

Developing and Evaluating a Program to Support Preparation for Aging: A Case Study from Phuket Province, Thailand

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Abstract

Introduction: Thailand's aging population is increasing. While the societal impact of aging is recognized, formal programs to support pre-retirement planning are currently lacking. This study aimed to develop and evaluate a program specifically designed to address this gap and support individuals to prepare for a healthy and fulfilling later life. **Methods:** We employed a quasi-experimental, one-group pre-test/post-test design to evaluate a newly developed program focused on pre-retirement preparation. The program consisted of four, 3-hr modules delivered weekly. Voluntary participants ($N=25$) were aged 50 to 59 years, physically active, and committed to attending all modules. Participants' knowledge and self-reported preparedness for aging were assessed before and after program completion. **Results:** The program led to a statistically significant increase in participants' overall knowledge of aging ($z=-2.010$, $p<.05$). While specific areas of preparation did not show statistically significant individual differences, mean scores improved across all aspects of preparation. This may reflect the existing health knowledge of some participants and their proactive approach to aging preparation (80% reported some prior preparation). **Conclusion:** This study demonstrates the effectiveness of a pre-retirement preparation program in enhancing knowledge and self-reported preparedness for aging. Findings suggest that such programs can stimulate middle-aged adults to plan for their future well-being. This study underscores the need for a more holistic approach to pre-retirement preparation. Future programs should consider incorporating content beyond health and finances, potentially including social life planning as identified in this research. Future research could explore program modifications, such as extended formats and content tailored to specific needs.

Keywords

preparation program, older persons, physical and mental health, financial, digital age living

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What this Paper Adds

This study contributes to the field of pre-retirement preparation in several ways:

- **Social Welfare Integration:** Our findings support the potential inclusion of pre-retirement preparation programs within government social welfare initiatives, promoting proactive aging strategies for middle-aged adults.
- **Digital Literacy Focus:** The study highlights the growing importance of digital literacy for older adults. Future programs should integrate content on websites or applications that support healthy aging and active living in later life.
- **Expanding Program Scope:** This study underscores the need for a more holistic approach to

pre-retirement preparation. Future programs should consider incorporating content beyond health and finances, potentially including social life planning.

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Applications of Study Findings

The findings of this study offer valuable insights for program development and future research:

- **Program Design:** Organizations can leverage these findings to enhance the comprehensiveness of preparation programs for older adults. The suggested two-section structure, with each section not exceeding four sessions, aligns with participant preferences for shorter, manageable sessions.
- **Global Applicability:** The study's positive outcomes suggest the potential for broader adoption of pre-retirement preparation programs beyond Thailand. Other countries can explore integrating similar programs into their existing social support structures.
- **Longitudinal Research:** Future research should consider longitudinal studies to assess the long-term impact of pre-retirement preparation programs on participants' well-being and preparedness throughout their later life.

Introduction

Thailand, like many countries, confronts the significant challenge of population aging (World Health Organization, 2022). Over 20% of its citizens are already over 60, with 14% exceeding the age of 65. This proportion is projected to reach 28% by 2042, contributing to a stark rise from 13 million to 19 million people over 60 (Foundation of Thai Gerontology Research and Development Institute, 2022). This shift from 19% to 31.4% of the population will impact every facet of society, including economic growth, family dynamics, housing, healthcare, and social care (Solhi et al., 2022). As this population ages, they will face increased vulnerability in biological, psychological, and socioeconomic aspects, leading to a greater reliance on family support (Jirojanakul et al., 2019).

Aging is a natural process affecting our biology, physiology, psychology, and social life (Solhi et al., 2022). This complex and individual experience significantly impacts an older adult's well-being and quality of life (Dziechciaż & Filip, 2014). As we transition into later years, challenges like declining health and financial strain may arise. However, proactive preparation for aging empowers older adults to cope with these changes and navigate this stage more smoothly (Solhi et al., 2022).

