

Social Empowerment Process for Hand Muscle Management Practises of the Elderly and Bedridden Patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province

Bursara Pothisook¹, Phra Maha Atthaphon Narissaro², Nikorn Ya-inta³,
Puttipong Kantharot⁴, Bunyada Prapattarasiri⁵ and Supatharn Sudachan⁶

Received: 11 January 2026; **Revised:** 04 March 2026; **Accepted:** 05 March 2026

Abstract

This research investigates the development of a social empowerment process designed to enhance hand muscle function and social interaction among the elderly and bedridden patients. Utilizing a mixed-methods approach the study gathered qualitative data from 20 key informants and applied a developmental intervention to 39 patients. Initial findings highlighted significant challenges including low health literacy, resource scarcity and social isolation. In response, a comprehensive support mechanism was synthesized, leveraging local administrative resources, health networks and indigenous wisdom. The core intervention called the Chang Phutthipanya Boonraksa integrated physical exercises with the Buddhist principles of the Four Bhāvanā to foster holistic well-being. Quantitative evaluation demonstrated a statistically significant improvement in hand-grip strength among mobile elderly participants ($p < 0.05$). Although bedridden patients did not exhibit statistically significant gains in grip strength, clinical observations confirmed substantial improvements in hand function and fist-clenching ability. Moreover, the process successfully mitigated social isolation. Consequently, this study proposes the Buddhist-Inspired Community Empowerment Model a novel framework that harmonizes physical, social, and spiritual dimensions to empower community-based elderly care.

^{1 2 3 4 6}Mahachulalongkornrajavidyalaya University, Thailand

⁵Charinrat Lamphun Technology College, Thailand

Corresponding Author, E-mail: bussara.po@mcu.ac.th

Keywords: Bedridden Patients; Chang Phutthipanya Boonraksa; Elderly; Hand Muscle; Social Empowerment

Introduction

The Ageing Society is an inevitable demographic structural change occurring globally. Thailand has fully transitioned into an aged society with the population aged 60 and over accounting for 19.21 percent of the total population (Department of Older Persons, 2022). Meanwhile, Lamphun province has a high proportion of the elderly at 24.07 percent, which is higher than the national average and ranks among the top in the country (Department of Older Persons, 2023). This situation reflects a structural transition that impacts the family system, the healthcare system, and long-term care mechanisms at the local level. Information on the health status of the Thai elderly in 2022 found that there are 680,000 elderly people suffering from dementia and 46,779 in a bedridden condition (Thai Foundation for the Research and Development of the Elderly, 2022). This group of elderly is highly dependent requiring long-term care and assistance with daily living (Chonkarn Songsri, 2014). However, the current care system still relies primarily on families, causing caregivers to continuously face physical and psychological burdens especially when lacking helpers or support resources (Wannapa Sritanyarat and Ladda Damrikarnlert, 2010; Sarika Prommarat, 2016; Rosradee Pakpakorn, 2011; Busaya Wongchavalitkul et al., 2016). Such burdens lead to accumulated stress, negatively affecting family relationships and the mental health of caregivers (Songluck Ketankul, 2008). This reflects the systemic limitations of elderly care service provision, which still lacks connection and integration at the community level.

Although the government has established policies for long-term care and proactive preparation for an aging society, focusing on social empowerment and the participation of all sectors (Office of the Prime Minister's Secretariat, 2023) implementation at the local level continues to face limitations in budget allocation, personnel capacity and coordination mechanisms. As a result, elderly care services remain primarily focused on physical or biomedical care, while social dimensions such as motivation building, social relationships, and community participation have not been systematically integrated into care processes.

Pratu Pa Subdistrict, Mueang District, Lamphun Province, reflects these challenges. In 2021, the subdistrict had a total population of 5,472 of whom 1,394

were elderly persons, including 16 dependent or bedridden individuals requiring continuous care (Pratu Pa Subdistrict Municipality, 2023). At the same time, a portion of the working-age population has migrated to industrial estates and other provinces for employment, resulting in a demographic structure largely composed of elderly persons and children. Moreover, the local administrative organization faces constraints in financial and human resources, limiting the comprehensiveness and sustainability of elderly care provision.

