

Healthcare Professionals' Perspectives With Telehealth in Home Visits: A Qualitative Study

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Abstract

Background: Telemedicine has been increasingly adopted since the COVID-19 pandemic. Although numerous studies have demonstrated its effectiveness and explored patients' perceptions across various medical specialties, its application in home visit services and healthcare professionals' perspectives remain underexplored.

Objective: To explore healthcare professionals' perspectives on tele-home visits.

Methods: A qualitative study using semistructured focus group discussions was conducted among multidisciplinary healthcare professionals, including physicians, nurses, and allied health professionals, with experience in tele-home visits. Four focus group sessions (3 onsite and one online) were audio-recorded, transcribed verbatim, and analyzed using thematic content analysis.

Results: Seventeen healthcare professionals participated. The main theme was perspectives on tele-home visits, comprising 6 subthemes: situational necessity, digital disruption of care delivery, flexibility of care, perceptions of care quality standards, reduced multidisciplinary collaboration, and challenges in telehealth competencies among healthcare professionals. Additional findings included patient characteristics, perceived advantages and disadvantages, and areas for improvement.

Conclusions: Rather than replacing conventional home visits, tele-home visits may serve as a complementary model of care in appropriate clinical contexts. However, the development of a clearly defined and structured system is needed to distinguish tele-home visits from general teleconsultation services. In addition, further economic evaluation is essential to better understand feasibility, cost-effectiveness, and sustainability before broader implementation at the health system level.

Keywords: Tele-home visits, Healthcare professionals, Qualitative research, Family medicine

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Introduction

The outbreak of COVID-19 has had a profound impact on healthcare systems worldwide, leading to a significant increase in the use of telemedicine as an alternative means of delivering care. Between 2020 and 2024, numerous studies have examined the benefits and outcomes of telemedicine, providing valuable insights into its effectiveness across various medical fields.¹⁻⁶ A systematic review of the benefits of telemedicine highlighted its efficacy; however, most studies reviewed were pilot projects with limited short-term outcomes.¹ More recent systematic reviews have also demonstrated the effectiveness of telemedicine, although considerable heterogeneity in study designs and outcome measures remains.⁷

Research on the use of telemedicine for diabetes care in low- and middle-income countries has revealed positive effects on several diabetes-related outcomes, although the evidence quality has been low.² Furthermore, the application of telemedicine in primary care for older adults has been shown to increase patient satisfaction, suggesting that it could serve as a viable alternative healthcare model.³

Many studies have explored patients' perceptions of telemedicine, consistently reporting high levels of satisfaction.⁴⁻⁶ Patients have noted that telemedicine is a convenient tool for ensuring continuity of care and improving access to healthcare services.⁸ While telemedicine has generally been well-received, some studies have identified challenges, including technology difficulties and perceived barriers to its use. Despite these concerns, telemedicine has been recognized as a valuable tool for maintaining healthcare access during periods of disruption.

Despite extensive exploration of patient perceptions, research on healthcare professionals' perceptions of telemedicine remains limited. A study in the UK revealed that clinicians across various specialties expressed high levels of satisfaction with telemedicine. However, concerns about connection failure, information confidentiality, and the willingness to continue using telemedicine in the future were prevalent.⁸ In the mental health field, research has demonstrated that telemedicine is an effective and useful method for delivering care. However, it is unlikely to replace traditional in-person visits, instead serving as a complementary modality.^{9, 10}

In family medicine, attitudes toward telemedicine are influenced by factors such as physicians' professional identity and their sense of control over the implementation of telemedicine in practice. Physicians with a more established professional identity and stronger organizational support for technology integration tend to have more positive attitudes toward telemedicine.¹¹ In Romania, a survey of family doctors during the COVID-19 pandemic revealed mixed perceptions: while some physicians found telemedicine more convenient for addressing patient needs remotely, many considered it more time-consuming than face-to-face consultations. Concerns regarding diagnostic uncertainty were prevalent, and while some physicians expressed confidence in their tele-diagnostic decisions, others struggled with technology-related challenges.¹²

