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Research Paper

MORBIDITY PATTERN AMONG ELDERLY IN URBAN FIELD PRACTICE AREA AT ASHOK NAGAR, BELGAUM, KARNATAKA: A COMMUNITY BASED CROSS-SECTIONAL STUDY

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Background and aims: "Forty is the old age of youth; fifty is youth of old age."- a French phrase meaning that natural process of waxing and waning of the body ageing which start at very young age but is visible only in old age. At present geriatrics has not been fully established as a specialty in India and there is little information about the morbidity pattern of the elderly to form the basis of any meaningful plan of action to improve the quality of life of this section of the population. Hence the present study was done. **Methods and Material:** The study was conducted in the Urban Health Centre, Ashok Nagar, Belgaum from October 2012 to December 2012. All elderly aged 60 years and above, who have attended the Out-Patient Department, were included in the study after obtaining an informed consent. A detailed history taking and examination was done to know the morbidity pattern among elderly participants. Statistical analysis was done by tables and charts in percentage. **Results:** Among the study participant 110(61.1%) were elderly male and remaining 70(38.9%) were females. In the present study 38.2% of female elderly were obese or overweight in comparison with 19.8% of the males. Among 180 elderly participant 72(40%) had morbidities associated with musculoskeletal system which was predominant health problem. Other health problems detected were 54(30%) anaemic, 36(20%) hypertensive, 36(20%) visually impaired, 33(18%) diabetic and 14(8%) had bronchial asthma. **Conclusion:** There is need to develop geriatric health care services, regular health check up, social support by people and proper implementation of geriatric related legislation by government.

Keywords: Morbidity pattern, Elderly population

INTRODUCTION

"Forty is the old age of youth; fifty is youth of old age." - a French phrase meaning that natural process of waxing and waning of the body ageing which start at very young age but is visible only in old age (Divya Bhaskar).

There has been a sharp increase in the number of elderly persons between 1991 and 2001, and it has been projected that by the year 2050, the number of elderly people would rise to about 324 million (Age care statistics). India has thus acquired the label of "an ageing nation" with

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7.7% of its population being more than 60 years old. The demographic transition is attributed to the decreasing fertility and mortality rates due to the availability of better health care services. It has been observed that the reduction in mortality is higher as compared with fertility. There has been a sharp decline in the crude death rate from 28.5 during 1951-1961 to 8.4 in 1996; while the crude birth rate for the same time period fell from 47.3 to 22.8 in 1996 (Irudaya Rajan, 2003).

The physiological decline in ageing refers to the physical changes an individual experiences because of the decline in the normal functioning of the body resulting in poor mobility, vision, hearing, inability to eat and digest food properly, a decline in memory, the inability to control certain physiological functions, and various chronic conditions. Change in socioeconomic status adversely affects the individual's way of life after retirement. The economic loss is due to a change from salary to pension or unemployment leading to economic dependency on children or relatives. A feeling of low self-worth may be felt due to the loss of earning power and social recognition. This state of mind is harmful. With the prospect of this situation worsening in the coming decades, ways and means of managing the stress effectively needs to be examined (Health Dialogue).

With an increasing elderly population in India, better documentation of their health profiles is needed to inform policy makers of the health problems which they present with. At present geriatrics has not been fully established as a specialty in India and there is little information about the morbidity pattern of the elderly to form the basis of any meaningful plan of action to improve the quality of life of this section of the population. Hence, the present study was undertaken to know the morbidity pattern among elderly population in Ashok Nagar, Belgaum.

MATERIALS AND METHODS

The study was conducted in the Urban Health Centre, Ashok Nagar, Belgaum from October 2012 to December 2012 (3 months- study duration). All elderly aged 60 years and above, who attended the Out-Patient Department, were included in the study after obtaining an informed consent. A pretested proforma was used to record the details. Verbal consent was obtained and a total of 180 patients (110 males and 70 females) above 60 years of age were included in the study from the Out-Patient Department of the Urban Health Centre between 10 AM to 1 PM. Wherever exact date of birth was not available, age was estimated using the 'social calendar method' taking 1947 (the year of India's Independence) as a convenient landmark. Each individual in the study was subjected to personal interview to collect demographic information. All the subjects were weighed without foot wear and heavy clothing, using an electronic weighing scale with an error of ±100 g by trained investigators. The weighing scale was regularly checked with known standard weights. A portable stadiometer was used for measuring the height, with an error to the nearest of 0.1 cm, using standard procedure. Body Mass Index (BMI) was calculated as weight in kg divided by square of height in meters. Overweight and obesity were defined as BMI of >23 and >25, respectively (Normal BMI: 18.0-22.9 kg/m^2 Overweight: 23.0- 24.9 kg/m^2, Obesity: >25 kg/m^2) (Misra *et al.,* 2009). Data collected was entered in MS Excel spread sheet. Descriptive tables were generated to elaborate the findings and appropriate statistical analysis was used to

explain the distribution of morbidity profile among the study population.

