

Study of morbidity pattern among elderly in Anaji, field practice area of J.J.M. Medical College, Davangere.

Vanitha S S.^{1*}, Shubha D. B.¹, Sujatha M G²

1. Assistant professor, Department of Community Medicine, J J M Medical College, Davangere.2. Postgraduate student, Department of Community Medicine, Mandya Institute of Medical Sciences, Mandya

Date of Submission : 05-11-2017

Date of online Publication : 07-01-2018

Date of Acceptance : 25-11-2017

Date of Print Publication : 31-03-2018

***Author for correspondence:**Dr. Vanitha S S, D/O Shivakumar S B, #1645/92, 12th Cross, Vidyanagar, Davangere-577005.Karnataka, India. E-mail: vanitha4988@gmail.com

Abstract

Introduction: Elderly or old age consists of ages nearing or surpassing the average life span of human beings. The boundary of old age cannot be defined exactly because it does not have the same meaning in all societies. Government of India adopted ‘National Policy on Older Persons’ in January, 1999. The policy defines ‘senior citizen’ or ‘elderly’ as a person who is of age 60 years or above with the objective of identifying the morbidity pattern and socio-demographic profile of elderly population in rural area.**Material and methods:** Cross sectional study. **Study period:**1st June to 31st August 2015 (3 months) ,**Study area:**Anaji village a field practice area of J.J.M. Medical College. The data was collected using pre-tested, pre-designed proforma.**Results:** Out of 116 elderly 59% were in the age group of 60-69 years, the mean age of study participants was 68.5. Among study participants 59.5% were male and 40.5% were female. Musculoskeletal problems were the most common accounting for 71.5% followed by ocular problems 60.3%, cardiovascular problem 26.7% and endocrine problem 19.8%.**Conclusion:**The present study showed a high prevalence of morbidity among elderly was noted, particularly musculoskeletal and ocular conditions.

Key-words:Elderly, Rural, Morbidity, socio-demographic, Ageing.

Introduction

Elderly or old age consists of ages nearing or surpassing the average life span of human beings. The boundary of old age cannot be defined exactly because it does not have the same meaning in all societies. Government of India adopted ‘National Policy on Older Persons’ in January, 1999. The policy defines ‘senior citizen’ or ‘elderly’ as a person who is of age 60 years or above.^[1]

The unprecedented increase in human longevity in 20th century has resulted in the phenomenon of population ageing all over the world. Countries with large population such as India have large number of people now aged 60 years or more. The population over the age of 60 years has tripled in last 50 years in India and will relentlessly increase in near future. In 2001, the proportion of older people was 7.7% which will increase to 8.14% in 2011 and 8.94% in 2016.^[2]

Old people have limited regenerative abilities and are more prone to disease, syndromes, and sickness as compared to other adults. Non-communicable diseases requiring large quantum of health and social care are

extremely common in old age, irrespective of socio-economic status. Disabilities resulting from these non-communicable diseases are very frequent which affect functionality compromising the ability to pursue the activities of daily living. The treatment/ management of these chronic diseases is also costly, especially for cancer treatment, joint replacements, heart surgery, neurosurgical procedures etc thereby making it out of bound for elderly whose income decreases post retirement and more so for the elderly in the unorganized sector and dependent elderly women.^[2]

The phenomenon of population ageing is becoming a major concern for the policy makers all over the world, for both developed and developing countries, during last two decades, for this we need the pattern of morbidities that are distributed among elders and how effectively we can reach that population to minimise the suffering by knowing the socio-demographic profile that determines the affordability and accessibility of elderly person to available services. With this view the current study was undertaken with the following objectives.

Objectives:

1. To identify the morbidity pattern of elderly population.
2. To know the socio-demographic profile of the elderly population

Materials and Methods

The present study was approved by institutional ethical committee. It was a cross sectional study done in AnajiPHC, a rural field practice area of J.J.M. Medical College. The study was carried out for a period of three months. The Anaji field practice area covers 9 villages and population of 9740. The population of elderly is 776 from all the 9 villages, 15% of 776 elderly population was included in the study that is 116, probability proportionate sampling was taken from each village.

