

Morbidity pattern and health-seeking behavior among elderly population in rural area of district Barabanki: A cross-sectional study

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ABSTRACT

Background: Aging is a universal and inevitable process of life. Elderly people are the most vulnerable group in terms of their health. In India geriatric-aged population is increasing day by day. Understanding the morbidities and health-seeking behavior of the elderly is essential for strengthening geriatric health-care services delivery. **Objectives:** The objectives of the study were (1) to assess the morbidity pattern in elderly people and (2) to know the health-seeking behavior of the aged population. **Materials and Methods:** This community-based, cross-sectional, and descriptive study was conducted among 160 elderly individuals over a period of 3 months from February 2019 to April 2019. Participants were interviewed and clinically examined for the assessment of sociodemographic detail, morbidity profile, and health-seeking behavior. **Results:** Of 160 study subjects, 71 were males and 89 were females. The majority (61.3%) of the elderly were in the age group of 60–69 years. Overall the prevalence of morbidity was high, i.e., 76.9%. The most common illness was a non-specific generalized weakness (48.1%) and gastrointestinal problems (44.4%). Majority of them (65.4%) have faith in allopathic medicines and used government facilities. Of the total morbid elderly, 15.5% of them could not get medical advice. **Conclusions:** High prevalence of morbidity among elderly population stresses the need to provide suitable health facilities and affordable health care to the elderly. Non-specific generalized weakness was one of the most important problems in this age group. Further research is to be done to know the cause of this weakness. Policymakers must focus on rural elderly and their beliefs which prevent them from seeking healthcare.

KEY WORDS: Elderly; Morbidity; Health-seeking Behavior; Rural


INTRODUCTION

Ageing is a universal and inevitable phenomenon of life. It is a complex process of changes in physical, mental, and social aspects influenced by many factors.^[1] The speed of ageing of world population is increasing dramatically. Before 2050, the percentage of people >60 years of age in the world will nearly double reaching 2 billions.^[2]

In India, geriatric-aged population is 8.0% which corresponds to roughly 98 million. There are more elderly in rural areas (8.1%) than in the urban areas (7.9%), except few states where more geriatric people live in urban areas (6.6%).^[3] In past few years, the percentage of old age people in India has been trending up at an increased rate and it is likely to follow the same path in the coming decades. The proportion of people >60 years age is expected to rise from 8% in 2015 to 19% in 2050.^[4]

Biologically, aging is associated with accumulation of molecular and cellular damages and is one of the major risk factors for chronic morbidities. Decline in physical health and wellness, results in further lowering of homeostasis with age, which has an increased risk of disease and death.^[5]

The diseases in old age people are mostly chronic in nature such as diabetes, hypertension, heart diseases, stroke,

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visual impairment, senile deafness, arthritis, and cancer. Elderly people are at risk for multiple illness at the same time.^[6] Ageing is strongly influenced by the surrounding environment and behaviors of the individual. Health-seeking behavior is one of the influencing factors.

In India, more than 3/4th of the old age people live in rural areas. Their health is a public health issue and needs to be managed. Assessment of their morbidity pattern will help in providing better health care for the geriatric population and its costs.^[7]

For this purpose, we conducted a study to know the morbidity pattern and health-seeking behavior in elderly. The results of this study will have implications that can help policymakers to formulate steps for better health care of old age people living in a rural area.

MATERIALS AND METHODS

This descriptive and cross-sectional community-based study was carried out among older individuals over a time span of 3 months starting from February 2019 to April 2019. The study was carried out in Rural Health Training Centre (RHTC) area of Mayo Institute of Medical Sciences (MIMS), Barabanki.

Calculation of sample size was done by the formula $4PQ/D2$. In this formula, P indicates prevalence; Q is formulated as $100-P$; and D indicates absolute precision, i.e., 5%. Prevalence was taken to be 50% as in this study area, data on morbidity and health-seeking behavior among old age people are not available. The sample size came out to be nearly 160 elderly after taking a confidence level of 95% and precision 8%.

All the elderly ≥ 60 years were listed from the family folder. Samples were selected proportionately according to the geriatric population of individual villages. One hundred sixty people were selected from the list by a simple random sampling method.

After taking ethical clearance, prior information was given to the subjects regarding the time and place before going to the house visits so that they made themselves available for the activity. Verbal consent was also taken from study subjects before presenting them a pretested semi-structured questionnaire. There were two sections in the questionnaires. The 1st section contained sociodemographic variables such as name, age, sex, marital status, religion, occupation, education, and income. The 2nd section of the questionnaire included morbidities they suffer during the interview.

Information was collected by a personal interview with a questionnaire, clinical examination, and previous health records followed by blood sugar estimation using a standardized glucometer. Self-reported morbidities were

noted for vision problems, hearing problems, musculoskeletal problems, respiratory problems, cardiovascular problems, gastrointestinal problems, and genitourinary problems.

