# Accessible Facilities in Home Environment for Elderly Family Members in Sri Lanka

M. A. N. Rasanjalee Perera

Abstract—The world is facing several problems due to increasing elderly population. In Sri Lanka, along with the complexity of the modern society and structural and functional changes of the family, "caring for elders" seems as an emerging social problem. This situation may intensify as the county is moving into a middle income society. Seeking higher education and related career opportunities, and urban living in modern housing are new trends, through which several problems are generated. Among many issues related with elders, "lack of accessible and appropriate facilities in their houses as well as public buildings" can be identified as a major problem. This study argues that welfare facilities provided for the elderly people, particularly in the home environment, in the country are not adequate. Modern housing features such as bathrooms, pantries, lobbies, and leisure areas etc. are questionable as to whether they match with elders' physical and mental needs. Consequently, elders have to face domestic accidents and many other difficulties within their living environments. Records of hospitals in the country also proved this fact. Therefore, this study tries to identify how far modern houses are suited with elders' needs. The study further questioned whether "aging" is a considerable matter when people are buying, planning and renovating houses. A randomly selected sample of 50 houses were observed and 50 persons were interviewed around the Maharagama urban area in Colombo district to obtain primary data, while relevant secondary data and information were used to have a depth analysis. The study clearly found that none of the houses included to the sample are considering elders' needs in planning, renovating, or arranging the home. Instead, most of the families were giving priority to the rich and elegant appearance and modern facilities of the houses. Particularly, to the bathrooms, pantry, large setting areas, balcony, parking slots for two vehicles, ad parapet walls with roller-gates are the main concerns. A significant factor found here is that even though, many children of the aged are in middle age and reaching their older years at present, they do not plan their future living within a safe and comfortable home, despite that they are hoping to spent the latter part of their lives in the their current homes. This fact highlights that not only the other responsible parts of the society, but also those who are reaching their older ages are ignoring the problems of the aged. At the same time, it was found that more than 80% of old parents do not like to stay at their children's homes as the living environments in such modern homes are not familiar or convenient for them. Due to this context, the aged in Sri Lanka may have to be alone in their own homes due to current trend of society of migrating to urban living in modern houses. At the same time, current urban families who live in modern houses may have to face adding accessible facilities in their home environment, as current modern housing facilities may not be appropriate them for a better life in their latter part of life.

**Keywords**—Aging population, elderly care, home environment, housing facilities.

M. A. N. Rasanjalee Perera is attached to the University of Sri Jayewardenepura, Sri Lanka. Currently she is a Senior Lecturer in Sociology, Department of Sociology and Anthropology, Faculty of Humanities and Social Sciences. (phone: 094 776776782, e-mail: rasanjalee@sjp.ac.lk).

### I. INTRODUCTION

GING is a universal phenomenon. The 21st century has Abeen named as "The era of population aging" [8]. One of the challenges faced by the many countries in the current world is, rapidly increasing aging population and its social, economic and demographic impact on society. The elderly population in developed countries will be 32% by 2050 as a ratio of two elderly persons for every child and the old age dependency ratio will be almost double in developed regions and triple in less developed regions by 2050 [11], [17]. This figure shows how rapidly increasing the aging population, i.e. 60 or over, is than the other age groups. Significantly, aging population is increasing more rapidly in developing countries than in developed countries. Asia is the region which has the fastest growth of aging population as 52% of the world's oldest population live in Asia and the Pacific in 2002, and it will further increase and will rise up to 59% by 2025. Further, South Korea will have 37.3% aged population by 2050, while Japan, Italy and USA report 36.5%, 34.4% and 21.2%, respectively [11].

The population of Sri Lanka is rapidly increasing declining fertility rates and increasing life expectancy [6]. Elderly Sri Lankans (aged >60 years) constituted 9.4% of the population in 2006, up from 9.1% in 2001 and from 6.9% in 1998 [5]. Elderly population in Sri Lanka was 2.5 million in 2011 accounting for 12.5% of the total population of the country. Also, a study predicts that this amount of elderly population will be about 3.6 million by the year 2021 accounting for 16.7% of the total population of the country. This study warns that the aged population of the country will be one-quarter of the total population of the country by the year 2041 if the same trend continues [18]. A researcher [15] pointed out that this proportion of elderly is the highest in South Asia. Confirming the fact, researchers [3]-[5], [15] pointed out that proportion of aged who are over both 60 and 70 years old in Sri Lanka will be much higher in 2000, and possibly double that of other countries in the South Asian region by 2030.

