<u>**Research Article**</u>

# A Study of Socio Demographic Profile of Geriatric Population in the Field Practice Area of a Medical College

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**Abstract:** Population based data on socio-demographic status and various social-economic circumstances are imperative for public health intervention with geriatric population. This study is undertaken to study the socio-demographic profile of the geriatric population in the field practice area of Dr. Shri Guru Govind Singh Memorial Hospital (S.C.G.M.C), Nanded. It is a community based cross sectional study, conducted from Jan 2013 -Dec 2014.A total of 600 subjects aged 60 years and above were selected by probability proportional to size (PPS) sampling method among 11 wards in study area. The data was Data was entered in Microsoft Excel and analyzed by using frequency and percentages. The proportion of subjects falling in the age group of 60 – 64 years were Maximum, 241 (40.2%).262 (43.7%) were males and 338 (56.3%) were females. Majority i.e. 46.4% were Buddhist by religion.330 (55%) subjects were illiterate and 428 (71.4%) were unemployed.
**Keywords:** Geriatric, Socio-demographic, Living arrangement. Ageing. Elderly, Nanded

## INTRODUCTION

The United Nations has identified the top three global socio-economic issues in the 21st century namely- global warming, global terrorism and global ageing [1]. The geriatric population is defined as population age 60 years and above [2].

According to world health statistics 2014, globally around 11% of population is above 60 yrs of age, and 8% of population is above 60 yrs of age in South East Asian countries including India [3].Over the next four decades, India's demographic structure is expected to shift dramatically from a young to an aging population resulting in 316 million elderly persons by 2050.[4]In India, elderly (>60) as per census 2011 were i.e. 8.1% of total population, out of which aged males were 7.7% of total population and the aged females were 8.4 % of total population. Whereas for Maharashtra the elderly (>60) as per 2011 census were 9.3% of total population, out of which aged males were 8.8 % of total population and the aged females were 9.7 % of total population [5].

As a result of the current ageing scenario in India, there is a need to take care of all aspects of the elderly persons namely, socio economic, financial, health and shelter. With these issues, safety and security of older persons are also of concern in India [6]. Urbanization, nuclearisation of family, migration, and dual career families are making care of the elderly more and more of a personal and social problem in India [7]. One of the main policy issues arising from population ageing is how countries will allocate resources across competing claims as age-related spending on pensions, long-term care and healthcare rise. Consequently, patterns of care giving and living arrangements become key components of the well-being of older people [8]. With respect to above scenario the present study was carried out to study the socio-demographic profile of geriatric population in field practice area of Government Medical College.

## MATERIAL AND METHODS

The present study was carried out at the urban field practice area and was part of thesis conducted under department of Community Medicine Dr. Shri Guru Govind Singh Memorial Hospital (S.C.G.M.C), Nanded. Study period was Jan 2013 to Dec 2014. Ethical approval was taken from Institutional Ethical Committee.

## Study Design

Community based cross-sectional study.

## Computation of Sample Size

As depression being one of the common health problem in geriatric people, prevalence of depression was taken for calculating sample size for study, prevalence of depression using Geriatric Depression Scale (GDS)-15 in various studies conducted in different part of India was in range of 42%- 53%.[9-13]So the lowest prevalence i.e. 42% was taken into consideration for sample size estimation. By adopting the following formula for sample size calculation[14] i.e. $n=z^2pq/l^2$ at 95% confidence interval, with an

allowable error of 10%.Thus total 600 elderly subjects were studied. The total 11 wards under field practice area of urban health centre of a Medical College in a city of Maharashtra were enlisted. As wards-sampling units vary considerably in population size, probability proportional to size (PPS) sampling method [15] was used, Study population of the age group 60 years and above enumerated for each ward by using voter (Electoral) list of 2012.
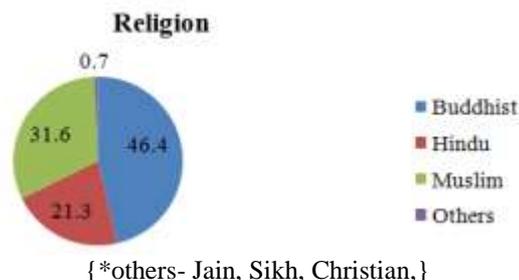
## RESULTS



{*others- Jain, Sikh, Christian,}
**Fig 1: Distribution of study subjects according to Religion**

