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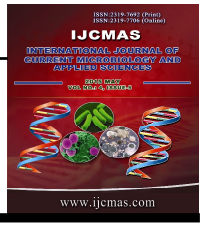

Original Research Article

Healthcare services utilization by geriatric population in rural area of District Bareilly, India

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A B S T R A C T

Utilisation of healthcare services refers to the accessibility and affordability of the household to avail services pertaining to health, particularly the poor household in which the elderly lived. It is well known that people in rural India are more vulnerable to death by diseases because they are not utilizing the health care facilities. The reasons of not utilizing the healthcare facilities are unawareness, illiteracy, lack of facility available in their village.With this background, current study was conducted to study healthcare service utilization amongst elderly residing in rural area in District Bareilly. A Cross sectional study was conducted from May 2013 to Apr 2014 amongst the families registered with RHTC of Department of Community Medicine, SRMS IMS at Bareilly, UP. A sample size of 200 was calculated considering prevalence of utilisation of healthcare services amongst elderly aged 60 years or more to be 68% as reported by Sanjel S et al and taking relative allowable error of 10%. Systematic random sampling was employed to select the elderly and appropriate statistical tests were used where required. 41.4 % elderly had fallen sick in the last six months and common ailments included diarrhoea, cold, pain in lower limbs and weakness. 65% of the elderly had sought medical care for their ailments. Eight percent elderly needed hospitalization and the commonest reasons were weakness (33%) followed by diarrhoea (24%). Allopathy (72%) followed by home remedies (13%) were preferred by rural elderlies for relieving themselves. Commonest reasons for not seeking healthcare services were affordability (37%) followed by other reasons including ailment not serious, no faith in doctors and ignorance.

Keywords

Geriatric, Healthcare service utilization, Socio-demographic

Introduction

The proportion of people aged over 60 years is growing faster than any other age group in almost every country which can be attributed to longer life expectancy, declining birth rates, expansion of healthcare services in quality and quantity.[1]

Population ageing not only tells a success story of public health policies and of socioeconomic development, but also poses challenges on the society to adapt, in order to maximize the health and functional

capacity of older people as well as their social participation and security.[1]

Older people in developing countries have around three times the number of years lost to premature death from heart disease, stroke, and chronic lung disease. They also have much higher rates of visual impairment and hearing loss. Many of these problems can be prevented easily and cost effectively by changing the lifestyle and adopting healthier habits. Good health is the key if older people are to remain independent and play an active part in family and community life. Health promotion and disease prevention activities for life can prevent or delay the onset of non-communicable and chronic diseases, such as heart disease, stroke and cancer.[2]

Utilisation of healthcare services refers to the accessibility and affordability of the household to avail services pertaining to health, particularly the poor household in which the elderly lived. Rural areas lack healthcare services where 70% India live. Old people health status in India is impacted due to lack of health facilities in rural areas. Large numbers of older people live under poverty resulting into their poor health and geriatric health care gets little attention. Utilisation of healthcare services could save unnecessary death among elderly.[3]

With this background, current study was conducted to study healthcare service utilization amongst elderly residing in rural area in District Bareilly.

Material and Methods

A Cross sectional study was conducted from May 2013 to April 2014 amongst the families residing in villages in the catchment area of Rural Health Training Center (RHTC) of Department of Community Medicine, SRMS IMS at Bareilly, UP.

All persons aged 60 years or more as on 1st May 2013, permanently residing in the families residing in the field practice areas of RHTC for past one year, who were not very sick and willing to participate were included in the study.

A sample size of 200 was calculated considering prevalence of utilisation of healthcare services amongst elderly aged 60 years or more to be 68% as reported by Sanjel S et al[4] and taking relative allowable error of 10%.

The Rural area were selected randomly from the areas served by RHTC using lottery method. Slips were made for all the 24 villages served by RHTC and randomly one was picked, which came out to be Miyanpur. The population of Miyanpur village is 992 out of which 58 are elderly aged 60 years and above. Then, in a similar fashion another village was selected from the remaining 23 slips which came out to be Parsunagla. The population of Parsunagla village is 1,226 out of which 80 are elderly aged 60 years or older. Likewise, one more village was selected from the remaining 22 slips which came out to be Ishapur. The population of Ishapur village is 2,364 out of which 163 are elderly aged 60 years and older. Complete household-wise lists of inhabitants of the areas was generated and all the elderly aged 60 years and above meeting the inclusion criteria were surveyed till the desired sample size was achieved.

