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Original Article

Community Medicine Section

Estimation of Lifestyle Diseases in Elderly from a Rural Community of Guntur District of Andhra Pradesh

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ABSTRACT

Introduction: Current statistics for the elderly in India give a prelude to a new set of medical, social, and economic problems that could arise if a timely initiative in this direction is not taken by program managers and policy makers.

Aim & Objectives: To identify the burden of lifestyle related disease and its pattern among the elderly in a rural population and to look at socio-economic and gender related issues influencing their morbidity.

Methodology: This cross-sectional study was conducted during January to June 2012 in two villages under the Department of Community Medicine, NRI Medical College in Guntur District of Andhra Pradesh. A total of 1960 families with a population of 9067 were enumerated. All people, 60 years and above were administered a pretested proforma looking into perceived health status and known disease status. Data was entered in WHO Epi info package and analysed for percentages. Chi square test was applied where appropriate.

Results: There were 509 (11.2 percent) elderly female patients and 517 (11.4 percent) male patients (>60 years of age). 52.3 percent of the women and 44.5 percent of the men had some chronic illness. Hypertension was 19 percent and 28 percent in males and females respectively. There was an overall 14 percent of diabetes and 9 percent arthritis. In women, illiteracy, being just a housewife and widowhood were associated with increased lifestyle disease burden.

Conclusion: A significant number of elderly are suffering with chronic illnesses even in rural areas. There is a need to highlight the medical and socio-economic problems that are being faced by the elderly people especially the women in India. Rural health programmes need to also put the health problems of the elderly on par with other health related issues.

Keywords: Elderly, Hypertension, Diabetes, Arthritis, Chronic illness

INTRODUCTION

India has acquired the label of an ageing nation with 7.7 percent of its population being more than 60 years old [1]. This gives rise to a new set of medical, social, and economic problems that require suitable initiatives. 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. According to recent statistics related to elderly people in India, in the year 2001, it was observed that as many as 75 percent of elderly persons were living in rural areas. About 48.2 percent of elderly persons were women, out of whom 55 percent were widows. A total of 73 percent of elderly persons were illiterate and dependent on physical labor. One-third was reported to be living below the poverty line, i.e., 66 percent of older persons were in a vulnerable situation without adequate food, clothing, or shelter. About 90 percent of the elderly were from the unorganized sector, i.e., they have no regular source of income [1].

The illnesses of the elderly are multiple and chronic in nature. People become increasingly susceptible to diseases and disabilities in their old age. The problems of the elderly are aggravated by lack of social security, inadequate facilities for health care, rehabilitation, and recreation. The traditional Indian society and the age-old joint family system have been instrumental in safeguarding the social and economic security of the elderly people in the country. However, with the rapid changes in the social scenario and the emerging prevalence of nuclear family set-ups in India in recent years, the elderly people are likely to be exposed to emotional, physical and financial insecurity in the years to come. The most common health problems of the elderly are related to chronic disease as a result of increase in life expectancy [2].

The 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. The National Policy seeks to assure older persons that their concerns are national concerns and they will not live unprotected, ignored or marginalised. The goal of the National Policy is the well-being of older persons. It aims to strengthen their legitimate place in society and help older persons to live the last phase of their life with purpose, dignity and peace. With advancing age, old persons have to cope with health and associated problems some of which may be chronic, of a multiple nature, require constant attention and carry the risk of disability and consequent loss of autonomy. Some health problems, especially when accompanied by impaired functional capacity; require long term management of illness at times and nursing care [3].

In a survey conducted by the Ministry of Statistics & Programme Implementation in 2011 it was found that nearly 40 percent of persons aged 60 years and above (60 percent of men and 19 percent of women) were working. In rural areas 66 percent of elderly men and above 23 percent of aged women were still participating in economic activity [4].

Lena A et al., showed that a major proportion of the elderly were out of the work force, partially or totally dependent on others, and suffering from health problems with a sense of neglect by their family members. There is a growing need for interventions to ensure the health of this vulnerable group and to create a policy to meet the care and needs of the disabled elderly [5].

The Convention on the Elimination of Discrimination against Women (CEDAW) identified that both men and women face discrimination due to old age, but women experience ageing differently. Gender

relations structure the entire life cycle, from birth to old age, influencing access to resources and opportunities and shaping life choices at every stage. Good health, economic security and adequate housing are essential requirements of ageing with dignity, but older women in both developed and developing countries face difficulties in accessing these on a basis of equality with men [6].

