

A cross-sectional epidemiological study of socio-demographic characteristics, and the functional assessment in geriatric population in field practice area of an urban health centre



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ABSTRACT

Background: India like many other developing countries in the world is witnessing the rapid aging of its population. Urbanization, modernization, and globalization have led to change in the economic structure, the erosion of societal values, weakening of social values, and social institutions such as the joint family. Active aging aims to extend healthy life expectancy and quality of life (QOL) in older persons, and the QOL are largely determined by its ability to maintain autonomy and independence. **Aims and Objectives:** The present study was conducted at a tertiary apex institute to study the socio-demographic characteristics, and the functional assessment in the elderly subjects in urban community. **Materials and Methods:** It was a cross-sectional observational study conducted at the area situated near western suburb of metro city and population of around one lakh sixty thousand. It consisted of housing buildings, multiple slum area. The current study was conducted over 1 year 6 months (18 months). The sampling unit being 102 Geriatric individuals of selected area of urban health center. **Results:** Out of 102 study, subjects 22 (21.56%) were complete independent to perform daily instrumental activities. Maximum study 48 (47.05%) subjects were required moderate assistance for performing the instrumental activities. Numbers of female study subjects were more among moderates assistance 24 (44.44%) and modified assistance 20 (19.60%). Out of 102 study subjects 55 (53.92%) were complete independent followed by 30 (29.41%) modified independence. Numbers of female subjects were more among moderate assistance 10 (58.82%). **Conclusion:** No study subject was dependent or maximal assistance for their self-care activities. Male and female in the present study can perform their self-care activities of daily living with equal efficiency.

Key words: Geriatrics; Elderly; Socio-economic status; Quality of life; Demographic characteristics

INTRODUCTION

Nobody grows old merely by living a number of years. We grow old by deserting our ideals. Years may wrinkle the skin, but to give up enthusiasm wrinkles the soul - Samuel Ullman.

The biggest achievement of the century is longevity. All over the world, life expectancy has risen, leading to

a sharp rise in the number of older persons. Growing population is one of the most significant characteristics of the 20th century and the first quarter of the 21st century is going to be called as "The Age of Ageing." The alarming situation is that the world's elderly population is increasing monthly by about 1 million persons.¹

India like many other developing countries in the world is witnessing the rapid aging of its population.

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Urbanization, modernization and globalization have led to change in the economic structure, the erosion of societal values, weakening of social values, and social institutions such as the joint family. In this changing economic and social milieu, the younger generation is searching for new identities encompassing economic independence and redefined social roles within, as well as outside, the family. The changing economic structure has reduced the dependence of rural families on land which has provided strength to bonds between generations. The traditional sense of duty and obligation of the younger generation toward their older generation is being eroded. The older generation is caught between the decline in traditional values on one hand and the absence of adequate social security system on the other.²

Aging is a universal process. In the words of Sir James Ross, “you cannot heal old age; you protect it, promote it and extend it.” Through advancements in modern medicine and technology, a greater number of humans are now surviving into later life with a potential to reach the age of 120 years. This phenomenon, come to be known, as the “rectangularization” or “box shaping” of the survival curve of man, suggests that the average life span of man is increasing. The life expectancy of those born in 1900 was 45 about years as compared to the present life expectancy of 72 years in the United States and 67 years in India. It is at the age of 60 years that man steps into old age. This was made official by the United Nations through the World Health Organization (WHO) in 1980 when it defined 60 years as the age of transition of people to the elderly segment of the population.^{3,4}

There is a well-established inverse relationship between income and health. However, many of the studies reporting on this relationship have used mortality as an indicator of health. In evaluating health, the WHO recommends using indicators that reflect quality of life (QOL), such as healthy life expectancy, which measures active aging. Active aging aims to extend healthy life expectancy and QOL in older persons, and the QOL are largely determined by its ability to maintain autonomy and independence.⁵⁻⁸

The present study was conducted at a tertiary apex institute to study the socio-demographic characteristics, and the functional assessment in the elderly subjects in urban community.

Aims and objectives

To study the sociodemographic characteristics, and the functional assessment in the elderly subjects in urban community catered by an tertiary healthcare apex institute in metropolitan city.

