

The Model of Health Promotion through Health Literacy Approach for the Elderly in Bangkok, Thailand

Vanida Durongrittichai^{1,*}, Hataichanok Buajalearn² and Kandavasee Maleewong³

¹Faculty of Nursing Science and Allied Health, Phetchaburi Rajabhat University, Phetchaburi 76000, Thailand

²Faculty of Nursing, Nakornpathom Rajabhat University, Nakornpathom 73000, Thailand

³Metropolitan Health and Wellness Institution, Department of Health, Bangkok 10220, Thailand

***Corresponding author's e-mail: vanida.dur@mail.pbru.ac.th**

Received: January 30, 2022 Revised: March 27, 2022 Accepted: March 28, 2022

Abstract

Elderly care focuses on slowing down deterioration and maintaining health later in life. This can be done through health promotion undertaken by systematic participation of the involvements aimed at helping the elderly attain health literacy, thereby enhancing their long-term self-reliance. The research was to 1) study the principle, objective, system, and mechanisms facilitating elderly club administration, 2) develop the models of health promotion through health literacy approach for the elderly, and 3) propose the policy suggestions for employing the developed model in the relevant areas. A mixed-method was used to study 634 Thai elderly. the 65 informants composed of the elderly committee and directors from six zones in Bangkok. The main results were the activities that contributed to the elderly's health promotion in order of importance as "Walk, Eat, Sleep, Brain," The process of the health literacy was sequenced by recognizing, trying to continually practice until good for health and tell good things to others. Factors facilitating the elderly club administration in four aspects composing of 1) committee, 2) budget, 3) materials, and 4) elderly members. The synthesized model was called Smart by LeIST @ BKK (Leadership: L, Information: I, Stakeholder: S, and Team: T). The major policy suggestions for employing the developed model in the relevant areas are the elderly clubs. Corresponded agencies should correctly analyze the elderly's needs to cover "Walk, Eat, Sleep, Brain" and use them to organize activities or projects in the health literacy approach. The research suggests that the officers should apply this model by considering principles, objectives, systems, and mechanisms according to the context. The longitudinal study and qualitative research should be further examined to employ and adjust this model deeply.

Keywords: Elderly, Elderly club, Health literacy, Health promotion

Introduction

Bangkok, Thailand, has had a continuously increasing elderly population because of the efficiency of health services that have made this population group live longer. Moreover, most are still active by freely conducting basic daily activities (Anantakul, 2015). If this group is not encouraged to receive adequate care, this will result in them becoming frail with the risk of falling, having forgetfulness, depression, problems with chewing, and being unable to choose nutritious foods. Otherwise, these negative factors will contribute to decreased physical ability, cognitive and mental defects, chronic disease, and becoming homebound and bedridden (Sarai, 2017). Thus, the elderly would use their full potential if they had sufficient literacy in health promotion. This will consist of access to health determinants and good health information, making rational health decisions, managing situations in daily life, and transferring self-care experiences to others. All these aspects will help them improve their quality of life (Srithani, 2017).

The stakeholders, especially the elderly clubs, are a significant part of Bangkok's society that follow the state guidelines on Partnership/Investment/Regulation and Legislation/Advocacy/Building Capacity (PIRAB) to achieve health and social welfare goals (Department of Elderly Affairs, 2020). This has aimed to tend to the elderly in all dimensions through the relevant departments on a database by preparing all ages to be influential older adults and evaluating the plan's implementation. The elderly clubs have also created various activities to appropriately respond to the elderly's needs, especially proper knowledge, and experience to adjust to the age change. Furthermore, these clubs act as a center for social welfare information, which arranges various services for members experiencing health problems.

The Office of Social Development and Human Security, Bangkok, reported that there are 395 elderly clubs with 44,344 members distributed in all six zones: namely, North Bangkok, Central Bangkok, South Bangkok, North Krungthon, South Krungthon, and East Bangkok. Activities created by the elderly clubs can be divided into two social parts health activities that support the development of the capacities and self-reliance (Prasertphan et al., 2014; The Elderly Council of Thailand, 2016). Most activities relate to health and meet the different needs of the elderly; however, there are not been confirmed that they have been organized for the approach of health literacy. Moreover, the membership status of the club in the social network group has a positive effect on the elderly's health and needs; there is no evidence indicating that these have been caused by the approach of literacy organization (Sriphaiphan, 2017).

The Ottawa Charter states that health promotion through a health literacy approach is the crucial strategy for the elderly in the trend of an aging society which can be classified into three levels. They are for the individual, organization, and management system level that need to develop health communication, health and social services, human capacity, and simultaneously enable policies and regulations. The succession must be measured in learning and behavior at the individual and organizational levels. The personal level is correlated to accessing health information, staying healthy, having a public mind, Etc., whereas the organizational change is about leadership and the environmental organization that contributes to the desired health results. The use of health services, health-promoting behavior, seeking information, understanding, checking, asking questions, and data usage have also been considered (W.H.O., 2016).

