



GERIATRIC HEALTH PROBLEMS: A COMMUNITY BASED CROSS SECTIONAL STUDY FROM RURAL KARNATAKA

Community Medicine

Dr. S. Amruth Reddy

Resident Medical officer, Navodaya Medical College Hospital & Research centre, Raichur, Karnataka

Dr. Anant A. Takalkar

Professor, Department of Community Medicine, MIMSR Medical College and YCRH, Latur, Maharashtra.

Mr. Varun Neravetla

Research intern, Cinco Ranch High School, Houston, Texas

ABSTRACT

Introduction: The contribution of elderly population to demographic figures is increasing day by day. Increasing problems of healthcare, psychosocial, personal and socio-economic factors associated with the elderly further overwhelm this. **Objectives-** To study the geriatric health problems in rural community of Raichur, Karnataka **Methods-** Community based cross sectional study was carried out in rural field practice area of Navodaya Medical College and research center Raichur, during January 2022 to June 2022. The house to house visit and interview of 214 elderly subjects of ≥ 60 years of age was done. The sample was selected by random sampling technique. **Results-** Majority (43%) of the study subjects were in the age group 60-65 yrs, 56.1% were males and 43.9% female, illiterate (61.2%), non-working (55.50%), economically dependent (95.7%) and lower class (61.7%). 22.13% females were widows, 77.1% Hindu by religion, and joint family (61.2%). High prevalence of arthritis/joint pain (49.5%), eye problems 42.9%, dental problems 36.9%, hypertension 24.2% etc. **Conclusions-** The current trends in demographics coupled with rapid urbanization and lifestyle changes have led to an emergence of a host of problems faced by the elderly in India.

KEYWORDS

Elderly, geriatric, morbidity etc.

INTRODUCTION

The Indian elderly population is currently the second largest in the world and It is projected that this will go up to 11.9 % by 2031 and 17.3% by 2051¹. Within the next five years, it is expected that the number of adults aged 65 and over will outnumber children under the age of 5, and by the year 2050, older adults will outnumber children under the age of 14.^{1,2}

Old age is not a disease in itself, but the elderly are vulnerable to long term diseases of insidious onset such as cardiovascular illness, CVA, cancers, diabetes, musculoskeletal and mental illnesses. They have multiple symptoms due to decline in the functioning of various body functions. The burden of chronic disease in India is high, with high rates of morbidity and mortality, especially in the elderly, since the prevalence of chronic disease rises with age. It is known that chronic disease is preventable, with 80% of premature heart disease, stroke and diabetes being amenable to prevention.^{3,4} With early detection, treatment and support, the burden of chronic disease can be reduced.⁵

Looking in to the importance of addressing the problems of ageing, the social transformation representing both challenges & opportunities, WHO has recently announced the WHO day for year 2012 as "AGEING & HEALTH" with the theme "Good health adds life to years".⁶

The problems associated with the ageing of the population are that of absence of facilities for medical treatment and of providing economic and social support.⁷ Hence information on morbidity profile of this population is essential for planning its health-care facilities and also care of geriatric is a burning issue now a day and will require certain planning and provision for old persons. It will be causing load on health services as well as young care takers. Therefore, this study has been conducted to get an insight into the present scenario of socio-demographic profile & challenges of elderly people in rural area under RHTC of our tertiary care centre medical college and Hospital.

MATERIALS AND METHODS

Study design- Community based Cross Sectional observational study.

Study area – Rural Health Training Centre of Navodaya Medical College Hospital & Research centre, Raichur, Karnataka

Sample size– 214 elderly persons in the age group of equal to or above 60 years The study was done for three months using predesigned and pretested questionnaire and we collected a sample of 214

Study period – January 2022 to June 2022

Inclusion criteria – elderly person (>60yrs) who is residing in the study area continuously for more than one year

Exclusion criteria –An elderly person who is seriously ill and elderly who is not willing to participate in the study

Analysis

The data collected will be entered in Microsoft Excel and analysed using SPSS 21.0 version. The demographic data will be initially analyzed using frequencies, means, and standard deviations. Association of two qualitative variables was carried out using chi square test and p value <0.05 was considered as significant.