The written informed consent was taken from the study participants in local language before collecting the data. The data was collected using pre-tested, pre-designed proforma. The information on socio-demography profile includes age, sex, religion, pension, living arrangements, literacy status and type of ration card and information on complaints were collected by face to face interview with study participants. Examination of study subjects includes both general physical examination and systemic examination of the study participants.

Statistical analysis: Data was entered in micro-soft excel. Statistical analysis was done using SPSS version 16.0. Results are presented in Percentages and proportions.

Operational definitions

Ocular diseases: Diagnosed by the investigator in the field with the help of Snellen’s chart, torch and digital tonometry with clinical signs and symptoms.

Endocrine diseases: Diagnosed diabetic, thyroid conditions and those were on hormonal therapy.

Cardiovascular Morbidities: Particularly ischaemic heart disease, congestive cardiac failure, valvular heart disease was accepted as diagnosed by clinician earlier with necessary investigations. It also includes

Hypertension: a) Defined as systolic blood pressure (SBP) of 140mmHg or more and / or diastolic blood pressure (DBP) of 90mmHg or more and/or b) Subjects on anti-hypertensive medications.

Respiratory morbidities: a) This condition was diagnosed from clinical examination: presence of abnormal breathing sounds like ronchi, crepitations, on auscultation. And/or b) Chronic obstructive pulmonary disease and tuberculosis were accepted as diagnosed by clinician earlier with necessary investigations.

Gastrointestinal disorders: History of Gastritis or constipation or faecal incontinence were considered.

Nervous system disorders: Such as cerebral infarction, epilepsy, hemiplegia, neuritis, tremors, anxiety, dementia and depression etc. already diagnosed by neuro physician and psychiatrist with necessary investigation and accepted as such.

Genito-Urinary Disturbance: History of Urinary hesitancy or Stress incontinence or Urge incontinence were considered.

Skin: Any skin conditions found on clinical examination.

Ear Nose Throat(ENT) diseases: Impaired hearing is defined as inability to hear a whisper at a distance of 1 meter, nose and throat condition found during examination.

Masculo-skeletal diseases: As kyphosis, arthritis and spondylitis already diagnosed by orthopedician with necessary investigation and these cases were accepted as such or having pain-full/stiff/swollen joints during the current clinical examination.

Results

Table 1: Distribution of elderly according to socio-demographic profile

Variables	Categories	Male (n=69)		Female (n=47)		Total (n=116)	
		N	%	N	%	N	%
Age groups	60 – 64	14	20	20	43	34	29
	65 – 69	24	35	11	23	35	30
	70 – 74	16	23	6	13	22	19
	75 – 80	6	9	5	11	11	10
	>80	9	13	5	11	14	12
Religion	Hindu	69	100	45	96	114	98
	Muslim	0	0	2	4	2	2
Living arrangements	Single	10	14	8	17	18	16
	Joint family	24	35	9	19	23	20
	3 rd generation family	35	50	30	64	65	56
Pension	No	25	36	28	60	53	46
	IGNOAPS	32	46	17	36	49	42
	Others	12	17	2	4	14	12
Ration card	No	0	0	1	2	1	1
	APL	19	28	12	26	31	27
	BPL	50	72	34	72	84	72
Literacy status	Illiterate	16	23	26	55	42	36
	Literate	53	77	21	45	74	64

IGNOAPS: Indira Gandhi National Old Age Pension Scheme
APL: Above Poverty Line, **BPL:** Below Poverty Line

Table 2: Distribution of elderly according to literacy level

Literacy level	Sex		Total	P value
	Male	Female		
	N (%)	N (%)	N (%)	
Illiterate	16 (23)	26 (55)	42 (36)	0.0001
Literate	53 (77)	21 (45)	74 (64)	

Table 3: Distribution of elderly according to morbidity pattern and age groups and sex