MATERIALS AND METHODS

It was a cross-sectional observational study conducted at the area situated near western suburb of metro city and population of around one lakh sixty thousand. It consisted of housing buildings, multiple slum area. The study area is supposedly be home to one of largest Muslim populations of metro city. It was heavily polarized during the 1992 riots. The latest immigrants have been from UP, Bihar and many from Orissa and West Bengal. The health-care facility in this urban slum area is provided by urban health centre (UHC) of teaching institute by Community Medicine department. There are two health posts under this UHC, each health post have been divided in of six pocket/areas. One of the areas was selected by multi-stage sampling method.

The current study was conducted over 1 year 6 months (18 months). The sampling unit being 102 Geriatric individuals of selected area of UHC.

Multistage sampling method was used to select the study subject. In Stage 1, Stratified random sampling technique had been used to choose study area: On the basis of the two health posts in the field practice area of UHC, the region is divided into two parts. One of the two regions is randomly selected for collecting the required sample. This region includes 6 areas/pockets. Each of these areas has average 20,000 populations. One area of the six pockets will be selected for study by random (lottery) method.

In Stage 2, systematic random sampling will be used to choose the 100 study subject. Total no of houses are 325 in selected area. Anticipating 1–2 geriatric person in each house, it was decided to enroll the geriatric from 100 household. In the given sub unit of the locality randomly picked house will be taken for selecting the first house then every 3rd house will be considered for the study.

It ensured that every 3rd house considered for the study sample will be visited 3 times so as to include it in my study. If the house will be found locked or geriatric person was gone out for repeated 3 visits, the next immediate house to the third house will be sequentially considered for the study. If the selected house did not have geriatric individual, the next house had been looked sequentially until the geriatric individual available. Maximum efforts will be taken to include maximum possible sample house for the work in the study.

If at the time of interview, the person could not be contacted, two more visit had been carried out for the subject at the time convenient for the study subject. If the study subject could not be contacted after 3 visits, he had been omitted from study sample.

The help of community health volunteers and medical social worker was obtained for the good community participation. The purpose of study had been explained to study subject and their active participation in the study was sought.

During visits to the sample house, self-introduction had been given to study subject and his family members. The aim of the study had been explained to them in detail and their question had been answered. Initial rapport was established by some formal conversation and then information on the epidemiological factors such as age, sex, religion, marital status, and education was asked.

After obtaining informed consent (a thumbprint was taken if the person was illiterate) face to face interview had been done using pretested structured questionnaire.

In the secure atmosphere at the home of the person the time had been adjusted according to study subject and family members were requested to provide privacy for the interview of the study subject for maintaining confidentiality of the study subject.

Age of the individual was decided on the basis of ration card, pan card, and voter id. If a valid document was not available, in such cases their approximate age was estimated by enquiring with other members or was related to some major event occurred at the time of the birth or marriage or any historical event. This problem was faced more with females and uneducated old aged study subject.

Ethical consideration

The current study was conducted after obtaining approval from the institutional ethical committee (Letter Number: EC/103/2014).

Inclusion criteria

Age more than 60 years, elderly who was a permanent resident of locality for more than 6 months was included in the study. And those willing to participate and co-operate in the study were enrolled in the present study.

Exclusion criteria

Those who are seriously ill were excluded from the present study. Cognitive abnormalities (severe abnormality in speech and hearing) were excluded from the present study.

Withdrawal/discontinuation criteria

Study subject can willingly leave the study anytime if he/she feel discomfort/distress during the study span.

Operational definitions

Financial dependency

Depending on someone for financial support to lead their life.

Independent

Does not depend on anybody for financial support.

Dependent

Depending and partially dependent on somebody for financial support.

Financial assistance

Financially dependent person is getting financial assistance such as old age pension, retirement pension. Decision-making in the family: Involvement in major decision in the family such as marriage, education to children and grandchildren, financial matters, and organizing any function at home.

Satisfaction with the behavior of the family members: Are they satisfied by the way the family members treat

Social interaction

To whom they prefer to confide (tell someone about a secret or private matter)

Social occasion

Do they like to attend social gathering such as marriages, religious function, and political gathering.

Modified Kuppuswamy scale (2012) was used for determining the socioeconomic status of the individual, which is based on education, occupation, and family income.

Functional independence measure was used to measure the activity of daily living in geriatric population. The activity of daily living was scored by clubbing leisure skills and instrumental activities and spiritual activity, home making tasks, and self-care activities. Scoring was done accordingly.

Dependent

Patient performs 0% activities (ADL) Maximal assistance: Patient performs 25% of the task. Moderate assistance: Patient performs 50% of the task.