Reference [15] further explains that aging of the population has several serious implications on every aspect of life; accordingly, the country will have to face serious problems in the near future. The researcher confirms this pointing out the fact that "Sri Lanka is continuously experiencing one of the fastest aging populations in the developing world due to its speedy demographic transition". This author [15] provides statistics to prove his argument as the proportion of the population over 60 years of the country has increased from 5.3% in 1953 to 10.8% in 2003, which is double within the five decades. He also highlighted that as per the records, the

elderly population increased by 3.3%, while the total population increased by 1.2% during the period 1981-2001.

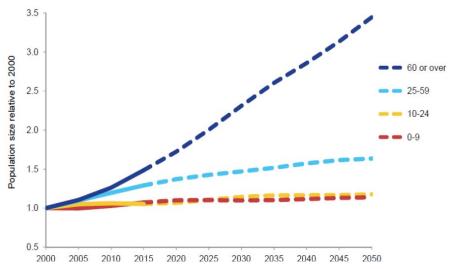


Fig. 1 World population relative to 2000, by broad age group, 2000-2050 [15]

Even though higher life expectancy is a blessing and a positive indicator of the development of a nation, within this context, the world will have to face many challenges due to socio, economic, demographic and other related issues of an increasing aging population. While the older population is increasing rapidly, the younger population is declining dramatically and as a direct result, the shortage of care givers for the elderly will be increased. At the same time, traditional family responsibility of caring for elders is slowly eroding due to structural and functional changes of the family system and also due to changes of women's role as well as other socio, cultural and economic changes in the modern society including migration patterns, etc., which highly contribute to a reduction in the availability of caregivers [6], [11].

Care of the elderly is a family responsibility [14]. Gerontologists, sociologists, psychologists and even the general public believe that the best place to live for elders is their home and the best care giver is the family member [11]. Family attachment is very high in Sri Lankan society and it is considered that caring of old parents is a moral obligation of their children. Therefore, a vast majority of elders expect to live with their children, even though they have to face several problems within their households. As revealed by many research on aging, more than 95% of elders in Sri Lanka prefer to live with their families [9], [11]-[13], [18]. However, the preference to live with children in the latter part of the life of aged people in Sri Lanka has created several problems relating to living and caring. Living and caring is highly associated with the home environment. Lack of accessible and appropriate facilities in their houses as well as public buildings is a major problem faced by elders in current Sri Lankan society. Even though, Sri Lanka has taken many steps to solve aging related issues in the society, as some research studies pointed out, it is not given adequate attention to improve physical facilities particularly in their home environment [11].

As the aging population increases, it is more important than ever to design innovative policies and public services specifically targeted to older persons, including, housing, employment, health care, infrastructure and social protection [16].

Many developed countries provide housing facilities for elders, mostly as social security benefits. Particularly, in America, for widows and old married couples have housing at least with one double bedroom, bathroom with shower/ bath and toilet, separate living room, kitchen with dining area, and storage space with a central lounge and other facilities, usually with a parking place for vehicles.

The higher percentage of Singaporeans lives in high rise public flats. However, as the Singapore population becomes older, they upgraded their housing facilities for the convenience of older people by fixing lifts; non-slippery tiles, and grab bars, etc.

In the United Kingdom, elders are provided homes under social security funds, care home places are provided for those who do not own homes, funded wholly or partly by local authorities. Further, elders are given advice and home helpers. Council Tax Benefit for qualified home owners, assistance to non-home owners to pay housing rent, etc. and as a legal requirement, all public buildings should provide adequate convenience access and other facilities for the elderly and disabled by the year 2025. Even at present, pavements, corridors, toilets, counters, electronic or computerized security systems, etc., have been constructed for the convenience of the elderly in many places. Travelers over 60 are provided free tickets for public busses with special access to wheelchairs in London. Free local off-peak bus and ferry travel for over 60s and the disabled are available in the United Kingdom. Besides that, Scotland has widen the travelling facilities available for the aged, with one in eight buses and coaches having a low floor, powered lift or ramp or kneeling mechanism etc.