Although telemedicine in primary care has shown promise, there remains a gap in understanding how it can be effectively implemented in more specialized settings, such as home visits. Home visits are a core component of family medicine, enabling healthcare professionals to assess patients within their living environments and gain a more comprehensive understanding of their health and social circumstances.¹³ In addition to clinical assessment, home visits provide valuable insights into social determinants of health,¹⁴ family dynamics, caregiving arrangements, medication management, and environmental factors that may influence health outcomes. Previous studies of home-based primary care have reported the use of telemonitoring devices to support remote patient management, although challenges related to patients' technological literacy and access to technology have been identified.¹⁵ Telemedicine has also been applied in home-based social work and mental health services, where it has facilitated communication and continuity of care.¹⁵ In the US, telehealth has emerged as a potential strategy to enhance care delivery in home health settings. Telehealth interventions have been associated with high patient satisfaction, reduced acute care utilization, and improved communication among healthcare providers, patients, and caregivers.¹⁶ These findings suggest that telehealth may be a feasible and effective approach for supporting home-based care;

however, evidence regarding healthcare professionals' perspectives on tele-home visits remains limited.

In response to the COVID-19 pandemic, the Home Visit Division of the Department of Family Medicine at Ramathibodi Hospital adapted its home visit model to align with the pandemic's constraints, introducing "tele-home visits" as a new service model. This model has emerged as a novel approach to delivering home-based care. In this study, the terms "telehealth" and "tele-home visits" refer to the broader use of digital technologies to support healthcare delivery, whereas "telemedicine" refers to clinical services described in the cited literature. This study aimed to explore healthcare professionals' perceptions of tele-home visits, including aspects such as case selection, advantages, and disadvantages.

Methods

Study Design

This study employed a qualitative research design to explore healthcare professionals' perceptions of tele-home visits. The discussions were facilitated using interview questions that were specifically developed for this study (Supplementary S1). Each focus group session lasted approximately 2 to 3 hours. This study adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist to ensure comprehensive and transparent reporting of the qualitative research process (Supplementary S2).¹⁷

Settings

The Department of Family Medicine, Ramathibodi Hospital, has provided home visit services since 2001, integrating patient care with postgraduate training under faculty supervision. Services are delivered by a multidisciplinary team comprising physicians, nurses, residents, medical students, and allied health professionals. Patients are referred from outpatient and inpatient services and must reside within 30 km of the hospital. Conventional home visits are typically conducted by teams of 2 to 10 members and last approximately 1.0-1.5 hours. In response to the COVID-19 pandemic, tele-home visits were introduced as an alternative model of care. Compared with conventional home visits, tele-home visits are typically conducted by 1 to 3 healthcare professionals and last approximately 30 minutes. The tele-home visit service was delivered according to an operational blueprint developed during the COVID-19 pandemic (Supplementary S3).

Participants

Participants were healthcare professionals from the Department of Family Medicine, Ramathibodi Hospital, who had direct experience providing tele-home visits introduced in March 2020 during the COVID-19 pandemic. As tele-home visits were implemented intermittently and suspended during periods of severe outbreaks, opportunities to conduct tele-home visits remained limited. Therefore, participants were purposively selected based on their direct involvement rather than the number of visits completed, as the study aimed to explore multidisciplinary perspectives on service implementation rather than the depth of individual tele-home visit experience. All participants also had at least one year of experience providing conventional home visits, enabling meaningful comparisons between tele and conventional home visits in terms of their similarities, differences, and implementation challenges. Focus groups were stratified by professional role to capture diverse multidisciplinary perspectives.

Data Collection and Processing

Focus group discussions were conducted according to Krueger's guidelines.¹⁸ Interview questions were developed specifically for this study based on a comprehensive literature review. All interviews and discussions were conducted in Thai. The discussions were facilitated between September and December 2023, including 3 onsite sessions and one online session. Demographic data were collected from participants before the discussions. All discussions were recorded using Webex and audio-recording devices.