The strategy for elderly health promotion in Bangkok is a framework to guide network partners to develop the care system in an urban area on health literacy in avoiding frailty aspects known as the 4

Smart or “4S” (Walk: Do not fall), Brain (Do not forget), Sleep (Do not depress), and Eat (Eat deliciously) (The Office of the Permanent Secretary for Health, 2018). This is the Ottawa Charter, which must be systematically implemented from the operational and policy levels. The goal is to increase the number of elderly to reach the optimum physical, mental, and social health conditions. Moreover, the environment, including the agencies, will be collectively adjusted for the appropriate adaptation of the elderly to promote health, which could lead the elderly to more sustainable holistic health. Therefore, the elderly clubs could serve as the model and mechanism to push forward the health promotion through a health literacy approach to ensure the elderly’ health outcomes, along with the main concerns and geosocial circumstances of each zone.

There are numerous examples of the development of elderly health literacy by a successful elderly club in urban areas because they have now realized the benefit of collaboration between networks to support health promotion achievement. In Bangkok, some elderly clubs are considered to have good practices, as they have understood the context or conditions of social capital, factors, and mechanisms that can be driven at the individual, community, and organizational levels. Many of them are supported and developed by partnerships to enable elderly members to access health literacy at optimum levels. The networks such as the Health Department, Elderly organizations, Health Care Center, and the agency responsible for elderly clubs have now realized the benefit of collaboration between sectors, to help support the health-promoting achievement through the health literacy approach. They set up the projects, which could be carried out with various cooperation to parallel ensure promote elderly health and organizational development. These changes are needed to them are prepared to empower the committee and its members to cope with the dynamics of an aging society.

However, from reviewed data on operational results of elderly clubs in recent years, it is found that there are several of them do not achieve the practices in the good ways mentioned above as they still utilize traditional works. The elderly club management has been the duty of the involving sectors. This shows that many cannot manage their member clubs to enhance their administrations in a literacy way. Some clubs cannot drive health promotion to their members with their networks. They can only complete just specific objectives of the routine work. Therefore, the elderly club members have different levels of health literacy which resulted, resulting in unequal health promotion behaviors.

Consequently, the elderly clubs in all zones of Bangkok, along with the health literacy approach should succeed in improving the level of health promotion in their elderly members. The researcher has become interested in exploring the situations, conditions, the direction for developing the operational guidelines, factors facilitating elderly club administration, and learning from tacit knowledge and valuable experience of administering the elderly clubs. Then, the researcher developed the model for administering elderly clubs, composing the concepts of participatory directions through a health literacy approach to achieve the goal of a sustainable health-promoting system for the elderly’s self-reliance.

Research objectives

1. To study the principle, objective, system, and mechanisms facilitating elderly club administration.
2. To develop health promotion models through a health literacy approach for the elderly.
3. To propose the policy suggestions for employing the developed model in the relevant areas.

Literature review

Older people in Bangkok are about 1.020 million people, or 18.63%, and expected Bangkok to become a complete aged society in 2020. The most common health status of the elderly is chronic diseases. 70.20% have at least one disease (Prachuapmoh et al., 2013). Bangkok has 395 elderly clubs, comprising 44,344 elderly members. These clubs are located in the community, housing estate, health care center, and hospital. Most of the elderly members of the Elderly Club are social and home groups. The social group refers to those who can help themselves, live in society independently, and often participate in activities with others. At home, the group being those who sometimes need some help due to having life limitation, have uncontrollable chronic diseases or complications, and have significant factors which affect their independent living (The Elderly club council, 2016).

Health literacy was commonly conceptualized as a set of knowledge, skills, or a hierarchy of functions. This concept significantly benefits individuals of all ages and groups and the sustainability of healthcare systems. The elderly must have health literacy by identifying a health issue (knowing when and where to find health information), engaging in information exchange (verbal communication skills, assertiveness, and literacy skills) and, acting on health information (capacity to process and retain information, and application skills) (Liu et al., 2020). The Department of Health operates to promote elderly health with the concept of " Smart Walk, Smart Brain & Emotion, Smart Sleep, Smart Eat " or "4 Smart" through building health literacy. Smart Walk means keeping regular exercise to prevent falls. Smart Brain & Emotion refers to brain training for maintaining mental health. Smart Sleep refers to adequate sleep, and Smart Eat means consuming nutritious foods (The Department of Health, online). The research indicated that chronic illness in the elderly correlated with age deterioration leading to falls, dementia, depression, and oral cavity problems (Brainard et al., 2016). The longitudinal study found that the elderly with limited literacy are at increased risk for dementia (Kaup et al., 2014). The elderly clubs are systematic community organizations managed by the elderly and for the elderly. They allow them to participate with people of the same age, help each other, then bring to increase self-worth, and improve their quality of life. The elderly club activities are a key indicator of success. It is a community-based proactive activity with the help of government personnel and a network system that benefits physical and mental health, information perception development, life skills and social contribution. Moreover, in addition to those mentioned above, the study found that the elderly club membership, a social networking group, had a positive effect on improving physical

performance, socializing, enhancing self-perception, improving health literacy, and reducing health costs (Sripaipan et al., 2017).

