



# Health Problems of the Elders Living in Elders' Homes Within Kandy Municipal Council Area

**Nirodha Abeywardhana**

Faculty of Medicine, University of Peradeniya, Kandy, Sri Lanka

**Email address:**

niroabey@yahoo.com

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**Abstract:** There is a growth of the ageing population due to increased life expectancy. Complex life patterns results children failing to look after their elders. As a result the number of elders in elders' homes is increasing. Study was conducted to describe health problems of elders in elders' homes. Cross sectional descriptive study was conducted. The Kandy municipal area was selected where there were four elders' homes consisting of 172 residential elders. The total population was selected excluding elders unable to communicate. Thirty six percent elders had children. Problems identified were the non-communicable diseases and age related disabilities. Diseases were hypertension (45%), dyslipidemia (24%). Some elders had not undergone diagnostic tests. The percentage who had age related disabilities was 79.3% and 58.8% out of them did not have equipment to overcome them. The percentage who had visitors was 66.6%. Over 95% of the elders were satisfied with the basic facilities.

**Keywords:** Elders, Health, Kandy, Elder's Homes

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## 1. Introduction

Ageing can be considered as a natural process which causes unique challenge for all the components of the society. As the health care delivery services gradually improve overtime, the life expectancy of the people has increased and thereby increasing the elderly population in the world [1]. It had been reported that in 2000 people aged 60 and above were about 600 million and it has been estimated that it will be 1.2 billion in 2025 and 2 billion in 2050 [2]. Sri Lanka is also a prominent country in the South Asia having a rapidly ageing population. In 2000, one out of every ten people belongs to elderly. In 2030 Sri Lanka is expected to have 22% of its population aged over 60 years. The proportion of young elderly and old elderly also will increase over the present and future decades. [3]

The United Nations (2016) defines chronological age of 60 years as the cut off value for elderly and therefore age 60 and above was taken as elderly for our study. The Center for Disease Control and Prevention (2005) states that overall health can be influenced by many factors including a person's psychological, behavioral and social wellbeing. The elderly population is most likely to be affected by multiple

diseases and health problems [5]. The WHO (2016) states hearing loss, cataract and refractive errors, back pain and osteoarthritis and diabetes as common medical conditions in the elderly. This becomes a burden for the whole society and governments as the effects of these health problems are much more severe. Due to development of complex life patterns and occupations, the people in Sri Lanka as well as many parts of the world cannot treat their elderly in their own homes. So most of the world's elderly population lives in elders' homes or long term care homes. This is the current trend in most developed countries and now is spreading to developing countries like Sri Lanka as well. [7]. Governments and other agencies spend a huge sum of money and resources for the elderly population at present, and also will have to spend more than the present amount to supply resources to the growing elderly population in the world in the future. Therefore a clear understanding of the health needs of the elderly is needed. These needs should be understood on the terms of medical, dental, psychosocial factors. Also as many elders in elder's homes also depend on their children, the socioeconomic status of them is also important to provide elders with necessary facilities. But the research studies done in this field is limited in the world as well as in Sri Lanka and none of them were done in the

Kandy Municipal area according to the Department of Social Services. Therefore this research was done to understand the health needs of elderly in order to improve the health needs in the future for the ever growing elderly population in the Kandy Municipal Council area.

## 2. Research Methodology

The study was carried out to identify the common health problems of the elderly people in elders' homes within the Kandy Municipal Council area. The study was a cross sectional descriptive study. Allocation of health resources could be planned according to the results of this study. In addition the results of this study will be helpful to calculate the prevalence of selected diseases among the elderly living in elders' homes as well. The study population was the elders living in Elders Homes in the Kandy Municipal Council area. The study sample was collected from all the Elders' homes registered in the district secretariat office, as situated within the Kandy Municipality limits. Comprehensive literature search did not reveal any published articles on this subject. Therefore the anticipated proportion of elderly living in

elderly home with health needs (P) was considered as 50%.

