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Livable communities for aged populations in urban areas: A case study of an urban community in Bangkok

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Abstract

This article aimed to study the characteristics of livable communities for aged populations in urban Thailand, factors affecting development of these communities, and guidelines to improve the current situations. The study used mixed methods. Quantitative data were collected through a questionnaire survey of 242 aged persons in one urban community in Bangkok with a high proportion of elderly residents. Qualitative data were collected by In-depth interviews with 12 key informants and 4 focus group discussions involving 35 others members of the public, and people from government and business sectors. Quantitative data were analyzed by frequencies, percentages, means, and standard deviations. Qualitative data were probed by content analysis. Quantitative findings, on a scale 1–5, produced average scores for livable conditions in 4 categories (health, economy, society, and environment) with category means of 2.37, 2.41, 2.31, and 2.30 respectively. Each category included variables derived from the conceptual framework and each variable was scored on the questionnaire. Qualitative data produced on community development included the individual potential of aged persons, family warmth, community strength, government and private sector support. The guidelines for livable community development for aged persons arising from the study include building cooperative community development networks empowered to improve health, local economy, social relations, and the physical environment.Database development will help implementation.The policy recommendations including the government and private sectors should follow a mutual direction for the community development, integrate all work related to the aged population, and establish the cooperation of the aged population and the community.

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Introduction

Ageing is challenging Thai society confronting the rapid growth of the population aged more than 65 years. The United Nations [UN] revealed that in 2019, there were 8.63 million older persons or 12.4 percent of the total Thai population, and it expects that the number will rise to 13.79 million or 19.6 percent in 2030 (United Nations [UN],2019). In the meantime, urbanization is expanding with ever more people living in big cities. In 2018, 10.1 million people lived in Bangkok, and demographers predict there will be 12.1 million in 2030 (United Nations [UN], 2018). The data on the population in Bangkok, analyzed in December 2017, revealed that 18.63percent were elderly people (Bangkok Metropolitan Administration, 2018). The urban elderly is challenged in both physical and mental conditions as the city grows. When evaluating the aged Thai population condition with the Active Ageing Index of 2017, the quality of life was at an average level 0.685 (Institute for Population and Social Research, 2019).

The aged population living in urban areas should be able to improve their quality of life to reach a higher Active Ageing Index level.However, in urban communities, overcrowding causes many problems, especially environmental degradation, air and water pollution, poor garbage control, dust, traffic problems, and crime. In communities with low income, the aged population lives in dwellings with unsafe conditions: the bedroom is on the upper floor, there is no grab bar in the bathroom and they use a squat toilet. Outside their homes, rough terrain causes water to collect everywhere. There is no appropriate lighting along the path, as well as no availability of slopes on walkways for the disabled elderly. These unacceptable conditions may lead to accidents, illness, disability or life-threatening situations.

Socially, the pace of living and much competition decreases the sense of sharing and support. The number of older persons who live on their own or alone with their spouses is increasing. They tend to be more dependent. A change of the city physically and socially leads to various living problems for the aged population, including low income, transport problem, losing the opportunity to learn and improve skills, loneliness and being left behind from society, and problems of health and wellbeing. (Built Environment for Health Research Unit, 2017). Unsuitable city conditions for the elderly with lower physical ability motivated the researchers to study their way of life and the city characteristics that contribute to livable places for aged populations.Accordingly, the researchers aimed to identify community characteristics that create livable conditions for the aged population, noting factors for associated community development and possible guidelines to develop communities with good quality of life and happiness among the aged population.

Literature Review

For this study, the researchers adopted the following concepts to assign the study framework.

Aged population: The active ageing concept means the population over the age of 60, considering being physically active -they are flexible, lively and able to do some work. At the same time, these people are socially active by involving in social, economic and cultural activities. They can take care of their physical, mental, social and cognitive health relating to the three principles-health, participation and security. (World Health Organization [WHO], 2002)

Community development: This means processes on community development consisting of the networking and mutual understanding of the network, both within and outside the community.Community development methods include problem-solving and learning-sharing. Targeting and planning. Planned operations evaluate and reflect the results of the lesson summary and development report. Community Empowerment: promote participation in all sectors and the development of an aged person's database.