Moreover, guidelines for elderly rehabilitation, such as hand muscle management are often implemented with a primary focus on physical outcomes. Meanwhile, social empowerment intended to support motivation, participation, intergenerational relationships, and the elderly's sense of self-worth has not been systematically integrated. This results in a lack of continuity in rehabilitation practices, leaving a number of elderly individuals experiencing feelings of loneliness or a lack of social support.

For this reason, the researcher is interested in studying the “Social Empowerment Process for Hand Muscle Management Practices of the Elderly and Bedridden Patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province.” This aims to transfer social energy to the elderly and bedridden patients, providing them with the motivation to practice hand muscle management. This process is crucial for developing and maintaining the ability to perform daily activities, which contributes to the well-being of the elderly. It promotes healthy ageing (Foundation of Thai Gerontology Research and Development Institute (TGRI), 2022), leading to robust physical health and resilient mental health moving forward.

Research Objectives

1. To study the problems, obstacles, and needs related to hand muscle management and social interaction among the elderly and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province.
2. To examine the components of community empowerment in relation to hand muscle management practices and social interaction of the elderly and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province.
3. To develop a social empowerment process for hand muscle management practices and social interaction of the elderly and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province.

4. To evaluate the outcomes and propose a social empowerment process for hand muscle management practices and social interaction of the elderly and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province.

Research Methodology

A mixed-methods approach was utilized to address the complex physical and social dimensions of hand muscle management and social interaction in elderly and bedridden patients. Qualitative methods explore the community's context, issues and social capital, whereas quantitative methods provide concrete validation of physical outcomes like handgrip strength and social interaction levels. This combination ensures comprehensive and robust findings.

1. The qualitative research involved in-depth interviews with 20 key informants. The key informants were selected through purposive sampling to ensure that individuals with expertise relevant to the research objectives were included. They comprised: 1) 1 Mayor of Pratu Pa Subdistrict. 2) 1 Director of Pratu Pa Subdistrict Health Promoting Hospital. 3) 1 Medical Specialist. 4) 1 Medical Specialist/Researcher. 5) 1 Physical Therapist. 6) 2 Instructors teaching how to make hand muscle exercise devices. 7) 2 Family caregivers for the elderly. 8) 2 Elderly individuals. 9) 4 Caregivers (CG). and 10) 5 Village Health Volunteers.

2. Action Research was conducted to develop a process for strengthening social empowerment in relation to hand muscle exercise and social interaction for the elderly and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province. The researchers defined the target groups into two parts: the first part consisted of the network to participate in the activities, and the second part consisted of the elderly individuals to be developed. This included 9 bedridden elderly and 30 general elderly individuals in the Pratu Pa Subdistrict area, Mueang District, Lamphun Province. Participation in the project was voluntary and adhered to human research ethics requirements. Subsequently, the action research outcomes were evaluated, and the research results were summarized for broader dissemination and application.

3. Ethical Considerations. This study involved elderly and bedridden patients, who are classified as vulnerable populations. Therefore, strict ethical protocols were followed throughout the research process. All participants were informed about the purpose, methods, and potential impacts of the study in language they could easily understand. Written informed consent was obtained from

each participant or their legal representative. Participants were explicitly informed that their involvement was entirely voluntary and that they could withdraw at any time without penalty or loss of benefits. To protect privacy all data were anonymized using unique codes and personal identifiers were removed from all records. The research protocol received ethical approval to the commencement of data collection.

4. The research instruments were divided into 2 types: 1) The instruments used for the hand muscle exercise intervention, namely a hand muscle exercise device called “Mue Chang Phutthipanya Boonraksa” and 2) The instruments used for data collection, consisting of 4 parts: (1) A structured interview (Structure In-Interview) with open-ended questions (Open-Ended Questions). (2) A general questionnaire, which was a questionnaire on the basic information of the sample group. It was a combination of multiple-choice and fill-in-the-blank formats, containing questions about gender, age, marital status, education, occupation, underlying diseases, weight, height and hand muscle condition. (3) A hand muscle exercise log, used to record hand muscle exercise sessions at two times: morning and evening, with each session lasting 10-15 minutes. and (4) An evaluation form, employed to assess outcomes through behavioral observation and interviews, in order to measure the effectiveness of participation in network activities and the results of using the hand muscle exercise device, “Mue Chang.”