Confidence interval = 95%

Absolute precision (40% - 60%) = 10 percentage points

Sample size calculation formula to estimate the population proportion with specified absolute precision was used to estimate required sample size for the study. [9]

$$N = Z^2 \times P(1-P) / d^2$$

$$\text{Sample Size} = \{1.96^2 \times 0.5(1-0.5)\} / 0.1^2$$

The required sample size = 96.

Additional 10% was taken in to consideration to compensate the dropouts.

New sample size required = 96 + 9.6 = 106

However, it was decided to include all individuals in the all four Elders Homes registered in the district secretariat, as the elders' homes situated within KMC area.

The number of male and female elders in the four selected elders' homes in the Kandy municipal area was given in table 1 (Table 1).

**Table 1.** Total number of male and female elders in the four selected Elders Homes.

	Name of the elder's home	No: of males	No: of females	Total Population
01.	Mulgampola Asarana Sarana Elder's home, Mahanuwara	30	39	69
02.	Ampitiya Maddepathana Elder's home, Ampitiya	15	00	15
03.	Mahayyawa Elder's home, Mahanuwara	18	45	63
04.	'Sarana Sevana' Elder's home, Mavilmada	13	12	25
	Total	76	96	172

Elders above 60 years (According to WHO, those who are above 60 are categorized as elders). And those who lived within KMC area was considered as the inclusion criteria while elders who are unable to communicate considered as the exclusion criteria. Collection of data was carried out using an interviewer administered questionnaire. The questionnaire was divided into three parts namely (Socio demographic, Medical dental and Psychosocial). Each part was filled by four investigators by interviewing the elders throughout the study. Four investigators who filled the socio demographic part explained the procedure to elders and informed written consent was obtained. Filling one part throughout the study reduced the interpersonal variations. The 4 interviewers who filled the same part were trained similar way that all of them asked the questions in a similar way in order to reduce the interviewer bias. Four interviewers were used separately for a particular part to minimize the time spent in an elder's home. Each elderly person was interviewed separately. The title of the study, the purpose of the study, the confidentiality of the interview and the future plans in relation to the outcome of the study were explained to each individual before the commencement of the interview.

### Analysis of data

Collected data was entered into a Microsoft Excel spread sheet. After ensuring the correct data entry, the data were transferred to a SPSS Statistical Package of Social Sciences (SPSS™) version 23.0. The data were analyzed to calculate

the prevalence, percentages, means and frequencies.

## 3. Results

There were 172 elders registered in the four elders' homes. Seven elders among them were missing at the period of data collection. Six elders were excluded according to the exclusion criteria. Five elders refuses to give consent for the data collection. At the end of the data collection, Four questionnaires were invalid. Therefore, the number of valid questionnaires was 150. The reasons for not participating in the study are shown in the following table (Table 2). The percentage of valid questionnaires out of the total registered number of elders was 87.2%.

**Table 2.** Distribution of the sample according to the reasons for not participating in the study.

Reason for not collecting data	Number
Refuse to give consent	5
Invalid questionnaire	4
Exclusion criteria	6
Passed away before data collection	4
Not available in the home	3
Total	22

It is important to know about the sociodemographic distribution to study the common health problems. Sociodemographic features such as age distribution (Table 2),

marital status (Table 4), ethnicity (Table 5), religion (Table 6), educational status (Table 7), occupational categories (Table 8), number of children (Table 9) were considered.

Distribution of the sample according to the social demographic features.

**Table 3.** Distribution of the study sample by Age.

Age category (years)	Number of elders	Percentage
60-69	31	24.2
70-79	42	32.8
80-89	42	32.8
90 and above	13	10.2
Total	128	100

The mean age of the population was 76.9 years and the standard deviation was 9.25. Twenty two elders were not aware of their age or the date of birth. The percentage of the females was 58%.