**Table 1: Socio-demographic characteristics of study population**

| Socio-demographic characteristics | | Male | Female | Total |
|---|---|---|---|---|
| **Age(in years)** | 60-64 | 139(53.1) | 102(30.2) | 241(40.2) |
| | 65-69 | 56(21.4) | 91(26.9) | 147(24.5) |
| | 70-74 | 34(13.0) | 79(23.4) | 113(18.8) |
| | 75-79 | 14(5.3) | 29(8.6) | 43(7.2) |
| | ≥80 | 19(7.3) | 37(10.9) | 56(9.3) |
| **Marital status** | Married | 226(86.3) | 173(51.2) | 399(66.5) |
| | Unmarried | 2(0.8) | 1(0.3) | 3(0.5) |
| | Widow/widower | 29(11.1) | 158(46.7) | 187(31.2) |
| | Divorced | 3(1.1) | 3(0.9) | 6(1.0) |
| | Separated | 2(0.8) | 3(0.9) | 5(0.8) |
| **Educational status** | Illiterate | 151(57.6) | 179(53.0) | 330(55.0) |
| | Primary | 46(17.6) | 64(18.9) | 110(18.3) |
| | Middle | 25(9.5) | 43(12.7) | 68(11.3) |
| | Secondary | 18(6.9) | 32(9.5) | 50(8.3) |
| | Higher secondary | 13(5.0) | 18(5.3) | 31(5.2) |
| | Graduation and above | 9(3.4) | 2(0.6) | 11(1.8) |
| **Occupation** | Unemployed | 162 (61.8) | 266(78.7) | 428(71.4) |
| | Unskilled | 61(23.3) | 43(12.7) | 104(17.3) |
| | Semiskilled | 11(4.2) | 19(5.6) | 30(5.0) |
| | Skilled | 7(2.7) | 5(1.5) | 12(2.0) |
| | Professional | 21(8.0) | 5(1.5) | 26(4.3) |
| **Total** | | **262(100)** | **338(100)** | **600(100)** |

(Figures in parenthesis denote percentages)

[Fig 1] states that, majority.i.e.278 (46.4%) were Buddhist.190 (31.6%) were Muslims and 128 (21.3%) were Hindus, while only 4 (0.7%) subjects belong to other religion like Sikh, Jain and Christian. As per [Table 1], Out of total 600 study subjects, 262 (43.7%) were males and 338 (56.3%) were females. Out of 262 males, maximum 139(53.1%) were in age group of 60-64 years while only few 14(5.3%) were in age

group of 75-79 years. Out of 338 females, 102 (30.2%) were in age group of 60-64 years while only few 29(8.6%) were in age group of 75-79 years. With reference to marital status it was observed that maximum subjects 339 (66.5%) were married, 187 (31.2) were widow/widower.6 (1.0%) were divorced, 5(0.8) were separated and 3(0.5) were unmarried. Out of 600 subjects, 330 (55%) were illiterate, 110(18.3%)

up to primary school, 68(11.3) up to middle, 50(8.3%) up to secondary, 31(5.2%) up to higher secondary and only 11 (1.8%) were graduates and above. It was observed that 270 (45%) subjects were literate and 330 (55%) subjects were illiterate. Among all study subjects, 428 (71.4%) were unemployed, 104 (17.3%) unskilled, 30 (5%) semiskilled, 12(2.0%) skilled and only 26(4.3%) were professionals by occupation.

**Table-2: Socio-demographic characteristics of study population (contd.)**

| Socio-demographic features | | Male | Female | Total |
|---|---|---|---|---|
| **Type of family** | Nuclear family | 84(32.1) | 89(26.3) | 173(28.8) |
| | Joint family | 68(26.0) | 77(22.8) | 145(24.2) |
| | Three generation Family | 110(42.0) | 172(50.9) | 282(47.0) |
| **Socioeconomic Class (Modified BG Prasad Socioeconomic classification)** | I | 2(0.8) | 3(0.9) | 5(0.8) |
| | II | 17(6.5) | 20(5.9) | 37(6.2) |
| | III | 32(12.2) | 58(17.2) | 90(15.0) |
| | IV | 82(31.3) | 104(30.8) | 186(30.9) |
| | V | 129(49.2) | 153(45.3) | 282(47.0) |
| **Living Arrangements** | Alone | 2(0.8) | 3(0.9) | 5(0.8) |
| | With spouse only | 76(29.0) | 85(25.1) | 161(26.9) |
| | With spouse and others | 179(68.3) | 246(72.1) | 425(70.8) |
| | With others | 5(1.9) | 4(1.9) | 9(1.5) |
| | **Total** | **262(100)** | **338(100)** | **600(100)** |