Modified assistance

Patients complete the task with adapted devices and perform 85% of the task.

Complete independence

Patient performs 100% of the task.

Statistical analysis

Data entry was done by investigator using Microsoft excel software 2010 version. All responses will be tabulated and graphically represented wherever required. Statistical analysis was done using SPSS version 21 software. Chi-

square test, logistic regression has been used to analyze the data.

RESULTS

Demographic characteristics

In this study, out of 102 study subjects most were in the age group of 60–65 years (44.11%) where 47.91% males and 40.74% females. The next common age group is 66–70 years which had 25.49% of subjects with the females are more (27.77%) than the males (22.91%). Female proportion was more in comparison of males in all age groups. It also reflects “High survival rate” of female in population, as majority of study subjects are females.

Out of 102 study, subject 36 (35.29%) were Hindu, 50 (49.01%) were Muslims, 8 (7.84%) were Sikhs, 5 (4.90%) were Christians, and 3 (2.94%) were from other religion. 73 (71.57%) were Hindi speaking subjects. And 25 (24.51%) were Marathi speaking subjects along with 4 (3.92%) the least subjects were Tamil speaking. It also shows universality of marriage, among all study subjects were ever married in their life. Out of the 102 subjects, there were 48 (47.05%) married, 7 divorced, and 6 separated. In total 54 study, subjects among female group 31 (57.40%) were widowed.

Amongst total 102 study subjects there were 40 (39.21%) illiterate, followed by primary level education 29 (28.43%). 31 (57.40%) females were illiterate and 16 (29.62%) females were educated up to primary level. Nobody among male or female was educated up to post graduate level.

Table 1 also shows high illiteracy among females, it may be because of socio-cultural inhibitors for female education in society. 34 (33.33%) were living in joint family, 16 (23.52%) were living in nuclear family, and 52 (50.90%) were living in three generation family. Maximum numbers of females (55.55%) were living in three generation family. So above table shows that more number of study subjects were living with their children and their grandchildren.

Socio-economic status of study subjects

Table 2 shows the current employment status of study subjects. Maximum (84.3%) study subjects were unemployed. And if employed the number of females (12.50%) were less. Maximum numbers of females were housewives. It also shows that maximum numbers of males 19 (39.58%) were engaged in labor work and maximum numbers 38 (70.37%) of females were housewives. There were very less number of study subjects who were (0.98%) professional by their occupation. Among private sector male (78.57%) was more in compare to females.

Out of total 102 subjects maximum study subjects, 73 (71.56%) were dependent on child, out of which

Table 1: Demographic information of study subjects (n=102)

Demographic characteristics	No. of males (%)	No. of females (%)	Total (%)
Age in (years)			
60–65	23 (47.91)	22 (40.74)	45 (44.11)
66–70	11 (22.91)	15 (27.77)	26 (25.49)
71–75	10 (20.83)	9 (16.66)	19 (18.62)
79–80	2 (4.16)	6 (11.11)	8 (7.84)
80–Above	2 (4.16)	2 (3.70)	4 (3.92)
Religion			
Hindu	19 (39.58)	17 (31.48)	36 (35.29)
Muslim	19 (39.58)	31 (57.40)	50 (49.01)
Sikh	3 (6.25)	5	8 (7.84)
Christians	4 (8.33)	1 (20)	5 (4.9)
Others	3 (6.25)	0 (0)	3 (2.94)
Marital status			
Married	31 (64.58)	17 (31.48)	48 (47.05)
Unmarried	0 (0)	0 (0)	0 (0)
Widowed	10 (20.83)	31 (57.40)	41 (40.19)
Divorced	6 (12.5)	1 (1.85)	7 (6.86)
Separated	1 (2.08)	5 (9.25)	6 (5.88)
Education			
Illiterate	9 (18.75)	31 (57.40)	40 (39.21)
Primary	13 (27.08)	16 (29.62)	29 (28.43)
Secondary	18 (37.5)	4 (7.40)	22 (21.56)
Higher secondary	4 (8.33)	0 (0)	4 (3.92)
Graduate	4 (8.33)	3 (5.55)	7 (6.86)
Postgraduate	0 (0)	0 (0)	0 (0)
Type of family			
Joint	19 (39.58)	15 (27.77)	34 (33.33)
Nuclear family	7 (14.58)	9 (16.66)	16 (15.68)
Three generation	22 (45.83)	30 (55.55)	52 (50.98)

23 (31.51%) males and 50 (68.49%) females were dependent on child.