System affected	60 – 64 years			65 – 69 years			70 – 74 years			75 – 79 years			80 – 84 years		
	M (14)	F (20)	Total N=34 (%)	M (24)	F (11)	Total N=35 (%)	M (16)	F (6)	Total N=22 (%)	M (6)	F (5)	Total N=11 (%)	M (9)	F (5)	Total N=14 (%)
Ocular	10	11	21 (62)	11	9	20 (57)	12	2	14 (64)	1	4	5 (46)	5	5	10 (71)
Endocrine	6	6	12 (35)	10	3	13 (37)	6	1	7 (32)	0	1	1 (9)	1	3	4 (29)
Cardio-vascular	8	7	15 (43)	7	3	10 (29)	9	2	11 (50)	0	1	1 (9)	7	3	10 (71)
Respiratory	0	0	0	4	0	4 (11)	3	0	3 (14)	1	2	3 (27)	1	2	3 (21)
Gastro-intestinal	3	1	4 (12)	2	1	3 (9)	1	0	1 (5)	0	0	0	1	2	3 (21)
nervous system	0	1	1 (3)	0	0	0	2	0	2 (9)	0	0	0	1	0	1 (7)
Genito-urinary	1	6	7 (21)	5	3	8 (23)	1	1	2 (9)	0	0	0	0	2	2 (14)
Skin	0	0	0	1	0	1 (3)	1	0	1 (5)	0	0	0	0	0	0
ENT	3	2	5 (15)	1	0	1 (3)	0	2	2 (9)	0	0	0	5	1	6 (43)
Musculo-skeletal	9	15	24 (71)	19	9	28 (80)	11	5	16 (73)	3	0	3 (27)	7	5	12 (86)

We visited 280 houses in search of elderly and interviewed 116 individuals above 60 years. Out of 116 elderly 59% were in the age group of 60-69 years, the mean age of study participants was 68.5. 59.5% were male and 40.5% were female in which majority belong to Hindu religion, 16% were living alone, 20% were belongs to joint family and majority 56% were belongs to 3rd generation family, 42% were benefited from Indira Gandhi national old age pension scheme, those were previously employed in different categories occupation and availing post retirement pension accounts for 12%, only one person not had ration card and she was living alone. 72% were belongs to BPL family, 27% belong to APL family one person not having any ration card. (Table 1)

Among participants, 77% of males were literate, only 45% of females were literate overall literacy level of study participants was 74%, there was a statistically significant difference in literacy level with sex was noted. (Table 2)

Most common morbidity noted was musculoskeletal problems 71.5% (83) had musculoskeletal problem most commonly arthritis in which 42.2% (49) were male and 29.3% (34) were female and age group between 60-69 years accounts for 44.7% (52), followed by ocular problems 60.3% (70) of study subjects had ocular problem in which 33.6% (39) were male and 26.7% (31) were female majority had cataract and age group between 60-69 years accounts for 35.3% (41) of cases. 40.5% (47) individuals had cardiovascular problem 26.7% (31) were male and 13.8% (16) were female majority had hypertension and age group between 60-69 years accounts for 21.5% (25), 31.8% (37) individuals had endocrine problem in which 19.8% (23) were male and 12% (14) were female majority had diabetes and age group between 60-69 years accounts for 21.5% (25). (Table 3)

Discussion

In the present study the mean age of study participants was 68.5% ± years in a study in Dakshina Kannada^[3] the mean was 66.9 ± 6.3 years, 59% were in the age group of 60 – 69 years in a study in Maharashtra^[4] 60 – 70 years accounts for 64% in Gulberga study^[5] 60 – 69 years accounts for 68%. In the present study 59.5% were males 40.5% were females in study by Ayan Ghosh^[6] 45.5% were males and 54.5% were females, in Jadhav V.S et al^[7] study 52.5% were males and 47.5% were females. In the present study 74% were literate in Dakshina Kannada^[3] study 37% were literate, in Gulberga study^[5] 23% were literate. In the present study 72% were below poverty line (BPL) card holders, in Dakshina Kannada^[3] study 66.1% were below poverty line (BPL) card holders.

In the present study elders are suffered from one or more health problem of which the major problems were musculoskeletal (71.5%), ocular problems (60.3%) mainly cataract followed by cardiovascular problems (45.6%). Similarly a study in Dakshina Kannada,^[3] The ICMR report on the chronic morbidity profile in the elderly states that hearing impairment was the most common morbidity, followed by visual impairment.^[8] A study on ocular morbidities among the elderly population in the district of Wardha noted that refractive errors accounted for the highest number (40.8%) of all the ocular morbidities, closely followed by cataract (40.4%).^[9] the study in Delhi, the problems related to vision and hearing were the commonest.^[10]

Major morbidities of the study were impaired vision followed by hypertension and joint problems and in the study at Chandigarh^[11] (most common diseases in order of their magnitude were hypertension (58%), joint pains/arthritis (50.5%), and cataract (19.1%). In Situation Analysis of The Elderly in India, 2011,^[11] the most

common disability among the aged persons was locomotor disability.