Data Analysis

The discussions were transcribed verbatim and the transcripts were validated by revisiting the original recordings to ensure consistency with the participants' narratives. The qualitative data were analyzed using thematic content analysis.¹⁹ Each investigator independently reviewed the transcripts, coded the data, and categorized the emerging topics. The resulting themes were refined through team discussions until consensus was reached. Selected quotations were translated into English during manuscript preparation.

Results

Seventeen participants took part in the focus group discussions. Among the 17 participants, 9 were female (52.9%), and 8 were male (47.1%). Most participants were between 30 and 39 years old and had an educational status beyond a bachelor's degree. The participants included 6 faculty physicians, 7 medical residents and 4 allied health professionals. The participants reported conducting home visits 1-2 times per week, with an average of 7.3 years of experience in home visits and experience in tele-home visits ranging from 1 to 15 visits (Supplementary S4).

The findings are organized into 4 main themes. The first explores healthcare professionals' perspectives on tele-home visits and comprises 6 subthemes. The second addresses patient suitability for tele-home visits, while the third examines their advantages and disadvantages. The final theme identifies areas for improvement (Table 1).

Table 1. Summary of Key Findings

Perspectives	Characteristics of Patient	Advantages & Disadvantages	Areas for Improvement
• Situational necessity • New digital disruption • Flexible options • Perceptions of care quality standards • Lack of multidisciplinary care teams • Challenging skills for healthcare professionals	• Suitable ◦ Follow-up cases ◦ Patients requiring psychosocial support • Unsuitable ◦ New cases ◦ Complex cases ◦ Cases requiring manual procedures	• Advantages ◦ Increase access to care ◦ Cost savings ◦ More time for a comprehensive assessment • Disadvantages ◦ Limitations of technology ◦ Limitations of communication ◦ Incomplete information	• Increase ability in technology • Standard setting • Developing communication skills • Data analysis for new knowledge • Legislation regarding tele-home visits

1) Healthcare Professionals' Perspectives on Tele-Home Visits

1.1) Situational Necessity

The pandemic resulted in social distancing measures, preventing healthcare professionals from conducting home visits as usual. Both healthcare workers and patients experienced significant fear of disease transmission, which led to the adoption of telemedicine to provide care for patients and their families. Healthcare professionals cannot abandon their patients, even though they are aware of the limitations of telemedicine in delivering comprehensive care.

"During the initial phase of the COVID-19 pandemic, the suspension of onsite home visits necessitated an immediate shift in service delivery. This situational compulsion led to the adoption of tele-home visits as a vital strategy to maintain patient follow-up and prevent care gaps."

(Study Group 4, ID 6, 32-year-old female, medical resident)

1.2) New Digital Disruption

Before the pandemic, technology enhanced daily life with the widespread use of smartphones and video calls. However, telemedicine has not yet been widespread in Thailand's healthcare system. The outbreak brought about a significant transformation in medical communication leading to broader adoption of telemedicine. In the post-pandemic period, society entered a "new normal", where individuals sought greater convenience. As a result, healthcare professionals had to adapt their approaches to patient care to better align with the evolving lifestyles of modern society.

"With this new normal people are looking for more convenient ways to do things, like seeing a doctor or getting treatment. Physicians are exploring innovative modalities. It's a new approach that uses technology to bring real benefit. First, it's something fresh that makes good use of technology. Second, it's really helpful because it allows for online care."

(Study Group 2, ID 14, 25-year-old male, allied health professional)

1.3) Flexible Options

Tele-home visits are flexible, enabling healthcare professionals to maintain and foster positive relationships with patients and their families. It also allows for data collection in limited situations, offering flexibility for patients and families, especially when some families cannot conveniently bring patients to the hospital or when relatives cannot meet healthcare professionals during home visits.