(Figures in parenthesis denote percentages)

Out of 600 subjects,[Table 2] It was observed that maximum subjects, 282 (47.0%) were from three generation family, followed by 173(28.8) and 145 (24.2%) belonged to nuclear family and joint family respectively. Above table shows that majority 282(47%) were in class V socio economic class, followed by 186(30.9%) in class IV, 90 (15.0%) subjects in class III, 37 (6.2%) in class II, 5(0.8%) were in class I. Out of 600 subjects, majority i.e. 425 (70.8%) were living with spouse and others, followed by 161 (26.8%) were living with spouse only, 9 (1.5%) were staying with others and 5(0.8%) were living alone.

**DISCUSSION**

Subjects in the age group of 60-64 years were in majority in current study[Table 1], similarly, Medhi GK *et al.;* [16], Srivastava K *et al.* [17] in their study found that majority were in age group of 60-65 yrs while Singh JP *et al.;* [18], Thakur RP *et al.;* (2013) [19] found that, Majority of the study subjects were in the age group 60- 69 years and Srinivasan K *et al.;* [20] revealed that majority were 66-70 years of age, Females outnumbered males in proportion in current study, these findings were supported by Srinivasan K *et al.;* [20] , Thakur RP *et al.;* [19] Singh JP *et al.;* [18] Paul AB *et al.;*[21]. In our study [Fig 1] majority were Buddhist, in contrast to our study, Srinivasan K *et al.;* [20], Thakur RP *et al.;* [19] and Gandhi P *et al.;* [22] found that majority were Hindu by religion. Findings in relation to marital status in current study[Table 1] were supported by previous studies, Joshi K *et al.;* [23], Bhatia SPS *et al.;* [24],Srinivasan K *et al.;* [20], Ashok KT *et al.;* (2012) [25].

In the present study, out of 600 subjects, 330 (55%) were illiterate, and only 11 (1.8%) were graduates and above. Similarly, Thakur RP *et al.;* [19] found that, majority (42.8%) were illiterate, only 1.9%

were graduate and above. Barman SK *et al.;* [26] found that majority (40%) were illiterate, and higher secondary & above (7.50%). It was observed that 270 (45%) subjects were literate and 330 (55%) subjects were illiterate. In contrast to our study, Srinivasan K *et al.;* [20] found that majority (61%) had college degree, and only 4.8% were illiterate. Also, the proportion of illiterates were slightly higher in males then females while Thakur RP *et al.;* [19] got opposite findings with females being proportionately more illiterate then males. Majority of the respondents were unemployed and very few were professionals, very well documented in previous studies by Shraddha K *et al.* [27] Choudhary M *et al.;* [28] Qadri S *et al.;* [29]. It was observed that maximum subjects were from three generation family, very few belonged to joint family similar to previous study by Choudhary M *et al.;* [28]. In contrast, Khokhar A *et al.;* [30] Lena A *et al.;* [7] Srinivasan K *et al.;* [20] Karmakar PR *et al.;* [31]found that joint family system was seen to be the most common. According to modified B.G. Prasad Socioeconomic classification, majority (47%) were in socio economic class V, while Niranjan GV *et al.;* [32] found that majority belonged to socioeconomic class III. As far as living arrangements is concerned, study shows that majority (70.8%) were living with spouse and others, followed by (26.8%) were living with spouse only, (1.5%) were staying with others and 5(0.8%) were living alone. In contrast, Madhu T *el al.;* [33] found that majority i.e. 38.37% were living with spouse and children, 28.16% with children and 8.98% elderly were staying alone and Kumar R, [34] found that a majority (62.5%) of elderly were staying with their families.

## CONCLUSION

The socio-demographic picture that has emerged of geriatric people reflects many of the social and economic circumstances that were present at various stages of their lives which affect the process of ageing at an individual level, Major social changes such as the introduction of free secondary schooling could improve their literacy level. Low levels of economic growth reflected by their socio economic status should be strengthened by various policies and schemes available for the elderly in India

### Limitations

The sample was drawn from one limited geographic area. So, the results cannot be generalized. Because of the cross-sectional design, this study had a limited extrapolative value. As the study was carried during 2013-2014, but the available elderly list was of 2012 which might have missed those who were on the border of 60 years at the time of the study.

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