Research on the health promotion model for the elderly in Bangkok in recent years appears to be very published, and no evidence accord to the health promotion through health literacy approach. The related study shows that the model for enhancing the elderly through community participation consists of strengthening the community's capacity, providing health promotion services and risk screening, knowledge management in the community for health promotion, and elderly empowering development (Wongwisetkul et al., 2017). However, the health development for the elderly in urban areas has been carried out systematically for a long time based on continuous networking participation. There are several areas where success is a good practice; however, some areas have not been able to achieve the aimed goal. The synthesis of a successful participatory operating model reveals that the structure, systems, and operating mechanisms will contribute to a value proposition for that accomplishing model and to expand this best practice in other urban areas. These practical health-promoting actions through the health literacy approach consequently for a better life and social outcomes among the already large and fast-growing population of elderly in urban areas.

Methodology

This research used the mixed methods of quantitative and qualitative research, coming up with participatory action research (PAR), health promotion related to “4S”, and health literacy organization (WHO) in constructing the model and guideline for using the model of health promotion through health literacy approach which could be concluded in the following chart in Figure 1.

Research population and sample

The researcher sets up the scope of population and informants based on the procedural research steps as follows:

Step1: Analyzing the results and studying situations, mechanisms, and factors facilitating elderly club administrations. The population was 634 elderly members made up of 18 elderly clubs in Bangkok metropolitan. They provided information involving health-promoting in “4S” ranking in 5 scales from never practice until regular practice and health literacy level ranking in 5 scales from knowing confidently and correctly tell others which to be an input of the model development.

Step 2: Developing the health promotion model for elderly members through 4 Smart or “4S” and health literacy organization. Of the 65 participants, there were 30 elderly members and 20 elderly committee taking part in the project, and 15 directors who were responsible for the elderly clubs from six zones. There were two steps of developing model as follows:

Sub-step 2.1 Drafting the model and guideline using health promotion through a health literacy approach for the elderly; they result from the quantitative study included the 20 elderly committees participating in the project.

Sub-step 2.2 Validating the model and guideline of health promotion through

the health literacy approach for the elderly, 30 elderly members, the 20 elderly committees, 15 directors, and six experts participating in the project.

Step 3: Proposing the policy suggestions of employing the developed model in the relevant areas, 50 elderly members, the 50 elderly committees, 10 directors taking part in the project.

