-59)

“Interactive workshops allow people to ask questions and gain practical knowledge they can use immediately.” (P11-M-62)

4.1.2. Effective communication and community engagement through trust.

Participants emphasized that effective communication and trust-building are essential for fostering mutual understanding and promoting health in urban contexts.

Clear and motivational communication

Clear and motivational communication was identified as essential for inspiring individuals to adopt healthier behaviors.

“Talking clearly about health is so important. When people really get the message, they know what steps to take to stay healthy.” (P02-M-60)

“Inspiring people through clear communication encourages them to take ownership of their health journey.” (P09-F-60)

Active listening and responsiveness

Participants highlighted the importance of active listening and thoughtful responses for building trust and addressing community concerns effectively.

“Listening shows you care, and responding shows you’re responsible.” (P04-M-59)

“When leaders truly listen to the community, they can better understand its needs and provide meaningful solutions.” (P06-F-65)

Cultural sensitivity and inclusive communication

Understanding cultural diversity was seen as critical for tailoring health messages to resonate effectively with urban populations.

“Respecting cultural differences ensures that health messages are accessible and impactful for everyone.” (P08-M-59)

“Communicating with different groups isn’t just about language. It’s about understanding their culture and where they’re coming from.” (P10-F-58)

Building genuine understanding and trust

Inclusive communication that values and affirms every community member’s voice was highlighted as crucial for fostering trust and engagement.

“Trust is built over time through honest and consistent communication with all community members.” (P03-F-62)

“Connecting with the community means creating real understanding and trust.” (P11-M-62)

Understanding and supporting community needs

Participants stressed the importance of deeply engaging with communities to

identify and address their specific needs effectively.

“When leaders are in tune with their community, they can provide the support that’s truly needed.” (P01-F-58)

“Identifying specific needs allows leaders to prioritize resources and provide targeted assistance.” (P13-F-61)

4.1.3. Building networks and participation

Participants emphasized the significance of establishing networks and fostering participation to enhance health promotion efforts in urban areas.

Creating and strengthening health promotion networks

Collaboration with local organizations, such as hospitals and schools, was identified as critical for expanding health promotion initiatives.

“Collaborative networks allow us to pool resources and expertise, making initiatives more impactful.” (P07-M-63)

“Forming partnerships with hospitals and schools helps broaden our health promotion efforts.” (P12-F-66)

Effective planning and resource management

Participants stressed the importance of effective planning and resource allocation for sustaining health promotion activities. (P04-M-59)

“Good planning and resource management ensure that health promotion activities have a lasting impact.”

“Careful allocation of resources ensures the sustainability of health promotion programs.” (P05-M-63)

Collaboration with public health agencies

Participants underscored the value of close collaboration with public health agencies to align initiatives and amplify impact.

“Collaborating with public health agencies amplifies our health promotion activities.” (P01-F-58)

“Working with government health agencies ensures that our programs align with national health goals.” (P06-F-65)

Utilizing digital tools and creating health content

Leveraging digital tools was identified as a vital strategy for engaging diverse audiences and disseminating tailored health messages.

“Using digital tools for health tracking and information dissemination allows us to reach a larger audience.” (P02-M-60)

“Creating digital content tailored to urban populations increases engagement and knowledge retention.” (P08-M-59)

4.1.4. Cultural awareness and sensitivity

Participants emphasized cultural awareness as a critical competency for ensuring inclusivity and effectiveness in health promotion initiatives.

Understanding and accepting cultural diversity

Recognizing and respecting cultural diversity were regarded as foundational for trust and communication.

“Understanding cultural diversity helps in creating an inclusive environment

where everyone feels valued.” (P10-F-58)

“Leaders must respect cultural differences to build trust and meaningful relationships.” (P03-F-62)

Adapting activities to cultural contexts

Participants emphasized the need to tailor activities to cultural contexts to ensure their relevance and impact.

“Adjusting activities to be suitable for all cultural groups makes health promotion more inclusive.” (P09-F-60)

“Tailoring programs to cultural norms ensures greater acceptance and participation.” (P13-F-61)

Skills for handling cultural challenges

Participants stressed the importance of developing skills to address and navigate cultural challenges effectively.

