

## Socio-demographic Profile and Health Care Seeking Behaviour of Rural Geriatric Population of Allahabad District of UP: A Cross Sectional Study

**Bayapareddy Narapureddy<sup>1</sup>, Naveen KH<sup>2</sup>, Pallavi Madithati<sup>1</sup>,  
Rajiv Kumar Singh<sup>1</sup>, Pirabu RA<sup>1</sup>**

<sup>1</sup> Chennai Medical College hospital & Research centre, Irungalur, Trichy, Tamilnadu, India

<sup>2</sup> Mysore Medical College & Research Institute, Mysore, Karnataka, India

**Correspondence to:** Bayapareddy Narapureddy (bayapreddy916@gmail.com)

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### ABSTRACT

**Background:** World population ageing is enduring, the proportion of older persons has been rising steadily, from 7 per cent in 1950 to 11 per cent in 2007, with an expected rise to reach 22 percent in 2050. Globally the population of older persons is growing at a rate of 2.6 per cent per year, considerably faster than the population as a whole which is increasing at 1.1 percent annually. The issue of health care-seeking (or medical-care) behaviour is crucial to all society.

**Objective:** To know the Socio-demographic distribution of elderly population in rural area, observe the Health seeking behaviour of the rural elderly and to know the available health care services in rural area of Uttar Pradesh.

**Materials and Methods:** A community based Cross sectional study was conducted from October 2010 to June 2011. Persons aged 60 years and above were selected by multistage random sampling. The minimum Sample size of 400 was calculated using formula  $4pq/d^2$  and finally a total of 411 individuals were studied. The data was analyzed by means, proportions and Chi-square test, p value less than 0.05 ( $p < 0.05$ ) at 95% confidence interval, was consider for significant, SPSS Version 12 Statistical Software was used to analyze the data.

**Results:** Out of the 411 elderly persons, 214 (52.1%) were males and 197(47.9%) were females. Mean age for the entire study population was 69.2 years with a standard deviation of 7.8 years. Majority of the elderly population were illiterate (70.1%). Higher proportion of females was illiterate (92.4%) as compared to males (49.5%). Among the 411 elderly persons, 188 (45.7%) sought treatment from private practitioner and private hospital, 133 (32.3%) from non registered practitioner (Quack), only 77 (18.9%) sought treatment from Government hospital and remaining 13 (3.1%) used home remedies or sought help from traditional healers.

**Conclusion:** Majority of the geriatric subjects were in the age group of 60 to 69 years. Awareness must be generated among the elderly regarding the problems related to the ageing, strict implementation of legislation on parents' care by their children and Promotion of income.

**Key Words:** Health Care Seeking Behaviour; Socio-Demographic; Geriatrics; Allahabad

## INTRODUCTION

Ageing is a natural process; always associated with physiological and biological decline. In the words of Seneca; "Old age is an incurable disease". World population ageing is enduring; the proportion of older persons has been raising steadily, from 7 per cent in 1950 to 11 per cent in 2007, with an expected rise to reach 22 percent in 2050.<sup>[1]</sup> Globally the population of older persons is growing at a rate of 2.6 per cent per year, considerably faster than the population as a whole which is increasing at 1.1 percent annually.<sup>[1]</sup> The elderly are one of the most vulnerable and high risk groups in terms of health status and their health care-seeking behaviour is crucial in any society. Over the past decades, India's health program and policies have been focusing on issues like population stabilization, maternal and child health, and disease control. However, current statistics for the elderly in India gives a prelude to a new set of medical, social, and economic problems that could arise if a timely initiative in this direction is not taken by the program managers and policy makers. About 90% of the elderly were from the unorganized sector, i.e., they have no regular source of income. The elderly are not a homogeneous category, they consist of different ages, belonging to different socioeconomic groups, having different health status.<sup>[2]</sup>

## METHODS

A community based Cross sectional study conducted during the period of October 2010 to June 2011. Persons aged 60 years and above, willing to participate was taken into the study. This was a two-stage stratified random sampling design, where two Community Development Blocks of Allahabad district were selected randomly; in the second step 8 villages in each of the selected blocks were selected randomly. In third stage from that selected villages, 25 elderly subjects from each of these villages were randomly selected. The minimum Sample size of 400 was calculated by using the formula  $4pq/d^2$  final analysis included a total of 411 individuals. From this selected study sample the data was collected regarding age, sex, Occupation, literacy

status, socio-economic status, marital status, economic dependency, religion, health facility available, and cure rate in the last visit.etc with pretested personal interview questionnaire, and Modified BG Prasad classification, corrected to the current AICPI (All India Consumer Price Index) was used to study Socio-economic Status.