House to house visits were made and face-to-face interview was conducted in the presence of one family member, preferably care-taker of the elderly or closely related. Information about the purpose of study was given to all study subjects, rapport was developed and voluntary consent was taken before filling the pre-designed, pre-tested semi-structured questionnaire.

Information was collected on general demographic parameters, socio-economic status and utilization of healthcare services which included awareness regarding health facilities present near them, their distance, preference of system of medicine and center. Information regarding OPD and IPD services was also collected along with Geriatric welfare services and their overall satisfaction.

Statistical Analysis: Data were entered using Microsoft Excel 2010 and statistical analysis was done using IBM SPSS v 20.0.0. Categorical variables were analysed using proportions and percentages. Association between categorical variables was established by Chi square and odds ratio (OR) with 95% confidence intervals (CI) where applicable. Continuous variables were summarized by mean and standard deviation (SD), and association tested by parametric tests.

Results and Discussion

Table 1 shows that highest proportion of study subjects were in the age group of 60-70 years (83%) followed by 71-80 years (13%) and least in age group above 80 years old (4%). It is also evident that all age groups had higher proportion of females. Majority of the study subjects were Hindus (60%).

Highest proportion of individuals were married (67%). Education status of highest proportion of individuals was below primary (36.5%) followed by no formal schooling (32.5%), primary (19%) and still lesser for higher education. Occupation of most of the women was housewives (73.5%) and that of most of the men was landless agricultural labourers (48%) followed by other labour workers (31.4%). Socioeconomic status of most of the subjects was medium (73.5%) followed by low (16.5%) and least had a high SES (10%).

Figure 1 shows that in the past six months, 41% of the study subjects had fallen ill with one or more ailments. Of these 41%, 35% (14.35% of whole) did not seek any kind of treatment for their health problems. Amongst the reasons given for not availing any healthcare service by these 35% subjects, most common was affordability (36%) followed by long waiting time and long distances. Among other reasons for not seeking treatment included non-availability of doctor at government institutions, distrust towards doctors, notion that medicines do more harm than good, belief that ailment is trivial and needs no treatment and also faith that illness was due to wrath of the Gods and would be gone on its own when the Gods are pleased.

Figure 2 shows that the preferred system for taking treatment for most of the subjects was Allopathic (72%), followed by home remedies (13%), Homeopathic (8%), Ritualistic healer (4%) and Ayurvedic (3%) when they had the chance to choose from any of these.

It is evident from table-2 that 83.3% of elderly people aged 81 years and above were taking the treatment followed by 63.7% in the age group of 60-70 years. Separated or Widowed (76.7%) were found to be visiting the health facility more often than currently married (57.7%). Elderly with education high school and above (84.2%) were found to be taking the treatment more than elderly with no formal schooling (37.5%). Health services utilisation was found to be maximum among the subjects belonging to medium class (75.5%) followed by low socioeconomic status (50%). It was also observed that males (68.8%) were found to

be visiting the health facility more frequently than females (59.4%).

Out of the 200 elderly persons, 102(51%) and 98 (49%) were females. Sex distribution of the present study is comparable to a study in Allahabad by Narapureddy et al[5]where also males (52.1%) and females (42.9%) were found in almost equal proportions. Maximum number of elderly subjects (83%) were found in the age group of 60-70 years followed by 13% belonging to 71-80 years. Age distribution of elderly subjects is comparable to a study by Muralidhar et al[6] where also maximum (64.5%) of the study subjects were of the 60-69 years followed by 25.7% belonging to 70-79 years. Other studies conducted by Anjali et al[7], Rajan et al[8] and South Korean Ansan Geriatric cohort study have reported similar age distribution.[9]

Majority of the elderly subjects in the study were Hindus (60%) followed by Muslims (40.0%) which is in accordance with the findings of Muralidhar et al[6] where too majority of the elderly subjects were Hindus (77.5%) followed by Muslims (10.5%).

Among the study population,67% were currently married and 33% were widowers which is consistent with the findings of a study in Allahabad where (61.1%) and (37.5%) were currently married and widowers respectively. Study by Sanjel S et al[4] among elderly population in Dhulikhel municipality in Nepal also found 65% of study population as currently married 33% as widowed.

Education status of highest proportion of individuals was below primary (36.5%) followed by no formal schooling (32.5%), primary (19%) and still lesser for higher education. The above findings are comparable to a study by Sanjel S et al[4] in Nepal where majority of the elderly population were illiterate (39%) and the least population (4.5%) was found to be of the order of higher secondary level and above.

Majority of the study subjects belonged to Medium socioeconomic status followed by low socioeconomic status which is contrary to the findings of Mitra et al[10] study in Lucknow where maximum subjects belonged to poor socioeconomic status (75%).