Livable communities: This concept is defined as designing a community environment to be livable for the elderly to live their lives comfortably and safely. It is a universal design that is beneficial to everybody consisting of access to public transport, the hub for self-service, and access to a green area for recreation and exercise. Older adults should be encouraged to be involved in social activity and social inclusion. An appropriate environment helps the elderly remain active both physically and socially, which contribute to physical, mental, social, and cognitive/spiritual well-being. (World Health Organization [WHO], 2007a)

Urbanization: This is a result of economic and social change and leads to an increase in geographical movement. Urban society can be divided into many important dimensions, including the physical dimension, which is a rapid expansion of the city to facilitate industrial production, leading to a large migration of people into the city. The city is not able to develop its structure to support such movement in time. Concerning the social and cultural dimension, the urban population

lacks friendly social interaction and disappears from social roles. In the economic dimension, the urban economy is convoluted and complicated. People in urban areas lack the ability to be economically self-reliant. Most of them are in debt. Weakened urban areas will threaten the aged population and fragile group of people in several dimensions such as health, physical environmental, economic, cultural, and mental problems in every level from the individual and family to the community as follows.

Methodology

Participants

Quantitative data through questionnaire selected from all 242 aged population living in study areas for at least one year, with good health and with the mental capacity to answer questions from sub-community1–4: 60, 86, 61, and 35 persons respectively. Qualitative data through in-depth interviews purposively selected 3 elderly who had a key role in 4 sub-communities, 12 persons. Focus group discussions were purposively selected from stakeholders related to the community development, including 12 elderly, 8 family members, 8 community leaders, 5 government officers and 2 private business owners, a total of 35 persons.

Data Collection

The study used mixed methods. Research design was a convergent design model in which the quantitative and qualitative data were used simultaneously and analyzed to compare the results for the complete study. Quantitative data were collected through a questionnaire survey. Structured questionnaires were designed based on the United Nations' concepts of AFC to study the living conditions of communities. The researchers collected data with the face-to-face technique by home visits. Qualitative data were collected through in-depth interviews-the researchers got involved in every data collecting process. Interviewees were the elderly who were willing to participate in the research. Focus group discussions -the researchers were involved in exploring meanings, achievement factors, and development guidelines by focusing on group dynamics through stakeholders' interaction at the learning center in the community.

Data Analysis

The results of the questionnaires were analyzed for frequencies, percentages, means, and standard deviations (*SD*). The rating scale used was1.00–1.80 (lowest), 1.81–2.60 (low), 2.61–3.40 (average), 3.41–4.20 (high), and 4.21–5.00 (highest). Qualitative data were collected through in-depth interviews, group discussions and observations, and then subjected to content analysis to draw recurring themes and recommendations for improving conditions of aged persons.

Ethical Consideration

This study was approved by the Office of the Committee for Research Ethics, Social Sciences, Mahidol University. For the data collecting process, informed consent was presented to the respondents.The researchers considered respecting their human dignity, privacy and confidentiality of the respondents.

Results and Discussion

Based on responses to the questionnaire of the 242 target population, 172 respondents returned such, including 42, 61, 42 and 27 elderly of sub-community 1–4 respectively. 125 participants were female and 47 were male. The average age was 70 years old, married and having finished primary education. The results from both quantitative and qualitative data were analyzed and synthesized, as shown in Figure 1.

Characteristics of a Community that provides Livable Condition for the Aged Population

The study community in Bangkok contributing livable conditions for the aged population was analyzed into four aspects as follows: health care, economy, social participation and safe environment. The overall characteristics of the community were at a low level by mean ($\bar{x}$) = 2.34, as shown in Table 1.