“Developing skills to handle cultural challenges enables effective problem-solving.” (P07-M-63)

“Navigating cultural differences with empathy helps overcome barriers in health promotion.” (P12-F-66)

Enhancing health promotion through cultural sensitivity

Employing cultural sensitivity was seen as essential for fostering acceptance and collaboration in health promotion.

“Adapting health promotion activities to align with cultural beliefs increases their acceptance.” (P01-F-58)

“Cultural sensitivity strengthens trust and ensures that initiatives resonate with diverse populations.” (P06-F-65)

The findings reveal an interconnected framework for urban health promotion leadership. Health knowledge (Theme 1) provides the foundation, while communication and trust-building (Theme 2) enable knowledge translation into action. Collaboration and participation (Theme 3) expand the impact of these efforts, with cultural awareness (Theme 4) ensuring inclusivity and relevance. Together, these competencies form a holistic skill set essential for informal community leaders in urban contexts.

4.2. To develop components of informal leadership competencies in health promotion.

The results of the second-order confirmatory factor analysis (CFA) to examine structural validity revealed that the hypothesized model did not fit the empirical data ($\chi^2 = 2388.86$, $df = 556$, $\chi^2/df = 4.30$, CFI = 0.97, GFI = 0.69, TLI = 0.96, RMSEA = 0.103). Therefore, the model was adjusted by considering the Modification Index, theoretical concepts, the appropriateness of the items, and removing items with factor loadings less than 0.40 (Stevens, 1992). The adjusted model’s fit was re-evaluated, resulting in a structurally valid scale for assessing leadership competence in health promotion, with acceptable fit indices ($\chi^2 = 340.46$, $df = 152$, CFI = 0.99, GFI = 0.91, TLI = 0.98, RMSEA = 0.063). The revised model retained 4 components and reduced the number of items to 21, with factor loadings ranging from 0.67 to 0.84, all

statistically significant at the 0.05 level, as illustrated in **Figure 2**.

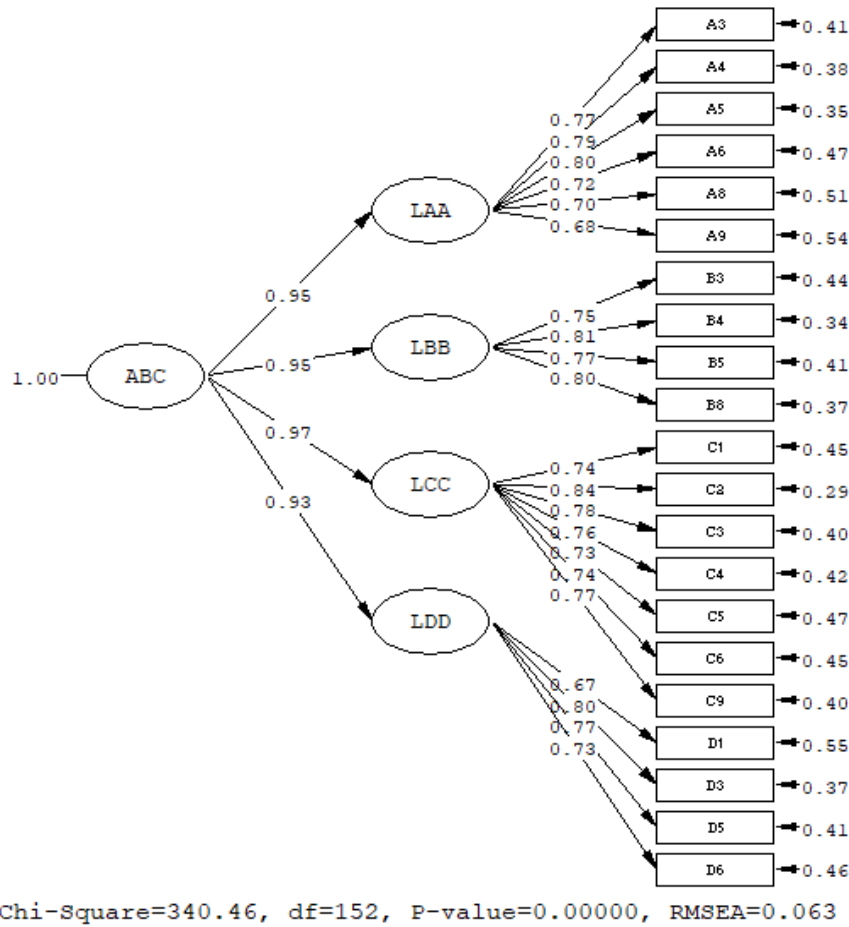


Figure 2. Second-order confirmatory factor analysis (CFA) of leaders in health promotion competency.