Studies show pre-retirement planning, particularly financial and emotional preparation, improves quality of life and well-being in later years (Kornadt et al., 2019; Noone et al., 2013). Researchers emphasize the importance of a multi-faceted approach, considering cultural context and individual needs (Kornadt et al., 2019; Solhi et al., 2022). Ideally, this preparation should begin well

before retirement. Middle age (45–59) is seen as a prime time for this, allowing adjustments for a smoother transition (Jirojanakul et al., 2019; Solhi et al., 2022). Data suggest over 30% of young Thais neglect preparing for their future health and finances (Pooprasert, 2018). Only 15 million working-age Thais participate in retirement savings, and even these funds might be insufficient (Pooprasert, 2018). Recognizing this growing challenge, Thailand's action plan for older adults (phase 3, 2023–2037) includes a sub-plan specifically focused on pre-retirement preparation (Ministry of Social Development and Human Security and Chulalongkorn University, 2022). Experts recommend starting preparations as early as possible, including retirement planning, health management, and financial security (Jirojanakul et al., 2019). By age 50 to 59 at the latest, taking concrete steps is crucial (Kaewmafai & Nuntaboot, 2021).

Phuket is rapidly aging and the dependency ratio of older adults is expected to rise significantly, from 13.7% in 2015 to 24% by 2030 (Phuket Statistical Office, 2017). While previous Thai research has explored retirement planning levels, limited evidence exists on the effectiveness of specific preparation programs (focus on limited statistical evidence). Existing studies often rely on cross-sectional approaches and primarily focus on Western contexts (Yeung & Zhou, 2017). However, cultural and societal factors significantly influence pre-retirement preparation (Kornadt et al., 2019). This necessitates country-specific research to understand the unique needs and contexts, including lifestyle, policies, and cultural aspects. Recognizing the lack of formal programs in Phuket, this study aimed to design and evaluate a new program specifically targeting individuals aged 50 to 59 years. This age group is ideal for future planning, and the program's development and evaluation were crucial in this specific location.

Methods

Study Design

This study employed a quasi-experimental, one-group pre-test and post-test design.

Program Development

The intervention program, titled "Preparing for Older Age," was designed based on the findings of Luevanich et al. (2022) regarding Phuket Rajabhat University's role in supporting a complete-aged society. Their study highlighted the need for knowledge on preparing for older age. Additionally, a comprehensive review of relevant academic and policy literature informed the program content. The study received ethical approval from Phuket Rajabhat University.

Initially, the program comprised six modules: physical health preparation, psychological health preparation, living in the digital age, financial planning and

Table 1. Content of the Program.

Module/Meeting	Themes	Program content	Hours
1/ First meeting	Introduction and exercise for healthy aging	<ol style="list-style-type: none"> 1. Situation of older people in Thailand 2. Age-related physiological changes 3. Significance of preparation for older age 4. Exercise for healthy aging 5. Body composition and health assessment 	3
2/ Second meeting	Self-care and prevention for NCDs and geriatric syndromes	<ol style="list-style-type: none"> 1. Diabetes 2. Hypertension 3. Cardiovascular disease 4. Dementia 5. Sarcopenia 6. Falls 7. Osteoarthritis 8. Osteoporosis 9. Depression 	3
3/ Third meeting	Financial planning and management	<ol style="list-style-type: none"> 1. Why financial planning is significant 2. Good money management for entering older age 3. How to manage the indebtedness 4. Which investment(s) is/are suitable for older people? 	3
4/ Fourth meeting	Living in the digital age (digital literacy)	<ol style="list-style-type: none"> 1. Social media 2. How to use a smartphone safely 3. Online ordering safely 	3

management, benefits and law for older persons, and exercise and recreation for healthy aging. However, public health experts advised that this number might discourage participation. Consequently, the program was revised to include four core modules, merging physical and mental health preparedness due to their foundational importance.

The revised program (outlined in Table 1) addressed the most critical issues for older adults, informed by a review of relevant literature. The final curriculum, titled “Preparing for Holistic Health,” focused on physical, mental, social, and spiritual well-being.

- Module 1: Understanding Aging in Thailand - This module covered the current situation of older adults in Thailand, age-related changes, and incorporating exercise for healthy aging.
- Module 2: Managing Age-Related Conditions - This module addressed Non-Communicable Diseases (NCDs) and common syndromes associated with aging, such as diabetes, dementia, and osteoporosis.
- Module 3: Financial Planning for Retirement - This module provided participants with the knowledge and skills for effective financial planning and management.
- Module 4: Digital Literacy for Older Adults - This module equipped participants with the skills necessary to navigate the digital age.