## Statistical Analysis

The data was analyzed by means, proportions and Chi-square test, p value less than 0.05( $p < 0.05$ ) at 95% confidence interval, was consider for significant, SPSS Version 12 Statistical Software was used to analyze the data.

## RESULTS

Out of the 411 elderly persons 214 (52.1%) were males and 197(47.9%) were females. Majority of the elders 245(59.6 %) were found in the age group 60-69 years; among these 245, 122 (57.0%) were males and 123 (62.4%) were females. Beyond this age group the %age of elderly population shows a gradual declined. Mean age for the entire study population was 69.2 years with a standard deviation of 7.8 years; mean age of males was 69.8 years with standard deviation of 8.2 years and that of females was 68.6 years with a standard deviation of 7.4 years. The difference between two means was not statistically significant ( $P > 0.05$ ). Out of 411 elderly persons 288 (70%) were illiterate, 38 (9.2%) were just literate and 28 (6.8%) were educated up to primary level. The details of age wise and sex wise distribution of Elderly Population was given in table 1.

**Table-1: Age and Sex Wise Distribution of Elderly Population**

Age Group (Years)	Male N (%)	Female N (%)	Total N (%)
60-64	50 (12.2%)	65 (15.8%)	115 (28.0%)
65-69	72 (17.5%)	58 (14.1%)	130 (31.6%)
70-74	43 (10.5%)	37 (9.0%)	80 (19.5%)
75-79	27 (6.6%)	19 (4.6%)	46 (11.2%)
80-84	10 (2.4%)	11 (2.7%)	21 (5.1%)
85 & above	12 (2.9%)	7 (1.7%)	19 (4.6%)
Total	214 (52.1%)	197 (47.9%)	411 (100.0%)

More than half of the elderly persons 251(61.1%) were currently married, 154(37.5%) were

widows or widowers. Among the currently married, 153(71.5%) were males and 98(49.7%) were females. Around half of the elderly females were widows while among males one fourth was widowers. Of the 411 elderly persons 138 (33.5%) were living in joint families; 79 (36.9%) were male and 59 (33.7%) were female . 137 (33.3%) elderly living in three generation families, out of which 77(36.0%) were male and 60 (33.3%) were female ; 106 (25.8%) elderly were living in nuclear families, out of which 50 (23.4%) were males and 56 (28.4%) were females and remaining 29 (7.2%) elderly living alone; males 8 (3.7%) and females 22 (11.2%).

Among the 411 elderly 158 (38.5%) belonged to general category [males 89(41.6%) and females 69(35.0%)]; 165 (40.2%) belonged to other backward classes (OBC) [males, 84(39.3%) and females 81 (41.1%)], and 88 (21.3%) belonged to scheduled caste/scheduled tribes (SC/ST) [males 41(19.2%) and females 47(23.9%)]. Among the 411, majority 379 (92.2%) were Hindus and only 32(7.8%) were Muslims. Details of Socio Economic Distribution of Elderly Population are given in table 2. Out of 411 elderly people 199 (48.4%) were vegetarians [109 (54.8%) females 90 (45.2%) males], 175 (42.5%) were occasional non- vegetarians [106 (60.5%) males and 69 (39.5%) females] and 37 (9.1%) were regular non-vegetarians by diet. Details of the economic dependency of Elderly are provided in table 3.

Most of the elderly 335 (81.5%) had faith on Government health facilities. Only 76 (18.5%) said that they had no faith in Government health facility. Details of availing the treatment during illness and reasons for not having faith in the Government Health Facilities has been provided in table 4 & 5 respectively. Outcome of illness in last visit to health care facility was mentioned as cured, partially cured, no effect and deteriorated by 170 (41.4%), 203 (49.5%), 25 (6.1%) and 13 (3.0%) elderly persons respectively. Source of Treatment and their financial status of elderly were provided in Table 6. Of the 411 elderly, distance of government health facility was within one kilometer (km) 40 (9.8%), between one to three km s 165 (40.1%) and more than 3 km 206 (50.1%) from their residence.