Conclusion:

The present study showed a high prevalence of morbidity among elderly was noted, particularly musculoskeletal and ocular conditions.

Recommendation:

1. Strengthen the activities for early diagnosis the elderly morbidities in community.
2. Improve the awareness regarding available health services.
3. Although in this study we focused on medical problems of elderly for overall improvement of health of elderly, integrated approach by health and health related sectors is needed.

Limitations of the Study

1. Presence of family members during interview and examination might have influenced the response of the respondents ex. income.
2. No laboratory investigation was done.
4. The mental morbidity of the elderly subjects was not assessed thoroughly.

Acknowledgment:The author would like to thank all the study participants.

References

1. Situation analysis of the elderly in India, 2011, Central statistics office, ministry of statistics & programme implementation, government of India.
mospi.nic.in/sites/default/files/publication_report_s/elderly_in_india.pdf accessed on 22-3-2016.
2. Operational guidelines national programme for health care of the elderly (NPHCE), 2011, Directorate General of Health Services Ministry of Health & Family Welfare Government of India.
[https://www.mohfw.gov.in/.../8324324521Operational Guidelines NPHCE final.pdf](https://www.mohfw.gov.in/.../8324324521Operational%20Guidelines%20NPHCE%20final.pdf) accessed on 5-2-2016.
3. Hameed S, Kumar N, Naik PM, Sachidananda K, Prasanna K S. Morbidity Pattern Among the Elderly Population in a Rural Area of Dakshina Kannada, Karnataka - A Cross Sectional Study. *Ntl J of Community Med* 2015; 6(2):89-92.
4. Kamble V, Avchat S S, Ghodke Y D, Goyal R C, Dhumale G B. Health Status of Elderly

Persons in Rural Area of India. *Indian Medical Gazette*. 2012 Aug ; 145 (8): 295-299.

5. Chandrashekhar R, et al, Morbidity pattern among geriatric population in urban and rural area of Gulbarga, *medicainnovatica*; 2014; 3(2); 36-41.
6. AyanGhosh, DeblinaSarkar, Ranabir Pal, Bijoy Mukherjee, A Profile of Common Morbidities among Elderly Rural Indian Population, *American Journal of Public Health Research*; 2015; 3(5A) 29-33.
7. Jadhav V.S et al. A study of morbidity profile of geriatric population in the field practice area of rural health training centre, paithan of Govt. Medical College, Aurangabad, *IOSR Journal of Pharmacy*; 2012; 2(2):184-188.
8. Guerra RO, Alvarado BE, Zunzunegui MV. Life course, gender and ethnic inequalities in functional disability in a Brazilian urban elderly population. *Aging ClinExp Res*. 2008;20:53-61.
9. Singh MM, Murthy GV, Venkatraman R, Rao SP, Nayar S. A study of ocular morbidity among an elderly population in a rural area of central India. *Indian J Ophthalmol*. 1997;45:61-5.
10. Dey AB, Soneja S, Nagarkar KM, Jhingan HP. Evaluation of the health and functional status of older Indians as a prelude to the development of a health programme. *Natl Med J India*. 2001;14:135-8.
11. Swami HM, Bhatia V, Dutt R, Bhatia SPS. A community based study of the morbidity profile among the elderly in Chandigarh, India. *Bahrain Med Bull* 2002; 24(1): 13-16.

Conflict of Interest: None

Source of funding support: Nil

How to cite this article:Vanitha S S., Shubha D. B, Sujatha M G. Study of morbidity pattern among elderly in Anaji, field practice area of J.J.M. Medical College, Davangere. *Nat J Res Community Med* 2018;7(1):18-21.

© Community Medicine Faculties Association

NJRCM: www.commedjournal.in

