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AN ANALYSIS OF THE NEEDS OF ELDERLY-FRIENDLY NEIGHBOURHOOD IN MALAYSIA: PERSPECTIVES OF OLDER AND YOUNGER GROUPS

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Abstract

The increase of the elderly population in Malaysia can be one of the main challenges to planners, architects and policy makers. This indicates that provision of a suitable neighbourhood design for a population of different ages is necessary. The elderly group requires specific design standards in neighbourhood planning to ensure a comfortable, conducive and safe living environment. It is a known fact that health issues are part and parcel in elderly care. Having a proper neighbourhood design will likely contribute to an increase in health care services and safety of the elderly. This study analysed the people's perspective on the needs of elderly-friendly neighbourhood in Malaysia and the elements that should be taken into consideration to fulfil the needs. This study aimed to observe the opinion of the elderly, as well as young people for future planning. Data were collected from the residents in the study areas which were Kajang and Sungai Chua. These study areas are located in Hulu Langat district, in which a high percentage of the elderly population was available. The respondents were chosen to participate in a survey in a form of questionnaire that was administered in the study areas. The questionnaire survey did not specifically focus only on older people, but also towards the young people. These young people will either become a caretaker of their elderly or an elderly in the future. Results of this study concluded that elderly-friendly neighbourhood was indeed important and the most suitable type of house for the elderly was single-storey. The elderly-friendly neighbourhood should also be equipped with elements that prioritised the physical activity of the residents. This study provides insights in order to promote the elderly-friendly neighbourhood concept.

Keywords: Ageing, elderly-friendly, health care, nursing, safe, service

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INTRODUCTION

This research focuses on the neighbourhood of “elderly-friendly” which is not commonly adopted in Malaysia. Malaysia is expected to experience a population ageing in 2020 with an estimated 10.7 per cent of the population of those who are of 60 years and above, or 7.0 per cent of the population of those who are above 65 years old (DOS, 2020; Mafauzy, 2000). Changes in social characteristics with increase of urbanisation and modernisation have also brought a huge difference in the increase of demand for this type of neighbourhood (Aini et al., 2016, Ong et al., 2009, Oswald et al., 2010). One of the recent studies in Segamat, Johor, Malaysia (Norhaslina & Tan, 2017) found that most of the elderly respondents (96%) preferred a retirement neighbourhood than a nursing home. A study by Marsa et al. (2020) found that the overall mean level of Demoralisation Syndrome in the residents of nursing homes (69.60 ± 17.41) was higher as compared to community dwellers (45.40 ± 21.47), and those receiving daycare services from the rehabilitation centres (31.90 ± 17.59). This difference was significant ($P \leq 0.05$).

Thus, there is a need to provide an elderly-friendly neighbourhood instead of nursing home for elderly. The retirement neighbourhood or elderly-friendly neighbourhood is a new concept of retirement lifestyle (Norhaslina & Tan, 2017). However, there is no clear housing policy for the elderly, and communities must meet the different needs of the elderly for active ageing to maintain their quality of life. Thus, the suitable type of houses and the characteristics which are the necessities of the elderly are explored in this study.

LITERATURE REVIEW

The elderly-friendly neighbourhood concept is designed to support advanced old age people. It is positioned to provide support and services easily. The neighbourhood has to meet the needs of the disadvantaged older people which include physical and psychological health issues, mobility limitations, as well as security issues. In other words, it is simply explained as any neighbourhood and homes with supporting features that are more supportive in terms of services physically, as well as socially for elderly (Elsawahli, 2013). Such concepts include enriching communities, delivering community services, creating all-age neighbourhoods, building purpose-built, designing small-scale intergenerational models, investing in mobility, distribution, and communication technologies (Elsawahli, 2013).

The elderly-friendly neighbourhood can be designed purely for the elderly group or designed universally to meet the needs of the elderly, as well as younger residents. Nevertheless, current development of accommodation for the elderly focuses more on “retirement home”. It is a concept more towards age-segregated with a planned and low density, and it is constructed by a private capital, offering extensive recreational services and relatively low-cost housing

for the elderly (Norhaslina & Tan, 2017). To simplify the idea of an elderly-friendly (or ageing-friendly) community, it is the neighbourhood that encourages elderly-oriented growth. For example, it recognises the importance of promoting physical activity, as well as enhancing social cohesion for physical and mental health of older people (Elsawahli, 2013).