Comparing these facilities at the community level as well as the domestic level in developed countries, Sri Lanka is still far behind in planning and implementing accessible facilities of housing and public places for the aged [10]. As a country where more than 95% of elders are living in homes with their family members, and as well as the country accounting for the highest proportion of aged people in Asia, Sri Lanka should draw adequate attention in providing better living environments for the aged, as it is highly essential to lead a better life. Generally, old people need extra care and comfort. Good health is a major factor in the quality of life. A good quality of life of the elderly is an important aspect of the quality of life of the entire population. The implications of quality of life span are wide across many areas of the lives of people such as a happy and contended life at the individual level, and resource allocation and utilization for growth and development at the macro level.

As a country struggling with great economic difficulties, Sri Lanka is not in an easy position in addressing all the issues faced by the community, but it is necessary to draw the attention to the elder's requirements as they are the people who provided the things what we are using today. Taking into consideration elderly peoples' valuable contribution to the nation, many countries in the world have already taken many steps, long term as well as short term, implementing some state policies for the betterment of their aging population and honoring them as senior citizens.

When people reach to their old age, it can be commonly seen biological dysfunctions in their physical bodies as well as their mentality [13]. The most severe problem faced by the elderly and their care givers are these biological defects. As a researcher [7] revealed, most of Sri Lanka's elderly have developed age-associated illnesses such as dementia and Alzheimer's disease. This statement highlights the need of support for the aged for independent living such as a suitable transport system, recreational facilities, adaptive housing facilities and acute medical services including access to clinics and community services etc.

Further, elderly persons are more vulnerable to accidents. About 16% of elderly persons have experienced an accident compared to 11% in the general population, and half of these accidents happened at home [5]. However, there are some issues related with facilities available in developed cities as well. For instance, rapidly developing and changing technology will provide conveniences as well as difficulties in operating by the elderly. Even a rare failure of electricity, computerized or electronic security systems, gas and other services etc. may be cause for many issues including physical injuries or deaths.

Taking into consideration the importance of the needs and wants of elderly people, many countries of the world have already taken several steps in implementing law and improving accessible facilities, not only in the home environment, but also in public places. However, as a country that represents the highest elderly population in Asia and even currently facing many issues relating to elders, Sri Lanka has not yet taken adequate attention to provide accessible facilities

in public places as well as appropriate facilities in the home environment. Within this context, this study attempted to identify how far modern housing facilities are suitable for the elderly. In order to fulfill the above objective, it was further investigated whether the "aged" is a serious matter of concern when people are buying, planning and renovating houses.

### II. METHODOLOGY OF THE STUDY

A randomly selected sample of 50 houses, where at least one person is above 60 years, were observed and 50 old persons and 50 family members from each household were interviewed around Maharagama urban area in Colombo district in Sri Lanka to obtain primary data. Further data and information were gathered from discussions with experts such as doctors, demographers, sociologists, and researchers of the field.

Secondary data were collected by reviewing the relevant books, research reports, web sites, periodicals, official records etc. Synthesizing and qualitative analysis of the gathered data and information were undertaken to reach the conclusions.

# III. DISCUSSION AND FINDINGS

According to the cultural and societal norms and values of Sri Lankan society, almost all parents like to live their own homes with their children and grandchildren. However, this expectation is mostly contradicted with their children's desires, as there is a trend in current society to live separately in nuclear families. One of the remarkable factors identified here is that there is an increasing trend of internal and external migration by the young generation. In Sri Lankan society, generally people are recognized by their designations. Higher positions in employment are major factors, which help greatly to have an increased level of social class as well as social reputation. Through free education from grade one to completion of first degree in university; the young people of the country have opportunities for the upward social mobility. Within this background, it can be seen higher competition for education, and therefore, seeking more and more valuable education qualifications, young people migrate to developed cities of the country from rural areas, and from there, they migrate to the developed countries around the world. After completing higher education they find higher-level jobs locally or in foreign countries, which results in changes to their place of residence mostly with modern housing facilities and close to their work places.