Content validity was ensured through the Index of Item-Objective Congruence (IOC - (a concept used to evaluate content validity of test items during the development stage of a study)) (Rovinelli & Hambleton, 1977). Three

experts - a physician experienced in long-term care, a nursing lecturer specializing in elder care, and an expert from the Department of Older Persons - evaluated the program’s content alignment with its objectives. The program consisted of four weekly sessions, each module lasting 3 hours.

Selecting the sample. Participants were recruited from Phuket province, Thailand. Inclusion criteria were:

- Age: 50 to 59 years old
- Independent living
- Availability to attend 4, 3-hour modules on consecutive Saturdays (1:00 PM – 4:00 PM)
- Ability and willingness to consent to take part in the study.

We advertised the program on social media and collaborated with local government organizations to disseminate recruitment information. Interested individuals applied through a QR code, hyperlink, or phone call.

An initial pool of 32 applicants expressed interest in the “Preparing for Older Persons” program. However, for various reasons (work commitments, travel, post-operative recovery, COVID-19 isolation), four individuals were unable to attend the first session. This resulted in an initial sample size of 26. Unfortunately, one additional participant missed modules 2 to 4 due to a business trip, leaving a final sample size of 25 for the study.

Knowledge Assessment

To assess the effectiveness of the program in improving knowledge, a researcher-designed questionnaire was

administered before and after the program. This 22-question, true/false format questionnaire specifically targeted the content covered in the four program modules. Each correct answer received one point, and incorrect answers received zero points. A pilot test with 30 participants ($n=30$) established the questionnaire's internal consistency using KR-20 (measure of internal consistency for dichotomous items such as "right" or "wrong" (Ntumi et al., 2023), resulting in a reliability coefficient of 0.78, indicating acceptable reliability for dichotomous (true/false) items.

Self-Reported Preparedness

In addition to knowledge assessment, a pre- and post-program questionnaire measured participants' self-reported preparedness for aging. This questionnaire consisted of 43 items using a 5-point Likert scale (1 = No Preparation, 2 = Little Preparation, 3 = Moderate Preparation, 4 = Significant Preparation, 5 = High Preparation). The questionnaire assessed preparedness across five dimensions: physical health, mental health, digital literacy, financial planning and management, and physical activities and recreation. Content validity of the questionnaire was ensured through the Index of Item-Objective Congruence (IOC) by three experts. Furthermore, pilot testing with 30 participants ($n=30$) yielded a Cronbach's alpha coefficient of .92, indicating high internal consistency of the instrument.

Semi-Structured Interviews

To gain deeper insights into participants' experiences, semi-structured interviews were conducted following program completion. Participants were scheduled for face-to-face interviews to explore their perceptions of the program. The interview guide included open-ended questions, such as:

1. **Have you participated in similar programs before?**
2. **What were your thoughts on the individual modules in this program?**
3. **Do you have suggestions for improvement if similar programs are offered in the future?**

Before program enrollment and interview participation, researchers thoroughly explained the study's objectives and ensured informed consent. Participants were reminded of their right to refuse participation or decline answering any questions.

Data Analysis

Demographic Data and Knowledge Levels: Descriptive statistics (frequencies, percentages, mean, and standard deviation) were used to summarize the participants' demographic information and knowledge levels.

Knowledge Gain: The Wilcoxon Signed Ranks Test, a non-parametric test, was employed to analyze the difference in participants' knowledge scores before and after the program. This test was chosen because the knowledge scores did not meet the normality assumption required for the dependent t-test.

Self-Reported Preparedness: A paired-samples *t*-test, a parametric test, was used to analyze the pre- and post-program differences in participants' self-reported preparedness for aging across the five dimensions assessed by the questionnaire.

Semi-Structured Interviews: The audio-recorded interviews were transcribed verbatim. Content analysis was conducted following established stages: data display, defining analysis units and categories, developing coding rules, coding the text, and analyzing the results. The first author performed the initial coding of the transcribed interviews. Subsequently, the first, third, and fourth authors discussed the coding scheme and collaboratively analyzed the results.

Results

Sample Demographics

Twenty-five participants completed the pre-retirement preparation program. The majority (92.0%, $n=23$) were female, with an average age of 55.3 years old ($SD=2.9$). More detailed participant demographics are presented in Table 2.

