

Evaluation of Appropriate Measures to Meet the Health Requirements to Reduce Morbidity and Improve Quality of Living of Geriatric Population

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Received: 27-09-2022 / Revised: 30-10-2022 / Accepted: 12-11-2022

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Conflict of interest: Nil

Abstract

Background: With myriad health problems, suitable health services are needed for this ever-increasing segment of the population. However, most of the hospitals in India (both private and government) do not have an exclusive geriatric unit to provide better support system to the older population. Often, the early diagnostic process among the older people is ignored as symptoms are considered to be a part of ageing process. The ideal healthcare system for senior citizens should be economical, accessible, all-inclusive, and ensure continuity over both time and in terms of content.

Aim: Evaluation of appropriate measures to meet the health requirements to reduce morbidity and improve quality of living of geriatric population.

Methods and Materials: After establishing trust and maintaining anonymity, the person was interviewed and examined, and information was gathered using a pre-made questionnaire. There was analysis regarding the access of primary health care among geriatric population of rural India, number of medical camps witnessed by the elderly population in last month, last one year, last 5 years or never witnessed any medical camp. There was evaluation regarding presence of any systemic disorder, socioeconomic status, type of medicine commonly used

Results: In this study 10.2% of geriatric population in rural India had good access to primary care hospitals. 23.4% of geriatric population in rural India had satisfactory access to primary care hospitals. 9.5% of study participants had no idea about the presence of primary care hospital. It was observed that most of the study participants 44.62% had witnessed a government organized medical camp 5 years back. 23.42% of study participants had witnessed medical camp once in year while only 10.12% study participants had witnessed medical camp once in month. 21.82% of study participants had never faced any medical camp in their life.

Conclusion: The results from this study has reflected the fact that status of healthcare facilities available to geriatric population in rural India is not satisfactory and there is serious need to appropriate measures to meet the health requirements to reduce morbidity and improve quality of living of geriatric population.

Keywords: Appropriate Measures, Health Requirements, Geriatric Population

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Introduction

The Government of India launched the National Policy for Elderly Persons (NPOP) in January 1999 with the aim of providing older people with a number of advantages. geriatric population growth, the economy and social climate altering, advances in science, technology, and medicine, as well as the high levels of destitution among old rural poor people. Elderly women are more likely than older males to be dependent on their offspring and experience loneliness. The elderly is impacted by social disadvantage and exclusion, privatisation of health services, and shifting patterns of morbidity. These were the few elements that helped establish the "National Policy for Senior Citizens 2011," a new policy [1,2].

The current benefits for elderly people in terms of economic security, health care, safety, and housing will be updated in accordance with this. Additionally, the policy has considered post-retirement employment for productive older adults, a senior citizen welfare fund, an emphasis on intergenerational relationships by incorporating pertinent educational material into school curricula, and the use of the media to raise awareness of age-related issues. The formation of a department for senior citizens under the Ministry of Social Justice and Empowerment is something the government will work toward as part of the policy's implementation. the creation of senior citizen directorates within states and union territories, national and state commissions, and the national council for seniors. Several ministers will assist in putting this policy into action, and Block Development Offices, Panchayati Raj Institutions, and Tribal Councils/Gram Sabhas will also be involved [3-5].

Orthopaedic/musculoskeletal/ailments involving arthritis, rheumatism, and osteoarthritis were the most prevalent form of illness, followed by hypertension, according to a UNFPA report. Ailments affecting the cardiovascular system

(cerebral strokes) and the respiratory system (chronic obstructive pulmonary disease or COPD, bronchitis) as well as mental health conditions had lower prevalence rates. Other conditions with relatively high prevalence levels include cataract, diabetes, asthma, and heart disease [6-9].