Table 2 shows distribution of socioeconomic classification of study subjects, it was based on the Kuppaswamy classification (2012). This table shows that out of 102 subjects maximum number 69 (67.64%) of study subjects were belong to category 4 followed by category 2 (20 [19.60%]). 47 (87.03) females were in category 4 similarly least subjects 1(1.85%) were found in category 5. It showed most of the respondents are from upper-lower and upper middle class.

Social interactions

Table 3 indicates that out of 102 subjects, 50 (49.01%) subjects were involved in recreational activity such as listening music, watching TV, reading books, and newspapers. It indicates that females were less involved 30 (57.69%) in recreational activities.

Table 2 also shows that 79 (77.45%) study subjects were involved in social interactions with neighbors, friends, and relatives. The number of females in social interaction 40 (50.63%) were more. 77 (75.49) study subjects were visit to social gathering, for example, marriage, religious

Table 2: Socio-economic status of study subjects

Socio-economic status of study subjects	No. of male (%)	No. of female (%)	Total (%)
Employment status			
Employed	14 (87.50)	2 (12.50)	16 (15.6)
Self employed	12 (92.30)	1 (7.7)	13
Service	2 (94.3)	1 (5.7)	3
Unemployed (No.) %	34 (44.19)	52 (55.81)	86 (84.3)
Occupation			
Professional	1 (2.08)	0 (0)	1 (0.98)
Government service	11 (22.91)	1 (1.85)	12 (11.76)
Private Sector	11 (22.91)	2 (3.70)	14 (13.72)
Business	1 (2.08)	4 (7.40)	5 (4.90)
Agriculture	5 (10.41)	2 (3.70)	7 (6.86)
Laborer	19 (39.58)	2 (3.70)	21 (20.58)
Housewife	0 (0)	38 (70.37)	38 (38.25)
Others	0 (0)	4 (7.40)	4 (3.92)
Financial dependency			
Pension	2 (4.16)	0 (0)	2 (1.96)
Savings	12 (25.00)	2 (3.70)	14 (13.72)
Dependent on child	23 (47.91)	50 (92.59)	73 (71.56)
Employed	14 (29.16)	2 (3.70)	16 (15.68)
Socio economic status			
1	0	0	0
2	18 (37.50)	2 (3.70)	20 (19.60)
3	8 (16.66)	4 (7.40)	12 (11.76)
4	22 (45.83)	47 (87.03)	69 (67.64)
5	0 (0)	1 (1.85)	1 (0.9)

Table 3: Social interactions

Personal habits	No. of males (%)	No. of females (%)	Total (%)
Recreational activity			
Yes	26 (52)	24 (48)	50 (49.01)
No	22 (21.57)	30 (57.69)	52 (50.98)
Social interactions			
Yes	39 (49.37)	40 (50.63)	79 (77.45)
No	9 (39.13)	14 (60.87)	23 (22.54)
Social gathering			
Yes	40 (51.95)	37 (48.05)	77 (75.49)
No	8 (32)	17 (68)	25 (24.50)
Satisfaction			
Yes	39 (47.56)	43 (52.44)	82 (82.39)
No	9 (45)	11 (55)	20 (19.60)
Subjective feeling of happiness			
Yes	24 (54.55)	20 (45.45)	44 (43.13)
No	24 (41.38)	34 (58.62)	58 (56.86)

function, and political gathering. Males 40 (51.95%) were more involved in social gathering.

Change of accommodation 26 (25.49%) was more prevalent life event followed by death of spouse 23 (22.54%) and death of close family members 18 (17.64%). 82 (82.39%) study subjects are satisfied by the way of treatment given from family members and relatives. Only 20 (19.60%) subjects had complained about the behavior of the family (e.g., not giving food, not giving money for medicine, and not allowing social gathering).

58 (56.86%) subjects are not feeling happy, out of that 34 (58.62%) were females. Main reason for feeling sad was loneliness (37.10%), followed by neglect in the family (19.30%), illness (22.92%), not giving food properly (10.48%), and economic causes (10.2%).