With an overwhelming majority of geriatric care being offered in tertiary hospitals in urban areas, the rural elders face medical indifference. Not only hospital care, but elder nursing homes, recreation facilities and old age centers are overwhelmingly present in urban areas. With such a huge mismatch in the urban-rural population and health care system, geriatric medicine in India faces an uphill task [7].

The increasing numbers of elderly men and women in rural India calls for special efforts by health programmes to cater to their special needs. Governmental health agencies in rural areas are caught up in providing mostly Maternal and Child Health Services and the health of the elderly is currently not a priority. This study seeks to identify the disease burden especially related to lifestyle in the geriatric population in two villages in Andhra Pradesh state. An attempt is also made to look at socio economic and gender related issues influencing morbidity patterns in the elderly.

MATERIAL AND METHODS

As a part of routine surveys under the Rural Health Training Center (RHTC) served by the Community Medicine department of the NRI Medical College in Guntur district of Andhra Pradesh, two villages (Chinakakani and Peddaparimi) with a total of 1960 families and a population of 9067 were enumerated during January to June 2012. Families having an elderly person aged 60 years (517 men and 509 women) or more were listed out. After obtaining consent from each of the elderly, a pre designed and pretested proforma was applied to enquire into their perceived health status and known diseases with an emphasis on lifestyle diseases.

Data was entered in Excel and analysed with Epi Info statistical package for percentages and parametric tests like chi square test where feasible.

RESULTS

11.31 percent of the population was above 60 years of age (517 men, 509 women). 45.5 percent of the men and 52.3 percent of the women had some lifestyle illness. Though 5-year age intervals show approximately equal number of males and females [Table/Fig-1] there are more women in the younger elderly (between 60 to 69 years of age). [Table/Fig-2] shows that there are significantly more women with chronic lifestyle related illnesses than men (Chi-Square – 4.75, p 0.029) in the study area. Distribution of disease status by age intervals and gender showed increased disease burden in women in the 60 to 69 age group [Table/Fig-3]. Women who considered themselves primarily as housewives seemed to suffer more from life style diseases. So was the situation with widowed women when compared to men. Women who have had no schooling (illiterate) were significantly suffering with lifestyle diseases when compared to men. More number of elderly males who continued to be involved in some occupation were relatively free from illness [Table/Fig-4]. More elderly women were suffering with Hypertension and arthritis while diabetes was almost equal in both sexes. Respiratory diseases were slightly higher in elderly men [Table/Fig-5]. More men had multiple health problems (more than three diseases) when compared to women [Table/Fig-6].

DISCUSSION

Moneer A suggests that almost in every state in India, the aged are concentrated in rural areas and need to be weighed accordingly in

Age intervals	Males	%	Females	%
60 - 64	179	34.60%	184	36.10%
65 - 69	102	19.70%	116	22.80%
70 - 74	118	22.80%	98	19.30%
75 - 79	65	12.60%	39	7.70%
80 - 84	33	6.40%	50	9.80%
85 - 89	10	1.90%	9	1.80%
90 - 94	9	1.70%	11	2.20%
95 - 100	1	0.20%	2	0.40%
Total	517		509	

[Table/Fig-1]: Age and gender distribution of the elderly seen in the study population

Chronic Disease	Females	Males	Total
Yes	266 (52.3%)	235 (45.5%)	501
No	243 (47.7%)	282 (54.5%)	525
Total	509	517	1026

[Table/Fig-2]: Distribution of disease in elderly according to gender
Chi Square - 4.75 (*p*-value 0.03) Odds 1.31 (95%CI 1.02–1.69)

Age intervals	Elderly women with chronic disease	% of total females (509)	Elderly men with chronic disease	% of total males (517)	Total
60 - 64	96	18.9	67	13	163
65 - 69	68	13.4	44	8.5	112
70 - 74	52	10.2	65	12.6	117
75 - 79	22	4.3	39	7.5	61
80 - 84	17	3.3	12	2.3	29
85 - 89	5	1	5	1	10
90 - 94	5	1	3	0.6	8
95 - 100	1	0.2	0	0	1
Total	266	52.3	235	45.5	501

[Table/Fig-3]: Distribution of disease status by age intervals & gender
Chi square 15.96 (*p*-value 0.0069)

Factors	Disease present	Disease absent	Chi Square	p-value
Occupation stated as housewife in women	104 (59.4%)	71 (40.6%)	5.49	0.009
Elderly males continuing to work	157 (42.3%)	214 (57.7%)	4.89	0.026
Marital status "widow" in elderly women	97 (55.1%)	79 (44.9%)	4.01	<0.05
Illiteracy in women	179 (67.3%)	87 (32.7%)	15.82	0.0006