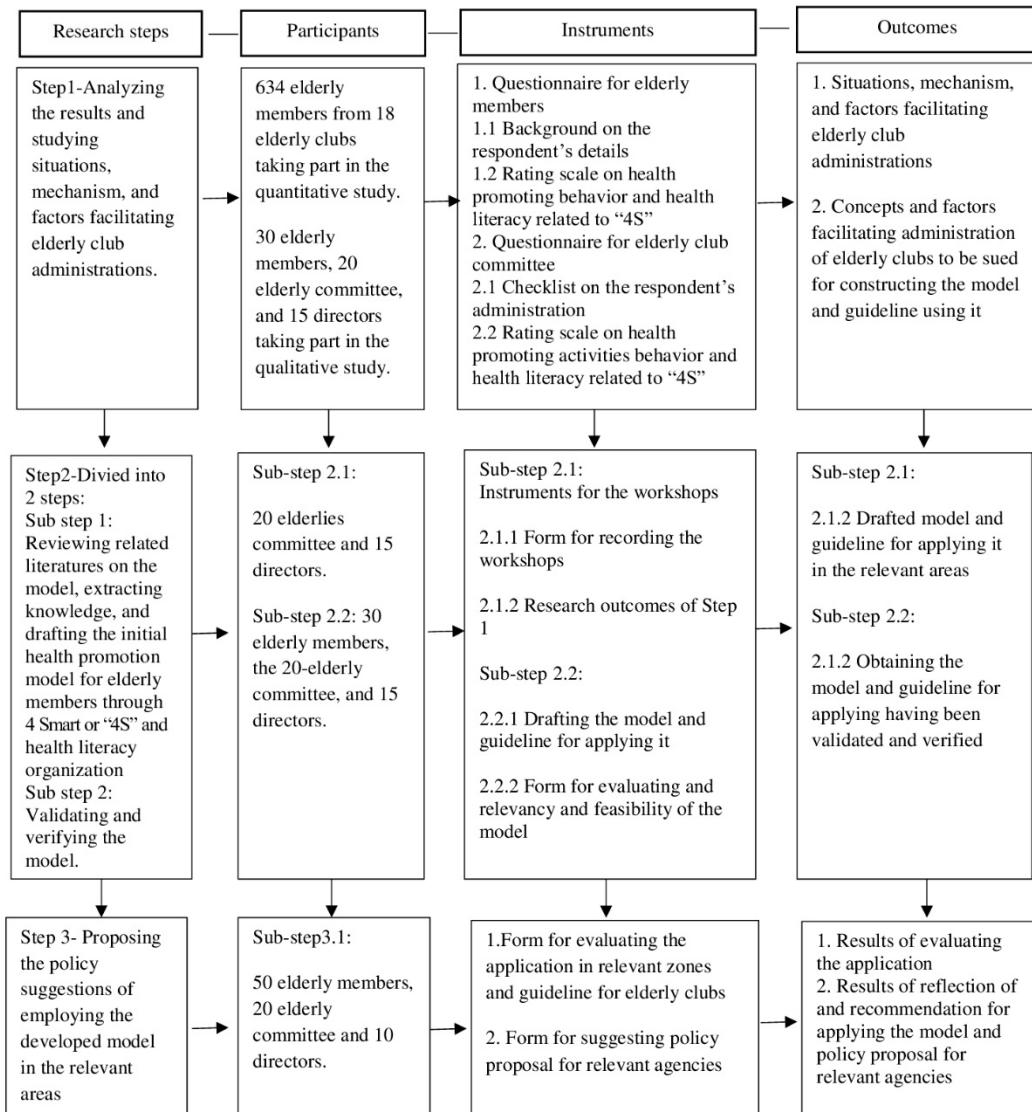


Figure 1 Research procedural steps

Research and operational steps

The research tools, certified by the Bangkok Ethical Committee no. E010h/61 were composed of three sets. Set 1: A questionnaire for the elderly with 14 items and five rating scales about the health-promoting behavior and 14 items of health literacy divided into five levels ranging from knowing to informing others how to practice correctly. Set 2: A questionnaire involved the health-promoting activity with 14 items and three rating scales

about the health literacy organization of the elderly club. Set 3: Group discussion guidelines and an in-depth interview for the stakeholders. Three experts and a pilot validated the content of the research tool tested with 30 older people in other urban areas. The reliability of the questionnaire for the elderly was 0.958 and for the elderly club 0.963, respectively.

Results

1. The principle, objective, system, and mechanisms facilitating elderly club administration.

The result from quantitative and qualitative data from participants was integrated and compared with the determined concepts of health literacy organization that could be extracted to be keywords and reflect the activities that contributed to the elderly's health promotion in order of importance as "Walk, Eat, Sleep, Brain". The process of health literacy was sequenced by "recognizing, trying to continually practice until good for health and tell good things to others. This could be synthesized into principles, objective systems and mechanisms, process, and output as follows:

1) Principle: Six sub-models for each zone were initiated and as the main model. It was created according to the administrative contexts compared to the concept of health literacy organization. Scope of elderly club administration covered four aspects which were the data based for bringing their elderly members to access to health promotion related to "4S", literacy organizational approach for sustaining health promoting behavior, and following by long term health-promoting behavior of elderly members correlated to "4S".

2) Objective: To serve as the literacy organizational approach guideline for all elderly clubs in applying to their administration with effective and efficient strategies according to health promotion, consequently introducing elderly members achieve to "4S" through the health literacy approach.

3) System and mechanism

3.1 Inputs:

(1) Current health-promoting situations of elderly members associated to "4S", health literacy organizational circumstances, and facilitating factors.

(2) Elderly club administration and health literacy approach in 4 aspects: 1. Information and supporting technology system 2. Networking and human capital 3. Administration and management of elderly clubs related to "4S" 4. Report and communication.

(3) Factors facilitating the elderly club administration in four aspects composing of 1) committee, 2) budget, 3) materials and 4) elderly members.

(4) Health literacy organizational approach.

3.2 Process: The model of health promotion through the health literacy approach of elderly clubs for their elderly members had four main elements, which were:

1) Leadership (L): Director, collaborate, empower.
2) Information (I): Be systematically managed with supporting technology system.

3) Stakeholders (S): Expand networks and firmly work on experience sharing.

4) Team (T): Collective working effort and create health access benefit.