"Tele-home visits are a useful alternative for patients with different kinds of limitations. Sometimes patients live too far away, the circumstances make home visits difficult, or they simply prefer not to have an in-person visit. It gives patients and their families another option and allows us to follow up with them more often."

(Study Group 3, ID 13, 53-year-old female, faculty physician)

1.4) Perceptions of Care Quality Standards

The lack of a clear definition of tele-home visits often leaves healthcare workers uncertain about the processes involved. They may be unsure of the specific procedures or how they differ from traditional home visits. This uncertainty and potential deviation from established home visit protocols could lead to a lack of standardization in comprehensive care. Consequently, the information collected through tele-home visits may be considered unreliable, as it does not directly capture the patient's actual environment and condition.

"There seem to be 2 types of home visits: in person and online. One cannot replace the other. But in reality, with all our limitations, if we have to choose between giving less-than-ideal care or no care at all, we'd have to go with the less-than-ideal care."

(Study Group 3, ID 8, 41-year-old male, faculty physician)

1.5) Lack of Multidisciplinary Care Teams

In the context of home visits conducted by the Department of Family Medicine, Ramathibodi Hospital, a key strength is the involvement of a multidisciplinary care team, which enables comprehensive assessment and management of complex patient needs. In contrast, tele-home visits are typically conducted by attending physicians alone with patients and their relatives. As a result, some physicians experience a sense of professional isolation and feel unable to provide care at the same standard as traditional home visits due to the absence of team-based support. Tele-home visits are therefore perceived as resembling remote outpatient consultations, which may reduce the holistic approach that is central to in-person home visit care.

"Like I said, we're making these calls on our own, and we don't have an interdisciplinary team. At first, I thought that if one day we could get a multidisciplinary team together, with faculty members involved, we could all listen and discuss things as a group. In my opinion, if we could do that, we'd be able to suggest improvements together. It would be great if we could support and empower each other."

(Study Group 1, ID 2, 30-year-old male, medical resident)

1.6) Challenging Skills for Healthcare Professionals

Healthcare professionals perceived tele-home visits as challenging due to the advanced communication skills required. The absence of nonverbal cues may lead to misunderstandings and negatively affect the doctor-patient relationship. In addition, participants reported significant technological challenges, including the use of multiple platforms, appointment scheduling, and educating patients and their relatives on technology use. Some healthcare professionals also expressed concern that tele-home visit technology might encourage patient dependency and reduced self-care through the overuse of medical services.

"Sometimes, doctors need to be good at phone conversations to keep the dialogue going, and patients also need to be good at talking. It can take time to get patients we see in person to open up because trust has to be built. But it's even harder with phone calls because doctors need to work harder to build that trust so patients feel comfortable sharing."

(Study Group 1, ID 1, 30-year-old male, medical resident)

2) The Characteristics of Patients in Tele-Home Visits

2.1) Patients Who Are Suitable for Tele-Home Visits

Follow-Up Cases

Tele-home visits support continuity of care by maintaining established relationships with patients and their families.

"For tele-home-visit follow-up cases, if we already know the patient well, it's quite easy because we don't need to re-evaluate their condition. We know them, we've assessed them before."

(Study Group 4, ID 6, 32-year-old female, medical resident)

Patients Requiring Psychosocial Support

Tele-home visits enable patients and caregivers to express concerns and receive needed psychosocial support.

"Tele-home visits can help by listening to patients' distress and assessing the problems they are facing."

(Study Group 2, ID 16, 38-year-old male, allied health professional)

2.2) Patients Who Are Unsuitable for Tele-Home Visits

New Cases

For new cases, limited contextual information and the absence of established relationships may hinder healthcare professionals' understanding and provision of comprehensive, patient-centered care.

"For new cases, we don't know them beforehand, so everything is quite difficult in understanding how their family lives, what their care is like, and what their previous illness was like."