Key Principles for Elderly-friendly Neighbourhood

Reports by Hirschmann (2019) have shown that there is still a lack of awareness among many designers and architects about the concept of universal design and its application, as well as the particular housing that caters the needs of the elderly and disabled. Elderly-friendly home's concept provides the elderly with a comfortable housing environment. Mohd Tobi, Fathi and Amaratunga (2017), as well as Norhaslina and Tan (2017) elucidate that there are four (4) key areas of housing or neighbourhood for the elderly:

- i. Elderly-friendly or ageing-friendly houses
- ii. Healthcare services
- iii. Facilities and services, especially the recreational services
- iv. Social aspects

For the elderly-friendly houses, based on previous research (Norhaslina et al., 2019), most of the older people favoured small houses for better management and handling. The placement of houses should be close to the market for easy shopping. A study in Singapore (Lane et al., 2020) displayed that older people, particularly females, who lived in closer proximity to a wet market, were found to be self-reported to have a better social health. Other preferable features encompass sufficient facilities, safety and security, friendly disability, provision of public transportations, space for religious activities, encouraging social and spiritual activities, mobile cleaning services, enlarging entrance size, good lighting, preferable single storey house, as well as others (Norhaslina et al., 2019; Siti Uzairiah et al., 2018).

Existing Provision of Homes for the Elderly in Malaysia

The provision of homes for the elderly people in Malaysia is not considered part of the housing programme or policy. It is considered a different social policy or programme under the community and family development allocation. Pertaining to governance, the Ministry of Housing and Local Government (MHLG) manages a formal and informal housing system in Malaysia, while the Ministry of Women, Family and Community Development (MWFCD) oversees the provision of homes for the elderly. For the state level, the management of elderly people in Malaysia is organised by the Department of Social Welfare (DSW) (Sulaiman et al., 2005; see Figure 1). In Malaysia, most related special accommodations for the elderly are governed in compliance with Care Centres

Act 1993 (Act 506), which covers “residential care centre” and “daycare centre” for the elderly (Malaysia, 1993). For the provisions of Act 506, a resident in the care centre is defined as a person obtained for the Care Centre (Elsawahli, 2013). Figure 1 shows the special accommodations for elderly as provided by DSW, non-profit organisations (NGOs) and private provider.

Furthermore, the demand for medical care, care centre and nursing homes for elderly is highlighted by Human Rights Commission of Malaysia (SUHAKAM) (2013) to promote and protect the rights of older persons. For SUHAKAM, elderly is under the category of “persons with disability”. Thus, the elderly is also a part of the vulnerable people who require more care from society. Vulnerable groups include women, children, persons with disabilities and indigenous people (SUHAKAM, 2013). Currently, there is still not many neighbourhoods with elderly-friendly facilities and design that allow the elderly to stay together with younger people.