5. Data Analysis. Qualitative Research: The researchers conducted a data analysis based on content analysis, then summarized the findings according to the set objectives. This involved analyzing and synthesizing data collected from interviews with key informants. The analysis was descriptive, and the presentation included visuals of activities, a compiled set of knowledge (a summary knowledge booklet), and video documentation of the data synthesis atmosphere in the field area. This approach yielded empirical results that are practical and applicable.

Action Research Analysis: The data analysis for the action research employed an experimental evaluation method. Significant findings were detailed and explained, leading to research conclusions. This process demonstrates effective pathways or models of practice for addressing the issues under study.

Results

Objective 1: Problems, Obstacles, and Needs

The findings revealed that reduced quality of life among older adults and bedridden patients in Pratu Pa Subdistrict was not solely attributable to age-related physiological decline. A major contributing factor was inadequate knowledge of appropriate hand muscle rehabilitation, resulting in diminished self-care capacity and increased risk of secondary complications. Individuals living alone were particularly vulnerable.

Major obstacles included shortages of rehabilitation personnel, discontinuity of home-based care, limited caregiver competencies, inadequate medical equipment, and mistrust among some patients. Social isolation was prevalent due to restricted mobility, negatively affecting psychological well-being and overall quality of life.

Participants identified 3 primary needs: (1) structured caregiver training. (2) affordable and contextually appropriate rehabilitation devices. and (3) an integrated community-based support system to ensure continuity and sustainability of care.

Objective 2: Components of Community Empowerment

The findings identify six core components of community empowerment that directly supported hand muscle rehabilitation and social interaction among older adults and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province.

1) Community support mechanisms and local structures: Active collaboration among community leaders, village health volunteers and caregivers established a proactive home-based care system. Regular home visits and ongoing health activities improved adherence to hand exercise practices and ensured continuity of care, contributing to measurable physical and functional improvement.

2) Local resources and indigenous knowledge: Locally available materials, such as coconut shells and mung bean-filled fabric bags, were developed into low-cost hand exercise devices. Community funding mechanisms supported their production. These context-appropriate innovations increased accessibility to rehabilitation tools, resulting in improved handgrip strength and functional hand use.

3) Health learning networks: Collaboration with provincial public health authorities and Lamphun Hospital strengthened caregivers' rehabilitation competencies. Knowledge exchange among village health volunteers and caregivers,

supported by digital platforms (e.g., LINE groups and tele-rehabilitation) enhanced the quality and consistency of exercise implementation, leading to observable functional gains.

4) Family and community social relationships: Strong family involvement and social cohesion reduced isolation and increased motivation for consistent participation in rehabilitation. Enhanced emotional support was associated with improved engagement and more sustained functional practice.

5) Community culture and participatory activities: Cultural events and public health activities served as inclusive platforms for health education and demonstration. These socially embedded settings strengthened participants' sense of belonging and promoted greater social interaction, even among bedridden patients through indirect participation and outreach.

6) Integration of Buddhist principles: The application of physical, moral, mental and wisdom development (*kāyabhāvanā*, *sīlabhāvanā*, *cittabhāvanā* and *paññābhāvanā*) supported mindfulness and emotional regulation. This integration improved concentration during hand exercises, reduced anxiety, and reinforced positive attitudes toward rehabilitation adherence.

Overall, the empirical evidence indicates that these six components functioned synergistically to produce not only physical improvements in hand strength and function but also meaningful enhancements in social interaction and sustained community engagement.

Objective 3: Development of the Social Empowerment Process

The findings indicate that the social empowerment process was developed through the integration of six mutually reinforcing components.

1) Community leadership structures established a proactive and continuous home-based care system

2) Local resources and indigenous knowledge were mobilized to develop the Buddhapanya Boonraksa Elephant hand rehabilitation device, enhancing accessibility and community ownership

3) Collaboration between provincial and local health agencies strengthened rehabilitation competencies among volunteers and caregivers, improving implementation quality.

4) Family and community networks reinforced adherence by providing emotional and practical support, thereby reducing social isolation.

5) Cultural activities and community forums served as platforms for health education and participatory engagement.

6) Buddhist principles were integrated through the “Bhud–Tho” mindfulness breathing technique synchronized with hand exercises, promoting concentration and intrinsic motivation.