Note: ABC= Leadership Competence in Health Promotion Scale for Public Health Volunteers; LAA = Basic Health Knowledge; LBB = Communication Skills; LCC = Network Building and Participation; LDD = Cultural Awareness.

When examining the construct reliability (CR) of the latent variables, Fornell and Larcker (1981) suggest that a value greater than 0.60 is necessary to indicate acceptable reliability. In this study, CR values ranged from 0.83 to 0.93 across the components, with Basic Health Knowledge achieving a CR of 0.90, Communication Skills at 0.86, Network Building and Participation at 0.93, and Cultural Awareness at 0.83. Similarly, the average variance extracted (AVE), which should exceed 0.50 to be acceptable (Fornell and Larcker, 1981), ranged from 0.55 to 0.61. Specifically, Basic Health Knowledge recorded an AVE of 0.57, Communication Skills 0.61, Network Building and Participation 0.59, and Cultural Awareness 0.55. These outcomes, as summarized in **Table 1**, confirm that the scale for assessing leadership competence in health promotion among public health volunteers demonstrates acceptable reliability, both overall and for each individual component. A further analysis of the scale explored whether the subcomponents fall under the overarching construct of “Leadership Competence in Health Promotion among Public Health Volunteers.” The results revealed factor loadings ranging from 0.52 to 0.98, with values for Basic Health Knowledge at 0.95, Communication Skills at 0.95, Network

Building and Participation at 0.97, and Cultural Awareness at 0.93. Moreover, the leadership competence construct explained 86% to 93% of the variance in the subcomponents, with all factor loadings statistically significant ($p < 0.05$). These detailed findings are presented in **Table 1**, which includes standardized factor loadings, standard errors, t-values, and predictive coefficients (R^2) derived from the confirmatory factor analysis.

Table 1. Standardized factor loadings, standard errors, t-values, and predictive coefficients from the confirmatory factor analysis of the leadership competence in health promotion scale for public health volunteers.

Question item	Standardized factor loading	Standard error	t-value	Predictive coefficient (R^2)	AVE	CR
Basic Health Knowledge	0.95	0.06	-	0.9	0.57	0.9
Item 3 Understand the fundamentals of good health and self-care.	0.77	-	-	0.59		
Item 4 Recognize factors affecting health, such as diet, exercise, and sleep.	0.79	0.07	15.50*	0.62		
Item 5 Have knowledge of appropriate exercise, healthy eating for individuals.	0.8	0.1	14.62*	0.65		
Item 6 Know important disease prevention methods, such as vaccination and hand washing.	0.72	0.11	13.05*	0.53		
Item 8 Understand the importance of annual health check-ups and mental health care.	0.7	0.09	11.67*	0.49		
Item 9 Be capable of summarizing and disseminating new health information to the community.	0.68	0.06	12.06*	0.46		
Communication Skills	0.95	0.06	12.52*	0.9	0.61	0.86
Item 3 Explain health information in an easily understandable manner.	0.75	-	-	0.56		
Item 4 Use language appropriate for all audience levels.	0.81	0.11	13.96*	0.66		
Item 5 Motivate and inspire individuals to take care of their health.	0.77	0.09	12.78*	0.59		
Item 8 Adapt communication to suit different target groups.	0.8	0.06	13.77*	0.63		
Network Building and Participation	0.97	0.04	12.59*	0.93	0.59	0.93
Item 1 Building networks with individuals and organizations involved in health promotion, such as hospitals and schools.	0.74	-	-	0.55		
Item 2 Establishing good relationships and trust between volunteers and the community.	0.84	0.09	14.81*	0.71		
Item 3 The ability to plan and manage health-promoting activities, such as writing proposals.	0.78	0.07	14.81*	0.6		
Item 4 Efficiently utilizing resources and budgets to support these activities.	0.76	0.11	13.36*	0.58		
Item 5 Collaborating with public health agencies in planning and conducting health promotion activities.	0.73	0.12	12.31*	0.53		
Item 6 Participating and engaging in meetings and activities organized by public health agencies.	0.74	0.15	11.98*	0.55		
Item 9 Creating messages to communicate and engage the public.	0.77	0.05	13.16*	0.6		

Table 1. (Continued).

