

A Survey of Preparing for the Elderly-Desired Home in Thailand

Sauwaluck Koojareonpasit
Sumalee Pumpinyo

Kasetsart University, Bangkok, Thailand

Abstract. The objective of this study was to explore the physical environment of the elderly-friendly home as well as the desired home. The study employed the in-depth interview method by interviewing people aged 50 years old and more. The sample size was 185. This study conducted in Bangkok, Pathum Thani, Samut Prakan and Phra Nakhon Si Ayutthaya province in Thailand. The physical environment of the elderly-friendly home that the elderly concerned were near the hospital/clinic, convenience store and public park, respectively. The female elderly was more concerned about closing to hospital and convenience store than the male. The single and married elderly were concerned about the elderly-friendly bus and stayed near family and friend. The desired home for the elderly was single house and the floor was not slippery. The elderly male preferred single house while the female preferred not slippery floor. The married elderly preferred single house while the divorced elderly not preferred the single house. The elderly preferred to have the bedroom with the bathroom and have doctor and nurse 24 hours, respectively.

Key words: the elderly –desired home, physical environment, elderly-friendly home, female elderly, male elderly.

Introduction

According to a UN survey, almost every country in the world is entering an aging society. Due to the decline in birth rates and slower marriages. From the above reasons, the proportion of children decreased. Increase the proportion of workers and the elderly. If the proportion is compared, the elderly who are 60 years old or older have increased from 9.2 percent in 1990 to 11.7 percent in 2013. And this rate will continue increase until 2050 to 21.1 percent (United Nations, 2013) and it is predicted that the number of the elderly will increase by more than 60 percent over the course of 15 years. By 2030, there will be about 1,000 million of the elderly, accounting for 12 percent of the total population, and by 2050 it is expected to reach 1.6 billion worldwide (Table 1).

Table 1. The Total World Population Aged 65 in 2015, 2030 and 2050

Year	Total population (person)			Population aged 65 years old (person)			Share of the population aged 65 years old or more (percentage)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
2015	7,253.3	3,652.0	3,601.3	617.1	274.9	342.2	8.5	7.5	9.5
2030	8,315.8	4,176.7	4,139.1	998.7	445.2	553.4	12.0	10.7	13.4
2050	9,376.4	4,681.7	4,694.7	1,565.8	698.5	867.3	16.7	14.6	18.5

Source: U.S. Census Bureau, 2013; International Data Base

For Thailand, which has entered the aging society since 2005, a survey of the elderly population of the National Statistical Office in 2015 found that the number of the elderly has been steadily increasing. With the share of the population aged 60 years and over was of 15.5 percent and is expected to increase to 32 percent in the next 25 years. In addition, from the Fig. 1, it can be seen that the population structure of the Thai elderly population has a wide base, when compared to the amount of children and working-age population. This indicates high dependency. The study of the elderly seriously, finding a way to increase the opportunity for the increasing number of the elderly, preparing to deal with the situation to the aging society completely is important.

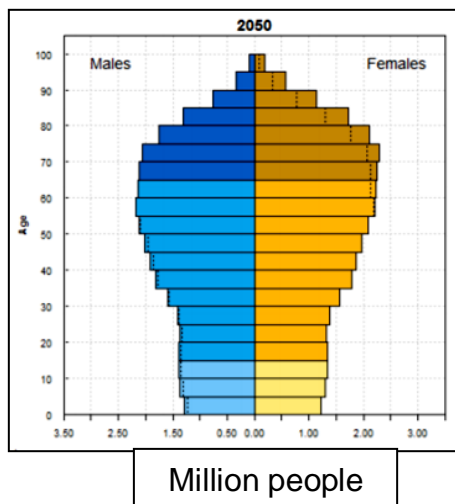


Fig. 1. The age structure pyramid of Thai population in 2050. *Source:* United Nations, Department of Economic and Social Affairs, Population Division (2015).