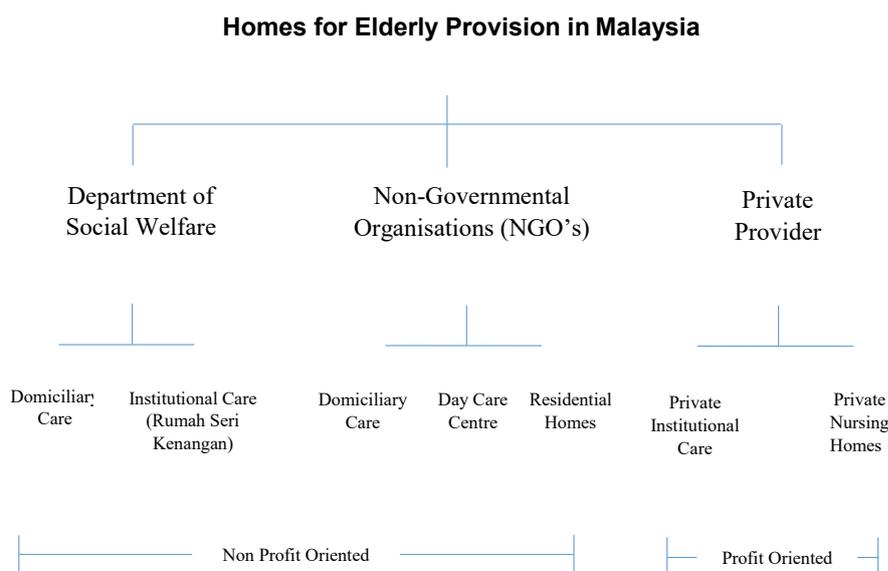


Figure 1: Homes for Elderly Provision in Malaysia
 Sources: Sulaiman et al. (2005)

RESEARCH METHOD

Scope of the Study

This study of the needs for elderly-friendly neighbourhood covers the following topics:

- a. Building and outdoor space

Housing type and the space will be able to cater to the needs of the ageing people.

b. Accessibility and environment

Provided facilities will be easily accessible for the elderly with greater consideration on mobility, security and activity.

c. Security

Prioritising secure design is done to achieve the objective of providing a safe environment for the elderly.

d. Community support and health services

Health or nursing care and other services are given to ensure the convenience of the elderly.

e. Public facility

Providing sufficient resources and necessary elements is conducted to ensure the convenience of the elderly to stay within the area.

Case Study

Chosen study areas were Kajang town and Sungai Chua. They are located at Mukim Kajang in Hulu Langat district (see Figure 2). These areas were chosen because the population of elderly (65 years old and above) was high. The population is 19.5 per cent from the total population (DOS, 2010) as compared to Malaysia's figure of only 7.0 per cent in 2020 (as mentioned in the introduction).

Questionnaire Survey and Sampling of Respondents

This study aims to analyse the perspectives of local people (including the youngsters and older people) on the importance of having an elderly-friendly neighbourhood in Malaysia and the features that should be taken into consideration to create one. This study is different than previous research carried out in Malaysia, in which the respondents were only elderly (Norhaslina & Tan, 2017; Norhaslina et al., 2019). The opinions of young generations in the elderly-friendly neighbourhood is also important. This is because the young generations might also influence decision making by the elderly in choosing a suitable home or neighbourhood.

In total, 110 of respondents were chosen to answer the questionnaire forms which consisted of items about demographic background, respondents' perspectives on the needs of the elderly-friendly neighbourhood and the importance of certain elements in elderly-friendly neighbourhood design. Respondents were chosen from the age group of "20 years old and below" to "60 years old and above" by using a convenience sampling method. The sample size was determined with a confidence level of 90%.

Based on Table 1, female respondents were the majority of respondents who participated in this research. Besides that, most of the respondents were Malays. In the aspect of employment, the highest number of respondents were among those working in public sector.

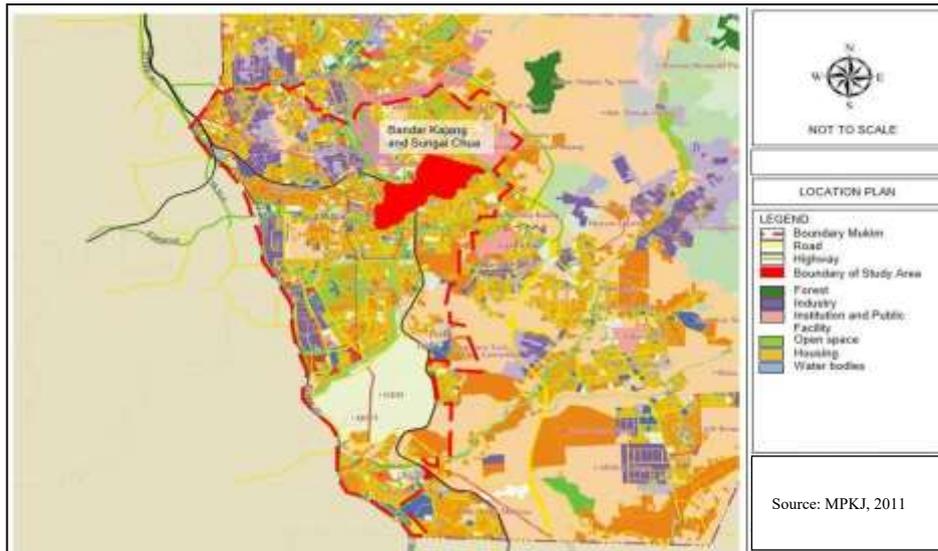


Figure 2: Location of study areas (Kajang and Sungai Chua)