Key Findings

- Most participants (72.0%, $n=18$) worked in government offices as civil servants.
- A high proportion (84.0%, $n=21$) had a bachelor's degree or higher education and this may have implication for the representativeness of the sample.
- The majority (56.0%, $n=14$) were married and reported no underlying health conditions.
- Interestingly 80.0% ($n=20$) of participants indicating some prior preparation for aging.

Knowledge Gain

The analysis of participants' knowledge scores before and after the program revealed a statistically significant improvement ($z=-2.010$, $p<.05$), indicating that the program effectively enhanced overall knowledge about preparing for older age. Table 3 presents the detailed changes in knowledge scores for each program module.

Self-Reported Preparedness for Aging

The analysis of participants' self-reported preparedness scores (see Table 3) revealed improvement across all five dimensions assessed by the questionnaire: physical

Table 2. Demographic Characteristics of the Participants ($n = 25$).

Characteristics	Frequency	Percentage	Mean	SD
Gender				
Male	2	8.0		
Female	23	92.0		
Age (Years)				
50–52	6	24.0	55.3	2.9
53–55	5	20.0		
56–59	14	56.0		
Marital status				
Single	4	16.0		
Married	14	56.0		
Divorced	7	28.0		
Education				
<Bachelor's degree	7	28.0		
Bachelor's degree	12	48.0		
Postgraduate degree	6	24.0		
Occupational status				
Civil servant	9	36.0		
Early retirement	2	8.0		
Employee	2	8.0		
Merchant	2	8.0		
Housewife	3	12.0		
Not working	2	8.0		
Other	4	16.0		
Adequacy income				
Enough to spend but not to keep	9	36.0		
Enough to spend and keep	13	52.0		
Not enough to spend and have debts	3	12.0		
Underlying disease				
No	14	56.0		
Yes	11	44.0		
Health status				
Fair	1	4.0		
Moderate	11	44.0		
Good	13	52.0		
Preparation before participating in the program				
Yes	20	80.0		
No	5	20.0		

health, mental health, digital literacy, financial planning and management, and physical activities and recreation. Notably, the smallest increase in preparedness was observed for mental health.

Table 4 presents detailed information about participants' self-reported preparedness for physical activities and recreation before and after the program, including the mean, standard deviation, and absolute difference in scores.

Interview Participants and Key Findings

Twelve participants (predominantly women, $n = 10$) with an average age of 55.75 years old ($SD = 2.53$) participated in semi-structured interviews to share their perspectives on the "Preparation for Older Persons"

program. Qualitative analysis revealed several key themes:

- **Program Value:** All participants acknowledged the program's significance in preparing for aging in today's society. None had participated in a comparable program previously, and only three had limited exposure to related topics. This suggests a potential gap in available pre-retirement resources.
- **Ideal Starting Age:** A common theme was the importance of starting pre-retirement planning before 60. Participants recognized challenges in arranging certain aspects, particularly finances, within a short timeframe. One participant highlighted the value of the program for those in their

Table 3. Mean, SD, and Wilcoxon Signed Ranks Test of Participants’ Knowledge Before and After Participating in the Preparation to be Older Person Program (N = 25).

Preparation	Range of score	Participation	Minimum	Maximum	Mean	Standard Deviation (SD)	z	Asymp Sig (2-tailed)
Physical and mental health	0–11	before	7	11	10.60	0.96	–1.552	0.121
		after	10	11	10.92	0.28		
Digital literacy	0–4	before	2	4	2.76	0.52	–.816	0.414
		after	2	4	2.84	0.47		
Financial planning and management	0–7	before	5	7	6.48	0.71	–1.615	0.106
		after	6	7	6.76	0.44		
Overall knowledge	0–22	before	14	22	19.84	1.65	–2.010*	0.041
		after	19	22	20.52	0.65		

*p < .05.

Table 4. Self-Reported Preparedness for Aging: Pre-Program Versus Post-Program Scores (N = 25).

Preparation	Test	Mean	Standard Deviation (SD)	Level	Mean, SD, Absolute Difference
Physical health	before	2.83	0.48	High	0.35, 0.32
	after	2.98	0.46	High	0.38, 0.25
Mental health	before	2.94	0.47	High	0.38, 0.27
	after	3.08	0.33	High	0.22, 0.24
Living in the digital age	before	3.03	0.57	High	0.42, 0.37
	after	3.15	0.41	High	0.32, 0.25
Financial planning and management	before	2.36	0.53	Moderate	0.45, 0.26
	after	2.97	0.40	High	0.35, 0.31
Physical activities and recreation for the older person	before	2.73	0.70	High	0.57, 40
	after	3.05	0.62	High	0.51, 0.35
Overall	before	2.79	0.43	High	0.37, 0.26
	after	2.99	0.32	High	0.25, 0.19

mid-50s but expressed a concern that a 5-year lead time might be inadequate for financial preparation like saving or investing for retirement.