Case	Diagnosis – Criteria / Method used
Vision	"E" chart (If the subject uses spectacles for vision or has a vision poorer than 6/18 in the better eye: 'low vision'; vision poorer than 3/60 in both eyes was considered 'blind')
Diabetic	ADA criteria
Hypertension	JNC VII criteria
Osteo Arthritis	History taking and clinical examination

Since the study was of limited duration, criteria adherence had to be diluted wherever a follow-up visit was required for a final confirmatory diagnosis but could not be assured. In such cases, the diagnosis was based upon the first sitting results to estimate the higher prevalence limit.

RESULTS

Among the study participant 110 (61.1%) were elderly male and remaining 70 (38.9%) were females. Most of the study participants (36.6%) were in the age group of 60-65 years.

In this study 33.3% of the elderly participants were illiterate, 48.8% had education up to primary level, 6.6% up to secondary level, 9.4% intermediate and 1.6% were graduate.

Among the study participant 68.3% were married and remaining either widow/widower (Table 1). In the present study 38.2% of female

Table 1: Socio-Demographic Profile of Study Participants				
		Male (%)	Females (%)	Total (%) (n=180)
Age (years)	60-65	34	32	66 (36.6)
	66-70	28	12	40 (22.2)
	71-75	27	07	34 (18.8)
	76-80	11	11	22 (12.2)
	>80	10	08	18 (10)
Education	Illiterate	20	40	60 (33.3)
	Primary	60	28	88 (48.8)
	Secondary	08	04	12 (06.6)
	Intermediate	16	01	17 (09.4)
	Graduate	03	Nil	03 (o1.6)
Marital status	Married	70	53	123 (68.3)
	Widow/Widower	28	32	57 (31.6)
	Divorcee	Nil	Nil	Nil

Table 2: Morbidity Pattern Among Elderly			
Disease (%)	Male (%)	Female (%)	Total (%) (n=180)
Anaemia	19	35	54(30)
Hypertension	20	16	36(20)
Diabetes	17	16	33 (18)
Bronchial asthma	09	05	14(8%)
Osteoarthritis	21	51	72(40%)
Cataract	22	14	36(20)

elderly were obese or overweight in comparison with 19.8% of the males. In this study among 180 elderly participant 72 (40%) had morbidities associated with musculoskeletal system which was predominant health problem.

Other health problems detected were 54 (30%) were anaemic, 36 (20%) hypertensive, 36 (20%) visually impaired, 33 (18%) diabetic and 14 (8%) had bronchial asthma (Table 2).

DISCUSSION

In the present study 38.2% of female elderly were obese or overweight in comparison with 19.8% of the males. A study conducted showed that 42.1% of the female were obese or overweight and 20.9% of the males (Swami *et al.,* 2005).

In our study among 180 elderly participants, findings were 30% anaemic, 20% hypertensive, 20% visually impaired and 18% diabetic. A study conducted by Prakash *et al.* (2004) showed among 214 elderly participants from 60 to 87 years, findings were 43% diabetic, 47.7% hypertensive, 86% anemic and 68.2% visually impaired; all these were higher in the 70-79 years age group.

A study conducted by Gurav *et al.* (2002)

showed that 32.18% suffered from cataract, 16.34% from hypertension and 9.41% from diabetes.

In our study 40% of the study participants had morbidities associated with musculoskeletal system which was predominant health problem. Study conducted by Ajitha Katta *et al.* (2011) showed morbidities associated with musculoskeletal system was 38.8%.

Prevalence of cataract was 20% in our study.

A study done by Bhatia *et al.* (2007) observed Cataract in 18.6% of aged persons.

Our study showed osteoarthritis and related diseases were the most prevalent morbidities followed by anaemia, hypertension and vision impairment.

CONCLUSION

The results of this study showed that the major proportion of the elderly were having more than one health problem. The burden of chronic diseases was high among the elderly. Study showed osteoarthritis and related diseases were the most prevalent morbidities, followed by anaemia, vision impairment and hypertension. There is need to develop geriatric health care

services, regular health check up, social support by people and proper implementation of geriatric related legislation by government. More number of IEC activities should be conducted to increase the awareness for more utilization of geriatric services.

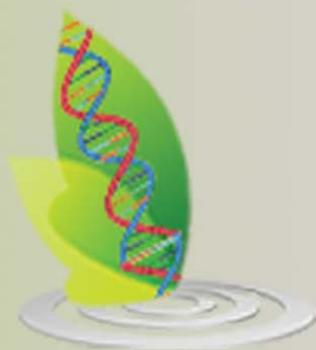## SOURCE OF FUNDING

CONFLICT OF INTEREST

Nil

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