Collectively, these components demonstrate that rehabilitation extended beyond physical intervention to become a holistic, community-driven process integrating structural, social, cultural, and spiritual dimensions, contributing to sustainable improvements in quality of life among older adults and bedridden patients.

Objective 4: Outcome Evaluation and Model Proposition

The evaluation included 30 older adults and 9 bedridden patients, most of whom were female, right-hand dominant and diagnosed with chronic conditions particularly hypertension. Post-intervention results showed significant improvement among older adults in hand function, fist formation and grip strength with statistically significant increases at the .05 level in both dominant and non-dominant hands. Among bedridden patients although grip strength remained at a limited level, measurable positive trends were observed including an increased proportion able to fully close the hand. Participants also reported reduced hand pain and improved ability to grasp and manipulate objects. Reflecting meaningful functional gains in daily living activities.

The empowerment process generated observable changes through the systematic interaction of six community components community support mechanisms, local resources and indigenous knowledge, health learning networks, family and social relationships, community culture, and Buddhist principles. These elements operated synergistically to sustain rehabilitation adherence and enhance social engagement, forming the foundation of a locally driven empowerment model.

The proposed process comprised six stages: (1) participatory problem assessment with community stakeholders. (2) development of the Buddhapanya Boonraksa Elephant hand rehabilitation device tailored to user needs. (3) capacity building through knowledge transfer and hands-on training for village health volunteers and caregivers. (4) refinement of the device and protocol (five-finger design, 1 cm thickness, three sessions daily, 15 minutes per session, and objective grip-strength assessment). (5) field implementation with structured home follow-up.

and (6) synthesis into the Buddhist-Inspired Community Empowerment (BCE) Model, integrating local innovation, Buddhist principles, and community networks.

Overall, the findings indicate that the model supports sustainable improvements in physical function and social interaction by grounding rehabilitation within community capital and holistic health principles.

Discussion

From the study entitled “Social Empowerment Process for Hand Muscle Management Practices of the Elderly and Bedridden Patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province,” the research findings can be discussed as follows:

1. Pratu Pa Subdistrict has an elderly population proportion as high as 30 percent, clearly reflecting the transition to an ageing society. The findings indicate that older adults, bedridden patients and caregivers in Pratu Pa Subdistrict, Mueang District, Lamphun Province lacked adequate knowledge of proper hand muscle rehabilitation resulting in decreased self-care capacity. Structural barriers including shortages of healthcare personnel and medical equipment further constrained effective service delivery. In addition, family caregivers often lacked appropriate skills and understanding, leading to discontinuity of care. Social isolation and limited social interaction also negatively affected psychological well-being demonstrating that the challenges extend beyond physical impairment. These findings underscore the need for a holistic care system that integrates caregiver capacity building, provision of appropriate rehabilitation equipment, and the establishment of social support networks to sustainably enhance quality of life among older adults and bedridden patients. The results are consistent with the studies of Sarik Prommarat (2016) and Nattakorn Nilnet (2019), which found that most caregivers are female family members who often lack caregiving assistance. The absence of support contributes to significant physical and emotional burden and may lead to mental health problems. The heavy responsibilities borne by caregivers without sufficient support networks further reinforce the urgent necessity of developing a sustainable and structured care platform.

2. The components of community empowerment in relation to hand muscle management practices and social interaction of the elderly and bedridden patients. The findings identified six interrelated components of community power driving

hand muscle rehabilitation and social interaction among older adults and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province. These components included: (1) community support mechanisms and local structures, characterized by proactive roles of community leaders, village health volunteers, and caregivers. (2) mobilization of local resources and indigenous knowledge to develop low-cost health innovations. (3) health learning networks that translated knowledge from public health agencies into community practice. (4) strong family relationships and social bonds that reduced isolation and strengthened motivation. (5) cultural traditions and community activities that promoted social participation. and (6) integration of Buddhist principles, particularly Bhāvanā 4 to cultivate mindfulness and self-awareness in self-care. These findings reflect the integration of Buddhist teachings into everyday community life. The results are consistent with the study of Phra Yongyut Thewathammo (Chantha-on) (2020). Found that applying Buddhist ethics especially Bhāvanā 4 together with Brahmavihāra 4 in the care of bedridden patients helped address caregiver shortages and improved patients' holistic quality of life. Overall, the shared emphasis across studies lies in the combined use of social capital (community leaders and family networks) and spiritual capital (Bhāvanā 4) as key mechanisms for sustainable elderly and long-term care.