Personal habits

Table 4 shows that 81 (79.41%) study subjects were not doing physical exercise, amongst them 38 (46.92%) male and 43 (53.09%) females. Only 21 (20.58%) subjects were doing exercise. The above table also shows that 60 (58.82%) subjects have good appetite whereas 42 (41.17%) study subjects have not good appetite. 91 (89.21%) were getting sufficient food and 11 (10.78%) were not getting sufficient food. Out of the 11 study subject who were not getting sufficient food were unemployed and maximum were female 7 (63.63%). 69 (67.64%) study subject were getting adequate sleep whereas 33 (32.35%) study subjects did not get adequate sleep due to various reason (e.g., difficulty in getting sleep, getting up in between sleep, and getting up early). The above table shows that 64 (62.74%) study subjects were visited their native place at least once in 2 year while 38 (37.25%) did not visited their native place.

Table 4 also showed that total 56 (54.90%) subjects were doing addiction in any form. The prevalence of pan with lime addiction 17 (16.66%) was more followed by alcohol 16 (15.68%). Males 40 (83.33%) were more involved in addiction compared with females.

Functional assessment

Table 5 shows distribution of study subjects according to self-care activities performed by them. It shows that out of 102 study subjects maximum 95 (93.13%) were independent followed by moderate assistance 5 (4.90%). No study subject was required dependency or maximal assistance for their self-care activities. Male and female in the present study can perform their self-care activities of daily living with equal efficiency.

Table 5 shows efficiency of performing the instrumental activities of daily living by study subjects. It shows that out of 102 study subjects 22 (21.56%) were complete independent to perform daily instrumental activities. Maximum study 48 (47.05%) subjects were required moderate assistance for performing the instrumental activities. Numbers of female study subjects were more among moderates assistance 24 (44.44%) and modified assistance 20 (19.60%). Out of 102 study subjects, 55 (53.92%) were complete independent followed by 30 (29.41%) modified independence. Numbers of female subjects were more among moderate assistance 10 (58.82%).

Table 4: Personal habits

Personal habits	No. of male (%)	No. of female (%)	Total (%)
Physical exercise			
Yes	10 (47.62)	11 (52.38)	21 (20.58)
No	38 (46.91)	43 (53.09)	81 (79.41)
Appetite			
Yes	24 (40)	36 (60)	60 (58.82)
No	24 (57.14)	18 (42.85)	42 (41.17)
Adequate sleep			
Yes	32 (46.37)	37 (53.62)	69 (67.64)
No	16 (48.48)	17 (51.51)	33 (32.35)
Visit to native place			
Yes	28 (43.75)	36 (56.25)	64 (62.74)
No	20 (52.63)	18 (47.36)	38 (37.25)
Addiction			
Tobacco chewing	8 (16.66)	4 (7.40)	12 (11.76)
Smoking	9 (18.75)	2 (3.70)	11 (10.78)
Pan with lime	8 (16.66)	9 (16.66)	17 (16.66)
Alcohol	15 (31.25)	1 (1.85)	16 (15.68)
Total addiction	40 (83.33)	16 (29.62)	56 (54.90)
No addiction	8 (16.66)	38 (70.37)	46 (45.09)

Table 5: Functional assessment

Functional assessment	No. of males (%)	No. of females (%)	Total (%)
Self-care activities			
Complete independence	44 (46.31)	50 (52.44)	95 (93.13)
Modified independence	2 (40)	0 (60)	2 (1.96)
Moderate assistance	1 (20)	4 (80)	5 (4.90)
Maximal assistance	0 (0)	0 (0)	0
Dependant	0	0	0
Instrumental activities			
Complete independence	12 (54.54)	10 (45.45)	22 (21.56)
Modified independence	12 (37.5)	20 (52.5)	32 (31.37)
Moderate assistance	24 (50)	24 (50)	48 (47.05)
Maximal assistance	0	0	0
Dependent	0	0	0
Home task activities			
Complete independence	23 (41.81)	22 (59.44)	55 (53.92)
Modified independence	12 (40)	18 (60)	30 (29.41)
Moderate assistance	7 (41.17)	10 (58.82)	17 (16.67)
Maximal assistance	0	0	0
Dependent	0	0	0

DISCUSSION

In the present study, the age and sex distribution shows that out of 102 study subjects most were in the age group of 60–65 years (44.11%) where 47.91% males and 40.74% females. It shows higher survival rate of females in community, and higher feminization of geriatric population. Similar findings were reported in a Community based study carried out by Lahariya et al.,⁹ observed that the mean age of the subjects was 68.0±6.6 years. There was consistent

decrease in the number of subjects with advancing age. Females were higher in number in all age groups except in young old-age groups. The age distribution of the study subjects was almost uniform for both sexes.