Table 1: Demographic background of respondents

Demographics	Total sample	%
Gender		
Male	48	43.6
Female	62	56.4
Age		
< 20	4	3.6
20 – 29	34	30.9
30 – 39	36	32.7
40 – 49	18	16.4
50 – 59	12	10.9
60 and above	6	5.5
Ethnic		
Malay	100	90.9
Chinese	5	4.5
Indian	5	4.5
Occupation		
Public sector	50	45.5
Private sector	20	18.2
Self – employed	15	13.6
Unemployed	5	4.5
Students	18	16.4
Retired	2	1.8
Marital Status		
Single	44	40.0
Married	60	55.0
Widow	3	2.7
Others	3	2.7

Method of Analysis

The data was analysed using the Frequency and Cross-tabulation tests as provided in the IBM SPSS Statistics software. The purpose of the analysis was to examine respondents' perspectives on the needs of the elderly-friendly neighbourhood and the importance of the elements in the elderly-friendly neighbourhood design.

THE RESULTS AND FINDINGS

People's Perspective on the Needs of Elderly-friendly Neighbourhood

The research discovered that there were still fewer people who were aware of an elderly-friendly neighbourhood project in Malaysia as shown in Table 2. This was because the project was still not broadly practised and promoted in Malaysia as compared to the project abroad. The countries that actively develop housing which is elderly-friendly are Panama, Costa Rica and Mexico, while the recent developments of retirement homes or elderly-friendly housing in Malaysia are Ara Greens Residence in Ara Damansara, Green Acres in Meru, Ipoh and The Green Leaf in Sepang.

Table 2: Cross-tabulation between gender and people's awareness of the elderly-friendly neighbourhood

Gender	Aware	%	Unaware	%	Total (%)
Male	18	37.5	30	62.5	100.0
Female	32	51.6	30	48.4	100.0

While the level of awareness on the elderly-friendly neighbourhood or projects was relatively low, most of the respondents felt that the elderly-friendly neighbourhood was, in fact, necessary for the elderly (see Table 3). Most of the respondents responded "Yes" (necessary or needed) which made up to 62% out of the total respondents.

Table 3: Cross-tabulation between gender and the needs of elderly-friendly neighbourhood in Malaysia

Gender	Needed	%	Unneeded	%	Total
Male	46	95.8	2	4.2	48 (100%)
Female	62	100.0	0	0.0	62 (100%)

Age of respondents also played a vital role in determining the respondents' opinions about the needs of the elderly-friendly neighbourhood. From Table 4, 98% of the respondents from different age group agreed to the needs of the elderly-friendly neighbourhood in Malaysia. Only a small number of young adults (30-39 years old) said that they did not need a specially-designed

housing for the elderly. Table 4 shows that majority of the respondents were eager to see more neighbourhood that prioritised senior citizen in the future.

Table 4: Cross-tabulation between the age of respondents and the needs of the elderly-friendly neighbourhood in Malaysia

Age	Number of respondents		
	Needed	Unneeded	Total
<20	4	0	4
20 – 29	34	0	34
30 – 39	34	2	36
40 – 49	18	0	18
50 – 59	12	0	12
60 and above	6	0	6
Total	108	2	110

Moreover, marital status of respondents contributed to level of different opinions about the needs of the elderly-friendly neighbourhood. Based on Table 5, all widowers felt that a specially-designed housing for the elderly was necessary, while a small number of single and married respondents opined that housing for the elderly was unnecessary. It could be shown that widowers felt they required this type of neighbourhood more because they preferred a companion to get through the ageing process.