2. The constructive the model of health promotion through the health literacy approach for the elderly

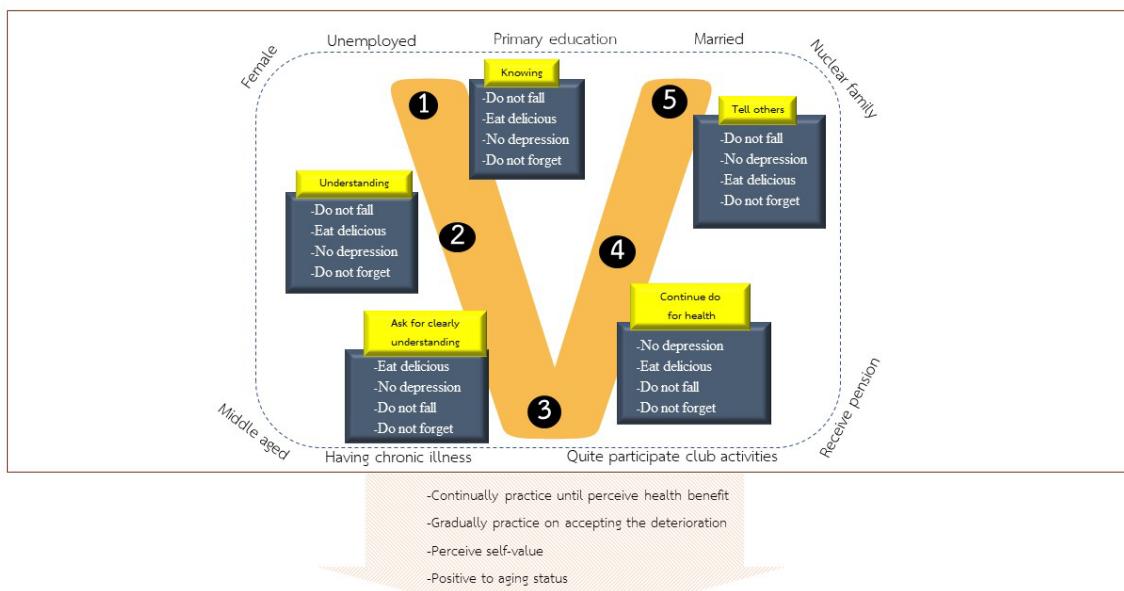
The verified and summarized model evaluated by elderly members, elderly club committee, and directors was called Smart by LeTSI@P (Leadership, Information, Stakeholder, and Team), which explained that the leadership of the elderly club committee (Leadership: L) helped to direct the elderly to conduct health-promoting activities to decline frailty status for achieving their health goals connected to “4S”. The information was used to create various activities aimed at health access benefits (Information: I). This information could be exchanged for a clear understanding of the health conditions and conveying the image to show the benefits for the elderly to other clubs and networks. Working as a network partner (Stakeholder: S) would be an important connection point to increase the network numbers, such as the private sector or NGOs. Teamwork (Team: T) would be an outstanding feature of a strong community under leadership with the team working in the same direction. They could help each other invest, work jointly with the aptitude and skill of trust, and bring the elderly to continue their health-promoting activities directly. In the operation of the elderly's successful activities regarding “Walk: Do not fall”, they mostly focused on building muscle strength, followed by arranging a safe environment. For “Eat: Eat deliciously”, they highlighted choosing nutritious food together with dental care. For “Sleep: Do not depress”, they emphasized socializing and activities that created self-value, and for "Brain: Do not forget", they centered on brain training and technology for communication with other members in the same or different elderly clubs.

As for the constructive operation for the elderly on health literacy issues, it was found that most of them could only give other elderly more knowledge or make them understand and practice health-promoting behavior. The priority setting of the activities or projects depended on the experience of the organizations or clubs and the difficulty of the activities or projects that would result in the elderly achieving different levels of health literacy. Most of them differently understood the implications of the health literacy approach that had a profound meaning resulting in somehow unclear and divergent changes in elderly's health-promoting behavior respectively. In addition, they vaguely recognized the meaning of the enhancement of their capabilities, the connection between the “Health literacy organization”, “Health literacy in the elderly”, and “Health promotion in the “4S” dimensions”. The important conditions that enabled them to design health-promoting activities through the health literacy approach finely included the appropriate arrangement of public relations to elderly members for enhancing the independent expression of health-promoting activities according to their individual and group needs, focusing on exercise to imitate themselves, and using relaxing activities for building relationships with others.

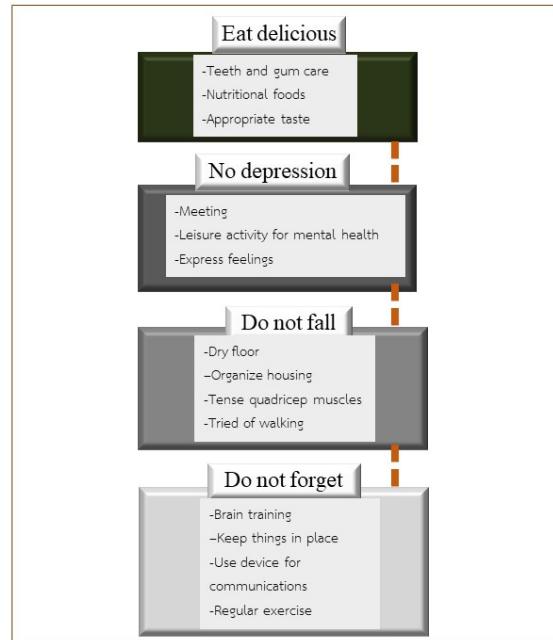
The model of Health Promotion through Health Literacy Approach for the Elderly is as follows:



2a



2b



2c

Figure 2 The model of health promotion through health literacy approach for the elderly (2a) HLO of Elderly club for 4Smart (Walk Brain Sleep Eat), (2b) Health Literacy of Aging and (2c) Aging Health Promotion with 4Smart (Walk Brain Sleep Eat)

3. The policy suggestions of employing the developed model in the relevant areas

Reflection results in policy proposals and recommendations on models and guideline for applying in the relevant areas are as follow:

1) The elderly clubs and corresponded agencies should correctly analyze the elderly's needs to cover, "Walk: Do not fall", "Brain: Do not forget", "Eat: Eat deliciously", and "Sleep: Do not depress" to be used to organize activities or projects in order of importance that would make the elderly decide to practice and correctly convey the health-promoting experience to others continually. This would help the elderly gradually become aware of frailty conditions and deeply perceive the importance of the "4 S" which brings them to the appropriate health literacy approach.