Study done by Dubey et al.,² among elderly Living in Old Age Home and within Family Set-up in Jammu 47% of the total respondents belonged to the age group of 65–70 years. The family size of the respondents varied from 2 to 13 family members in the family setup, whereas for most of the aged in old age home, the family size varied from 2 to 9 members.

Religion and sex-wise distribution shows the distribution of study subjects according to their religion and sex. The table indicates that out of 102 study subject 36 (35.29%) were Hindu, 50 (49.01%) were Muslims, 8 (7.84%) were Sikhs, 5 (4.90%) were Christians, and 3 (2.94%) were from other religion.

Language wise distribution of study subjects shows out of 102 subjects 73 (71.57%) were Hindi speaking subjects. And 25 (24.51%) were Marathi speaking subjects. along with 4 (3.92%) the least subjects were Tamil speaking.

In the present study, subjects are mostly from Muslim community so Hindi language was mostly used in day to day communication by them. Distribution of marital status of the study subjects shows universality of marriage, among all study subjects were ever married in their life. Out of the 102 subjects, there were 48 (47.05%) married, 7 divorced, and 6 separated. In total 54 study subjects among female group 31 (57.40%) were widowed and 10 (20.83%) males were widowed. Study carried out by Lena et al.,¹⁰ shows only 12.1% of the elderly men were widowed while 67.7% of the women were widows. The unmarried group of 2.3% was comprised of only men.

According to NSS 42nd round, there were 654 widows and 238 widowers per 1000 old persons in rural areas while 687 and 200 for urban areas. More than 65% of Indian women live without a spouse as compared to 29% of older men.¹¹

The marital status of older persons is mostly determined by the mortality rates of spouses and remarriage rates. Male spouses are more likely to die before their wives because of the higher male mortality and the fact that men tend to marry younger wives. In most societies, remarriage probabilities are lower for older women than for older men, partly because of the reduced availability of men of similar or older age.

In the present study, distribution of study subjects according to educational status shows total 102 study

subjects there were 40 (39.21%) illiterate, followed by primary level education 29 (28.43%). 31 (57.40%) females were illiterate and 16 (29.62%) females were educated up to primary level. Nobody among male or female was educated up to postgraduate level. According to the NSS 52nd round, 63% of the elderly were illiterate in India.¹¹ Study conducted by Lena et al., showed that almost half of their respondents were illiterate and around 37% had education up to the primary level.¹⁰

A study carried out by Gaurav and Kartikeyan in an urban area of Mumbai city reported that only 43.56% of the study subjects (65.98% males and 22.86% females) were literate, while 56.44% (34.02% males and 77.14% females) were illiterate.¹² Thus, it is seen high illiteracy among females in this study, this could be due to social and cultural restriction and lesser opportunities for females for education due to gender bias among the people.

In the study, the distribution of the study subjects according to their type of family where they live. Out of the total 102 subjects, 34 (33.33%) were living in joint family, 16 (23.52%) were living in nuclear family, and 52 (50.90%) were living in three generation family. Maximum numbers of females (55.55%) were living in three generation family. So above table shows that more number of study subjects is living with their children and their grandchildren.

Study carried out by Lena et al.,¹⁰ almost more than half of the respondents who were interviewed were from joint families (56.8%), while 33% were from a nuclear family. A study carried out Rao in year 1976–79 in Madurai out of 227 study subjects, 52% came from extended family, 38% from joint family, while only 10% from nuclear family.¹³

Joint family and extended three generation families are old Indian tradition of society. As in developing countries, the numbers of old people are rapidly rising and heavy demands are consequently being made on families, communities, social services, and scarce resources. The longer life spans associated with ageing populations open opportunities for more complex intergenerational living arrangements, such as three- or even four-generation households.

The distribution of the current employment status of study subjects among study subjects shows that maximum (84.3%) study subjects were unemployed. And if employed, the number of females (12.50%) were less. Maximum numbers of females were housewives. Similar study conducted by Elango in Tamil Nadu shows that only 12% were economically independent, 27% engaged in part time jobs whereas 73% were not economically active.¹⁴ A study conducted by Padda et al., near Amritsar reported 68.39% of total 698 old aged persons, were engaged in

one or other work, while 31.61% were dependent on other family members.¹⁵

Many older persons in the study have little choice but to continue to work into old age to finance at least part of their consumption, in the absence of comprehensive social security programs.