Thailand has a policy to promote the well-being and quality of life. The increase of the elderly causes the demand for suitable housing, the design of the house for the elderly in housing estates will gradually develop according to the changing population of the elderly, which will next have to be designed for the elderly that cannot start self-reliance this study examines the characteristics of the elderly friendly housing environment. The desirable characteristics of the accommodation that the elderly need in accordance with the current conditions for the sustainable development of the elderly society to have friendly homes for the elderly it is another element that helps the elderly succeed in life in order to allow the elderly to live in a valued and happy society.

Scope of study

This study has the scope of the interview of the elderly in the lodging is divided into the elderly housing prepared by the government and the private sector in Bangkok and nearby provinces i.e, Pathum Thani, Samut Prakan and Phra Nakhon Si Ayutthaya. population used in the study Elderly in a government operated guesthouse and the private sector in the area Bangkok, Pathum Thani, Samut Prakan and Phra Nakhon Si Ayutthaya The in-depth interview was conducted between March and May 2018. The elderly being interviewed are aged 50 years and older, divided into 3 age ranges of 50-60, 61-70 and 71 years and older.

Material and Methods

Data collection

This study comprised both primary data from the in-depth interview of the elderly in the elderly house conducted by the government and the private sector Bangkok, Pathum Thani, Samut Prakan and Phra Nakhon Si Ayutthaya province. The sample size was 185. Secondary data was collected from relevant documents such as articles about the elderly, related research, related websites etc.

Population

The population in this study is the elderly aged 50 years and over, which can specify the number of 1,816,574 people (Statistical registration system, 2017), then calculate the size of the sample. By using the formula to know the population at the confidence level of 95 percent and accept the error of 5 percent (Yamane, 1967), the number of samples is 385 people. That still can look after themselves are 47.7 percent and rely on moderate level 52.3 percent (Institute for Population and Social Research, 2017). Therefore, 385 * .477 should be interviewed. The sample size was 183.645 people. Therefore, in this study specifies 185 sample size by purposive sampling. The interview was divided into 2 groups, the group with aged 50-60 years interviewed in the public park, including Suan Luang Rama 9 Park, Lumpini Park, and the other group with aged 61 and older interviewed the elderly who live in the elderly home. Both the private and government sectors, such as the Bang Khae nursing home, Swangkaniwet housing project, Thai Red Cross, Baan Paiyika and Wellness City

Data Analysis

This study was divided into descriptive and quantitative data analysis. By the descriptive data analysis. The data was analyzed by using a software program to find the Weight Average Index (WAI) by using the formula of Weighted Average Index (WAI) (Black and Champion, 1976) as follows:

This study used a five-point Likert scale to assess respondents' opinions about a desired-home. Then, a weighted average index (WAI) was applied to the result. The WAI was computed using following equation:

$$I = \frac{\sum s_i f_i}{N}$$

where, I = WAI, such that $0 \leq I \leq 1$, s_i denotes the scale value at i^{th} priority ranging from very poor, poor, moderate, high to very high and f_i denotes frequency of i^{th} priority and N is equal to the total number of observations, i.e., $\sum f_i$. WAI was used transform the opinions of respondents from a nominal scale (very poor-very high) into numeric scores. The scores were classified into five levels such that 0–0.20 = very poor, 0.21-0.40 = poor, 0.41–0.60 = moderate, 0.61–0.80 = high, and 0.81–1 = very high (Md Abdul, 1993).

Then compare the differences between the groups of respondents. By using t- test and F-test statistics, LSD.

Literature review

Lawton (1985) studied the quality of life or good life in the elderly and found that the elderly with good quality of life must consist of 4 factors which are:

- psychological well-being which can be assessed by the impact of the level of happiness received and the success of the second aspect;

- behavioral competence means the ability to perform the duty of a person. Which includes the function of the body aspiration;
- .objective environment means the environment that influences the quality of life of the elderly consisting of 5 parts, namely physical environment, people who are important to the elderly, other people who have Interaction with the elderly, social status, age, ethnicity, and economy etc.;
- social and cultural conditions within the community where the elderly live the last one was perceived quality of life means a person's self-assessment of mental well-being.