2) The elderly clubs and relevant agencies should create activities or projects in the health literacy approach for the elderly within four dimensions. These cooperate networks should consider developing a "Four-dimensional Health Promotion Center" or "Bangkok Elderly Health Management Training Center". This center will serve as the hub of beneficence activities for the elderly in an urban area building proper health literacy and leading to effective health promotion.

3) The elderly clubs and involving agencies should establish a comprehensive health welfare fund for the elderly and allow them to save funds for preventing accidents, promoting mental health, caring about nutrition, and promoting cognitive memory. These set-up funds will strenuously support activities involving to "4S".

4) The elderly clubs and relevant agencies should collaborate with educational institutions to

increase elderly activities involving oral and dental health care, stress management, and home safety. These agencies have directly academic expertise that can structurally excellently help the clubs to execute the literate approach entailing health-promoting behavior of the elderly.

5) All age groups in urban areas should be raised awareness of the frailty aspects involving “4S”. The community activities should at least be involved with one dimension of the “4S”, which will help empower them to become active elderly in the future.

6) The elderly clubs should pay more attention to how to attain the goal of health literacy for the elderly. They should consider that health literacy is the right that elderly deserve and straight them to be active in aging.

7) The elderly clubs and engaged agencies should continually create some or all aspects of activities related to the “4S” to delay the elderly’s vulnerability, especially the aspect of depression because this issue is complex for the elderly to manage or is quite incomprehensible for them. Furthermore, “Walk: Do not fall” and “Eat: Eat deliciously” have been fundamental issues that may lead to illness in other dimensions of the “4S”. After that, activities in “Brain: Do not forget” and “Sleep: Do not depress” has gradually progressed. All “4S” are interconnected and should be periodically evaluated for the progress of the operations.

Discussions

1. When considering a model in terms of the effect of health-promoting activities designed by elderly clubs on the desired behavior of the elderly, health promotion operations tended to work according to the aptitude and ability that came from familiarity. Some clubs and their networks were able to create a network and manage social capital and funds. The health activities could be done only by screening or giving superficial knowledge. Budget support also depended on the clubs operating as required by the governmental agencies according to their strength and potential. Thus, these had unclear results in the elderly’s health promotion in the health literacy approach. Under the PIRAB management, which is following the Ottawa Charter (Unprommee, 2013), this was found to conform with the principles: however, it eminently lacked the depth of practice. The affiliated agencies, therefore, functioned in the same manner and as requested by the relevant agencies. This could be because of the inability to orderly create external networks, not yet fully complying with the regulations, relying on trust between the co-workers, and still unable to communicate the operating results to display the public’s clear image of the health promotion. Therefore, it was not clear that the health promotion results of the elderly were entirely found because of the self-care activities designed by elderly clubs or/and the relevant agencies.

2. In considering the model in the concept of a health literacy organization, it was found that the elderly clubs and involving departments did not fully encourage the elderly member’s access understanding, sharing, making decisions, and informing about good health habits. This aspect consisted of the quantitative data, in which it could be seen that the percentage of the elderly who performed health promotion activities to a level of being able to inform others correctly was not high in every dimension. Additionally, this conformed with the qualitative data found that many agencies did not have the formal plans to deliberately set the direction of

works in-depth for the elderly's health promotion and lacked data collection and the ability to analyze designing activities. There was only a report on the number of the annual routine activities, the number of members who join club activities, basic information relevant to health screening of elderly members, and some of the elderly who can access elderly club activities. This was consistent with the study that found the work of the agencies corresponding to the elderly was still weak. They focused on policy-based activities that usually were more urgent than primary issues profoundly considering the context of the problems and the existent needs of the elderly in urban areas (Pansit et al., 2017).

When comparing the facilitating factors in the model with the concept of health literacy organizations, which must have a database and provide health promotion services that would enable the elderly to learn until being able to correctly transmit information to others, including the requirement to monitor the results of the elderly's behavioral change to appraise the success of the operation, it was found that some clubs and their agencies were just proceeded along with health literacy organizations in the initial stages.

Most of the health activities organized were just primary health screening that did not manifestly reflect the development or upgrade of the individual elderly's capacity. This maybe because these agencies fundamentally functioned with colleges as neighbors, mostly solved the confront or immediate problems, and familiarly performed the assigned tasks by health personnel. Therefore, the framework for the administration according to the process of being a health literacy organization was not well planned, including the characteristics of leaders, concept integration into practice, working development, and efficient communication evaluation. These were the core principles of designing activities would efficiently develop the elderly's literacy (Nutbeam, 2008; Thanasukan, 2017).