A higher number of families in this society have to change their residences due to their children's education, occupation, marriage, changing life style or for the health reasons of parents. Almost all homes constructed and renovated are further modified day-by-day, adding modern housing features such as bathrooms, pantries, lobbies, bed rooms and leisure areas which are not matching with the physical and mental needs of the elderly. The following table gives a simple picture of the studied houses with some modern housing facilities.

Many old people have to live in houses with the above

features which gives them some convenience for an easy and comfortable life, but also with some risks. For instance, the tiled floors are risky, mostly when they are wet, making them slippery. Physically weak old people have to be in careful at every moment to ensure they keep their feet firmly on the floor. This situation is more critical when they use bathrooms, as several times per a day most of them have to use these facilities. All the respondents said they have to face at least two to three minor accidents a day due to slip-ups on tiled floors, while 13 had to be admitted at hospital for several days for treatment for slipping and falling down in their homes. Of all the respondents, two elderly woman suffered critical injuries and undertook treatment for more than a year, while one was also bedridden.

TABLE I MODERN HOUSING FEATURES

Modern housing features	Number of Houses
Type of house - Single story	13
-Two story	37
Tiles – Partly	12
Whole house	38
Parapet wall - Available	42
-Not Available	08
Carpets	14
Flower arrangements, decorations, flower pots, vases etc., inside the homes	42
Ponds - Inside the homes	10
Outside the homes	02
Bathrooms with modern facilities	42
Pantry with complex items and arrangements	37
Garden - Available	24
Not available	26
Garage - Available	18
Not available	32
Balcony -Available	41
Not available	09

Source: Field study 2017

Besides this, the study also found many other risk factors relating to housing arrangements and furniture settings such as decorations, flower vases, natural or artificial trees, statues, corner standards, carpets, and busy curtain arrangements etc., that negatively effects aged people in creating space for domestic accidents. The other important fact is many old people do not like these modern housing facilities as most of these facilities are not familiar to them and some of them do not know how to use, maintain and be careful in using these facilities. Particularly, elderly women are not very familiar with some modern electronic items such as electric irons, televisions, radio, pedestal fans, kettles, cookers, blenders, gas ovens, washing machines, vacuum cleaners, etc. When they use these objects they feel some uneasiness and doubt. For instance, as one of the respondents states,

"...We recently moved to this home from our old home. I don't like electric items. I am afraid to operate a gas cooker and also blender and electric kettle etc., but I have to use all these things as I do the cooking and preparing meals for the family. When we were in our old home I do not use these types of electric items. Therefore, I feel more comfort ability and freedom when

I was doing domestic work there...."

Even though modern home appliances are designed to help to ease the lives of people, for the elderly this is not the case, as often it carries a negatively effect of some risks for domestic accidents, as well as psychological issues.

Better health practices are essential to have sound health at every stage of life. Daily exercises are more essential for the aged in maintaining their physical health. In traditional society, the elderly were able to physically exercise by carrying out their day-to-day activities. However, within modern housing environments, most of them do not have an opportunity to be involved in physical activity such as gardening, walking, sweeping a compound etc., as almost all homes included in the study sample are limited to the land extent of 10 - 15 perches (one perch equals 272.5 square feet) and big houses are built using about 7, 9 perches (about 70% of the available land or more) for the house as single storied or two storied houses. Therefore, there is not much space available for physical exercise within the home. However, some of the aged males in the sample revealed that they are using walking tracks which are located about 3 to 5 kilometers away from their homes and engage in physical exercise on and off. However, some elderly are unable to do physical exercise such as walking, running etc., as they are physically weak, so that even accessing the upper floor in their homes is an issue. A remarkable factor identified here is that even though participation in religious activities is a common feature among aged, it could be observed that in a considerable number of homes, the shrine room or place for religious activities is located on the upper floor where the elderly cannot easily access. Due to the limited or no physical exercise, combined with unhealthy food habits and trying to adapt to the modern lives, all the respondents revealed that they were suffering from various types of physical diseases such as joint pain, joint swelling, diabetes, blood pressure, cholesterol, etc.