**Table 4.** Distribution of the study sample by marital status.

Marital status	Number of elders	Percentage
Unmarried	77	51.3
Do not have a living spouse	53	35.4
Having a living spouse	20	13.3
Total	150	100

**Table 5.** Distribution of the study sample by ethnicity.

Ethnicity	Number of elders	Percentage
Sinhalese	132	88.0
Tamils	17	11.3
Muslims	1	0.7
Burghers	0	0
Total	150	100

**Table 6.** Distribution of the study sample by religion.

Religion	Number of elders	Percentage
Buddhist	114	76
Hindu	7	4.7
Islam	0	0
Catholic	29	19.3
Total	150	100

**Table 7.** Distribution of the study sample by educational status.

Educational status	Number of elders	Percentage
No proper education	31	20.7
Primary	52	34.7
Secondary	60	40.0
University or equivalent	7	4.7
Total	150	100

**Table 8.** Distribution of the study sample according to occupational categories of elders.

Occupation category	Number	Percentage
No occupation	41	27.3
Legislators, senior officials, managers	1	0.7
Professionals	10	6.7
Technicians and associate professionals	10	6.7
Clerks	8	5.3
Service workers, shop and market sales workers	19	12.7
Skilled agricultural and fishery workers	7	4.7
Craft and related workers	7	4.7

Occupation category	Number	Percentage
Plant and machine operators and assemblers	6	4
Elementary occupations	41	27.3
Total	150	100

Percentage of elders who haven't done an occupation was 27.3% and the percentage of elders who did elementary occupations was again 27.3%.

**Table 9.** Distribution of the study sample according to number of children.

Number of children	Number of elders	Percentage
No children	96	64
1-2	29	19.3
3-4	15	10
5 and above	10	6.7
Total	150	100

Unmarried percentage of the total population was 51.3%. Percentage of elders with a living spouse was 13.3%. Percentage of Sinhalese was 88% and the percentage of Buddhists was 76%. Percentage without a proper education was 20.7%. Sixty four percent of the elders did not have children.

Perception about their own health was questioned (Table 10). Basic details about the oral hygiene (Table 11) and the status of the Non-communicable diseases (Table 13) was also considered. The percentage of elders who had undergone screening tests (Table 12 and Table 16) should be considered when studying about the status of the non-communicable diseases.

**Table 10.** Distribution of the sample according to perception of their health status.

Perception of their health status	Frequency	Percentage
Poor	45	30
Fair	57	38
Good	48	32
Total	150	100

Percentage of elders who think their health status good is 32%.

**Table 11.** Distribution of the study sample by oral hygiene of elders.

Oral Hygiene of elders	Frequency	Percentage
Do not Clean mouth	4	2.7
Do not Use a toothbrush	31	20.7
Have dental caries	51	34
Experience bleeding gums	13	8.7

Thirty four percent of the elders currently experience dental caries.

**Table 12.** Percentage of elders who had undergone investigations within past 1 year.

Investigation	Number (n=150)	Percentage
Hypertension	121	80.7%
Diabetes Mellitus	104	69.3%
Serum cholesterol	70	46.7%
Vision test	82	54.7%
Cardiovascular system examination	80	53.3%

The percentage of elders who had undergone serum cholesterol investigation, vision test, and cardiovascular system examination was 46.7%, 54.7% and 53.3% respectively.

The percentage of elders having hypertension in age categories 60-69, 70-79, 80-89, 90-99 were 35.5%, 47.6%, 50% and 53.8% respectively. The prevalence of heart diseases and Diabetes Mellitus is highest among the 70-79 age group were 28.6% and 31% respectively.

**Table 13.** Distribution of reported Non Communicable Diseases according to sex.

		Male	Female	Total
Hypertension (HPT)	With HPT	24	44	68
	Without HPT	39	43	82
	Percentage with HPT	38%	50.57%	45.33%
Diabetes mellitus (DM)	With DM	10	22	32
	Without DM	53	65	118
	Percentage with DM	15.87%	25.29%	21.33%
Heart Diseases (HD)	With HD	13	14	27
	Without HD	50	73	123
	Percentage HD	20.63%	16.09%	18%
Asthma	With asthma	13	16	29
	Without asthma	50	71	121
	Percentage with asthma	20.63%	18.39%	19.33%
Hypercholesterolemia	With Hypercholesterolemia	10	26	36
	Without Hypercholesterolemia	53	61	114
	Percentage with Hypercholesterolemia	15.87%	29.89%	24%
Cancer	With cancer	0	2	2
	Without cancer	63	85	148
	Percentage with cancer	0%	2.3%	1.35%

Various problems that are being faced by the elders when trying to improve their health (Table 14) and the facilities provided by the institution (Table 15) were questioned.