RESULTS

Table 1- Socio demographic profile (n=214)

Age	No. of persons (%)
60-65	92(43)
66-70	71(33.2)
71-75	23(10.7)
76-80	24(11.2)
80-85	4(1.9)
Sex	
Male	120(56.1)
Female	94(43.9)
Religion	
Hindu	165(77.1)
Muslim	44(20.6)
Christian	5(2.3)
Socio economic status	
Upper	9(4.2)
Middle	44(20.6)
Poor	29(13.6)
Very poor	132(61.7)
Education	
Literate	83(38.8)
Illiterate	131(61.2)
Type of Family	
Nuclear	131(61.2)
Joint	83(38.8)
Living with spouse & children	
Yes	205(95.7)

No	9(4.2)
Dependent	
Fully	71(33.1)
Partially	143(66.8)
Occupation	
Labour	66(30.8)
Driver	14(6.5)
Teacher	16(7.4)
Non working	118(55.1)

Majority (43%) of the study subjects were in the age group 60-65 yrs and then followed 33.2% in age group of 60-70 yrs, 77.1% were Hindu, 20.6% were Muslims and 2.3% were Christian by religion, and 61.2% stayed in nuclear family and joint family (61.2%). 56.1% were males and 43.9% female, illiterate (61.2%), non-working 55.50% and 30.8% were laborer by occupation, economically dependent in that partially dependant were 66.8% and 33.1% were fully dependant and lower class (61.7%).

Table – 2 Morbidity observed in the study population (n=214)

Morbidity condition	Males (%)	Females (%)	Total (%)	Overall prevalence
Joint pains/ joint stiffness	38 (35.84)	68 (64.15)	106 (100)	49.5
Reduced visual acuity (refractive error) and cataract	53 (57.60)	39 (42.39)	92 (100)	42.9
Chewing problems/Edentulous mouth Dental	37 (46.83)	42 (53.16)	79 (100)	36.9
Generalized body pain	24 (38.71)	38 (61.29)	62 (100)	28.9
Dermatological complaints/pruritis	23 (42.59)	31 (57.41)	54 (100)	
Hypertension	34 (65.38)	18 (34.61)	52 (100)	24.2
Chronic obstructive pulmonary disease	32 (66.67)	16 (33.33)	48 (100)	22.4
Diabetes mellitus	26 (55.31)	21 (44.68)	47 (100)	21.9
Impaired hearing	11 (44)	14 (56)	25 (100)	11.6
Known cardiac illness	9 (40.90)	13 (59.10)	22 (100)	10.2

In above table it was noted a high prevalence of arthritis / joint pain (49.5%) in the current study subjects, especially among females (64.15%). 42.9% were suffering from eye problems in the male 57.6% were affected more than females. 36.9% were having dental problems. 24.2% of the elderly were suffering from hypertension and only twenty one percent of the elderly were suffering from diabetes mellitus in these two diseases males (65.38%), (55.3%) were affected more than females (34.61%) and (44.68%) respectively. 25(11.6%) of subjects were suffering from impaired hearing and 48(22.4%) and 22(10.2%) were suffering from COPD and known cardiac illness respectively.

DISCUSSION

In the present study, the majority of the study population was Hindu (77.1%) by religion, followed by Muslim (20.6%) and Christians were 4.15% by religion among elderly. It is evident from that majority of the elderly subjects belonged to nuclear family 131(61.2) while 83(38.8%) were belonged to joint family. The proportion of the nuclear family was high because the study was conducted in urban areas, where nuclear family culture is more prevalent than in rural areas.

Similar study was done by Saxena V, et al⁸ in Dehradun showing that 74.6% elderly belonged to 60–70 years age group. In the present study 35.8% were males and 64.1% were females and these findings matched with findings of Gupta A, et al⁹, at Ludhiana. In the present study 61.2% elderly were illiterate and 38.8% elderly were educated up to primary, middle and high school, respectively. Similar results were shown by Gladus J H, et al.¹⁰ at Tamil Nadu. In the present study 55.1% elderly were unemployed and similar results were shown by Soni S, et al.¹¹ at Bihar and Kapil U, et al¹² at Nainital, Uttarakhand.

Morbidity profile

In our study a high prevalence of arthritis / joint pain (43.2%), especially among females was reported, similar finding was observed in other studies^{13,14} possibly reflecting the hard life faced by women who never retire from household work unless totally disabled. Likewise musculoskeletal disorders prominently arthritis was found to be 25% in population with more than 50% being females. The study in Surat slum¹⁵ showed a higher percentage i.e. 43% but the female proportion was 54% comparative to our study.

24.2% of the elderly were suffering from hypertension, unlike reports from other studies. A much higher prevalence level of 56% has been reported in a WHO report¹⁶ and a study among the rural elderly from Haryana, India.⁴

The presence of diabetes mellitus in 21.9% of the elderly further reflects the increasing life-style diseases in the community 22.4% elderly were found to have respiratory diseases (COPD). This finding was more when compared to study done in Udaipur, Rajasthan showed 6.3%.¹⁷

We observed a prevalence of visual impairment (42.9%) in our study population, similar finding was observed in the WHO multicentric study, which reported poor vision in 45.4% in the elderly and study done in Surat city¹⁵ where they found it to be 35%. Males were affected more than females this may be due to exposure to sunlight and dust. More than a quarter of the surveyed also had unoperated cataract, adding to the burden of visual impairment. In many developing countries like India, there is only one eye specialist for a million populations.¹³

In our study 36.9% of elderly were suffering from one or the type of dental problem. Dental problems are a common accompaniment of ageing and, in India, a largely unmet one. Remote areas lack dental health personnel. While planning health care for the elderly, dental component should also be considered.