The 60th round of the National Sample Survey (NSS), conducted in 2004, evaluated senior people's self-perceived current health status. About 70.67% of people in rural areas rate their health as good or fair, while 24.45% report being in "bad" health. Just 4.88% of seniors reported having excellent or very good health. Additionally, when asked how they saw their health status had changed "over time" (i.e. during the previous year), 53.42% responded that it had remained "roughly the same." 30.01% believe it to be "slightly worse," 7.48% believe it to be "somewhat better," and 7.40% believe it to be "worse." [10-14]. The elderly's use of healthcare was also evaluated, and it was discovered that the majority of them seek outpatient and inpatient care in the private sector. This study. was carried out appropriate measures to meet the health requirements to reduce morbidity and improve quality of living of geriatric population

Method and Materials

This study was carried out among geriatric population in rural India. The sample size of this study was 440 geriatric study participants. The study was conducted to Evaluation of appropriate measures to meet the health requirements to reduce morbidity and improve quality of living of geriatric population

Inclusion Criteria

The study comprised all elderly participants living at the recruited house who were 60 years of age or older. Only one elderly person was included in cases when there were multiple geriatric subjects present, ideally the oldest.

Exclusion Criteria

Elderly people who didn't give their consent. Selected geriatric patients are absent at the second visit.

Analysis

In the chosen home, a geriatric person's verbal agreement was requested. If the subject resisted, an elderly person's house was then visited by an enlisted soldier. Additional interviewing and examination of the information at hand confirmed the subject's age. If the chosen subject wasn't there during the initial visit, the house was noted and a second visit was organised. After establishing trust and maintaining anonymity, the person was interviewed and examined, and information was gathered using a pre-made questionnaire.

There was analysis regarding the access of primary health care among geriatric population of rural India, number of medical camps witnessed by the elderly population in last month, last one year, last 5 years or never witnessed any medical camp. There was evaluation regarding presence of any systemic disorder, socioeconomic status, type of medicine commonly used

Statistical Analysis

Data was gathered, coded, and then entered into SPSS software 23.0. From this, straightforward tables and correlation charts were created and examined. Utilizing the software epi-info version 7, statistical analysis was conducted utilising inferential methods (average, mean, percentages, and chi-square test).

Results

Majority of study subjects preferred homeopathic system of medicine (34.09%) closely followed by allopathic system of medicine (30.68%) and ayurvedic system of medicine (30.45%). (Table 1) Most of

the geriatric population of rural India (56.9%) had poor access to primary care hospitals.

In this study 10.2% of geriatric population in rural India had good access to primary care hospitals. 23.4% of geriatric population in rural India had satisfactory access to primary care hospitals. 9.5% of study participants had no idea about the presence of primary care hospital. (table 2). It was observed that most of the study participants 44.62% had witnessed a government organized medical camp 5 years back. 23.42% of study participants had witnessed medical camp once in year while only 10.12% study participants had witnessed medical camp once in month. 21.82% of study participants had never faced any medical camp in their life. (table 3). Majority (59.09%) of the study subjects belonged to lower middle class. 21.59% belonged to upper lower class. 10.45% belonged to upper middle class and 8.6% belonged to lower class. Only one male elderly belonged to upper class. (table 4, graph1)

Maximum number of elderlies were illiterate (63.63%). The proportion of females (68.45) illiterate was much higher than that of males (60.07%). 4.09% had just literate education. 11.82% had primary education while 5.68% were educated till middle school. 8.18% of the elderly were high school pass while only 6.60% had secondary education. (table 5, graph 2)

Majority of elderly (59.54%) suffering from any type of systemic disease were in the age group of 60 – 74 years (young old, followed by 29.32% in the age group of 75 – 84 years (middle old) and 11.14% in 85 years and above. Majority of the subject with systemic disorders were males (57.5%). The mean age of the study subject suffering from systemic disorders was 68.23+7.9 years. (table 6, graph3)

Table 1: Preferred System of medicine

System of medicine preferred	Males		Females		Total	
	No. (253)	% (100)	No. (187)	% (100)	No. (440)	% (100)
Allopathy	202	79.84	117	62.56	319	72.5
Ayurveda	28	11	32	17.11	60	13.63
Homeopathy	15	5.92	28	14.97	43	9.77
Unani	05	1.98	4	2.14	9	2.04
Others	03	1.19	6	3.21	9	2.04

Table 2: Information regarding access to hospitals among geriatric population in rural areas

	Percentage	P value
Good	10.2	
Satisfactory	23.4	0.001
Poor	56.9	
No idea	09.5	

Table 3: Information regarding conduction of medical camps among geriatric population in rural areas

	Percentage	P value
Once in year	23.42	
Once in month	10.12	0.002
Once in 5 years	44.62	
Never	21.82	

Table 4: Distribution of study subjects according to Socio Economic Status.