In the present study, 65% of the elderly subjects were found to be utilizing the health services which is almost similar to the findings of Sharma et al[11] study in Shimla where 65.8% of the subjects were found to be seeking treatment for their health problems.

The most common reason reported by the 35% of elderly subjects who did not seek health care services, was affordability (36%) long waiting time (16%) and long distances (16%). On the contrary, study by Sharma et al[11] in Shimla reported the most common reason for not seeking health care was the perception of disease as an age related phenomenon(49.6%) followed by 19.1% who cited health services being too far as the reason for not seeking health care.

In the current study, the preferred system for taking treatment for most of the subjects was Allopathic (72%), followed by home remedies (13%), Homeopathic (8%), Ritualistic healer (4%) and Ayurvedic (3%) which is consistent with the findings of a study by Sharma et al[11] where 81% of the study subjects preferred allopathic system followed by 11.3% and 7.3% who preferred Ayurveda and Homeopathic system of medicine respectively.

In the present study, 83.3% of elderly people aged 81 years and above were taking the treatment followed by 63.7% in the age

group of 60-70 years. The findings is comparable to a study done in Norway and Finland where also increased age caused a large increase in the percentage of elderly undergoing treatment in the facility.[12] On the contrary, study in Thailand showed maximum utilization (71.1%) by 60-69 years age group followed by 70-79 years (21.1%) and the least utilization was seen by >80 years age group (7.8%).[13]

Separated or Widowed women were found to be visiting the health facility more often than currently married which is comparable to a findings of Sanjel S et al[4] and is inconsistent with the findings of the studies done in Thailand, Taiwan and Ghana.[13,14,15]

Elderly with education high school and above were found to be taking the treatment more than elderly with no formal schooling. Similar observations were found in a study in Thailand and Taiwan.[13,14] Contrary to the study findings, elderly with higher educational level were found to be visiting the health facility less often in a study in Ghana mainly attributed due to better self-reported health status and high income level.[15]

Table.1 Demographic characteristics of the study population

		Female		Male		Total	
		n	**%**	**n**	**%**	**N**	**%**
		98	100.0	102	100.0	200	100.0
Age	60 - 70	82	83.7	84	82.4	166	83.0
	71 - 80	10	10.2	16	15.7	26	13.0
	81+	6	6.1	2	2.0	8	4.0
Religion	Hindu	58	59.2	62	60.8	120	60.0
	Muslim	40	40.8	40	39.2	80	40.0
Marital	Currently married	58	59.2	76	74.5	134	67.0
	Widowed/Separated	40	40.8	26	25.5	66	33.0
Education	No formal schooling	37	37.8	28	27.5	65	32.5
	Below Primary	38	38.8	35	34.3	73	36.5
	Primary	17	17.3	21	20.6	38	19.0
	Middle school	3	3.1	9	8.8	12	6.0
	High school	1	1.0	6	5.9	7	3.5
	Intermediate	2	2.0	3	2.9	5	2.5
SES	High	4	4.1	16	15.7	20	10.0
	Medium	90	91.8	57	55.9	147	73.5
	Low	4	4.1	29	28.4	33	16.5

Table.2 Comparison between health care services utilization with socio-demographic factors

		Treatment taken			Chi square	p value
		No	Yes	Total		
		29	53	82		
Age	60 - 70	21(36.2)	37(63.8)	58	1.033	0.5966
	71 - 80	7(38.9)	11(61.1)	18		
	81+	1(16.7)	5(83.3)	6		
Religion	Hindu	14(29.2)	34(70.8)	48	1.946	0.163
	Muslim	15(44.1)	19(55.8)	34		
Marital	Currently married	22(42.3)	30(57.7)	52	2.996	0.0835
	Separated/Widowed	7(23.3)	23(76.7)	30		
Education	No formal schooling	10(62.5)	6(37.5)	16	10.726	0.0298*
	Below Primary	7(46.6)	8(53.3)	15		
	Primary	6(35.3)	11(64.7)	17		
	Middle school	3(20)	12(80.0)	15		
	High school/ Intermediate	3(15.7)	16(84.2)	19		
SES	Low	12(50)	12(50)	24	6.389	0.0409*
	Medium	12(24.5)	37(75.5)	49		
	High	5(55.5)	4(44.5)	9		
Sex	Female	15(40.5)	22(59.5)	37	0.79	0.3741
	Male	14(31.2)	31(68.8)	45		

*Statistically significant

Figure.1 Distribution of study subjects according to falling sick in last six months, treatment sought or not and reasons for not taking treatment