(Study Group 1, ID 3, 30-year-old male, medical resident)

Complex Cases

In complex cases, including cognitive impairment and family conflict, tele-home visits may limit accurate assessment and reliable information gathering. Multidisciplinary input and direct observation are often essential to understand patients' and families' needs and ensure comprehensive, person-centered care.

"I believe tele-home visit is probably not a very effective tool for physicians to gain a clear understanding of the patient and their family. It's like asking a doctor to close their eyes and draw a picture of the patient's family based on descriptions."

(Study Group 1, ID 1, 30-year-old male, medical resident)

Cases Requiring Manual Procedures

Tele-home visits are unsuitable for procedures requiring physical assessment, hands-on instruction, or emergency management, where direct contact is essential for patient safety and effective care.

"For complex nursing care, cases requiring tube insertion or other procedures, a healthcare provider needs to be physically present to demonstrate and train patients until they can do it themselves, as this cannot be done via camera."

(Study Group 3, ID 10, 35-year-old female, faculty physician)

3) The Advantages and Disadvantages of Tele-Home Visits

3.1) Advantages of Tele-Home Visits

Increased Access to Care

In urban settings with limited home visit capacity, tele-home visits improve access, reduce waiting times, and enhance service efficiency by reaching more patients.

"Giving them the opportunity to connect with us via tele-services could be another channel for improved access to care"

(Study Group 3, ID 13, 53-year-old female, faculty physician)

Cost Savings

Tele-home visits help reduce various resource expenditures, including transportation, costs and travel time.

"Tele-home visit can save hospital resources, saving time, saving costs."

(Study Group 1, ID 1, 30-year-old male, medical resident)

More Time for a Comprehensive Assessment

Tele-home visits support holistic, multidisciplinary care by providing more time to address patients' psychological, social, and family needs than busy outpatient settings allow.

"If you ask what additional benefits tele home visit offers, I feel that the intent of the information provided by relatives is sometimes greater."

(Study Group 1, ID 2, 30-year-old male, medical resident)

3.2) Disadvantages of Tele-Home Visits

Limitations of Technology

Technological limitations of tele-home visits include inadequate access to devices, poor internet connectivity, and low digital literacy, particularly among older adults, which may hinder effective participation. In addition, the exchange of sensitive health information raises concerns about data security and patient privacy, as professional advice may be recorded or misused. Addressing these barriers is essential to ensure safe, equitable, and effective tele-home care.

"If the relatives or patients don't have the resources, then it's over. Therefore, those who can do tele-home visit must have digital literacy, readily available internet, and a compatible mobile phone."

(Study Group 1, ID 4, 31-year-old male, medical resident)

Limitations of Communication

Communication during tele-home visits may be hindered by unsuitable environments, poor audio quality, and limited nonverbal cues. Trust-building can also be challenging, as concerns about online fraud may lead patients or families to question the identity and credibility of healthcare professionals.

"Another point regarding my feelings towards tele-home visit is that it lacks physical contact. It lacks indirect communication such as gestures."

(Study Group 1, ID 1, 30-year-old male, medical resident)

Incomplete Information

The absence of physical examinations may limit the completeness of clinical information, while indirect information may introduce bias and reduce reliability. Consequently, treatment decisions and care plans may not accurately reflect patients' actual conditions.

"The history gathered from a phone call doesn't allow us to see things with our own eyes. Assessing symptoms and clinical signs becomes quite difficult."

(Study Group 4, ID 6, 32-year-old female, medical resident)

4) Areas for Improvement in Tele-Home Visits

4.1) Increased Ability in Technology

Enhancing tele-home visits requires prioritizing video consultations, multiparticipant platforms, and government-supported technologies. Improving digital literacy, increasing public awareness, and investing in equipment and infrastructure are also essential to ensure effective, comprehensive, and equitable access to tele-home care across diverse settings.

"I believe there should be a platform created for tele home visit, like Webex or Zoom, instead of just a plain telephone call. The technology we're currently using isn't very suitable."
(Study Group 2, ID 14, 25-year-old male, allied health professional)

4.2) Standard Setting

Tele-home visits require standardized protocols, including preparation, multidisciplinary involvement, clear objectives, scheduled appointments, and guidelines for environmental setup and service delivery.