**Table 14.** Distribution of the sample according to the problems faced in trying to improve health.

		60-69	70-79	80-89	90 and above	Total
Adequate facilities within the institute	Satisfied	29	40	40	12	121
	Not satisfied	2	2	2	1	7
	Percentage of satisfied	93.5	95.2	95.2	92.3	94.5
Facilities at appropriate time	Satisfied	29	42	41	12	124
	Not satisfied	2	0	1	1	4
	Percentage of satisfied	93.5	100	97.6	92.3	96.9
Enough money	Satisfied	24	34	34	10	102
	Not satisfied	7	8	8	3	26
	Percentage of satisfied	77.4	81.0	81.0	76.9	79.7
Guidance	Satisfied	26	32	33	8	99
	Not satisfied	5	10	9	5	29
	Percentage of satisfied	83.9	76.2	78.6	61.5	77.3

More than 90% of the population was satisfied with the facilities available at the institution and the facilities being provided at appropriate time when trying to improve their health. More than 20% of the population was not satisfied with the amount of money and the proper guidance they are getting for their health needs. Twenty five percent of the population who were having at least one non communicable disease was no satisfied with the guidance they are getting to improve their health and 18.18% of the elders with a non-communicable disease were not satisfied with the money they have to improve their health.

**Table 15.** Distribution of the sample according to, having at least one non-communicable disease categorized by the status of satisfaction about the facilities provided by the institution.

	Having at least one non-communicable disease		
	Satisfied	Not satisfied	Percentage of not satisfied
Adequate facilities within the institute	93	6	6.06
Facilities at appropriate time	97	2	2.02
Enough money	81	18	18.18
Guidance for improving health	74	25	25.25
Total			
Percentage			

**Table 16.** Distribution of sample according to the diagnostic tests done within the past year.

Disease		Tests done	Tests not done	Percentage of elders who have not undergone the test
Hypertension	With hypertension	63	5	7.36%
	Without hypertension	58	24	29.27%
Diabetes mellitus	With diabetes mellitus	29	3	9.38%
	Without diabetes mellitus	75	43	36.45%

Disease		Tests done	Tests not done	Percentage of elders who have not undergone the test
Heart disease	With heart diseases	25	2	7.41%
	Without heart diseases	55	68	55.29%
Hypercholesterolemia	With hypercholesterolemia	25	11	30.56%
	Without hypercholesterolemia	45	68	60.18%

60.18% of the elders without dyslipidemia have not undergone screening tests. The percentage of elders among without "heart diseases", who have not undergone cardiovascular system examination, is 55.29%. Thirty point five six percent of elders with dyslipidemia have not undergone blood cholesterol check within past one year.

Then the prevalence of age related disabilities (Table 17) and the percentages of elders who were having required equipment to get rid of them (Table 18) were studied.

Table 17. Distribution of the sample according to age related disabilities.

Disability	Number (n=150)	Percentage
Walking disability	34	22.67%
Hearing defect	29	19.33%
Visual defect	102	68%

The percentage of the elders with the visual defects was 68%.

Table 18. Distribution of the sample according to provision of necessary aids.

Disability	Necessary aiding equipment provided	Necessary aiding equipment not provided	Percentage of elders provided with necessary equipment
Walking disability	31	3	8.83%
Hearing defect	4	25	86.22%
Visual defect	68	34	33.33%

There are 86.22% of elders without having required equipment for their hearing defects.

Psychosocial well-being was assessed by considering the frequency of having a visitor (Table 19), frequency of calling an outsider (Table 20), closest relationship they are having (Table 21) and feeling isolation (Table 22).

Distribution of the sample according to psychosocial status of elders.

Table 19. Distribution of the sample according the frequency of having a visitor.