**Table-2: Distribution of Elderly Population Based on Socio Economic Class**

Socio Economic Class	Male N (%)	Female N (%)	Total N (%)
I	2 (0.5)	1 (0.2)	3 (0.7)
II	12 (2.9)	7 (1.7)	19 (4.6)
III	49 (11.9)	35 (8.5)	84 (20.4)
IV	91 (22.2)	90 (21.9)	181 (44.1)
V	60 (14.6)	64 (15.6)	124 (30.2)
Total	214 (52.1)	197 (47.9)	411 (100)

I = Upper class, II = Upper middle, III = Lower middle, IV = Upper lower, V =Lower. ( $\chi^2 = 3.41$ ,  $df= 3.95$  % CI,  $p > 0.05$  Not significant)

**Table-3: Economic Dependence of Elderly Population**

Economic Dependence	Male N (%)	Female N (%)	Total N (%)
Totally Dependent	46 (21.50)	153 (77.66)	199 (48.42)
Partially Dependent	88 (41.12)	19 (9.64)	107 (26.03)
Totally Independent	80 (37.38)	25 (12.69)	105 (25.55)
Total	214 (100)	197 (100)	411 (100)

( $\chi^2 = 146.95$ ,  $df=2$ ,  $p < 0.001$  Significant)

**Table-4: Distribution of Elderly Persons According to source of Treatment during Illness**

Socio Economic Class	Male N (%)	Female N (%)	Total N (%)
Govt. Hospital	48 (24.43)	29 (14.72)	77 (18.73)
Private Practitioner	102 (47.66)	73 (37.06)	175 (42.58)
Private Hospital	5 (2.34)	8 (4.06)	13 (3.16)
Non-registered Practitioner	56 (26.17)	77 (39.09)	133 (32.36)
Other*	3 (1.40)	10 (5.08)	13 (3.16)
Total	214 (100)	197 (100)	411 (100)

\*Others include Home remedies and Traditional healers. ( $\chi^2 = 16.59$ ,  $df=4$ ,  $p < 0.001$  Significant)

**Table-5: Distribution of Elderly Persons According to source of Treatment during Illness**

Reason for No Faith	Male N (%)	Female N (%)	Total N (%)
Proper Treatment was not given	8 (10.6)	19 (25.0)	27 (35.6)
Doctor was not Present	6 (7.9)	4 (5.3)	10 (13.2)
Drugs were not available	3 (3.9)	5 (6.6)	8 (10.5)
Poor Facilities	5 (6.6)	3 (3.9)	8 (10.5)
Demands for Money	5 (6.6)	2 (2.6)	7 (9.2)
Prescription of Costly Medicines	4 (5.3)	3 (3.9)	7 (9.2)
No Relief	1 (1.3)	4 (5.3)	5 (6.6)
Long Waiting Period	3 (3.9)	1 (1.3)	4 (5.2)
Total	35 (46.1)	41 (53.9)	76 (100)

**Table-6: Distribution of Elderly Persons According to Source of Treatment and Their Financial Status**

Source of Treatment	Financial Status of Elders							
	Dependent	%	Semi-dependent	%	Independent	%	Total	%
Home Remedies	4	2.01%	0	0.00%	0	0.00%	4	0.97%
Govt Hospital	29	14.57%	28	26.17%	20	19.05%	77	18.73%
Private Practitioner	80	40.20%	43	40.19%	52	49.52%	175	42.58%
Private Hospital	2	1.01%	6	5.61%	5	4.76%	13	3.16%
Quack	75	37.69%	30	28.04%	26	24.76%	131	31.87%
Traditional Healer	4	2.01%	0	0.00%	2	1.90%	6	1.46%
Any other	5	2.51%	0	0.00%	0	0.00%	5	1.22%
Total	199	100.00%	107	100.00%	105	100.00%	411	100.00%

( $\chi^2 = 27.7969$ ,  $df = 12$ ,  $p < 0.041$  Significant)

## DISCUSSION

In the present study 59.6% of the elderly were found in the age group 60 to 69 years, with males and females contributing 57.0% and 62.4% respectively for that age group. Similar studies conducted by Anjalil<sup>[3]</sup>, Rajan<sup>[4]</sup> and In South Korean Ansan Geriatric cohort study<sup>[5]</sup> all reported similar age distribution. The sex ratio was found to be 921 females per 1000 males in the present study, similar to the findings of National Family Health Survey India II (1998-1999) wherein sex ratio of the elderly population was 920 females per 1000 males.<sup>[6]</sup>