Question item	Standardized factor loading	Standard error	t-value	Predictive coefficient (R^2)	AVE	CR
Cultural Awareness	0.93	0.04	10.83*	0.86	0.55	0.83
Item 1 Effectively communicate with individuals from different cultural backgrounds.	0.67	-	-	0.45		
Item 3 Consider and adapt activities to be suitable for all cultural groups.	0.8	0.07	13.78*	0.63		
Item 5 Utilize cultural knowledge to promote health.	0.77	0.13	10.67*	0.59		
Item 6 Adapt health promotion activities to align with the culture and beliefs of the community.	0.73	0.1	9.51*	0.54		

Note: * $p < 0.05$, AVE =average variance extracted, composite reliability.

5. Discussion

This study identified four core competencies critical for informal community leaders in health promotion: basic health knowledge, communication skills, network building and participation, and cultural awareness. These competencies are central to the ability of informal leaders to effectively influence health behaviors and outcomes within their communities. The findings provide evidence-based insights that contribute to understanding the unique role of informal leadership in community health promotion while situating these competencies within both local and global contexts.

5.1. Global context of community leadership in health promotion

The competencies identified in this study are reflective of broader international practices in community-led health initiatives. In Sub-Saharan Africa, for example, programs such as the Community-Directed Treatment with Ivermectin (CDTI) have demonstrated how informal leaders play a pivotal role in disseminating health interventions to underserved populations. These leaders utilize their knowledge of local contexts to implement community-driven solutions effectively (Amazigo et al., 2021). Similarly, in Latin America, the Malaria Consortium highlights the critical role of community leadership in reducing the prevalence of malaria, further underscoring the universal relevance of grassroots involvement in public health (Malaria Consortium, 2023). These examples confirm the scalability and transferability of the competencies identified in this study to diverse global settings.

5.2. Basic health knowledge

Basic health knowledge serves as a foundation for effective community leadership. Leaders with a strong understanding of health principles are equipped to disseminate accurate health information, guide preventative measures, and promote healthy behaviors. This competency aligns with findings from Lawson and Fleshman (2020), who emphasized the importance of health literacy in improving individual decision-making and community health outcomes. In this study, basic health knowledge was particularly significant in culturally diverse urban settings, where leaders adapted health messages to align with community-specific beliefs and

practices, thereby fostering trust and engagement (Leung et al., 2013). These findings reinforce the importance of targeted training programs that focus on equipping leaders with contextually relevant health information.

5.3. Communication skills

Effective communication is essential for building trust, fostering engagement, and promoting health literacy within communities. This study highlights the importance of clear, motivational communication, active listening, and cultural sensitivity in enabling leaders to influence health-related behaviors positively. These skills are particularly critical in diverse urban populations, where communication must be tailored to meet varying cultural and social needs.

Globally, the importance of communication in leadership has been well-documented. For instance, Singh and Luthra (2018) found that communication is a fundamental skill for inspiring teams and achieving organizational goals. Similarly, Luthra and Dahiya (2015) emphasized that effective communication fosters collaboration across sectors, which is critical for addressing complex public health challenges. These findings are consistent with this study, which positions communication skills as a cornerstone of informal leadership in health promotion.

5.4. Network building and participation

Network building and participation emerged as essential competencies for enhancing the reach and sustainability of health initiatives. Leaders in this study demonstrated their ability to foster partnerships with public health agencies, local organizations, and community groups, facilitating resource sharing and collaboration. This competency is especially valuable in urban settings where diverse stakeholders must work together to address social determinants of health. Programs like the Community-Directed Treatment with Ivermectin (CDTI) highlight how well-established networks can improve health outcomes by mobilizing resources and expertise at the community level (Amazigo et al., 2021). These findings align with global best practices, emphasizing the need for leaders to cultivate partnerships that strengthen health promotion efforts. By equipping informal leaders with the skills to navigate complex networks, public health strategies can better address systemic health inequities.