[Table/Fig-4]: Significant demographic data

S. No.	Disease	Females (n=509)	%	Males (n=517)	%	Chi square	p-value
1	Hypertension	148	29.1	96	18.6	15.62	0.00007
2	Diabetes	65	12.8	76	14.7		
3	HTN & DM	38	7.5	36	7		
4	Arthritis	54	10.6	39	7.5	2.92	0.08
5	Neurological diseases	7	1.4	15	2.9		
6	Respiratory diseases	17	3.3	24	4.6		
7	Gastro-intestinal diseases	17	3.3	17	3.3		
8	Coronary Heart Disease	15	2.9	18	3.5		

[Table/Fig-5]: Disease patterns in elderly distributed by gender

No. of health problems	Females	Males	Total
3	5	10	15
2	73	63	136
1	266	236	502
0	165	208	373
Total	509	517	1026

[Table/Fig-6]: Multiple health problems vs gender in Elderly
Chi Square - 9.09 (p-value <0.05)

formulations of old age policies. He also suggests that feminization of ageing; widowhood and rapid growth of the older old are emerging issues for researchers, service providers and insurers [8].

Yadava KN et al., in Uttar Pradesh's Varanasi district found the incidence of illness after age 60 years was 77 percent among women and 61 percent among men [9]. Shankar R et al. found that 88 percent of elderly were suffering with one or more illness. These figures are much higher than the findings in the present study. Hypertension was 18.6 percent and 29.1 percent in males and females respectively. This higher occurrence of hypertension is also seen in the present study. In agreement with the present study, prevalence of diabetes alone was 13.7 percent and people with both diabetes and hypertension 7.2 percent [10]. However Dharamvir RB et al., in Puducherry found that 43 percent of the participants were diabetic and 47.7 percent hypertensive Among other lifestyle diseases, 2.9 percent had heart disease, 2.4 percent respiratory disease, 2.2 percent acid peptic disease and 7.1 percent arthritis [11]. In a study done by Dev A.B. et al., it appears that the major health needs of elderly Indians include effective preventive and treatment measures for four common medical problems (hypertension, ischaemic heart disease, diabetes and chronic obstructive airways disease) [12].

Elderly men who are engaged in income generating work seem to be in better health. Widows seem to be more prone for chronic lifestyle diseases. Bennet KB argues that the effects of bereavement on older women may be more profound than has previously been recognised. The effects on both mental health and morale continue to have an impact several years following the loss of the spouse [13].

Dzakula A suggests that women who see themselves in the role of housewives are also at risk for illnesses. They also had lower self-assessed quality of life. Housewives differed from retired women of the same age in objective and subjective measures of health status, use of health care services, self perceived health, and self-assessed quality of life [14].

According to Lena A., poor literacy in women puts them at a higher risk for lifestyle diseases. The impact of gender inequalities in respect of education and employment opportunities and access to health services widens at every stage of individual life. As a result, older women are more likely than older men to suffer due to poverty and deprivation of basic needs. Her study showed that a major proportion of the elderly were out of the work force, partially or totally dependent on others, and suffering from health problems with a sense of neglect by their family members [5].

Pallavi Banjare and J. Pradhan using the 60th round of National Sample Survey (NSS-2004) data state that poor economic status (57 percent) economical dependency (22 percent) and living in rural areas (17 percent) contribute to about 96 percent of predictable socioeconomic inequalities in self rated poor health status of the elderly [15].

CONCLUSIONS

There is a significant burden of disease on the elderly living in rural areas. The burden seems to be more in elderly women. Disease patterns show higher occurrence of hypertension and bone related illness in elderly women. Illiteracy in women indirectly leads to unhealthy aging. Elderly people, especially men who are still actively involved in some occupation are less affected by illness. Widows and women who regard themselves as just housewives had a higher amount of lifestyle disease.

SUGGESTIONS

There is a need to address the problem of lifestyle diseases in rural India especially among the elderly. We need a fundamental shift in the way we think about older people, from dependency and deficit towards independence and well-being.

Doctors have to be trained to handle the illnesses associated with aging and health care must be subsidised for the elderly (geriatric units in hospitals & highly subsidised medicines).

Early inputs of healthy aging practices should be instituted in communities with special focus on women. There is need to have some form of occupational avenues for elderly in villages.

Community members and health care systems must be sensitized to the health problems of the elderly. Efforts must be made to bring "Care for the elderly" within Primary Health Care.

Case management and chronic disease management systems must be accompanied by processes that identify and support at risk older people before poor health and disease become established. Case finding using validated tools to identify older people with potential risk factors would be a good method [16].

LIMITATIONS

Self perceived health conditions and known disease status was used to collect information. The elderly were not examined to confirm illness.

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