3. The development of a social empowerment process for hand muscle rehabilitation and social interaction among older adults and bedridden patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province was driven by the integrated operation of six key components. These included: (1) strong and proactive community and local structural support. (2) application of local resources and indigenous knowledge to create the Buddhapanya Boonraksa Elephant innovation. (3) establishment of health learning networks linking academic knowledge to community practice. (4) family and social network support to reduce isolation. (5) utilization of cultural traditions and community activities as participatory learning spaces. and (6) integration of Buddhist principles, particularly Bhāvanā 4, through the “Bhud–Tho” mindfulness practice synchronized with physical exercise. These findings demonstrate that health rehabilitation extends beyond a purely physical process and operates through community-driven mechanisms encompassing social structure, knowledge systems, relationships, culture, and spirituality. The results are consistent with the study of Phra Maha Chaowarit Narinto (Sapsawat) (2018), which

identified Bhāvanā 4 as a key framework for enhancing well-being among older adults: physical development (kāya-bhāvanā), moral discipline (sīla-bhāvanā), mental cultivation (citta-bhāvanā) and wisdom development (paññā-bhāvanā). In this study, the abstract principles of Bhāvanā 4 were translated into concrete rehabilitation activities and community innovations functioning as a central mechanism for sustainably improving quality of life among older adults and bedridden patients.

4. The evaluation revealed that most participants were female and had underlying health conditions. Following implementation of the developed process older adults demonstrated a statistically significant improvement in handgrip strength and hand function at the .05 level, while bedridden patients showed improved grasping ability. These findings confirm that consistent use of the Buddhapanya Boonraksa Elephant hand rehabilitation device directly enhanced small muscle strength. The results are consistent with Sompong Morarit (2018) who reported increased handgrip strength among older adults after exercise using a bamboo-based device and with Natchanok Thinchana (2016), who found that home-based elastic band exercise programs significantly improved physical performance.

Importantly, these outcomes were achieved through a structured six-step process: problem assessment, innovation development, community knowledge transfer, academic refinement, field implementation and synthesis into the BCE (Buddhist Community Empowerment) Model. The process was supported by six dimensions of community power local support mechanisms, community resources, health networks, family engagement, cultural participation and Buddhist principles which collectively enhanced holistic and sustainable health care. These findings align with the study of Juthathip Ngoichansri and Orasa Kongtan (2012) which emphasized the importance of home visits, skill development among health volunteers, service continuity and improved self-care among homebound and bedridden older adults. Overall, sustainable community health management requires integration of formal health services with community ways of life, using innovation and participatory learning as bridging mechanisms to promote satisfaction, self-reliance and long-term quality of life.

New Knowledge

From the research entitled “Social Empowerment Process for Hand Muscle Management Practises of the Elderly and Bedridden Patients in Pratu Pa Subdistrict, Mueang District, Lamphun Province” the researcher gained a new body of knowledge as illustrated in the following figure.