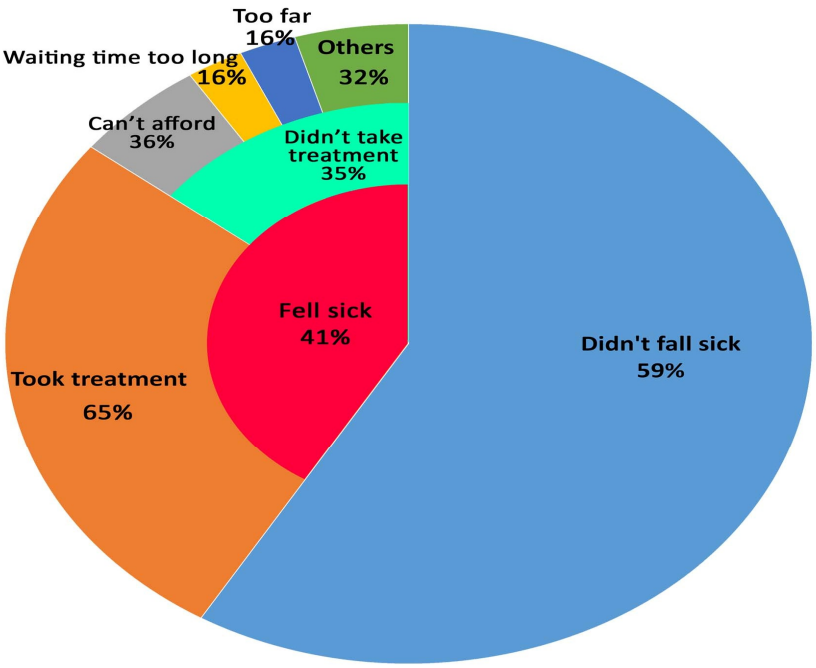
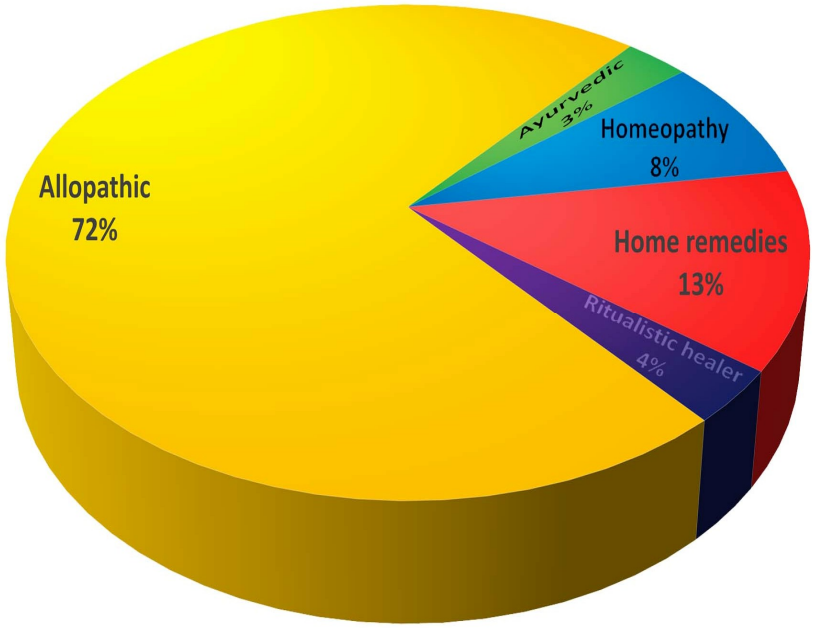


Figure.2 Distribution of study subjects according to their preferred system of medicine for taking treatment



Health services utilisation was found to be maximum among the subjects belonging to medium class followed by low socioeconomic status. These findings are comparable to a study by Sanjel S et al[4] where maximum utilization of health services was found to be among the elderly with the highest monthly income and the least utilization was found amongst the elderlies having lowest income. Studies done in New Mexico have also shown similar results.[16]

In the present study, males (68.8%) were found to be visiting the health facility than females (59.4%) which is consistent with the findings of a study in Thailand and Taiwan and contradictory with the findings of a study in Nepal where females (71.4%) were found visiting the health facility more often males (63.6%).[13,14,4]Other studies in Canada, Australia and Ghana have also found contrasting results.

In conclusion, healthcare service utilization among rural elderly was found to be 65% and the main reason for not seeking services was affordability. Education and Socioeconomic status showed significant association with utilization of health services. There is a need to generate awareness and education should be given focussed on health conditions and services available to elderly as well as issues related to ageing. Further studies to explore the utilization of healthcare services among the elderly is recommended.

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