Socio economic status	Males		Females		Total	
	No.	%	No.	%	No.	%
Upper	01	0.39	00	00	01	0.23
Upper Middle	24	9.49	22	11.75	46	10.45
Lower Middle	148	58.50	112	59.89	260	59.09
Upper Lower	59	23.32	36	19.25	95	21.59
Lower	21	8.30	17	9.09	38	8.64
Total	253	100.00	187	100.00	440	100.00

* Modified BG Prasad classification

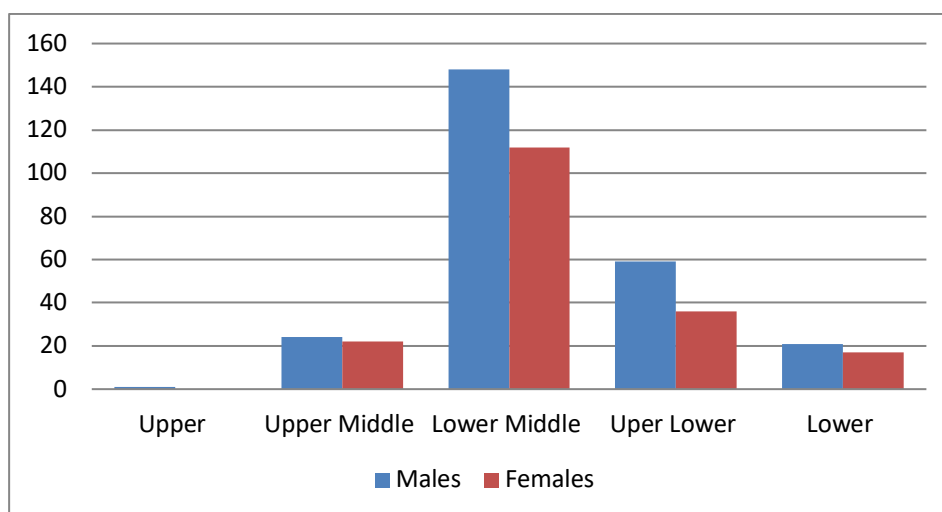


Figure 1: Distribution of study subjects according to Socio Economic Status

Table 5: Distribution of study subjects according to education

Education	Males		Females		Total	
	No.	%	No.	%	No.	%
Illiterate	152	60.07	128	68.45	280	63.63
Just literate	10	3.95	08	4.27	18	4.09
Primary	40	15.82	12	6.42	52	11.82
Middle	16	6.33	09	4.82	25	5.68
High School	22	8.69	14	7.49	36	8.18
Intermediate	13	5.14	16	8.55	29	6.60
Graduate & above	-	-	-	-	-	-
Total	253	100.00	187	100.00	440	100.00