- **Increased Public Awareness:** A participant expressed a desire for greater public awareness of the program, suggesting many people might not be aware of such resources until nearing retirement. This suggests a need for improved program promotion and outreach efforts.

Illustrative Quote

“I like this program. Feel at ease, compare it to ourselves whether we are ready or not to be an older person. I never knew before there was this program. It feels like people don’t know there is a program in this preparation. Most of them will know nearly 60. According to the age specified by this project, I feel that I have a very good chance to join this program. Fortunately, even though I am now 55 years old, it is considered time. If we had known before the age of 60 for 5 years and had learned the program contents, I thought that older people should be able to prepare in time. Oh, if 5 years may be too little for saving money for retirement not will be in time, and will not be able to invest right away. (Female, 56 years old, early retirement).”

This quote emphasizes the participant’s appreciation for the program’s content while also underscoring the challenges associated with limited pre-program knowledge and the potential need for a longer planning horizon, particularly for financial aspects.

Content of the program. Each week, the participants reflected on the program content and feedback is presented in Table 5.

Program Schedule and Length

The program consisted of four, 3-hour sessions held on consecutive Saturdays. Eleven participants found this schedule to be appropriate for effectively covering the preparation content. However, concerns were raised about potential disengagement if the program extended beyond four sessions:

“Four times is really good. I want to arrange more. But think about Phuket’s context of working people will affect, for organizer from participants lost.”

This quote highlights the participant’s appreciation for the program’s length while acknowledging potential

Table 5. Participant Opinions and Suggestions Regarding Program Content.

Topic	Participants' opinions	Participants' suggestions
Introduction and exercises for healthy aging	This research implemented a combined learning approach, integrating health assessments with lectures. Participants found the content engaging and reported increased awareness of their health status and the ability to manage it effectively. One participant, a 55-year-old civil servant, highlighted the program's strengths: "I liked it. I felt the instructors were attentive to our needs. The baseline fitness check was particularly valuable, as it identified potential health risks and allowed for personalized adjustments to improve well-being."	Set more activities for health assessment and body composition
Self-care and prevention for NCD and geriatric syndromes ¹	The program effectively increased participants' awareness of Non-Communicable Diseases (NCDs) and geriatric syndromes. Many participants, like a 58-year-old businessman, found the content particularly valuable because it covered topics they weren't previously familiar with. He stated, "This program offered valuable new knowledge. The speaker discussed health checks and preventive measures for various conditions. I also learned about mental health and sarcopenia, which were completely new concepts for me."	Get more details on how to choose the healthy food for their life that can be easily remembered Spend more time on these topics because there is more detail.
Financial planning and management	The session on financial planning for retirement resonated strongly with participants. Even those who had already begun planning acknowledged the program's value in offering new perspectives and strategies. Participants learned about low-risk investment options and effective expense reduction techniques, with some reporting the ability to implement these strategies immediately. A 57-year-old civil servant commented, "This session was excellent. Many people don't plan for retirement. This program opened my eyes to new approaches, especially regarding low-risk investments and starting to save early. It's a wake-up call for anyone thinking about retirement – you need to start saving now, not 300 months from now!"	To personalize financial planning for each participant, consider incorporating one-on-one consultations with financial advisors. Given the varied backgrounds, economic statuses, and risk tolerances of participants, these consultations can ensure tailored financial plans that address their specific needs Additionally, the program could benefit from including educational content on various investment options suitable for older adults. Focusing on low-risk and income-generating funds, would be particularly valuable.
Living in the digital age	The session on smartphone safety proved particularly valuable for participants. Despite being regular smartphone users, many expressed a lack of awareness regarding online scams. Learning about safe smartphone practices empowered participants to be more cautious and vigilant. One participant remarked: "This topic was very useful! I use my smartphone all the time, and it's scary to learn about these scams. We need to be careful, especially older people who might use social media more. This program provided a lot of new knowledge, especially about how to identify and avoid fraudulent apps"	To suggest the applications that older people could benefit from and use easily and safely

¹**Geriatric syndromes** refer to a group of clinical conditions commonly seen in older individuals that do not neatly fit into specific disease categories. These syndromes often involve multiple systems and can significantly impact functionality and quality of life.

challenges for working individuals if the program were longer.