As one of the elderly respondents stated,

"... what we are eating is poison. Not like the days we spent in our past. If we like traditional food like jack, sweet potatoes, green leaves etc., we don't have opportunities to taste such foods for several reasons, such as it is not easy to find such traditional foods here and also there is no way to grow such plants in our homes. On the one hand our children don't like such foods, and on the other, preparing such foods like jack, breadfruit etc. is hard and may not be suitable for our modern pantries. Therefore, we have to bear all these things, and try to adapt to this life as much as possible..."

These words imply that they have to face many difficulties that negatively affect their physical and mental wellbeing within the current situation in their homes environments.

The other considerable factor is parapet walls and roller gates. It could be observed that there were high parapet walls or roller gates around their houses. Except at night, most days the elderly have to live alone in these houses as other family members are in outside the home. This situation is more critical among the widows. The higher amount of aged highlighted this factor as the most unfavorable factor in their

homes. Not only they have to feel loneliness and to be socially isolated from association of their neighbors but also it is risky for adults as they are highly vulnerable to the domestic accidents, threat of thieves, etc. If they have to face any trouble, they couldn't get help from their neighbors as they are covered by the high parapet walls and roller gates.

Accordingly, this study could identify several negative impacts which affect socially, physically and psychologically on the wellbeing of the elderly, as a result of a lack of accessible facilities in modern home environments. Even though Sri Lankan society greatly values and highly expects that caring of elders is a prime responsibility of the family, they do not make the necessary arrangements to provide basic facilities within their own home environments. If it is accepted that due to societal changes, family needs and wants are changing accordingly, when adopting to such changes people should think about the needs and wants of each and every family members, giving priority to the elderly as they need more care and security.

A house is a long-term investment, and not only will families have to live the same house throughout their entire life, also older generations will join them to live in it. If the person buying a built house or is renovating a house during his/ her young or middle age, they should consider their time in the property in old age. It is an unavoidable fact and natural phenomenon; everyone will grow old, unless they die young. The home is the place where most persons have to spend many years, more than any other place in their life time. Therefore, the home, which can be considered as a life-time investment, should be planned for, purchased or renovated considering the lives of people in their later years. The most remarkable factor identified in this study is that none of the respondents considered old age and/or the needs of the elderly when buying, planning and renovating their houses. Meanwhile, 50% of the sons and daughters of the today's elderly are also moving towards their old age in near future, as per their age levels. However, it is observed that they also do not consider health and safety considerations required in their old age in the designing, planning and renovating of their houses. This implies this community either does not know of the problems associated with aging or that society ignores the problems of the aged. Within this context, the question is to what extent they consider their aging parents and providing a convenient and safe living in an accessible home environment. Further, it is noteworthy to mention the importance of the responsibility of the local authorities in implementing planning and building regulations in urban areas. This suggests the need of revisiting the existing rules regulation and practices in line with the current and future socio-economic needs [1], [2].

The study further revealed that some parents do not like to live in their children's homes due to the mismatch of the living environment in modern houses. Living alone has increased some of the problems of the elderly in the short term as well as in the long term.

# IV. CONCLUSION

Even though as a country, Sri Lanka provides much

assistance for needy people, it has not drawn adequate attention to provide accessible facilities for the aging population in public places as well as in home environments. The findings of this study drew attention to the family level to the importance of providing accessible and appropriate facilities in their homes, as more than 95% of the elderly live in family homes, and even in the future, it can be accepted that their home is the best place for them.

In current Sri Lankan society, a person's living environment and home is considered as a symbol which shows their social status. Therefore, people try to fulfill this need in the home by adding as many modern features as possible without considering the real needs of family members. Within this context, the elderly have to face many difficulties in living such a complex living environment. As this study clearly revealed, none of the observed houses were planned or arranged considering the elders' needs, and instead, family members gave priority to the external beauty, elegant look of the interior and modern facilities, etc., of their homes. This situation negatively impacts on the elderly and creates various social, physical, and psychological problems. Domestic accidents, some physical diseases due to food habits and life style patterns, difficulties in adapting to the modern home environment, unhappiness, and stress and loneliness are some of the problems highlighted here.

Among such problems, isolation is the most critical. In the short-term, aging parents are being isolated in their own houses due to the increasing trend of educated young people moving towards urban living in modern houses. However, in the not too distant future, maybe in one to two decades time, when the current urban families become aged, these so-called modern houses would also be totally inappropriate for their needs.

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