Sudsomboon (2014) wrote "Social Welfare of the Elderly in Thailand" which has discussed the forms of social welfare of the elderly in Thailand are:

1. Social Security, which can be divided into 9 funds.

2. Public assistance is a free allowance.

3. Receiving counsel in court cases Rescued from cruelty and neglect.

4. Social service Which is a service system that responds to the basic needs of the people, consisting of 5 different services, which are health, hygiene, education, housing In terms of employment and income Social and recreation services.

5. Assistance to the public sector. In addition, there are issues and obstacles in the provision of social welfare for the Thai elderly. Still have suggestions from academics regarding the guidelines for the development of the social welfare system for the elderly.

Jackie (2012) studied the Projecting living environment for an ageing society: The case of Hong Kong with the objective of studying the living conditions. In addition, the quality of life for the elderly living in the city. By 2030, Hong Kong will have a population that is older than 60, 22 per cent of the total population. This study interviewed 50 elderly people aged 60-79 years of daily life, according to the study found that the elderly who have money can still live normally. Age is not an obstacle. However, poverty makes the elderly feel a sense of hopelessness. Suggestions from this study was that the government should consider and combine the issues of the elderly with the city planning policy and designed policies that allow the elderly to access and take advantage of various things from the government.

Gunnarsson (2009) studied "I think I have had a good life", conducted by in-depth interview the healthy elderly in Sweden. The purpose of the study was to explain and analyze how the elderly men and women live their daily lives. The sample consisted of 20 people aged 75-90 years. This sample has benefited from economic growth and the welfare of the country. This entire sample worked outside after retired they had an active life and still need a meaningful life. They still connected with people in society, including friends, family, organizations. Even though the physical condition has deteriorated.

Result

Most of the sample were female, 50-60 years old, married and had a bachelor's degree, previous occupations were self-employed with income over 50,000 baht per month and no children. The environment of the house is friendly to the elderly, the elderly pay close attention to the nearest medical facility, followed by convenience stores, necessities and public parks. Religious places give the least importance (Table 2).

Table 2. Environment Characteristics of Houses That Are Friendly to the Elderly

The environment of the house is friendly to the elderly	WAI
Transportation services of guesthouse.	-
There is a bus service that is friendly to the elderly.	0.8865
Near the hospital.	0.9211
Close to convenience stores, essentials.	0.9049
Close to the mall.	0.8076
Near to the park.	0.9038
Near religious places.	0.7762
Near home, relatives and friends.	0.8465
<i>Total.</i>	0.8638
Physical features around the house.	-
There is a garden near the house.	0.8454
With chairs to rest in various places.	0.8476
There is a path for exercising.	0.8822
<i>Total</i>	0.8584
Note: 0–0.20 = very poor, 0.21-0.40 = poor, 0.41–0.60 = moderate, 0.61–0.80 = high, and 0.81–1 = very high	

Testing for differences in the environment of the house

The environment of the elderly home, when separated by gender, found that different gender had different importance in terms of home near hospital and convenience stores. Female gave more importance in both areas than male, in term of physical characteristics outside the home, male and female gave equal importance in all aspects (Table 3).

Table 3. Characteristics of the Elderly Friendly Living Environment when Considering by Gender

Desirable characteristics of the house	gender	
	male	female
	(n=57)	(n=128)
	WAI	WAI
Transportation services of guesthouse	0.8772	0.8906
There is a bus service that is friendly to the elderly	0.8982	0.9313
Near the hospital*	0.8772	0.9172
Close to convenience stores, essentials*	0.7825	0.8188
Close to the mall	0.9158	0.8984
Near to the park	0.7579	0.7844
Near religious places	0.8351	0.8516
Total	0.8491	0.8703
Physical features around the house		
There is a garden near the house.	0.8351	0.8500
With chairs to rest in various places	0.8211	0.8594
There is a path for exercising.	0.8772	0.8844
Total	0.8444	0.8646
Note: 0–0.20 = very poor, 0.21-0.40 = poor, 0.41–0.60 = moderate, 0.61–0.80 = high, and 0.81–1 = very high.		