Suggestions for Program Enhancement

Participants offered valuable suggestions for improving the program's future iterations:

- **Expand Content:** Include practical information on applications and resources relevant to daily living for older adults. Additionally, cover social participation opportunities, legal topics impacting older adults, and available benefits.
- **Consider Program Format:** Explore the possibility of incorporating overnight sessions (e.g., 2 days and 1 night) to facilitate experience sharing and practicing skills among participants.
- **Increase Accessibility and Awareness:** Offer the program in various settings (seminars, workshops) and disseminate information widely to ensure better reach.
- **Target Audience Clarification:** While the program focused on pre-retirement preparation, some suggestions pertain to a broader working-age population. Consider tailoring content or potentially developing separate programs for different age groups.

Discussion

This study evaluated a 12-hour pre-retirement preparation program designed to empower individuals as they approach later life. Previous studies have claimed that preparation for old age is important for pre-aging people as it can help them maintain well-being and function in old age (Kornadt et al., 2019), leading to a better understanding, demystify, and give new meaning to the entering old age (Caro et al., 2021).

However, participant feedback suggests a preference for a more flexible format with shorter sessions (3–4 hour) divided into multiple phases, particularly for in-depth exploration of complex topics.

The program addressed four core areas identified in previous studies (School of Allied Health Science, University of Phayao, 2021; Solhi et al., 2022):

1. **Physical Health:** Covering healthy habits, nutrition, and age-related changes.
2. **Financial Planning and Management:** Strategies for retirement savings, budgeting, and potential financial risks.
3. **Physical Activities and Recreation:** Promoting healthy exercise routines and leisure activities for older adults.
4. **Digital Literacy:** Equipping participants with the skills to navigate digital technologies safely and effectively in today's world.

Overall Knowledge Gains and Participant Preparedness

Overall knowledge gain significantly improved after participating in the program ($p < .05$). This suggests the program effectively conveyed key information across the four core areas. However, individual module assessments did not reach statistical significance. This could be attributed to several factors, including:

- **Participant Background:** Ten out of the 25 participants were healthcare workers, potentially possessing existing knowledge in some areas.
- **Time Constraints:** A 12-hour program may not provide sufficient time for in-depth exploration of each module.

Interestingly, despite the lack of statistically significant improvement in each module, self-reported preparedness for entering old age significantly increased across physical health, financial planning, and physical activities. This highlights the program's effectiveness in supporting participants to feel more prepared in these crucial aspects. While self-reported preparedness for mental health and digital literacy did not show significant improvement, in-depth interviews revealed a heightened awareness and concern for these areas after the program. This suggests the program successfully sparked participant interest in these aspects, even if statistically significant gains were not observed.

The program's focus on multidimensional preparation aligns with research by Solhi et al. (2022) emphasizing the importance of a holistic approach for healthy aging. All aspects addressed in the program – physical health, mental health, financial planning, and physical activities – are crucial for a successful transition into later life (Kornadt et al., 2018; Pazzim & Marin, 2017; Solhi et al., 2022; Wu & Chao, 2024).

Mental Health and Digital Literacy: Areas for Tailored Interventions

Despite the program's focus on mental health and digital literacy, these areas did not show statistically significant increases in self-reported preparedness. However participants who had higher pre-program scores in these areas showed the greatest gains. This suggests that tailored training approaches might be necessary to cater to diverse participant needs and existing knowledge levels.

- **Mental Health:** Research by Pazzim and Marin (2017) highlights the importance of mental health for healthy aging. The program could benefit from incorporating strategies for stress management, emotional well-being, and coping with age-related changes.

- **Digital Literacy:** With the increasing reliance on technology in daily life, digital literacy is crucial for older adults. Addressing concerns about online scams and equipping participants with practical skills for safe and efficient technology use could significantly enhance their confidence and well-being in later life (Jeong & Bae, 2022).