3. The model explicitly found that the elderly practiced health promoting behavior to avoid frailty situations in the "4S" by ordering the frequency from easy to strenuous activities. According to health-promoting practices, the elderly must have explicit knowledge, coupled with the aggressive effort, until they can consistently continue a routine and confidently inform others. This conformed with the work of various elderly clubs and departments, which designed health promotion activities for the elderly, starting with "Walk: Do not fall" to make the body healthy in order to participate with other seniors, followed by "Eat: Eat deliciously" to grind, chew, and taste, then "Sleep: Do not depress" that precisely focused on creating mental happiness, and finally finishing with "Brain: Do not forget". Such practices were so complex that the agencies must be highly committed to assertively enhancing the elderly to remember the necessary information and had a new activity that only a few clubs or departments rightfully knew or understood. This was according to the study, which showed that the participation of the elderly should focus on creating mental well-being, stress management, social interaction, and generating value for themselves and others (Novek et al., 2013). The sequence of activities organized by the agency for the elderly from "Walk: Do not fall", "Eat: Eat deliciously", "Sleep: Do not depress", and "Brain: Do not forget" was therefore conducted according to the difficulty in performing and meeting the needs of the elderly. This conformed with the nature of the elderly who had psychological, emotional, and social needs rather than physical conditions because they fully accepted the inevitable decline.

Moreover, the activity theory states that receiving psychological, emotional, and social responses would constructively help the elderly be strong enough to continue their activities (Wiser et al., 2019).

4. The mechanisms to promote the “4S” of the clubs through being a health literacy organization found that the models were different along with the context of the elderly and the agencies’ work in each zone (Pengchan, 2017). The overall model found by Smart by LeIST@BKK, inferred that the leadership of social capital or the elderly leaders (Leadership: L) persuaded and generated the human capital and the elderly to join the activities until achieving the goal, as well as sought and supported partners while creating benefits for the elderly. Information for work (Information: I) consisted of collecting, searching, managing, and using information for continuous activities or projects for the elderly. Participation with network partners (Stakeholder: S) was composed of working with the existing sectors and finding new ones. These synthesized models were like various community models, which emerged from cooperative work and found that leaders were the key factors for potentially driving the work with a clear goal of helping the elderly to have self-reliant potential and benefit others. The leaders were usually experienced people and had the capabilities and social positions that could be processed to advance the elderly’s health literacy. Therefore, they could competently operate the information for working with human capital and community resources, and cooperate with different sectors to systematically improve the elderly’s health-promoting behavior.

Conclusions

This model is synthesized from the quantitative data processing on health-promoting behaviors allied with “4S” through the health literacy approach among the elderly, together with the qualitative data linked to the management of the elderly club based on the concept of health literacy organizations. The development of this model emerged from various stakeholders with explicit frameworks of principles, objectives, systems, and mechanisms. The model was called LeIST @ BKK (Leadership: L, Information: I, Stakeholder: S, and Team: T) in order of importance from “Walk, Eat, Sleep, and Brain” was the synthesized system and mechanism, which was found to be beneficial for promoting elderly health away from a frail condition and having a better quality of life. Human capital leadership would help persuade the elderly to carry out activities to achieve their health goals. In addition, the information could be used to create and convey a positive image. Stakeholders would also be an important connection point to increase new sectors to assist the elderly, as well as teamwork that would be an outstanding feature of a strong community, encouraging the elderly to continue their health activities. The crucial policy recommendations from this model were that the elderly clubs should accurately assess the needs of the elderly related to “4S” by skillfully working with stakeholders and then creating conforming projects or activities for elderly members that align with health literacy organization.

Recommendation

Finding using recommendation

1. - The governmental officers should apply this model to expand it in each zone by carefully considering principles, objectives, systems, and mechanisms facilitating elderly club administration. The potential zone should be ordered and periodically tried out at the beginning and subsequent phases. These help the most elderly clubs carry out health literacy activities that promote health promotion to their members.

2. The involving agencies in each zone area should help the elderly club systematically organize and update the member information and health promotion activities in terms of “Walk: Do not fall”, “Eat: Eat deliciously”, “Sleep: Do not depress”, and “Brain: Do not forget”. This information is beneficial for analyzing strengths and weaknesses for improving health literacy activities in each club and overall. Moreover, this will help adjust the health promotion model in the zone and urban area level which will yield the elderly club to do more activities that benefit the elderly members.

3. The agencies at the policy levels should integrate the principle, objective, system, and mechanisms facilitating elderly club administration through the health literacy process into the elderly health improvement plan, both short-term and long-term. This help to directionally provide health promotion activities for the elderly, which effectively meets the problems and needs of the elderly living in urban areas.

Further research recommendation

1. A longitudinal or follow-up study should be done in each zone area, and then summarized as an overall model. This help to compare the health promotion of the elderly through the health literacy process in each period and deconstruct the body of knowledge related to systems and mechanisms of health promotion of the elderly for the elderly in an urban area.