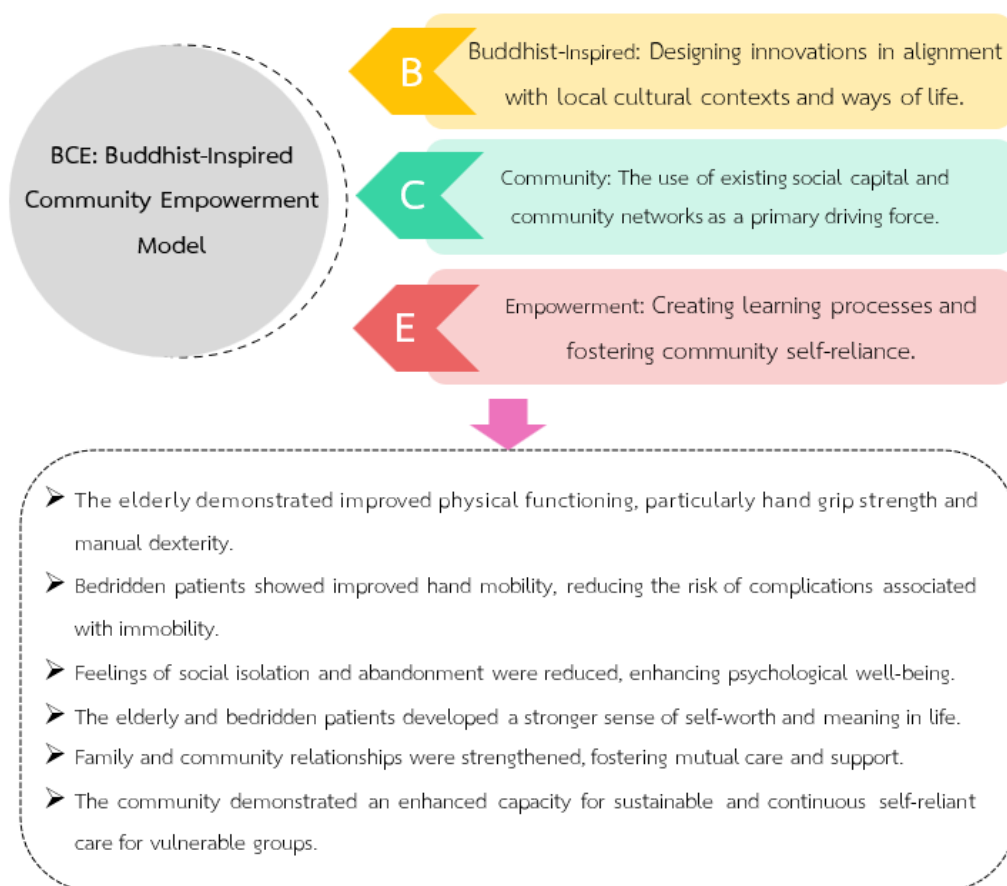


Figure 1 New knowledge obtained from the research

Based on the body of knowledge generated by this research, the Buddhist-Inspired Community Empowerment (BCE) Model can be explained as a social empowerment process integrating physical, social and spiritual dimensions. The model comprises three core components.

First, Buddhist-Inspired. This component applies Buddhist principles to design culturally appropriate, low-cost innovations, such as the Chang Phutthipanya Boonraksa device made from local materials. Rehabilitation therefore addresses not only physical recovery but also mental and cognitive well-being while cultural

activities promote social interaction and acceptance of care at family and community levels.

Second, Community. This component emphasizes the use of existing social capital and community networks such as village health volunteers, caregivers, families and local organizations to deliver continuous and context-appropriate care. Mobilizing internal community resources helps overcome shortages of professional personnel and fosters community ownership and long-term sustainability.

Third, Empowerment. This component focuses on building shared learning processes and community self-reliance through hands-on training for the elderly, families and village health volunteers. The resulting cycle of knowledge transfer, networking and evaluation improves physical function and enhances psychological and social well-being forming a foundation for sustainable quality of life in semi-urban rural communities.

Conclusion and Suggestion

Elderly and bedridden patients in Pratu Pa face weak hand muscles, joint stiffness, and social isolation due to health limitations, lack of rehabilitation knowledge and limited personnel and equipment. Community social capital from local leaders, VHVs and indigenous wisdom supports rehabilitation and social interaction. The integration of this knowledge led to the Chang Phutthipanya Boonraksa hand exercise device and a holistic rehabilitation model. Evaluations showed significant improvements in handgrip, fist formation, manual dexterity, reduced social isolation and stronger community care networks. Based on the research findings, the researcher proposes the following recommendations.

1. Policy Recommendations

1.1 The Pratu Pa Subdistrict Municipality and local government agencies should incorporate the project for the production and distribution of the Chang Phutthipanya Boonraksa innovation into the annual quality of life development plan to ensure sustainability.

1.2 The establishment of community learning centers for the production of low-cost physical therapy equipment derived from local wisdom should be promoted.

2. Recommendations for Practical Application

2.1 Caregivers should utilize the Chang Hand device in conjunction with Activities of Daily Living (ADL) training, such as practicing grasping objects, to enhance patients' self-help potential.

2.2 Village Health Volunteers (VHVs) should employ concrete measurement tools, such as a hand dynamometer, to continuously track progress and build motivation for patients.

