

## Research Article

# Profile of elderly inmates of old age homes of Patan district, Gujarat, India: a cross sectional study

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## ABSTRACT

**Background:** Population aging is both a medical as well as a social problem. The situation of the elderly still worsens when there is presence of chronic diseases, physical incapacity and financial stringency. An exceptional increase in the number and proportion of older adults in the country, rapid increase in nuclear families, and contemporary changes in psychosocial matrix and values often compel this segment of society to live alone or in old age homes. The objective of study was to know the medico-social profile of the inmates of an old age homes.

**Methods:** A descriptive cross sectional study was conducted from January to December 2014 to assess the socio-demographic profile, pattern of morbidities and quality of life of elderly residing in old age homes. Total 4 old age homes and 203 elderly people were included in the study after taking verbal and written consent of the elderly people and permission from the managers of all the old age homes. A semi structured and pretested questionnaire was prepared to collect information on socio-demographic characteristics and morbidity pattern. Data was collected and analyzed by appropriate statistical software.

**Results:** Around 65% of elderly people were in the age group of 65 to 79 years. 58% of the males and 39.1 % of the females were suffered from cataract, whereas 39.8 of the males and 39.1 % females were suffered from hypertension. Next common morbidity was diabetes present in 28.4 of the males and 18.3 % of the females followed by joint pain present in 20.5% of the males and 23.5% of the females. No significant difference was found among morbidities of the males and females ( $\chi^2=2.85$ ,  $p=0.35$ ). 30.8% of the males and 28.75% of the females were hypertensive. Around 27% of the males and 36% of the females were obese and 18% of males and females were pre-obese according to BMI value. There was no significant difference in the BMI among males and females.

**Conclusions:** The study highlighted a high prevalence of morbidity and health related problems in old age group.

**Keywords:** Old Age Home, Health Profile, Elderly Inmates, BMI, Geriatric Health

## INTRODUCTION

The proportion of population of the elderly in most countries is increasing and India is no exception to this. According to the census, 10% of total population was above the age of sixty years. There has been a progressive increase in both the number and proportion of the aged in India over time, particularly after 1951. Between 1901 and 1951, the proportion of population

over age 60 years increased marginally from 5 percent to 5.4 percent, while by 2001 this had increased to 7.0 percent. The size of the elderly rose in absolute terms during the last century from 12 million in 1901 to approximately 71 million in 2001 and is likely to reach 113 million in 2016. The proportion of elderly is much higher in the rural areas than in the urban areas and the increase is greater among women.<sup>1</sup> Population aging is both a medical as well as a social problem. An

exceptional increase in the number and proportion of older adults in the country, rapid increase in nuclear families, and contemporary changes in psychosocial matrix and values often compel this segment of society to live alone or in old age homes.<sup>2</sup> The aged become increasingly dependent on others, their reduced activities, income and consequent decline in the position in the family and society makes their life more vulnerable.<sup>3</sup> The Indian family (joint) had traditionally provided a natural social security for old people. However, in more recent times, the traditional role of the family is being shared by institutions such as old age homes. The elderly population experiences social isolation due to breakage of various bonds like work relationship, loss of relatives and friends, movement of children away from them for jobs. The situation worsens when aged suffer with chronic diseases; lose their physical capabilities and financial insecurity. The present study was carried out to know the medico-social profile of the inmates of an old age homes Patan district, Gujarat, India.

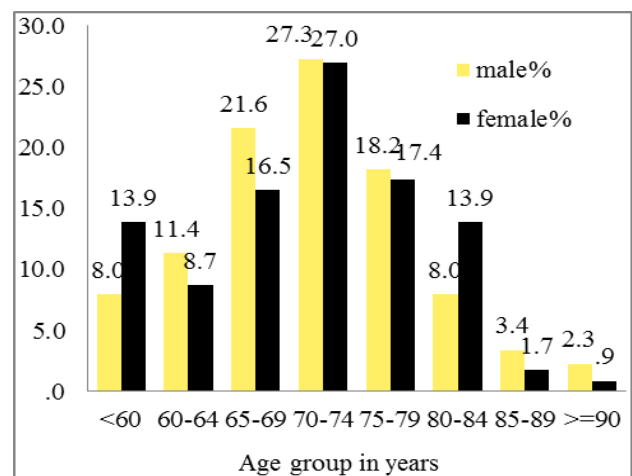
**METHODS**

A descriptive cross sectional study was conducted from January to December 2014 to assess the socio-demographic profile, pattern of morbidities and quality of life of elderly residing in old age homes. Total 4 old age homes and 203 elderly people were included in the study after taking verbal and written consent of the elderly people and permission from the managers of all the old age homes. A semi structured and pretested questionnaire was prepared to collect information on socio-demographic characteristics and morbidity pattern. Data were analysed using SPSS version 17 (trial version). Parameters such as rate, ratio and percentages were calculated. In order to have valid interpretation of rates, 95% confidence intervals (CI) were calculated. To test the significance of the difference among the statistical parameters in different subsets of population, suitable statistical test like chi-square test were applied.