5.5. Cultural awareness

Cultural awareness is critical for tailoring health promotion strategies to meet the needs of diverse populations. Leaders in this study emphasized the importance of understanding cultural norms and values to foster trust and engagement in health initiatives. By integrating cultural awareness into their practices, informal leaders ensured that health interventions were both culturally acceptable and effective.

Internationally, the role of cultural competence in public health has been widely acknowledged. For example, the Council of Europe (2012) highlights intercultural competence as a critical tool for overcoming cultural barriers and promoting inclusivity in health services. Similarly, the World Health Organization (2013) has emphasized the importance of culturally sensitive approaches to reducing health

disparities. The findings of this study align with these perspectives, demonstrating that cultural awareness is a vital competency for achieving meaningful and sustainable community health outcomes.

A comparison of informal and formal leaders reveals distinct competency profiles based on their roles and settings. Informal community leaders primarily possess skills in basic knowledge, communication, network building, and cultural awareness, essential for grassroots, community-level health promotion. In contrast, formal leaders, often healthcare professionals, focus on institutional, organizational, and clinical competencies, such as strategic thinking, decision-making, team management, and crisis management. While both groups share overlapping competencies like leadership, communication, cultural sensitivity, and collaboration (Barati, et al., 2016; Strudsholm and Vollman, 2021; Tongmuangtunyatepet et al., 2015; Van Tuong and Thanh, 2017), they apply these skills within different contexts.

5.6. Relation to existing frameworks

This study builds upon existing leadership frameworks by addressing competencies specific to informal leaders. Frameworks such as LEADS (Strudsholm and Vollman, 2021) focus on formal leadership roles, emphasizing competencies like self-management, achieving results, and system transformation. While these frameworks offer valuable insights, they often overlook the grassroots-specific competencies required for informal leadership. This study fills this gap by highlighting the importance of culturally aligned communication, practical network building, and community-centered health knowledge.

Additionally, Leethongdissakul et al. (2020) identified competencies for public health professionals in primary care, such as collaboration and health promotion. While there is overlap with this study, the findings here focus on informal leaders' unique ability to engage directly with communities. By situating these findings within existing frameworks, this study provides a foundation for integrating informal leadership into broader public health strategies.

6. Conclusion

This study identified four essential competencies for informal community leaders in health promotion within the urban context: basic health knowledge, communication skills, network building and participation, and cultural awareness. These competencies are crucial for building trust, improving health literacy, and mobilizing resources to address public health challenges effectively. By validating these competencies through a mixed-methods approach, the research highlights their importance in promoting sustainable health outcomes in culturally diverse urban environments. The findings offer valuable guidance for designing training programs and integrating these competencies into public health strategies to strengthen the role of community leaders as bridges between formal health systems and local populations. While this study focused on Bangkok, the identified competencies have broader applicability and can be adapted to different contexts, including rural areas and communities facing socio-economic vulnerabilities. This research underscores the critical role of informal leadership in advancing public health goals and provides a framework for enhancing

community-driven health promotion initiatives in both local and global contexts.

7. Limitations of the study

While this study provides valuable insights into the key competencies of informal community leaders in health promotion within the Thai context, it is important to acknowledge its limitations. The findings may not be directly generalizable to other cultural and policy settings, particularly those with different social and cultural norms. Additionally, the study's focus on urban community leaders in Bangkok may not fully capture the roles and competencies of those in rural areas or regions with distinct socio-cultural characteristics.

8. Recommendations for future research

Future research should broaden its scope to include community leaders in rural and other non-urban settings. Exploring diverse geographic and cultural contexts would provide a more nuanced understanding of the roles and competencies necessary for effective leadership in different environments. Comparative studies between urban and rural contexts could offer valuable insights into the distinct challenges faced by community leaders in each setting, as well as context-specific strategies for enhancing their effectiveness. Such research would contribute to the development of more inclusive frameworks for supporting community leadership across varied populations and regions.

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Ethical approval: The study was conducted in accordance with the Declaration of Helsinki, and received ethical approval from the Ethics Committee for Research on Humans at the Kuakarun Faculty of Nursing, Navamindradhiraj University (Approval No. KFN 5/2023). The research process strictly adhered to established ethical principles to protect participants' privacy and confidentiality. All data were anonymized, and participants were fully informed of their right to withdraw from the study at any stage. Ethical standards were rigorously maintained throughout all phases of data collection.

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