"If we define it as a checklist, it will create a standard that we initially thought didn't exist, but actually does. These are topics that can be further developed."
(Study Group 1, ID 4, 31-year-old male, medical resident)

4.3) Developing Communication Skills

Communication skills require further development, as tele-home visits lack nonverbal cues. Healthcare professionals should practice active listening, appropriate pacing, and clear language.

"I believe that the skill of active listening and the skill of reflecting thoughts and feelings, are suitable for training in remote home visits. I think there could be training on listening, perhaps on empathic listening, active listening, and so on."
(Study Group 2, ID 14, 25-year-old male, allied health professional)

4.4) Data Analysis for New Knowledge

As an emerging area of care, tele-home visits require systematic evaluation and economic analyses to assess suitability, effectiveness, and transferability across diverse patient populations and settings.

"If it can be written as research, that would be good to share what has been accomplished with the community."
(Study Group 3, ID 8, 41-year-old male, faculty physician)

4.5) Legislation Regarding Tele-Home Visits

Legislation for tele-home visits should ensure privacy, data security, and compliance with regulations such as the Personal Data Protection Act (PDPA) to protect all stakeholders.

"Tele-home visit has its own unique aspects, particularly regarding privacy. For example, we might not record them, but they might secretly record us during a tele-home visit. It's about PDPA."
(Study Group 3, ID 8, 41-year-old male, faculty physician)

Discussion

This study explored healthcare professionals' perspectives on tele-home visits implemented by the Department of Family Medicine, Ramathibodi Hospital, during the COVID-19 pandemic. During this period, the concept of the "new normal" emerged, reflecting the changes in daily life and healthcare practices resulting from the pandemic. Social distancing became a key component of this new normal and significantly affected healthcare delivery. Although telemedicine had already been implemented in many countries before the pandemic,²⁰ its use in Thailand remained limited.

During the COVID-19 pandemic, telemedicine implementation in Thailand varied across hospitals and provinces.²¹⁻²⁵ A common approach involved conducting telephone

consultations and arranging medication delivery to patients' homes.^{26, 27} For home-based care services, in-person home visits were initially suspended because of infection control measures. However, as the pandemic persisted, the need to maintain continuity of care for homebound patients highlighted the necessity of adopting tele-home visits. This shift enabled healthcare professionals to continue providing care while minimizing the risk of COVID-19 transmission.

The findings suggest that tele-home visits were adopted when in-person visits were not feasible due to social distancing, enabling continuity of care. However, their implementation shifted service delivery from multidisciplinary home visits to a predominantly physician- and resident-led model, with limited involvement from faculty physicians and allied health professionals. In the Thai context, where home visits are typically team-based, this structural change may have reduced opportunities for collaboration and shared decision-making, potentially affecting the holistic nature of care.

The findings also suggest that communication via telehealth can be challenging, consistent with previous studies reporting that communication barriers may affect provider-patient relationships.²⁸ Despite its potential effect on the relationship, tele-home visits were viewed as a flexible approach that can help maintain relationships with patients and families under constrained circumstances. This benefit has continued beyond the pandemic, as tele-home visits remain useful when environmental or logistical barriers make in-person visits impractical.

This study also suggests the need to select suitable cases for tele-home visits, similar to findings from previous telemedicine studies that suggest the appropriate patient selection is essential for effective use. Suitable candidates include follow-up patients, as familiarity with their clinical status and family context supports continuity of care. Telemedicine has been shown to be particularly suitable for managing common conditions.²⁹ ³⁰ In contrast, the findings suggest that tele-home visits are less appropriate for new patients, complex cases, emergencies, or situations requiring procedural interventions, although some limited procedures may be taught remotely.^{30, 31}