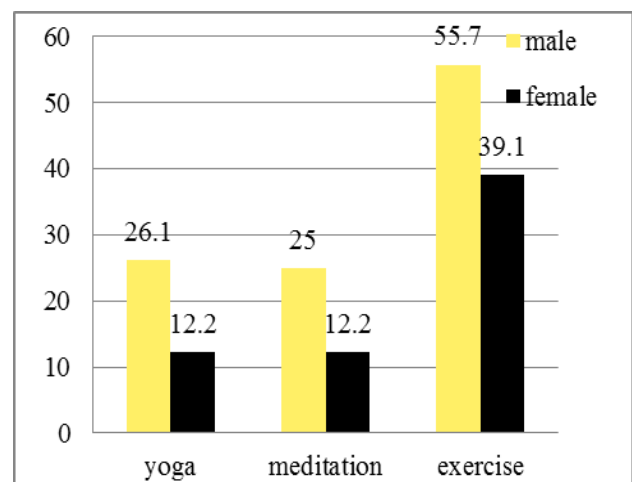
**RESULTS**

Mean age of elderly people living in the old age home is  $70.8 \pm 7.7$  Years. Around 65% of elderly people were in the age group of 65 to 79 years. (Figure 1) Out of 203 elderly people, more than 70 % of females were either illiterate/got primary education, whereas around 60 % males had education up to or more than secondary school. Only 20.5% of the males and 7% of the females were graduated. Most common reason for stay in the old age home was familial conflicts (in 63%) followed by no one to take care at their own home (in around 20%) and due financial constraints in around 8%. Mean duration of stay in old age home for females and males was  $2.7 \pm 2$  years and  $3.5 \pm 3$  years respectively. Yoga, meditation and exercise were more done by males than females. 55.7 % of the males and 39.1 % of the females were interested in simple exercise like walking. (Figure 2) 58% of the males and 39.1 % of the females were suffered from cataract,

whereas 39.8 of the males and 39.1 % females were suffered from hypertension. Next common morbidity was diabetes present in 28.4 of the males and 18.3 % of the females followed by joint pain present in 20.5% of the males and 23.5% of the females. (Figure: 3) No significant difference was found among morbidities of the males and females ( $\chi^2 = 2.85, p = 0.35$ ). 30.8% of the males and 28.75% of the females were hypertensive. (Figure 4) Around 27% of the males and 36% of the females were obese and 18% of males and females were pre-obese according to BMI value. There was no significant difference in the BMI among males and females (Figure 5) 30.5 % of the males and 31.8 of the females were using physical aids like sticks, walkers, glasses and hearing aids. Around 32% of elderly people manage their expenditure by their selves and 40 % were provided financial support by their children.



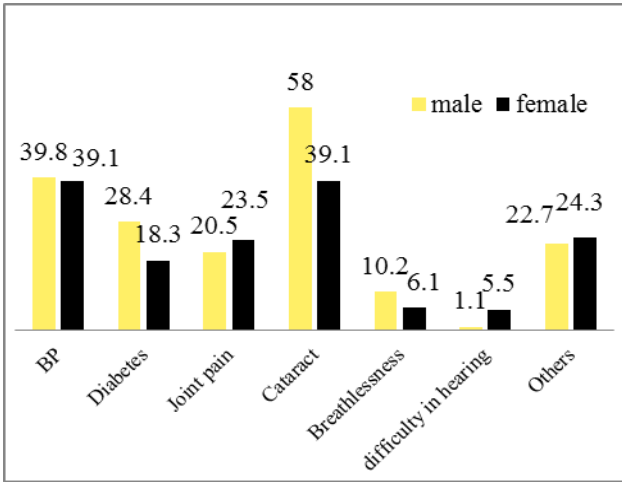
**Figure 1: Distribution of the elderly people according to their age groups.**



**Figure 2: Distribution of the elderly people according to their daily activities for fitness (%).**

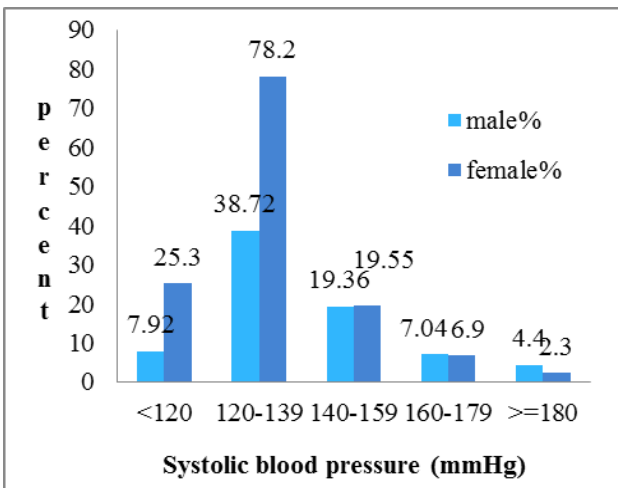
**DISCUSSION**

Old age is the last phase of human life cycle and the duration of this period depends upon the lifestyle enjoyed so far. Old age should be regarded as normal, inevitable biological phenomenon.