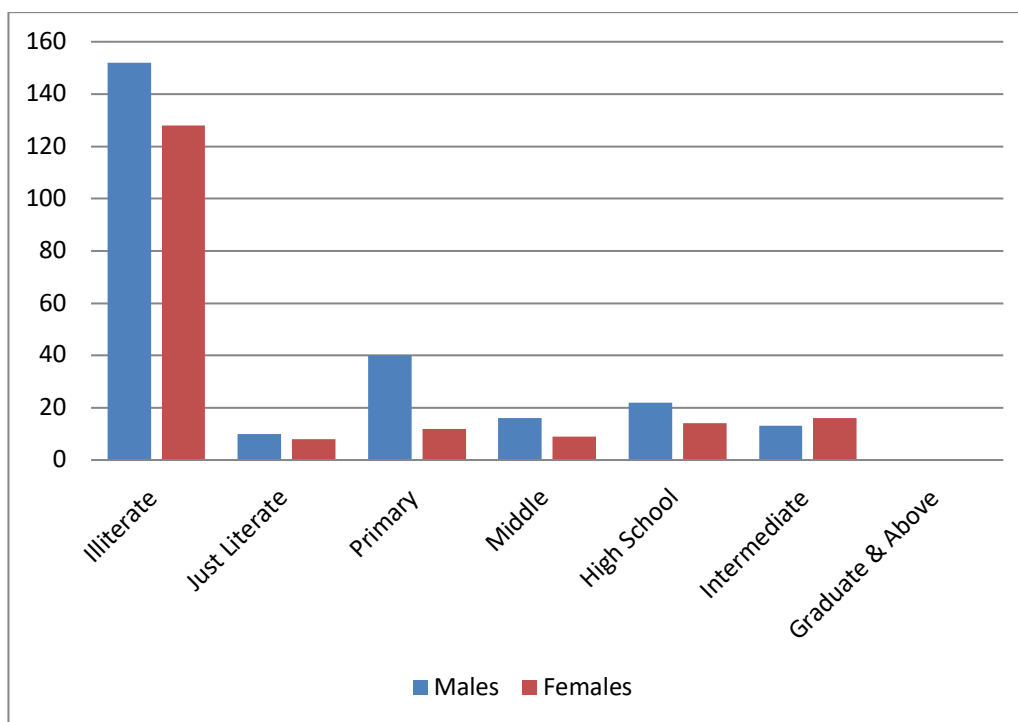


Figure 2: Distribution of study subjects according to education

Table 6: Distribution of study subjects according to abnormal systematic conditions

Age Group (years)	Males		Females		Total	
	No.	%	No.	%	No.	%
	253	57.5	187	42.5	440	100
60 – 74	162	64.03	100	53.48	262	59.54
75 – 84	67	26.48	62	33.1	129	29.32
> 85	24	9.49	25	13.37	49	11.14
Total	253	100.00	187	100.00	440	100.00

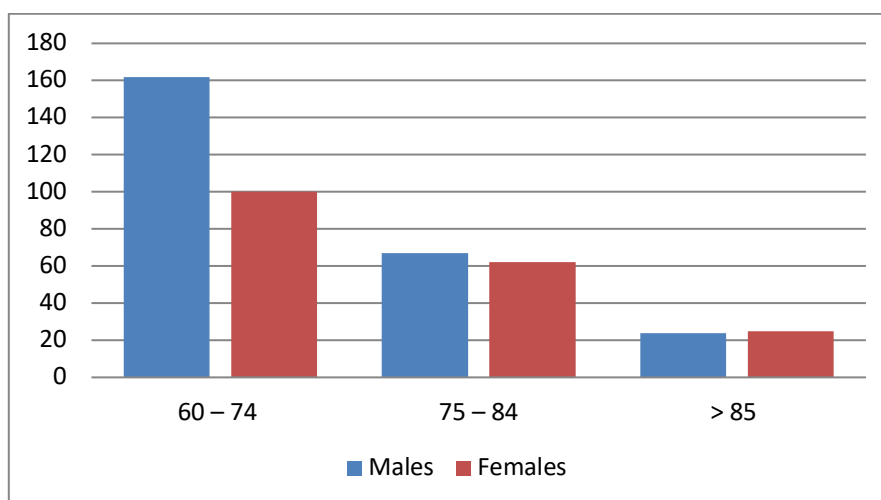


Figure 3: Distribution of study subjects according to presence of any systemic disorders.

Discussion

Distribution of study subjects according to the system of medicine they prefer showed that majority of elderly subjects preferred allopathic system of medicine (72.5%), followed by Ayurveda system of medicine (13.63%). Other systems were also preferred like Homeopathy and Unani. Similar findings were seen in a study in rural population of Haryana where the preferred system was allopathy (48.9%) followed by rest [12-15].

Majority of elderly (59.54%) suffering from any type of systemic disease were in the age group of 60 – 74 years (young old), followed by 29.32% in the age group of 75 – 84 years (middle old) and 11.14% in 85 years and above. Majority of the subject with systemic disorders were males (57.5%). The mean age of the study subject suffering from systemic disorders was 68.23±7.9 years.