Participant Feedback and Considerations for Future Programs

Feedback from participants echoed the findings regarding program length. While participants appreciated the content, many suggested a shorter, more flexible format. This aligns with the suggestion by Wu and Chao (2024) that pre-retirement planning should begin early and incorporate multiple phases. A potential solution could be to offer a core program with shorter sessions, followed by optional modules for more in-depth exploration of specific topics.

Further research is needed to explore these possibilities and optimize program structure for maximum effectiveness. Additionally, investigating why some participants, despite expressing concerns, did not show statistically significant improvement in self-reported preparedness for mental health and digital literacy would be valuable.

Clinical and Practical Implications

Enhancing pre-retirement preparation programs. This study highlights the value of pre-retirement preparation programs in empowering individuals to approach aging with greater knowledge and confidence. The findings suggest several key areas for program improvement:

- **Modularization:** The program's content can be divided into multiple, manageable modules (e.g., two sections with a maximum of four sessions each). This caters to participant preferences and attention spans, potentially increasing engagement and knowledge retention.
- **Interactive Workshops:** Shifting from a lecture-based format to interactive workshops can foster a more engaging learning environment. Activities that encourage experience sharing and discussions on topics like healthy food choices for older adults, individual financial planning, navigating social media platforms, and available social welfare benefits can provide valuable peer-to-peer learning and address specific participant concerns.

Benefits for Clinical Practice

These program improvements can benefit healthcare professionals by:

- **Equipping Patients:** Exposure to pre-retirement programs can empower patients to take a proactive approach to their health and well-being as they age. This can lead to improved health outcomes and reduced healthcare burden in the long run.
- **Targeted Referrals:** Clinicians can identify patients who might benefit from pre-retirement preparation programs and make informed referrals.

Future Research Directions

Further research could explore the long-term impact of such programs on participants' health behaviors and well-being in later life. Additionally, investigating the effectiveness of program delivery methods (e.g., online vs. in-person workshops) can inform broader program accessibility.

Limitations of the Study

This study has several limitations that should be considered when interpreting the findings:

- **Sample Size and Generalizability:** The study involved a relatively small sample size and a predominantly female population (92%). This limits the generalizability of the findings to the broader pre-retirement population. Future research should aim for a larger and more gender-balanced sample.
- **Selection Bias:** Voluntary participation may have introduced selection bias. Participants who proactively seek out preparation programs might be more engaged with the topic compared to the general pre-retirement population.
- **Prior Experience:** A significant portion of participants (80%) reported prior exposure to some pre-retirement preparation content. This could have influenced their baseline knowledge and potentially limited the observed pre- and post-program differences. Future studies might consider excluding individuals with extensive prior experience in preparation programs.
- **Sample Homogeneity:** A high proportion of participants were government employees and held at least a bachelor's degree. This may be due to researchers promoting the program within specific government departments. Further studies should strive for a more diverse sample across professions and educational backgrounds.

Conclusion

This pre-retirement preparation program demonstrates promise in enhancing knowledge and self-reported

preparedness for entering old age. Participant feedback suggests a preference for a more flexible, phased approach with shorter sessions. The program's focus on multidimensional preparation aligns with existing research on healthy aging, highlighting the importance of pre-retirement preparation for a smooth transition into later life. The program effectively improved participants' knowledge and self-reported preparedness for aging, particularly in areas like physical health, financial planning, and physical activities.

Key Findings and Recommendations

- Participants emphasized the value of pre-retirement preparation programs as a form of social welfare for middle-aged adults.
- The program's effectiveness suggests its potential for wider implementation to empower individuals approaching old age.
- Future iterations could benefit from:
 - **Expanding content:** Adding modules on social life planning to address the social dimension of aging.
 - **Structuring the program:** Dividing the program into two phases (each around 12 hour, maximum four sessions) as suggested by participants.
 - **Longitudinal research:** Conducting a follow-up study (e.g., 1–3 years) to track participants' long-term outcomes.

By incorporating these enhancements, future programs can provide a more comprehensive and impactful pre-retirement preparation experience, promoting healthy and fulfilling later life for a growing aging population.

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Ethical Approval

The Phuket Rajabhat University Ethical Committee approved the protocol (No. PKRU 2565/20). All participants received

information letters about the study's purpose and preparation program and provided written informed consent for their voluntary participation in the program. The study followed guidelines determined in the Declaration of Helsinki.

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