The prevalence of high morbidity among the elderly requires the strengthening of geriatric health care services in accordance with the common existing problems in the community. Preventive, curative and rehabilitative programmes for the elderly are urgently required.

CONCLUSION

Majority 40 (56.33) of the study subjects were in the age group 60-70 yrs, illiterate 74(56.49%), non-working 62(52.54%), economically fully dependent 71(33.1%), lower middle class 78 (59.09 %). Hindu (68.75%) and nuclear family (53.50%). Females were two times more obese than males.

The results of the study showed that there is a need to strengthen elderly health care services, social support by people, elderly counseling centres and proper implementation of elderly related legislation by government that can take care of their physical and psychological needs. Awareness and proper treatment regarding health issues of elderly should be given preference in urban slum areas.

REFERENCES

1. Aging facts – WHO. (Online), (Dated 13 Aug 2022), Available from http://www.who.int/kobe_centre/mediacentre/forum/forum_wld-2012/en
2. Agarwal A, Advani SH. Anaemia. In: Sharma OP, ed. Geriatric care in India. Geriatrics and Gerontology. A textbook. 1st ed. India: AONB Publishers Pvt. Ltd, 1999:421-6.
3. Anil Jacob PURTY, Joy BAZROY, Malini KAR, Kavita VASUDEVAN, Anita VELIATH, Purushottam PAN, Morbidity Pattern Among the Elderly Population in the Rural Area of Tamil Nadu, India. Turk J Med Sci 36 (2006) 45-50
4. Chadha SL, Radhakrishna S, Ramachandran K, et al. Epidemiological study of coronary heart diseases in rural population in Gurgaon district (Haryana State). Indian J Com Med 14:141-7, 1989
5. Chronic disease facts – WHO. (Online), (Dated 13 Aug 2022), Available from <http://www.who.int/gho/ncd/en/index.html>
6. Chronic disease and health promotion. (Online), (Dated 13 Aug 2022), Available from http://www.who.int/chp/chronic_disease_report/en/
7. Dharamvir Ranjan Bharati, Ranabir Pal, R. Rekha, T. V. Yamuna, Sumit Kar, and Angeline Neetha Radjou. Ageing in Puducherry, South India: An overview of morbidity profile. J Pharma Bioallied Sci 2011 Oct. Dec; 3(4): 537-542.
8. Saxena V, Kandpal SD, Goel D, Bansal S. Health status of elderly a community-based study. Indian J. Community Health. 2012; 24:269–74.
9. Gupta A, Girdhar S, Chaudhary A, Chawla JS, Kaushal P. Patterns of multi morbidity among elderly in an urban area of North India. J Evol Med Dent Sci. 2016; 5:936–41.
10. Gladus JH, Archana Lakshmi PA, Vidya DC, Das B. A study on morbidity status of geriatric population in the field practice area of Karpaga Vinayaga institute of medical sciences, Tamil Nadu, India. Int J Community Med Public Health. 2016; 3:2575–8.
11. Soni S, Kumar M, Shukla M. A study on morbidity profile among elderly in a rural population of Katihar, Bihar. Ind J Res. 2016; 5:101–3.
12. Kapil U, Khandelwal R, Ramakrishnan L, Khenduja P, Gupta A, Pandey RM, et al. Prevalence of hypertension, diabetes, and associated risk factors among geriatric population living in a high-altitude region of rural Uttarakhand, India. J Family Med Prim Care. 2018; 7:1527.

13. Niranjan GV, Vasundhra MK. A study of health status of aged persons in slums of urban field practice area, Bangalore. Indian J Com Med 21:1-4, 1996
14. Jain NC, Pawar AB, Hadiya Ravjibhai, Bansal RK cited in Morbidity Profile of elderly people in slums of Surat city. National Journal of Community Medicine 2010, Vol.1, Issue 1.
15. Sudha S, Irudaya Rajan S. Female demographic disadvantage in India 1981–1991: Role of sex selective abortions and female infanticide. Development Change. 1999; 30:585–618.
16. WHO. Epidemiology and prevention of cardiovascular diseases in elderly people. Technical report series, 853, 52-53, 1995.
17. Chauhan P, Chandrashekar V. A study on the morbidity pattern among the geriatric people of Venkatachalem village in Nellore district, AP. J Health Sci. 2013;1:48–53.