Health care

The overall health care was at a low mean level ($\bar{x}$) = 2.37. Issues that most support the livable conditions for the aged population are knowledge on universal healthcare, annual health check-up, exercise activity, vaccination, learning about health, home visit for building knowledge and healthcare advice. Issues that limit the ability to a livable condition involve the availability of

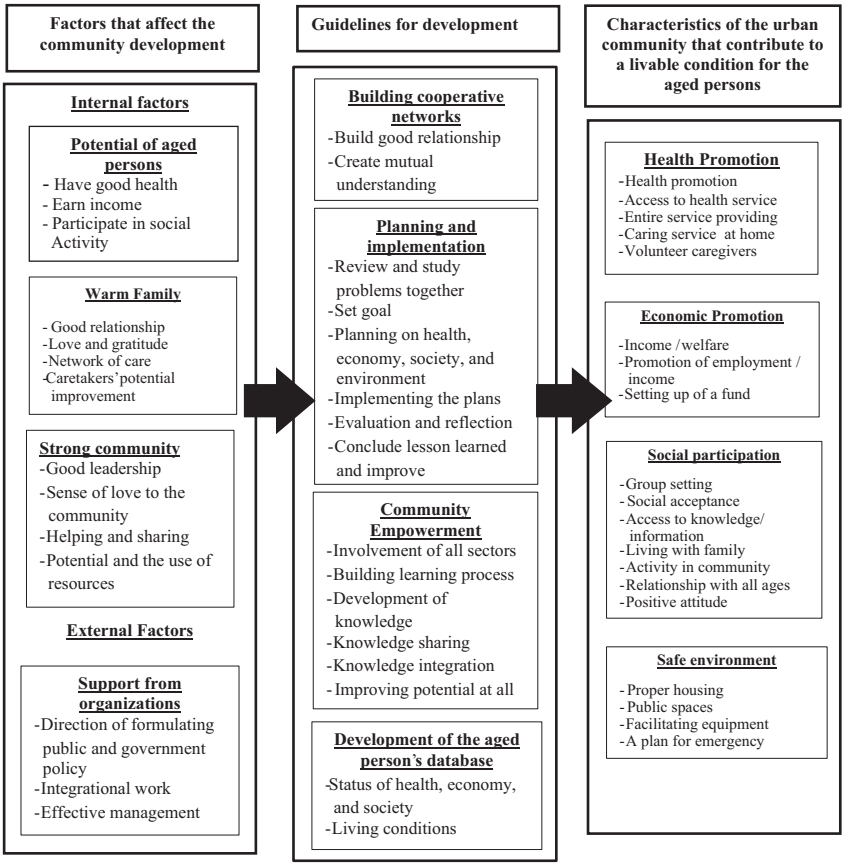

Figure 1 Community development framework contributing the livable urban community for aged population

Table 1 Characteristics of a community that contributes a livable condition for the aged population

Community characteristics	Community no. 1 (Traditional)		Community no. 2 (Slum)		Community no. 3 (Slum)		Community no. 4 (New)		Overall Mean		Community categories
	$\bar{x}$	*SD*	$\bar{x}$	*SD*	$\bar{x}$	*SD*	$\bar{x}$	SD	$\bar{x}$	*SD*	
Health care	3.09	1.09	2.19	0.62	2.22	0.48	1.90	0.41	2.37	0.82	Low
Economy	3.20	0.99	2.13	0.71	2.29	0.66	2.00	0.68	2.41	0.89	Low
Social participation	3.05	1.03	2.07	0.70	2.27	0.74	1.77	0.52	2.31	0.90	Low
Safe environment	3.13	1.29	2.20	0.58	1.74	0.33	2.13	0.52	2.30	0.91	Low
Total	3.09	1.09	2.15	0.59	2.12	0.47	1.92	0.43	2.34	0.83	Low
Community categories	Average		low		low		low				

Note: Score Mean ($\bar{x}$) 1.00–1.80 = lowest, 1.81–2.60 = low, 2.61–3.40 = average, 3.41–4.20 = high, 4.21–5.00 = highest.

lending equipment for daily living such as adjustable beds, wheelchairs and walking aids. It also includes the 24-hour ambulance and the management of services for older persons who need special care.

Although the overall scores of all four sub-community areas were at a low level, one study area (Community no.1) (original establishment) had an overall livable conditions score at an average level.

Based on qualitative data, the health condition of the aged population in one of the communities in Bangkok was at a low level due to less concern about their health, limitation of education and having a low income. The community's surroundings and public space did not contribute to the ability to take good care of their health. They received less care from family members because each of them needed to work.