A study conducted by Narapureddy et al. (2012) in rural area of Solapur district in Maharashtra observed out of 411 elderly persons suffering from systemic disorders, 214 (52.1%) were males and 197 (47.9%) were females (39). Similar findings were found in another study conducted by Piramanayagam et al (2013) showing out of 594 elderly persons suffering from systemic disorders, 309 (52.1%) were males and 285 (47.9%) were females [13-16].

In this study 10.2% of geriatric population in rural India had good access to primary care hospitals. 23.4% of geriatric population in rural India had satisfactory access to primary care hospitals. 9.5% of study participants had no idea about the presence of primary care hospital. (table 2).

It was observed that most of the study participants 44.62% had witnessed a government organized medical camp 5 years back. 23.42% of study participants had witnessed medical camp once in year while only 10.12% study participants had witnessed medical camp once in month. 21.82% of study participants had never faced any medical camp in their life.

In our study maximum number of elderlies were illiterate (63.63%). The proportion of females (68.45%) illiterate was much higher than that of males (60.07%). 4.09% had just literate education. 11.82% had primary education while 5.68% were educated till middle school. 8.18% of the elderly were high school pass while only 6.60% had secondary education. There was a difference between literacy status of male and female elderly. Analogous findings reported by Hakmaosa et al were 69.5% illiterate, 19.7% had primary education whereas 5.9% had middle school education and only 0.3% had postgraduate education (67). On the contrary, a study by Bhatt R et al conducted in Ahmadabad (2011) showed

that 23.45% were illiterate followed by 45.9% had primary education. 23.4% secondary education 5.5% higher education 1.8% graduate education. This difference can be explained on the local demographic characteristics.

The population was classified by modified B.G. Prasad classification. Considerable proportion of study subjects (59.09%) belonged to lower middle class, 21.59% belonged to upper lower class followed by 10.45% belonged to upper middle class and 8.64% belonged to lower class. Only one male elderly was found belonging to upper class. The findings of the present study are supported by an analogous study by Ravishankar showing 51.25% of study subjects belonged to 'Lower' socioeconomic status. Corroborative findings were found by R Prakash where major portion of elderly subjects belonged to lower socioeconomic status. This can be attributed to the study setting of the study which is in rural field practice area.

In this study 72.27% of the study subjects were fully dependent on other financially as majority are not working and do not have a regular source of income. On the other hand, only 27.73% were economically independent but had unorganized sectors as source of money. Corroborative findings supporting this were found in a study by Narapureddy *et al* where 25.55% of elderly subjects were independent [11-18].

The results from this study has reflected the fact that status of healthcare facilities available to geriatric population in rural India is not satisfactory and there is serious need to appropriate measures to meet the health requirements to reduce morbidity and improve quality of living of geriatric population.

With myriad health problems, suitable health services are needed for this ever-increasing segment of the population. However, most of the hospitals in India (both private and government) do not have an exclusive geriatric unit to provide better support system to the older population.

Often, the early diagnostic process among the older people is ignored as symptoms are considered to be a part of ageing process.

The ideal healthcare system for senior citizens should be economical, accessible, all-inclusive, and ensure continuity over both time and in terms of content. The elderly should receive services for health promotion and disease prevention such as health education (exercise, diet), general health screenings (blood pressure, blood sugar, cholesterol, eyesight), uterine cervix cancer screenings, and programmes specifically designed for health promotion (smoking cessation, immunization, nutritional supplementation) (ii) curative services, such as early detection and treatment of serious health issues in secondary healthcare facilities, early detection and treatment of serious health issues in secondary healthcare institutions (district hospitals, general hospitals), and tertiary care institutions (medical schools), as well as chronic care in long-term care facilities and/or home health care programmes. (iii) mental health services like counselling for adjustment (ageing, retirement, relocation, widowhood, and bereavement), drug and substance abuse, and ambulatory treatment for mental diseases. rehabilitative services like physiotherapy, restorative surgery, prosthesis, occupational therapy, and long-term care for cognitive impairment. This system will require participation from health professionals at all levels (doctors, nurses, community health workers). medical schools, long-term care facilities, and/or programmes for home health care, and chronic care [19].