**Figure 3: Distribution of the elderly people according to their morbidities (%).**

The recent increases in the proportion of elderly have raised attention to issues concerning the morbidity profile of this potentially vulnerable age group. The Physical functioning and psychological wellbeing of elderly are influenced by their morbidities.<sup>4</sup>

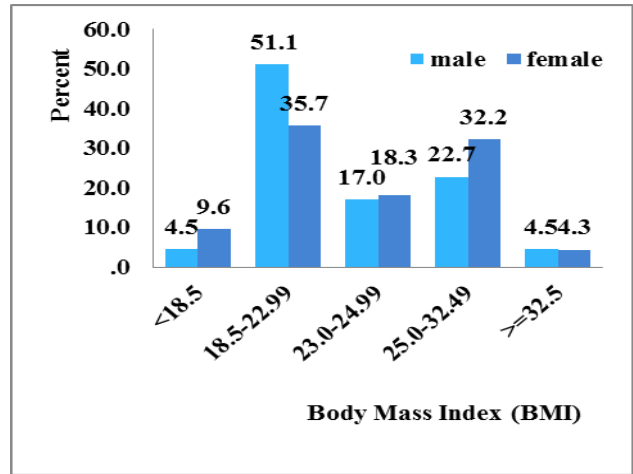


**Figure 4: Distribution of the elderly people according to their Blood Pressure (%).**

In our study around 65% of elderly people were in the age group of 65 to 79 years. Similar findings were also obtained in study done by Anitha R et al.<sup>5</sup> The leading cause of diminished vision in developing countries is cataract. In our study 58% of the males and 39.1% of the females were suffered from cataract. Visual impairment among the elderly is a major health problem. With advancing age, the normal function of eye tissues

decreases and there is an increased incidence of ocular pathology. Visual impairment was the single most important cause of preventable impairment among the elderly aged 60 years and above as reported by Venkatorao et al in India study.<sup>6</sup> In Rajiv Khandekar et al study found that, the prevalence of vision impairment was 37%, which is similar to this study.<sup>7</sup>

In present study 30.8% of the males and 28.75% of the females were hypertensive. In a study by Surekha Kishore et al prevalence of hypertension in elderly persons was 41.4%.<sup>8</sup> A study conducted in Chandigarh by Kumar found 44.9% prevalence of hypertension.<sup>9</sup> Chadha et al reported prevalence rate of hypertension of 58.8% and 52.2% among females and males respectively.<sup>10</sup> Similar results were also reported by SPS Bhatia (Hypertension in Females- 46.4% and in Males- 34.9%).<sup>11</sup>



**Figure 5: Distribution of the elderly people according to their BMI (%).**

The risk of developing diabetes increases as the age increases. A study was conducted among the elderly population in the UAE by Margolis et al and reported that the prevalence of diabetes was high.<sup>12</sup> This finding is in accordance with the present study which revealed that diabetes mellitus was among the 3<sup>rd</sup> most common chronic diseases among elderly patients. In present study joint pain due to osteoarthritis was present in 23.5% of the females and 20.5% of the males. M.K.Sharma et al observed osteoarthritis in 57.2% individuals.<sup>13</sup> More females (62.0%) were suffering from osteoarthritis than males (46.5%). The reason for this may be that the post-menopausal females suffer more from osteoporotic and degenerative changes due to hormonal withdrawal. High prevalence of arthritis/joint pain among females was also reported by Van Cool et al (Female- 57.1%, Male- 43%).<sup>14</sup>

In our study around 27% of the males and 36% of the females were obese and 18% of males and females were pre-obese according to BMI value. There was no significant difference in the BMI among males and

females. This is in contrast to findings of the study done by G.K.Medhi et al (prevalence of obesity was 19.4% and of underweight was 23.6%).

## CONCLUSION

The study highlighted a high prevalence of morbidity and health related problems in old age group. The periodic health check-up of these elderly people will reduce the morbid sufferings and further deterioration of the already existing conditions which will enable them to lead a better quality of life. A combination of qualitative and quantitative approaches is required to investigate the depth of the problems of the elderly with complete understanding of ageing issues.

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*Ethical approval: The study was approved by the Institutional Ethics Committee*

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