* Statistical significance at the level of 0.10
 ** Statistical significance at the level of 0.05
 *** With statistical significance at the level of 0,01.

When considering by their marital status, the importance of having a bus that is friendly to the elderly, has a bus that is friendly to the elderly and close to relatives and friends differently. The single and marriage group gave importance to having a car and live near the relatives and friends, while widow and divorced status gave less importance to this aspect (Table 4).

Table 4. Characteristics of the Elderly Friendly Housing Environment when Considered by Status

Desirable characteristics of the house	Status			
	Single	Married	Widowed	Divorced
	(n=58) WAI	(n=103) WAI	(n=14) WAI	(n=10) WAI
Transportation services of guesthouse				
There is a bus service that is friendly to the elderly.***	0.9069ab	0.9010ab	0.8000cd	0.7400cd
Near the hospital	0.9034	0.9301	0.9000	0.9600
Close to convenience stores, essentials	0.9000	0.9068	0.8714	0.9600
Close to the mall	0.8069	0.8194	0.7429	0.7800
Near to the park**	0.8966abd	0.9204abd	0.7857c	0.9400abd
Near religious places	0.8000	0.7709	0.7000	0.8000
Near home, relatives and friends***	0.8793ab	0.8544ab	0.7143cd	0.7600cd
Total	0.8704	0.8718	0.7878	0.8486
Physical features around the house				
There is a garden near the house.	0.8379	0.8563	0.8286	0.8000
With chairs to rest in various places	0.8483	0.8505	0.8286	0.8400
There is a path for exercising	0.8828	0.8854	0.8286	0.9200
Total	0.8563	0.8641	0.8286	0.8533
Note: 1. WAI: 0-0.20 = Lowest, 0.21-0.40 = Low, 0.41-0.60 = Medium, 0.61-0.80 - High, 0.81-1 = Highest * Statistical significance at the level of 0.10 ** Statistical significance at the level of 0.05 *** With statistical significance at the level of 0.01 a = Single, b = Married, c = Widow, d = Divorce				

Testing for differences in the characteristics of the desired house

Considering by gender, it was found that both male and female liked differently. Male prefer on a single house than female. Female will focus on the area not slippery more than male (Table 5).

Table 5. Desirable Characteristics of Houses Classified by Gender

Desirable characteristics of the house	Gender	
	male	female
	(n=57)	(n=128)
	WAI	WAI
House of choice		
Detached house **	0.9333	0.8672
Townhouse	0.6070	0.6094
Condominium	0.6667	0.6531
Total	0.7357	0.7099
Home appliances		
Non-slip floor ***	0.9193	0.9688
With handrails	0.8772	0.8781
Easy entry or exit from home or room ***	0.8737	0.9359
Total	0.8901	0.9276
Facility		
There is laundry service.	0.8000	0.8328
Have a doctor, nurse 24 hour home residence	0.8421	0.8797
With staff to take care of 24 hours a day *	0.8035	0.8578
Meals are served throughout 3 meals **	0.8035	0.8641
There is a convenience store near the house ***	0.7544	0.8297
There is a bathroom in the room *	0.9404	0.9703
Total	0.8240	0.8724
Note: 0–0.20 = very poor, 0.21–0.40 = poor, 0.41–0.60 = moderate, 0.61–0.80 = high, and 0.81–1 = very high		
*Statistical significance at the level of 0.10		
**Statistical significance at the level of 0.05		
***With statistical significance at the level of 0.01.		

Considering according to marital status, it is found that different marital status preferred different houses. The marital status preferred the detached house while the divorce status preferred the least. For household appliance, marital status gave no different importance. All marital status gave importance to having a bathroom in the room, followed by having doctors and nurses 24 hours a day, when considered separated by the retirement of the elderly, found that both groups preferred a single house. Both groups gave importance to folk matters, must not slip, having toilet in the room, doctors and nurses available 24 hours a day (Table 6).