3. Recommendations for Future Research

3.1 Future studies should conduct longitudinal research (beyond six months) on the Chang Phutthipanya Boonraksa innovation to evaluate sustained effects on handgrip strength, functional independence, adherence rates and quality of life. Monitoring long-term outcomes will help determine durability, user retention, and potential decline after extended use.

3.2 Further research should expand the model to patients with specific medical conditions such as hemiplegia following stroke or Parkinson's disease to examine condition-specific adaptations of the innovation. This would support the development of tailored rehabilitation protocols and enhance clinical relevance across diverse patient groups.

References

- Department of Older Persons. (2022). *Elderly statistics, December 2022 (Looker Studio)*. Retrieved June 23, 2025, from <https://www.dop.go.th/th/know/side/1/1/2387>
- Department of Older Persons. (2023). *Statistics of the Thai elderly, 2022*. Policy and Strategy Group. Retrieved June 23, 2025, from <https://www.dop.go.th/th/know/side/1/1/1962>
- Foundation of Thai Gerontology Research and Development Institute. (2022). *Situation of the Thai elderly 2021*. (Institute for Population and Social Research). Mahidol University, Bangkok.
- Ket-ungkul, S. (2008). *Mental health status of patients with chronic diseases at Bueng Samakkhi Hospital, Kamphaeng Phet Province*. (Master's independent study). Chiang Mai University, Chiang Mai.

- Morarit, S. (2018). Innovative hand grip exercise device for the elderly: Ngam Phai Hai Ngorm 101. *Lanna Journal of Health Promotion and Environmental Health*, 8(1), 58–65.
- Ngoichansri, J. & Kongtan, O. (2012). Development of a continuing health care model for homebound and bedridden older adults in Phetchabun Municipality. In *Proceedings of the Graduate Research Conference 2012*. Khon Kaen University.
- Nilnet, N. (2019). Mental health status of caregivers of bedridden elderly in Wapi Pathum District, Maha Sarakham Province. *Siam University Journal of Nursing Science*, 20(39), 36–44.
- Office of the Prime Minister. (2023). *Master plan under the National Strategy (2023–2037)*. *Royal Gazette*, 140, 15–8–15–10.
- Phakphakorn, R. (2011). *Prevalence and factors associated with depression among caregivers of stroke patients at King Chulalongkorn Memorial Hospital*. (Master's thesis). Chulalongkorn University, Bangkok.
- Phra Maha Chaowarit Narinto (Sapsawat). (2018). *A study of guidelines for developing the quality of life of the elderly according to the Four Bhāvanā principles: A case study of older adults in Ban Huai Hoi, That Thong Subdistrict, Phu Khiao District, Chaiyaphum Province*. (Doctoral dissertation). Mahachulalongkornrajavidyalaya University, Phra Nakhon Si Ayutthaya.
- Phra Yongyut Thewathammo (Chantha-on). (2020). *Care for bedridden patients based on Buddhist ethics in Ban Fang Subdistrict, Kaset Wisai District, Roi Et Province*. (Doctoral dissertation). Mahachulalongkornrajavidyalaya University, Phra Nakhon Si Ayutthaya.
- Pratu Pa Subdistrict Municipality. (2023). *Local development plan (2023–2027)*. Retrieved June 23, 2025, from <https://pratu.pa.go.th>
- Prommarat, S. (2016). Factors affecting caregiving burden among caregivers of bedridden elderly in Ban Hong District, Lamphun Province. *Lanna Journal of Public Health*, 12(1), 57–64.
- Songsri, C. (2014). A home health care model of Mae Non-Health Promoting Hospital, Mueang Udon Thani. *Journal of Nursing and Health Care*, 32(3), 155–161.
- Sritanyarat, W. & Damrikarnlert, L. (2010). *Guidelines for elderly care services*. Sahamit Printing and Publishing.

- Thinchana, N. (2016). *Effects of a home-based exercise promotion program using elastic bands on physical fitness among the elderly*. (Master's thesis). Prince of Songkla University, Songkla.
- Wongchawalitkul, B., et al. (2016). Knowledge and attitudes of elderly caregivers: A case study of caregivers in elderly welfare institutions, Nakhon Ratchasima Province. *Journal of Business Administration, Association of Private Higher Education Institutions of Thailand*, 5(2), 74–92.