2. Qualitative research should be employed to extract lessons learned, meaning, and summarize the key issues of health promotion through the health literacy process in the dimensions of “Walk: Do not fall”, “Eat: Eat deliciously”, “Sleep: Do not depress”, and “Brain: Do not forget”. This can be an advantage on determining the elderly club activities, roles, and duties of those involved to improve the health of the elderly club members.

3. The definitions and components of “Walk: Do not fall”, “Eat: Eat deliciously”, “Sleep: Do not depress”, and “Brain: Do not forget” should be more structurally operationalized. It is beneficial for statistical analyzing health promotion through the health literacy process of elderly clubs in urban areas with similar contexts. It also allows for analysis of the relationship or predictive correlational between the 4 dimensions of health literacy and health promotion of the elderly.

References

Anantakul, A. (2015). *Elderly society challenge Thailand*. Bangkok, Thailand: National Convention and the Members of Thammasat University and Politics Royal Institute.

Association of the Elderly Council of Thailand. (2016). Bangkok, Thailand: Senior club manual.

Brainard, J., Loke, Y., Salter, C., Koós, T., Csizmadia, P., Makai, A., Gács, B., & Szepes, M. (2016). Healthy ageing in Europe: Prioritizing interventions to improve health literacy. *BMC Research Notes*, 9(270), 1-11.

Kaup, A. R., Simonsick, E. M., Harris, T. B., Satterfield, S., Metti, A. L., Ayonayon, H. N., & Yaffe, K. (2014). Older adults with limited literacy are at increased risk for likely dementia. *Journals of Gerontology Biological Sciences Medical Sciences*, A(69), 900-906.

Liu, C., Wang, D., Liu, C., Jiang, J., Wang, X., Chen, X., Ju, X., & Zhang, X. (2020). What is the meaning of health literacy? A systematic review and qualitative synthesis. *Family Medicine and Community Health*, 8(2), 1-8.

Novek, S., Menec, V., Tran, T. & Bell, S. (2013). *Social participation and its benefit*. Canada, Winnipeg, MB: Centre on Aging.

Nutbeam, D. (2008). The evolving concept of health literacy. *Social Science and Medicine*, 67, 2072-2078.

Pansit, P., Apatthananon, T. & Thitiraweepong, S. (2017). *Format and operation of the elderly club in Pak Phayun district, Phatthalung*. Phatthalung, Thailand: Research report.

Pengchan, W. (2017). *Health literacy in the document for department of personnel capacity development workshop, health depart, ministry of public health*. Nonthaburi, Thailand: Ministry of Public Health.

Prachuapmoh, W., Chayowan, N., Wongsit, M., Siribun, S., Suwanrada, W., Potisiri, W., Bangkeaw, B., & Milintangkul, C. (2013). *The follow-up and evaluation reports according to the 2nd national elderly plan (2002-2021), phase 2 (2007-2011)*. Bangkok, Thailand: Population Science Collage Chulalongkorn University.

Prasertphan, C., Piasue, N., Jarupat, S. O. M., & Kittiphimanon, K. (2014). Activities and activities of the elderly club in the urban community :Case study. *Ramathibodi Journal*, 2(3), 388-400.

Sarai, K. (2017). *Study of long-term care models for the elderly in Japan and Thailand* (pp. 165-177). In Proceedings of the 9th National seminar on the disabled. Samutprakarn, Thailand: Huachiew Chalermprakiet University.

Sriphaiphan, T. (2017). *Local unite to take care of the elderly in the community*. Bangkok, Thailand: Thai Health Promotion Foundation.

Srihani, K. (2017). The relationship between health intelligence and quality of life of the elderly in the central northeastern region. *Journal of Health System Research*, 11(1 January-March), 26-36.

Thanasukan, C. (2017). *Health literacy organization*. Nonthaburi, Thailand: Health Department, Ministry of Public Health.

The Department of Health. (2022). *Elderly healthy “Smart walk, smart brain & emotion, smart sleep, smart eat”*. Retrieved from <https://eh.anamai.moph.go.th/th/elderly-manual/201791>

The Elderly Council of Thailand. (2016). *Elderly club guide*. Retrieved from <https://www.dop.go.th/th/know/12/23>

The Office of the Permanent Secretary for Health. (2018). Ageing society and driving the Thai economy: Academic monthly report in July. 1-15.

Unprommee, S. (2013). *Important development of health promotion*. Nonthaburi, Thailand: Academic Welfare Project of Praboromarajchanok, Institute Ministry of Public Health.

W.H.O. (2020). *Health in SDGs policy brief 4: Health literacy*. Retrieved from <https://www.who.int/healthpromotion/conferences/9gchp/policy-brief4-health-literacy.pdf?ua=1>

Wiser, F., Durst, C., & Wickramasinghe, N. (2019). *Using activity theory successfully in healthcare: A systematic review of the theory's key challenges to date*. In Proceedings of the 52nd Hawaii International Conference on System Sciences. USA.: HICSS.

Wongwisetkul, S., Sukjareon, P., & Payomyong, S. (2017). Community participation model of health promotion for the elderly in Bangphlat district, Bangkok Metropolis, *SDU Research Journal*, 10(2), 153-174.