Conclusion

The results from this study has reflected the fact that status of healthcare facilities available to geriatric population in rural India is not satisfactory and there is serious need to appropriate measures to meet the health requirements to reduce morbidity and improve quality of living of geriatric population

References

1. Shankar R, Tondon J, Gambhir IS, Tripathi CB. Health Status of Elderly population in rural area of Varanasi district. *Indian J Public Health* 2007; 51:56-8.
2. Diet. Nutrition and the Prevention of Chronic Diseases. Report of a joint WHO/FAO Expert Consultation. Available from http://www.who.int/trs/WHO_trs_916 Inst accessed on 10.09.15.
3. Saxena V, Kandpal SD, Goel D, Bansal S. Health Status of Elderly-A Community Based Study. *Indian J Community Health* 2012; 24:269-74.
4. Goel PK, Garg SK, Singh JV, Bhatnagar M, Chopra H, Bajpai SK. Dietary Habits and nutrition stats of elderly in a rural area. *Help age India – Research and Development Journal* 2016; 12.
5. Goel PK, Garg SK, Singh JV, Bhatnagar M, Chopra H, Bajpai SK. Awareness, accessibility and utilization of health care services by elderly in a rural population of Northern India. *Indian J Geront.* 2005; 19:487-91.
6. Goswami A, Reddaiah VP, Kapoor SK, Singh B, Dey AB, Dwiedi SN et al. Health Problems and Health Seeking Behaviour of the rural Aged. *Indian J Geront.* 2005; 19:163-80
7. National Policy for Senior Citizen, Available from http://www.socialjustice.nic.in/pdf/dnp_sc.pdf last accessed on 1.10.15.
8. Goel PK, Garg SK, Singh JV, Bhatnagar M, Chopra H, Bajpai SK. Unmet Needs of the elderly in a rural population of Meerut. *Indian J Community Med* 2003; 28:165-6.
9. Krishanapa L et al. Functional Disability among elderly persons in a rural area: Do we have the right assessment tool? *IJPH.* 2014; 58 (4):285-286.
10. Piramanayagam A *et al* 2013. A Cross Sectional study of the Morbidity Pattern among the Elderly People: South Indian. *Inter J of Med Res and Health Sci.* 2(3): 372-9.
11. Chakrabarty D, Mandal PK, Manna N, Mallik S, Ghosh P, Chatterjee C et al. Functional Disability and Associated Chronic Conditions among Geriatric Populations in a rural community of India. *Ghana Med J* 2010; 44:150-54.
12. Mohapatra SC, Shah AK, Gambhir IS, Singh IJ, Mishra NK. Nutritional status in elderly people Varanasi District. *Indian J Prev Soc Med* 2009; 40:151-6.
13. Lena A, Ashok K, Padma M, Kamath V, Kamath A. Health and Social problem of the elderly: A cross-sectional study in Udipi Taluk, Karnataka. *Indian J Community Med* 2009; 34:131-4.
14. Global health and ageing. Available from http://www.who.int/ageing/publications/global_health.pdf Inst accessed on 30.08.15
15. Alam, Moneer, Karan, Anup. 2011. Elderly Health in India: Dimension, Differential and Determinants, BKPAI working paper No. 3, United Nation Population Fund (UNFPA) New Delhi. Available from <http://www/isec.nc.in>
16. Thakur RP, Banerjee A, Nikumb VB. Health Problems among the Elderly. A cross-Sectional study, *Ann Med Health Sci Res* 2013; 3:19-25
17. Karmarkar PR, Chattopadhyay A. A study on morbidity pattern and care seeking behavior of elderly in a rural area of West Bengal, India *International journal of Basic and Applied Medical Sciences.* 2012; 2:221-7.
18. Agrawal S, Deoj, Kotwal AS, Verma AK. Geriatric Health Need to make it an essential element of primary health care. *Indian J Public health* 2011; 55:25-9.
19. Tiwar S, Sinha AK, Patwardhan K, Gehlot s, Gambhir IS, Mohapatra SC. Prevalence of health problems among elderly: a study in a rural population of Varanasi. *Indian J. Prev. Soc. Med* 2010; 41:226-30.