Frequency of meeting a visitor	Frequency	Percentage
Not at all	50	33.3
Once a year	23	15.3
Every few months	22	14.7
Once a month	44	29.3
Once a week	8	5.3
3-4 times a week	3	2
Total	150	100

Table 20. Distribution of the sample according the frequency of calling an outsider.

Frequency of calling an outsider	Frequency	Percentage
Not at all	80	53.3
Once a year	6	4
Every few months	11	7.3
Once a month	18	12
Once a week	30	20
3-4 times a week	5	3.3
Total	150	100

Table 21. Distribution of the sample according the closest relationship.

Closest relationship	Frequency	Percentage
With children	26	17.3
With family members other than children	42	28
With friends outside the institution	38	25.3

Closest relationship	Frequency	Percentage
No close relationship with anyone outside	44	29.3
Total	150	100

Table 22. Distribution of the sample according to how often they feel isolated.

Often they feel isolated	Frequency	Percentage
Often	18	12
Sometimes	49	32.7
Never	83	55.3
Total	150	100

33.3%of the population do not meet any visitor from outside.15.3% of the population meet someone once a year.14.7% elders meet any visitor in every few months. The percentages of elders who meet a visitor once a month is 29.3% and once a week is 5.3%.

53.3% of the population does not connect with anyone through the telephone. Elders who call someone once a year and every few months are 4% and 7.3% respectively.12% of the population calls once a month and 20% call once in a week.

The elders who have closest relationship with their children is about 17.3%. And 28% of them have the closest relationship with their family members other than children and 25.3% with the friends outside the institute.29.3% have no close relationship with anyone.

In this population, 55.3% of elders never feel isolated, but 32.7% sometimes feel isolated and 12% often feel lonely.

The relation between the frequency of having a visitor (Table 23) and calling an outsider (Table 24) with feeling loneliness was analyzed. Then the level of understanding feelings was cross tabulated against the best companionship (Table 25) to see whether there is a relation. Feeling loneliness was also tabulated against education level (Table 26) and sex (Table 27). Finally the perception of the life was questioned (Table 28).

**Table 23.** Distribution of the sample according to the frequency of having a visitor categorized by the frequency of feeling loneliness.

Frequency of visiting	Frequency of feeling loneliness			Total
	Often	Sometimes	Never	
Not at all	6(12%)	20(40%)	24(48%)	50
Once a year	2(8.7%)	6(26%)	15(65%)	23
Every few months	4(18.2%)	6(27.3%)	12(54.5%)	22
Once a month	3(6.8%)	13(29.5%)	28(63.6%)	44
Once a week	3(37.5%)	3(37.5%)	2(25%)	8
3-4 times a week	0(0%)	1(33.3%)	2(66.7%)	3
Total	18(12%)	49(32.7%)	83(55.3%)	150

The percentage of elders who does not get a visitor and never feel loneliness was 48%. Fifty five point three percent of elders from the total population never feel lonely. The percentage of elders that often feel loneliness among the elders who are getting a visitor once a week was 37.5%.

**Table 24.** Distribution of the sample according to the frequency of calling an outsider categorized by the frequency of feeling loneliness.

Frequency of calling	Frequency of feeling loneliness			Total
	Often	Sometimes	Never	
Not at all	11(13.8%)	30(37.5%)	39(48.7%)	80
Once a year	0(0%)	1(16.7%)	5(83.3%)	6
Every few months	1(9%)	4(36.4%)	6(54.6%)	11
Once a month	3(16.7%)	7(38.9%)	8(44.4%)	18
Once a week	3(10%)	4(13.3%)	23(76.7%)	30
3-4 times a week	0(0%)	3(60%)	2(40%)	5
Total	18(12%)	49(32.7%)	83(55.3%)	150

The percentage of elders does call and never feel loneliness was 48.7%. The percentage of elders that often feel loneliness among the elders calling once a month was 16.7%.

**Table 25.** Distribution of the sample according the closest companionship categorized by the level of understanding of feelings.