Among the study population 61.1% elderly persons were currently married, 37.5% were widows or widowers. Among the elderly, 71.5% males and 49.7% females were currently married. Around half of the elderly females were widows while one fourth of elderly males were widowers. According to 2001 census 33.07 % of elderly in India were without their life partners. National Sample Survey Organization (NSSO-52<sup>nd</sup> round)<sup>[7]</sup> and Kant S et.al also reported the same.<sup>[8]</sup>

Nearly 34% of the elderly were living in joint families, 33.3% living in three generation families, 28.4% living in nuclear families and 7.2% elderly living alone. Rao et al study in Madurai, Tamilnadu found 26 % and 33 % of elderly persons living in joint and extended three generation families respectively and 29 % living in nuclear families. Around 12 % were living alone. Most of the elderly were (70%) illiterate, 9.2% were just literate and 6.8% were

educated up to primary level.<sup>[9]</sup> Purty et al also found similar high percentage of illiterates 78.7% among elderly person from rural Tamilnadu.<sup>[10]</sup> High percentage of illiterates was also found in the studies of Kant et.al<sup>[8]</sup> Goswami et al.<sup>[11]</sup> and Purohit et al.<sup>[12]</sup>

This study found that 41.6% of elderly belonged to OBC, 21.3% SC/STs and 38.5% general category; 92% of elderly persons were found to be Hindus and only 8 % were Muslims. Around 99 % of elderly persons were Hindus in rural Tamilnadu as reported by Purty et.al.<sup>[10]</sup> According to the Census of India (2001) 81% of the total population were Hindus, 13% were Muslims and rest belonged to other religion in India.<sup>[13]</sup> Around 48% were vegetarians, 43% were occasional non vegetarians and 9% were regular non vegetarians by diet. Garg et al.<sup>[14]</sup> argued quite contradictory findings, 85% of elderly were vegetarians and 15% as non vegetarians. Majority of the study subjects 44% belonged to upper lower class (SES IV) and 30% belonged to lower class (SES V). A study in urban areas of Lucknow by Mitra et.al reported 33% of aged persons belonged to very poor socioeconomic group (SES V), 42% to poor socioeconomic group (SES IV).<sup>[15]</sup> Thus majority 75% belonged to poor socioeconomic status.

We observed that only 19 % of elderly persons availing Government hospital were used as a source of treatment, nearly half of them (45%) sought treatment from private practitioner and private hospital and nearly 32% getting treatment from registered practitioner (Quack) and the rest sought treatment from other sources. Goswami et.al study found 60 % of the

elderly persons sought treatment from private-qualified and non qualified doctors and only 22% utilized government facilities and the rest sought treatment from other sources.<sup>[14]</sup> In Paul study Thirty-seven percentage of rural participants sought medical care when they were ill compared with 31.9% of their urban counterparts. Thirty-four % of the participants took the medication as prescribed by the medical doctor.<sup>[16]</sup>

In our study the distance of government health facility was more than 3 km for 50% and 1 to 3 km for 40% of elderly. Goel et.al. had similar findings, more than 3 km 59 % and 1 to 3 km for the 36%.<sup>[17]</sup> In this study 41% of the financially dependent elderly were taking treatment from private practitioners and private hospitals whereas financially independencies 54.2% were taking treatment from private practitioners. Similar study conducted in the post graduate thesis found that compared to independents, partially dependent were more likely to seek care (OR: 3.03,  $p < 0.05$ ); whereas, those fully dependent were less likely to seek care (OR: 0.72,  $p < 0.05$ ).<sup>[18]</sup>

## CONCLUSION

There is a need to generate awareness among the general public, politicians and policy makers regarding multiple issues related to the ageing in the country. The experiences of elderly persons are invaluable. Younger generation should be made aware of the importance of the elderly persons in the family and seek their suggestions and advice for the household problems. Joint family system being the backbone of Indian society should be promoted. There should be separate geriatric clinics in both private as well as government hospitals to deal with the problems faced by the elderly. Further studies are needed to explore the possibility of starting Mobile geriatric clinics to reduce the problem of accessibility for underserved and remote areas.

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