The present study distribution of the previous occupation among study subjects shows that maximum numbers of males 19 (39.58%) were engaged in labor work and maximum numbers 38 (70.37%) of females were housewives. There were very less number of study subjects who were (0.98%) professional by their occupation. Among private sector male (78.57%) were more in compare to females. In the present study, the distribution of source of income among study subjects shows that Out of total 102 subjects, maximum study subjects 73 (71.56%) were dependent on child, out of which 23 (31.51%) males and 50 (68.49%) females were dependent on child.

The distribution of socioeconomic classification of study subjects was based on the modified Kuppaswamy classification (2012), it shows that out of 102 subjects maximum number 69 (67.64%) of study subjects were belong to category 4 followed by category 2 in which 20 (19.60%) subjects were there. 47 (87.03) females were in category 4 similarly least subjects 1 (1.85%) were found in category 5. It shows most of the respondents are from upper-lower and upper middle class. A study carried out by Rao in Madurai, out of 227 study subjects 3.9% belongs to Class 1, 7.8% study subjects belong to Class 2, 46.25% study subjects belong to Class 3, 28.5% to Class 4, and 13.5% to Class 5.¹³

Similar study conducted by Kamble et al., shows majority of the respondent in study sample belonged to socioeconomic Class IV (34.6%) and III (32.0%). 5.9% respondents were from socioeconomic Class I, 17.8% from socioeconomic Class II and 8.7% from socioeconomic Class V.¹⁶

Economic security for older persons was an issue in every family. In most developing countries, older persons need to work beyond the statutory retirement age due to the lack of comprehensive social security programs. To fill the gap between what they need and what they earn, older persons rely heavily on assets accumulated earlier in life and in some countries, also on their families.

The present study shows that out of 102 subjects, 50 (49.01%) subjects were involved in recreational activity such as listening music, watching TV, reading books, and newspapers. It indicates that females were less involved 30 (57.69%) in recreational activities.

The study shows that 79 (77.45%) study subjects were involved in social interactions with neighbors, friends, and relatives. The number of females in social interaction was 40 (50). Study conducted by Lena *et al.*, shows at Udupi shows total of 68.5% of the respondents said they had friends and that they participated in social functions. Half of them would visit their neighbors or relatives. 63% were more.¹⁰

The present study shows that 77 (75.49) study subjects were used to visit social gathering occasions, for example, marriage, religious function, and political gathering. Males 40 (51.95%) were more involved in social gathering. Distribution of frequency of undesirable life events among study subjects in the past 12 months shows change of accommodation 26 (25.49%) was more prevalent life event followed by death of spouse 23 (22.54%) and death of close family members 18 (17.64%).

The study shows that (82.39%) study subjects are satisfied by the way of treatment given from family members and relatives. Only 20 (19.60%) subjects had complained about the behavior of the family (e.g., not giving food, not giving money for medicine, and not allowing social gathering).

Study conducted by Lena *et al.*, shows at Udupi shows Half of the people interviewed felt neglected by their family members, while 47% felt unhappy in life and 36.2% felt they were a burden to the family. An unfavorable attitude was observed to be more among females than males.¹⁰

The present study indicates 58 (56.86%) study subjects are not feeling happy, out of that 34 (58.62%) were females. Study conducted by Lena *et al.*, shows at Udupi shows that 48% of the respondents felt sad mainly because of poverty followed by illness (41.3%). Other reasons for feeling sad were unwed daughters at home, alcoholic son/son-in-law, financial loss, illness of spouse, children staying away from them, death of children, or not owning a house.¹⁰

Distribution of exercise among study subjects shows that 81 (79.41%) study subjects were not doing physical exercise; among them 38 (46.92%) male and 43 (53.09%) female. Only 21 (20.58%) subjects were doing exercise. Study conducted by Baan *et al.*, observed the physical activity patterns differed between men and women. Men reported spending 1,557 min/week on physical activity. Of these, 701 min/week were spent on leisure activities. On average, the most time was spent on housekeeping (25%), walking (18%), work (19%), and bicycling (13%), whereas much less time was spent on sports (3%), hobbies (7%), odd jobs (9%), and gardening (5%).¹⁷

The present study shows that 60 (58.82%) subjects have good appetite whereas 42 (41.17%) study subjects have not

good appetite. maximum study subjects 91 (89.21%) were getting sufficient food and 11 (10.78%) were not getting sufficient food. Out of the 11 study subject who were not getting sufficient food were unemployed and maximum were female 7 (63.63%).