Table 5: Cross-tabulation between marital status of respondents and the needs of the elderly-friendly neighbourhood

Marital Status	Number of respondents		
	Needed	Unneeded	Total
Single	43	1	44
Married	59	1	60
Widower	3	0	3
Others	3	0	3
Total	108	2	110

Furthermore, different occupation sectors of respondents contributed to a variety of opinions as shown in Table 6. There was only a small number of respondents who felt that they were not in need of an elderly-friendly neighbourhood. They worked in the public or private sectors. On the contrary, all of the self-employed and unemployed, students and the retired groups believed that a specially-designed housing for the elderly was pertinent for them.

Table 6: Cross-tabulation between the employment of respondents and the needs of the elderly-friendly neighbourhood in Malaysia

Occupation Sector	Number of respondents		
	Needed	Unneeded	Total
Public	49	1	50
Private	19	1	20
Self-employed	15	0	15
Unemployed	5	0	5
Students	18	0	18
Retired	2	0	2
Total	108	2	110

People Perspective on Suitable Type of House for Elderly

The main purpose of this analysis was to evaluate the type of house that was suitable for the elderly based on the opinions of respondents. Table 7 shows that most of the respondents (82.6%) of the age below 50 years old chose single storey landed house as a suitable type of house for the elderly. Meanwhile, all the respondents from the group above 50 years old selected a single storey house as a suitable type of house for the elderly.

Study showed that people preferred to have a single storey landed house for the elderly people's convenience as they were not strong enough to be on their feet for a long period. This also raised concern with stairs climbing which was even more prevalent among the elderly. This finding of the study is in line with the research by Siti Uzairiah et al. (2018), in which the finding displayed that the elderly preferred single storey house. Perhaps, Malaysian young generations also preferred to stay at landed housing based on previous research conducted by Ling et al. (2016).

Table 7: Cross-tabulation between the age and the type of house suitable for elderly people

Age	Single Storey landed		Double Storey Landed		Multiple Storey	
	No.	%	No.	%	No.	%
< 20	3	75.0	1	25.0	0	0.0
20 – 29	33	97.1	1	2.9	0	0.0
30 - 39	34	97.1	1	2.9	1	0.9
40 - 49	16	88.9	2	11.1	0	0.0
50 - 59	12	100.0	0	0.0	0	0.0
60 and above	6	100.0	0	0.0	0	0.0
Total	104	100.0	5	100.0	1	100.0

Table 8: Cross-tabulation between marital status of respondents and the type of house suitable for elderly people

Marital Status	Number of respondents			
	Single Storey landed	Double Storey landed	Multiple Storey	Total
Single	42	1	1	44
Married	56	4	0	60
Widower	3	0	0	3
Others	3	0	0	3
Total	104	5	1	110

Based on the marital status, only a respondent, who was single and of the age between 30 to 39, felt that multi-storey housing was suitable for the elderly (see Tables 7 and 8). This could be possible if the elderly lived with a caretaker or a close family member who could provide assistance and care.

The Importance of Ageing-friendly Elements in the Elderly-friendly Neighbourhood

The elements of study involved in this section were the elements of a building and outdoor space, accessibility and environment, community supports and health services, sense of security, as well as sports facility and recreations (see Table 9).

As shown in Table 9, building and outdoor space, as well as all its elements were ranked as important elements to be implemented in an elderly-friendly neighbourhood by the respondents. The elements of accessibility and environment were categorised as very important by the respondents. Apart from that, in regards to community support and health services, the elements of affordable physiotherapy, home nursing and housekeeping services were categorised as important, while elements of affordable medical services were categorised as very important. The respondents ranked sense of security element as a very important element. For elements of dancing area, walking track and passive recreational area, they were categorised as important elements to be included in the elderly-friendly neighbourhood. In contrast, the only element categorised as moderate important was sports facility. No element was categorised as unimportant or very unimportant by the respondents.

Nonetheless, among all the ageing-friendly elements for the neighbourhood, the aspect of sports facility and recreational area exhibited the lowest score (see Table 9). This illustrated that there was a group of respondents who regarded this aspect as not important for the ageing-friendly neighbourhood. Hence, the mean score for sports facility and recreational area was lower than the other elements (building and outdoor space, accessibility and environment,

community support and health services, as well as sense of security). A crosstabulation analysis was carried out to identify the specific group of respondents who remarked that sports facility and recreational area was not important for the elderly (see Table 10).