With whom having the closet relationship	Understanding of feelings							
	Not at all		A little		Some		A lot	
		%		%		%		%
Children	0	0	1	3.8	12	46.2	13	50.0
Family members	3	7.1	7	16.7	19	45.2	13	31.0
Friends	1	2.6	4	10.5	14	36.8	19	50.0

50% of the elders who have closest companionship with their children feel that they have been understood a lot. Similarly 50% of the elders who have closest companionship with their friends (outside the institute) also feels that they have been understood a lot. And 31% of the elders feel that they have been understood a lot by their family members other than children.

**Table 26.** Distribution of the sample according to educational status categorized by the level of feeling loneliness.

		Feeling loneliness		
		Often	Sometimes	Never
Education	No proper education	4	11	16
	Primary education	6	20	26
	Secondary education	8	17	35
	University education or equal	0	1	6
Total		18	49	83

83 elders out of the 150 never feel lonely. The percentage of the elders those who never feel lonely was 55.3%.

**Table 27.** Distribution of the sample according to sex categorized by the frequency of feeling of loneliness according to the sex.

	Understanding feelings			
	not at all	a little	sometimes	a lot
Male	20	6	20	17
Female	28	6	25	28
Total	48	12	45	45

48 elders find that there is no one to understand their feelings. The percentage of elders those who find that there is no one to understand their feelings 32%.

**Table 28.** Distribution of the sample according to perception about life.

	Frequency	Percentage (%)
Regret about the life I spend	10	6.7
Got the important things in my life	10	6.7
Satisfied with my life	121	80.7
Life is Excellent	9	6.0
Total	150	100.0

Over 95% of the elders were engage in walking within the elders' home that provide them an exercise. Similarly above 95% of the elders' were satisfied with the facilities available for bathing and washing clothes. The percentage of elders who believe that they get rice/cereals/grains, meat/fish/egg, and vegetables/green leaves and fruits at least once per day were again over 95%.

## 4. Discussion

Aging is a natural process where there will be a lot of impact in physical, social and psychological aspects of life. Sri Lanka is a country that is experiencing a rapid growth in the aging population and it has been estimated that the population of the elders will be a quarter of the total

population by 2030 [11]. One of the main reasons for the rapidly increasing aging population is increased life expectancy. Life expectancy of a Sri Lankan male is projected to be 71.2, and 78.5 for a female by the year 2026, which were calculated as 68.8 for a male and 76.2 for a female for the year 2002 [8]. Due to complex life styles and various other reasons, children fail to provide optimum care for their parents at homes. As a result, the number of elders seeking institutional care is gradually increasing. [4]. Therefore, it is important to study about the basic details and health needs of the elders living in elders' homes. It is important to have an idea about the socio demographic features as well.

The majority of the elders living in elders homes were females which accounted for 58%. The reason for this would be the high life expectancy in females. As a result the number of widows who seeks elderly home care would be high while the number of widows who remain in the homes would be higher as well. The majority of the sample was Sinhalese and Buddhists. Their percentages were compatible with the general population even though the percentage of Muslims and Islam are less. However, there is a high Catholic percentage, and this would be due to the fact that one of the elders' homes out of the four is maintained by a church. One of the important finding in this research is the significant higher amount of unmarried elders in these homes. The percentage of elders without a living spouse is also considerably high. The fact that they do not have a life partner would have been influenced them to seek institutional care. More over most of the elders in the sample population did not have children. The reason for this would be, being unmarried, biological problems, preferences or deaths of their children. This finding implies that the main reason for seeking for institutionalized care is not just due to negligence by their children. A study done by the University of Colombo in 2004 revealed that the percentage of females in elders' homes within the Colombo district was higher. Percentages of Sinhalese and Buddhists were slightly higher than in the Kandy municipal area. The unmarried percentage was significantly lower while the percentage of widows was higher. The reason for this would be that the towns and neighborhoods are favorable for single elders to live in their own houses. The mean age of this population was little lower than that of the Kandy municipal area [12]. It might be due to increased longevity of the Sri Lankan population.

The percentage of elders who has not gone to school at all in Colombo was 4% [12]. This value in the Kandy municipal area was much higher. The reason for this might be that the literacy rate in Colombo was higher than that of Kandy [4].