The advantages of tele-home visits identified in this study are consistent with findings from previous research. Tele-home visits have been shown to improve access to healthcare services while reducing travel time, workload, and healthcare-related costs.^{20, 30, 32} It also supports care delivery in aging populations, although additional implementation costs have been reported.²⁹

However, tele-home visits still have several limitations. Similar to previous studies, challenges related to patients' and families' digital literacy,^{29, 32} limited equipment, inadequate infrastructure, and unstable internet connectivity may compromise data completeness and highlight the need for improved technological support.^{20, 32} Participants also raised concerns regarding privacy and data security, including the risk of sensitive clinical information being recorded, shared, or misused without consent. These issues may undermine trust between healthcare professionals, patients, and families, particularly in the absence of secure digital safeguards. Although compliance with the PDPA is essential, it should be supported by clear operational protocols, secure telehealth platforms, and appropriate governance frameworks to ensure confidentiality. Collectively, these findings indicate that the existing tele-home visit blueprint could be further refined, particularly with respect to patient selection, multidisciplinary participation, communication strategies, and standardized workflows.

This study has several limitations. First, the use of focus group discussions may have limited the expression of individual opinions due to group dynamics. Second, as the study

was conducted after the COVID-19 pandemic, recall bias may have influenced participants' reflections on their experiences during the pandemic period. Third, the study was conducted in a single urban tertiary care setting, which may limit the transferability of the findings to other contexts. Fourth, variation in participant exposure may have influenced perceptions, as many had only a single experience during the early implementation phase. Their feedback may therefore reflect initial operational and technological adaptation rather than stable long-term performance.

Despite these limitations, the study has several strengths, including the inclusion of a diverse multidisciplinary group, comprehensive exploration of benefits and challenges, and practical insights into patient suitability for tele-home visits, which may inform future service development.

This study has important implications for both practice and future research in tele-home visits. Healthcare professionals should carefully select patients suitable for tele-home visits and implement standardized protocols and guidelines to ensure high-quality care. Consistent with previous research, continued technological development and government support are essential for the sustainable implementation of tele-home visits, while ensuring patient privacy and confidentiality.^{20, 28, 30, 33} Tele-home visits may be particularly valuable when in-person visits are not feasible and could be adapted to various healthcare and educational settings. Healthcare organizations may also consider integrating tele-home visits into triage, follow-up care, and hybrid care models to optimize resource utilization and improve access to care. Collaboration with government agencies is essential to support infrastructure development, regulatory frameworks, and equitable access. As suggested from previous studies, the development of clear policies, standards, and structured clinical checklists has been recommended to support safe implementation of tele-home visits.³²⁻³⁶ Medical schools and the Ministry of Public Health could play an important role in developing training programs to strengthen competencies required for effective telehealth delivery. Communication training and prior hands-on clinical experience are also important for effective practice.^{28, 30}

Future research should incorporate patients' perspectives to provide a more comprehensive understanding of tele-home visits, evaluate their economic feasibility and cost-effectiveness, and compare clinical and patient-reported outcomes between conventional and tele-home visits. Further studies should also examine how cultural factors, family structures, and caregiving arrangements influence the implementation, experience, and effectiveness of tele-home visits.

Conclusions

Rather than replacing conventional home visits, tele-home visits may serve as a complementary model of care in appropriate clinical contexts. However, the development of a clearly defined and structured system is needed to distinguish tele-home visits from general teleconsultation services. In addition, further economic evaluation is essential to better understand feasibility, cost-effectiveness, and sustainability before broader implementation at the health system level.

Additional Information

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Ethics Approval: This study received ethics approval from the Human Research Ethics Committee of the Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand (MURA2023/621 on 10 August 2023) in accordance with the Declaration of Helsinki. All participants provided informed consent prior to their involvement in the study, and steps were taken to ensure the privacy and confidentiality of their data.

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Supplementary Material: Download Supplementary S1-S4 from the following link:

<https://he02.tci-thaijo.org/index.php/ramajournal/article/view/279929/191672>

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