Table 9: Ageing-friendly elements for neighbourhood

ELEMENTS	MEAN SCORE*	AVERAGE MEAN	RANK
1. Building & outdoor space			
- Wide-paved walkway	4.07	4.03	Important
- Traffic signals	4.06		Important
- Leisure space	3.96		Important
2. Accessibility & environment			
- Accessibility and convenience of toilet	4.22	4.25	Very Important
- Public transportation	4.29		Very Important
- Pollution-free neighbourhood	4.25		Very Important
3. Community support & health services			
- Affordable physiotherapy	4.07	4.02	Important
- Affordable medical care services	4.28		Very Important
- Home nursing	3.94		Important
- Housekeeping services	3.79		Important
4. Sense of security			
- Secure environment for social activity	4.27	4.27	Very Important
5. Sports facility & recreational area			
- Sports facility (badminton/tennis)	3.17	3.65	Moderate
- Dancing area	3.40		Important
- Walking track	3.98		Important
- Passive recreational area	4.04		Important

*Score = 1: Very unimportant, 2: Unimportant, 3: Natural, 4: Important, 5: Very important

From Table 10, the number of respondents in the age group of less than 59 years old who chose the recreational area as important and very important was higher as compared to the respondents' age of 60 and above who chose mostly neutral. This could be because the youngsters thought that the elderly could gain more benefits from recreational facilities. Conversely, the elderly did not have the same view as the youngsters.

Table 10: Cross-tabulation between age and the importance of recreational area

Age	Number of respondents			Total
	Neutral	Important	Very Important	
<20	1	1	2	4
20 - 29	10	13	11	34
30 - 39	9	13	14	36
40 - 49	9	8	1	18
50 - 59	5	3	4	12
60 and above	4	0	2	6
Total	38	38	34	110

From Table 11, a higher number of younger respondents (<50 years old) thought that sports facilities, such as tennis and badminton court were important for the elderly. However, most of the elderly (aged 60 and above) believed that sports facilities were not important to them. This could be because most youngsters or caretaker would always want the best facilities for their elderly, but the elderly did not feel like it was a necessity to have a sports facility in their neighbourhood.

Table 11: Cross-tabulations between age and the importance of sports facilities (tennis and badminton court)

Age	Number of respondents				
	Very Unimportant	Unimportant	Neutral	Important	Very Important
<20	0	0	4	0	0
20 - 29	1	7	12	12	2
30 - 39	1	3	21	8	3
40 - 49	0	2	9	7	0
50 - 59	0	0	12	0	0
60 and above	0	4	0	2	0
Total	2	16	58	29	5

SUMMARY AND CONCLUDING REMARKS

In the research, the findings focused on the priorities to achieve a neighbourhood that the elderly needed. This study allowed the researcher to gain more knowledge in the aspect of an elderly-friendly neighbourhood by conducting a literature review and a questionnaire survey. By reviewing the literature, it helped

in identifying the challenges faced by the elderly people and increasing the comprehension about the importance of the elderly-friendly neighbourhood concept and the principle or elements of planning that should given emphasis to the elderly. This was essential to ensure comfortable living of residents in the neighbourhood.

Based on the opinions of young and elderly respondents, it was found that most of the respondents (from both young and elderly) felt that the elderly-friendly neighbourhood was important. The most suitable type of house was the single-storey landed house. All the ageing-friendly housing elements were either important or very important for the majority of respondents, except sports facilities, such as tennis or badminton. These sports facilities had been categorised by the respondents as moderately important in general. In other words, an elderly-friendly neighbourhood should be friendly for the elderly people to stay and enjoy their lives with activities, such as dancing, walking, interacting or socialising with friends, and other passive activities. The neighbourhood should be less polluted, with safe-paved walkway, with safe and convenient toilet, with good public transportations, with affordable physiotherapy, medical care services and home nursing, as well as with housekeeping services.

The findings can be a good input to government, developers, planners, and architects in providing a universal or specific neighbourhood which is friendly to the elderly. Future studies could be carried out to study the detailed design elements for the elderly-friendly neighbourhood.

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