One of the basic health problems identified was the high prevalence of non-communicable diseases among elders. The commonest disease was hypertension and it is high among females. The prevalence of diabetes mellitus and heart diseases were relatively lower. Diagnostic tests for these conditions have been done at a satisfactory level.

However, still there is a considerable amount of elders who have not gone through required diagnostic tests. The percentage of elders who has undergone tests for hypercholesterolemia was even below 50%. Therefore the results of this research regarding the prevalence of dyslipidemia are doubtful. The reason for the low diagnostic tests level would be the high expenditure for the particular tests. The post graduate institute of Agriculture, University of Peradeniya has done a study on the nutritional status of the elders in elders' homes within the Kandy district. The most common non-communicable disease was hypertension and the percentage was 41.9%. The prevalence of diabetes was 13.3% [3]. These percentages are very much similar to our results as well. The prevalence of diabetes in the elders' homes is relatively lower compared to the general elderly population.

The most common age related disability among the elders was related to vision. Provision of the required aiding equipment was around 70%. Some of the elders who already had spectacles were not satisfied with what they had. It would have caused the above value to reduce to 70%. The percentage of elders with walking disabilities was also significant, but the supply of the required equipment was more than 90%. Walking sticks and walkers are relatively cheap and there were only a few who expected a wheel chair. The prevalence of hearing disabilities was also significant and the hearing aids supply was extremely poor. This might be because the cost of a hearing aid is relatively high. The percentage of elders in the sample who do not clean their mouth is very low. Approximately one fifth of the sample does not use a tooth brush for cleaning. There could be elders who do not have teeth among them as well. This research does not assess whether the elders are having or not having teeth. A significant amount of elders experience untreated dental caries.

Almost all the elders in elders' homes within Kandy municipal area believed that they get food including all the nutrients. The reason for this would be due to the fact that these elders' homes are maintained with the help of well-wishers and privileged people in the Kandy area. Those people are volunteered to provide good quality food in allocated days for them. There was a chance of not providing true details. The questionnaire consisted of sensitive questions that might have made the elders feel embarrassed. No matter how much the research team assured the privacy and confidentiality, there might be a chance of feeling insecure. Sometimes they might feel it would be unethical to provide unfavorable facts regarding their elders' home. The memory on certain aspects was questionable and it is also doubtful whether the elders understood the importance of carrying out research studies. One of the main problems identified were that the percentage of elders subjected for screening tests was not adequate. Serum cholesterol tests was a bit expensive and there was no proper way of funding those tests. Apart from that, there was a significant amount of elders with hearing difficulties and majority of them did not have required hearing aids.

## 5. Conclusion

The majority of elderly living in elder's homes in Kandy Municipal Council area was females. More than half of the elders were unmarried and if married, 72.6% had no living spouses. Most of the elders were Sinhalese or Tamils with no Muslims among them. 1/3 of the elders had completed primary education while more than 1/3 had completed secondary education. About 2/3 of elders had no children to look after them. Majority of elders had done an occupation in their life time. 66.7% of the elders in the elderly homes in Kandy Municipal area had at least one non communicable disease. Most of these diseases among elders increased with age and most of them were age related disabilities. The most common age related disability was related to the vision. Hearing loss among the elders was also high although 82.22% of elders were not provided with necessary equipment. 80% of the elders were satisfied with the facilities available and facilities provided although 58.8% of elders did not have required facilities to overcome the age related disabilities. Facilities which were inadequate were specific care provided and specific aiding equipment. Most of the elders who did not have non communicable diseases had not undergone any screening test. Screening tests for dyslipidemia was not adequate. Therefore, most diseases can be undiagnosed. Almost all the elders were satisfied with the food, bathing facilities as well as with the facilities for washing clothes.

Majority of elders did not have any connection with outside relatives or friends and this factor had increased feeling lonely and feeling isolated. There was no difference between understanding the feelings of the elderly among their children and closest friends. 50% of elders who had close relationship with their children and 50% who had close relationship with their friends felt that they had been understood a lot.

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