Nevertheless, Community no. 1 aged population had the potential to take care of their health at an average level. This community was initially settled near a spacious temple and school, so there were enough areas for organizing many activities, including exercise, nutrition promotion and traditional Thai massage. In this community there were also a multipurpose building and an elderly club. Its characteristics correspond to the WHO's concept of AFC, that the community should have a suitable and accessible space for giving health service (Oxley, 2009; World Health Organization [WHO], 2007a). However, the other three communities had limited free space for exercising or had recreation areas far from dwellings making it hard to join the exercising activity or health check-up. This can lead to chronic illness among senior citizens. (Foundation of Thai Gerontology Research and Development Institute, 2017).

Economic promotion

Overall, economic promotion was at a low mean level ($\bar{x}$ = 2.4). The issues that were most likely to contribute to the livable conditions for the senior citizens were the elderly subsistence allowance and job promotion. The issues that limited their life style were job training and fund establishment, particularly the saving fund or one baht per day saving fund. While it was at a low level in general, Community no. 1 had an economic promotion at an average level.

Based on qualitative data, the senior citizens of all four sub-communities were low-income earners and this limits savings. The setting up of saving funds was not successful. Consequently, they had no savings to start a small business that would help increase income. The poverty problem still exists. Thai elderly usually earn income under the poverty line. Community no. 1 had economic promotion at an average level. Most elderly received the subsistence allowance from the government as well as having had job training to gain more income, consistent with the concept of AFC that aims to encourage the aged population into the labor market with fair wages and appropriate jobs (World Health Organization [WHO], 2007a).

Social participation

In general, social participation was at a low mean level ($\bar{x}$ = 2.31). The most characteristics that provided livable conditions were the religious and cultural activities and the relationship strengthening activity. The issues that limited the habitable conditions were participation in the activity of the elderly club, promotion on family participation, educational service, setting up of the learning center and learning about the use of home and public internet. Although the overall mean was at a low level, Community no. 1 had social participation at an average level.

Based on qualitative data, social participation of the senior citizens of the community of Bangkok was at a low level because most of them had the burden of earning income and looking after their children.They were low-income earners. Besides, the location for organizing the activity was hard to access, especially for the educational activity. As a result, they had less opportunity to learn or access technological knowledge. According to the idea of AFC, it is designated that the aged population should have a chance to receive news of the community. The community should provide computers and internet services in public or the center of the community (World Health Organization [WHO], 2007a). Community no. 1 is located near the temple and a school, so it is possible for the senior citizens to participate in cultural activities. This can promote the strengthening relationship between the elderly and people of all ages perfectly. It corresponds with the AFC, which mentions that the location of the activity should be convenient and accessible to motivate the aged population to join the activity of the community (World Health Organization [WHO], 2007a).

Safe environment

The overall safe environment was at a low mean level ($\bar{x}$ = 2.30). The issues that contributed to the livable conditions concerned the availability to have grab bars at a stairway, a bedroom on the ground floor, a bathroom and a flush toilet inside their homes. The issues that limited the livable conditions included having a parking lot far from the entrance of the building and having little space for opening and closing vehicle doors. The design of the environment and infrastructure, according to the concept of universal design, was limited. Universal design is an approach to the design, construction and adaptation of the living environment to meet the needs of all people regardless of their age (Ronald, Graeme, Hardie, & Place, 1991).Moreover, there were few buzzers found in the toilets for an emergency case. However, in community no.1, the safe environment is at an average level. There is usually a toilet /a bathroom inside the house. In their homes, a western-style toilet and a bedroom for older persons are found.

Based on qualitative data, the dwelling environment of the target community was at a low level because its geographical feature was mainly overcrowding. Most homes were built on private property with poor design

due to the lack of city planning. This causes limitations in adopting plans for developing other areas. The housing condition depends on the household economy, and it is not modified to be suitable for the elderly (Built Environment for Health Research Unit, 2017). However, Community no.1 had a safe environment at an average level. Some living conditions had been modified alongside the growth of the city. Hence, the housing environment was more modern according to each household's economic capacity. It is consistent with the concept of AFC, which specifies that the bathroom/toilet for older persons should be located inside the home and the toilet should be the western-style toilet. The bedroom for older persons should be on the ground floor (Carr, Weir, Azar, & Azar, 2013; World Health Organization [WHO], 2007a).