In the study, 69 (67.64%) study subject were getting adequate sleep whereas 33 (32.35%) study subjects did not get adequate sleep due to various reason, for example, (difficulty in getting sleep, getting up in between sleep, getting up early, etc.) Study conducted by Kumari and Jahan shows 15 (75%) out of 60 study subjects had difficulty in sleep.¹⁸

The present study shows that 64 (62.74%) study subjects were visited their native place at least once in 2 year while 38 (37.25%) did not visited their native place.

In the study, sex-wise distribution of addiction among study subjects shows total 56 (54.90%) subjects were doing addiction in any form. The prevalence of pan with lime addiction 17 (16.66%) was more followed by alcohol 16 (15.68%). Males 40 (83.33%) were more involved in addiction compared with females.

A study conducted by Kamble *et al.*, shows that the most common addiction among the elderly people was tobacco chewing (61.7%), followed by smoking (7.9%), alcohol (2.4%), and chewing of pan with betel nut (12.6%). About 31.2% elderly people were having no addictions.¹⁶

Distribution of functional activities among study subjects shows that out of 102 study subjects maximum 95 (93.13%) were independent followed by moderate assistance 5 (4.90%), no study subject was dependent or maximal assistance for their self-care activities. Male and female in the present study can perform their self-care activities of daily living with equal efficiency. Maximum study 48 (47.05%) subjects were required moderate assistance for performing the instrumental activities. Numbers of female study subjects were more among moderates assistance 24 (44.44%) and modified assistance 20 (19.60%). Distribution of home task activities shows 55 (53.92%) was complete independent followed by 30 (29.41%) modified independence. Numbers of female subjects were more among moderate assistance 10 (58.82%).

A study conducted by Strawbridge *et al.*, shows incidence of ADL dependence and mobility impairment during follow-up was similar for males and females, although females survived longer with incident disability than did males. Blacks had poorer baseline functioning, more ADL dependence and mobility impairment, and declined more than non-blacks during follow-up. Some of the baseline

difference in function between blacks and non-blacks was due to the higher rates of chronic illness and comorbidity. In spite of the general downward trend in functioning over the 6 years, 13% of the males and 20% of the females improved.¹⁹

Limitations of the study

We have conducted cross-sectional study for data collection, so a clear temporal association between the study factors and health seeking behaviour cannot be established.

CONCLUSION

The most were in the age group of 60–65 years (44.11%) where 47.91% males and 40.74% females. The number of female study subjects were more (52.94%) in compared to males (47.06%). The female illiteracy was more among the study subjects.

In the present study, maximum numbers of (84.3%) study subjects were unemployed. And if employed the number of females (12.50%) were less. Maximum numbers of females were housewives. The study shows that 71.56% were dependent on child, out of which 31.51% males and 68.49% females were dependent on child.

The study shows, 49.01% subjects were involved in recreational activity such as listening music, watching TV, reading books, and newspapers. It indicates that females were less involved 57.69% in recreational activities. The present study shows that change of accommodation (25.49%) was more prevalent life event followed by death of spouse (22.54%) and death of close family members (17.64%). In the present study, (19.60%) subjects had complained about the behavior of the family (e.g., not giving food, not giving money for medicine, and not allowing social gathering) and indicates (56.86%) subjects are not feeling happy, out of that (58.62%) were females.

Only 20.58% subjects were doing exercise. Similarly 32.35% study subjects did not get adequate sleep due to various reason (e.g., difficulty in getting sleep, getting up in between sleep, and getting up early) The present study shows that 37.25% study subjects did not visited their native place at least once in 2 year.

The study shows that total 54.90% subjects were doing addiction in any form. The prevalence of pan with lime addiction (16.66%) was more followed by alcohol (15.68%). Males (83.33%) were more involved in addiction compared with females.

No study subject was dependent or maximal assistance for their self-care activities. Male and female in the present

study can perform their self-care activities of daily living with equal efficiency. Maximum study 47.05% subjects were required moderate assistance for performing the instrumental activities. Numbers of female subjects were more among moderate assistance (58.82%).

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SM- Concept and design of the study, prepared first draft of manuscript; **AK**- Interpreted the results; and manuscript preparation; **AUP**- Coordination, statistical analysis and revision of the manuscript; **SKJ**- Reviewed the literature, preparation of manuscript.

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