Table 6. Desirable characteristics of houses categorized by marital status

Desirable characteristics of the house	Status			
	Single	Married	Widowed	Divorced
	(n=58)	(n=103)	(n=14)	(n=10)
	WAI	WAI	WAI	WAI
House of choice				

Detached house ***	0.8310acd	0.9359bc	0.8714abcd	0.7400acd
Townhouse	0.6000	0.6175	0.6286	0.5400
Condominium	0.7138	0.6311	0.6714	0.5800
Total	0.7149	0.7282	0.7238	0.6200
Home appliances				
Non-slip floor	0.9517	0.9553	0.9571	0.9400
With handrails	0.8724	0.8796	0.8429	0.9400
Easy entry or exit from home or room	0.9345	0.9146	0.8571	0.9200
Total	0.9195	0.9165	0.8857	0.9333
Facility				
There is laundry service	0.8207	0.8117	0.8714	0.8800
Have a doctor, nurse 24 hour home residence	0.8448	0.8757	0.9143	0.8600
With staff to take care of 24 hours a day*	0.8621	0.8194	0.8714	0.9000
Meals are served throughout 3 meals**	0.8483	0.8427	0.8286	0.8800
There is a convenience store near the house***	0.8034	0.8000	0.8286	0.8600
There is a bathroom in the room*	0.9483	0.9709	0.9429	0.9600
Total	0.8546	0.8534	0.8762	0.8900
<p><i>Note:</i> 1. WAI: 0-0.20 = Lowest, 0.21-0.40 = Low, 0.41-0.60 = Medium, 0.61-0.80 - High, 0.81-1 = Highest</p> <p>* Statistical significance at the level of 0.10</p> <p>** Statistical significance at the level of 0.05</p> <p>*** With statistical significance at the level of 0.01</p> <p>a = Single, b = Married, c = Widow, d = Divorce</p>				

For the likeliness to live in the elderly home found that 50 percent are unsure whether to stay or not, while 18 percent will definitely stay and 32 percent will not stay. For those who are sure, 45.45 percent are single and 63.64 percent have no children. For those who were not for sure, 64.41 percent have marital status and have children. For those who are not sure whether to live or not, there are marriages with children 52.69 percent.

Conclusion

The results from this study showed that home suitable for the elderly should have an area to walk on. The elderly desired home need to be near a medical facility with a doctor and a 24-hour nursing care, located near convenience stores, so that the elderly could conveniently buy necessary things, near the park. In particular, female should pay attention to being near hospital and near convenience stores.

References

Black, A., Champion, D. J. (1976). *Methods and Issues in Social Research*. New York: John Wiley & Sons Inc.

Gunnarsson, E. (2008). 'I think I have had a good life': the everyday lives of older women and men from a life course perspective. *Ageing and Society*, 29, 33-48. <https://doi.org/10.1017/S0144686X08007642>

Jackie, K. Ya, Ch. (2013). Projecting Sustainable Living Environment for an Ageing Society: The case of Hong Kong. *Procedia Environmental Sciences*, 17, 675-684. <https://doi.org/10.1016/j.proenv.2013.02.084>

Lawton, M. P. (1985). Activities and Leisure. In M. P. Lawton and G. L. Maddox (Eds.) *Annual Review of Gerontology and Geriatrics* 5 New York, Springer, pp. 127-164.

Sudsomboon, S. (2014). Social welfare for aging people in Thailand. *Journal of Southern Technology*, 7(1), 73-82.

U.S. Census Bureau. (2013). International Data Base. Available at: <https://www.census.gov/newsroom/press-releases/2013/cb13-tps108.html>

United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Ageing 2013*. ST/ESA/SER.A/348. Available at: <https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2013.pdf>

United Nations. (2015). Department of Economic and Social Affairs, Population Division. *World Population Prospects: The 2015 Revision*. Available at: <https://www.un.org/en/development/desa/publications/world-population-prospects-2015-revision.html>

WHO Ageing and Health Programme. (1999). *Ageing: exploding the myths*. World Health Organization. Available at: <https://apps.who.int/iris/handle/10665/66330>