Factors that Contribute a Livable Condition for the Aged Population

Internal factor

Individual factor: the informants regarded the ability to take good care of themselves, earning adequate income and participating in social activities as most crucial. This has been promoted in the Active Ageing principle about physical, mental and spiritual health regularly, and having sufficient income and participating in social activities (Oxley, 2009; World Health Organization [WHO], 2002).

Family factor: regarding the physiological factor, the household that provides suitable conditions can enable older adults to have the ability to manage living independently. Besides, for the social factor, when the family members have good relationships among themselves, it can create warmth within the family, rendering cooperation to take care of the elderly with love and gratitude. The ties of kinship develop a network of looking after older persons. When the family help altogether taking care of their elderly, the dependence on the community or government will decrease. This is parallel with the study by Janthothai (2018), who studied the lesson learned about how to manage an aging society in Japan and found that the older adults who received adequate care from their family were considered as living in a good society. They feel accepted, beneficial, or valuable, leading to having a long life span. Okinawa, for instance, has a unique culture on gratitude and respect for older adults.

Community factor: concerning the physiological factor, the community must have a safe environment. For example, it should have adequate and appropriate lighting along the sloping path for the access of wheelchairs. The road surface must be entirely smooth to avoid accidents that may cause injury to older persons. (World Health Organization [WHO], 2007b).Regarding the social factor, the strength of the community is crucial, and it must have a good leader. All members should have a sense of love of community and be ready to help each other. Because of this, it can create unity and cooperation to help develop the community in many areas, especially on the issue of elderly development (Buffel & Phillipson, 2018).

External factors

The community receives support from the private and government sectors ata major level, including budget, knowledge, and personnel. For this reason, the community can have good management, obtain the learning process and direction to develop the community in the same way. The integration of working together with multidisciplinary collaboration can be the most beneficial for the community (Buffel & Phillipson, 2018).

The Guidelines for Contributing Livable Conditions

The findings of the characteristics of one of the communities of Bangkok has led to the synthesis of the livable conditions in four areas: health, economy, society and environment, (in the right frame).The mechanism for leading to the characteristics of the urban communities is a process or approach to develop the community (in the middle frame). There are three internal factors: individual, family and community, and external factors for supporting livable community development, (in the left frame). The details are as follows in Figure 1.

Building cooperative networks

The community must create a bond among its members and expand to other networks leading to cooperation, mutual learning and practice in various activities, leading to proper development.

Planning and implementation

The community must review the problems, analyze and have a mutual understanding among members to set goals and implement the plans.

1. The health promotion plan includes nutrition promotion, exercises, Thai traditional medicine, caretaker training and home care.

2. The economic promotion plan consists of vocational training, fair wage plan and setting funds for savings and investment.

3. Social participation plan involves encouraging the members of the family to take care of the elderly with love and gratitude, improving the high potential for the caretakers, organizing activities for building the relationship between the elderly and people of all ages both within the family and the community.

4. The development of housing and environment plan consists of the improvement of appropriate homes for the elderly. Public places and recreational area should provide seats, wheelchair ramp and hand rails in keeping with universal design concept.

Community empowerment

The community encourages the involvement of all sectors to build up the learning process as well as to develop, exchange and integrate the knowledge for more potential. It can strengthen cooperation for the community empowerment.

Development of the aged person's database

The update and correct data of the aged population concerning their health, economy and society can lead to the efficient community development that is livable for the aged population.

Conclusion and Recommendation

The suitable condition of an urban community for the aged population comprises the promotion of health, economy, social interaction and environment. The development guidelines start with establishing cooperation from all sectors to study and learn the process and bring about effective plans. It also helps with community empowerment and the elderly's database development. The affecting factors concern the elderly's capability, warm family, strong community and government and private organizations' support. The study revealed the characteristics of the livable conditions for the aged populations to live their lives comfortably and safely. Older adults should be encouraged to be involved in social activities and social inclusion. An appropriate environment helps elderly active ageing, concerning being physically and socially active, which contribute physical, mental, social, and cognitive/spiritual well-being. However, it is recommended that the private and government sectors should formulate plans in the same direction, integrate all work with multidisciplinary collaboration and encourage the elderly's participation within the community.

Conflict of Interest

There is no conflict of interest

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