A provisional diagnosis of diseases of the elderly was made based on reported symptoms, available prescriptions and investigation reports and clinical evaluation. Only chronic disease conditions were considered for our study. Respondents having any ill-health condition were inquired for their health-seeking behavior. Health-seeking behavior was defined as a sequence of remedial actions taken by the person to rectify perceived ill-health.^[8]

Data were entered in MS excel after the generation of the proper template. Data entered were then imported into SPSS software and descriptive analysis was done.

Inclusion Criteria

The following criteria were included in the study.

- All subjects ≥ 60 years of age in RHTC area of MIMS.
- All subjects ≥ 60 years of age who consented to be part of the research.

Exclusion Criteria

The following criteria were excluded from the study.

- Those having any other present or past psychiatric illness.
- Having uncontrolled medical or surgical disease and
- Not a resident of the village.
- Those who had impaired cognition and were unable to provide information.
- Not willing to give consent for the study.

RESULTS

One hundred sixty study subjects were surveyed and examined. Of these, 71 (44.4%) were male and 89 (55.6%) were female subjects. Table 1 shows that the majority (61.3%) of the study subjects fall in the 60–69 years of age group, followed by 28.1% in 70–79 years and 10.6% in 80 years and above. Most of the elderly population was Hindu (72.5%), illiterate (88.1%), and married (70.6%). Elderly males were found to be significantly more educated than elderly females ($p < 0.05$). The majority of study subjects (83.7%) were living with children and spouse and according to the modified BG Prasad scale 2019, 56.9% belonged to middle socioeconomic status. Only 15% were from upper socioeconomic status.

Table 2 shows the subjects distribution with personal habits. It was observed that maximum (70.0%) elderly were non-smokers. Only 13 (8.1%) were current smokers, of which 11 (6.9%) were males. Most of the study subjects, i.e., 136 (85%), were non-alcoholic. Use of tobacco was also

Table 1: Distribution of study population according to sociodemographic characteristics (*n*=160)

Variables	Category	Total	Male	Female	χ^2	<i>P</i> value
Age (years)	60–69	98	41	57	0.857	0.651
	70–79	45	21	24		
	More than 80	17	9	8		
Religion	Hindu	116	54	62	1.086	0.581
	Muslim	33	12	21		
	Others	11	5	6		
Education	Illiterate	141	56	85	12.015	0.007
	Primary	13	9	4		
	Secondary	4	4	0		
	College and above	2	2	0		
Marital status	Married	113	53	60	1.238	0.538
	Widow/widower	43	16	27		
	Others	4	2	2		
Occupation	Working at present	39	23	16	4.453	0.034
	Not working at present	121	48	73		
Family type	Nuclear/living with spouse	18	10	8	1.129	0.568
	Living with children and spouse	134	58	76		
	Staying alone	8	3	5		
Economic dependence	Fully dependent	74	24	50	8.447	0.014
	Partially dependent	63	33	30		
	Independent	23	14	9		
Socioeconomic class	Upper class and upper middle class (Class 1 and 2)	24	14	10	4.534	0.103
	Middle class (Class 3)	91	34	57		
	Lower class (Class 4 and 5)	45	23	22		

Table 2: Distribution of subjects with personal habits (*n*=160)

Variables	Category	Total	Male	Female	χ^2	<i>P</i> value
Smoking	Never	112	30	82	46.798	0.000
	Current	13	11	2		
	Past	35	30	5		
Alcohol	Never	136	49	87	25.583	0.000
	Current	12	11	1		
	Past	12	11	1		
Tobacco in any forms	Never	118	39	79	24.511	0.000
	Current	24	20	4		
	Past	18	12	6		

not very common as 118 (73.7%) elderly were found not to have used tobacco in any form. Consumption of alcohol and tobacco was significantly more common in males than the females.

Table 3 shows the morbidity status among the elderly population. As seen in the table, it was found that of 160 elderly people, 123 (76.9%) had one or other chronic morbidities during the study period. Many elderly were suffering from multiple morbidities at that time. The most common morbidities suffered by the elderly were non-specific generalized weakness (48.1%) and gastrointestinal problems

(44.4%). Both of these were found to be more common in females. It is then followed by hypertension, 61 (38.1%) and musculoskeletal problems, 46 (28.7%). It was seen that more males (56.3%) were hypertensive than females (38.1). Other diseases found important were visual impairment 38 (23.7%), dental problems 32 (20.0%), anemia 28 (17.5%), diabetes 16 (10.0%), heart disease 15 (9.4%), etc.

As can be seen in Table 4, we asked the respondents the question, “In general, how would you rate your health?” The responses were analyzed and found that 31.9% reported their general health status as “good,” while most elderly (55.0%)

Table 3: Distribution of elderly population according to the morbidity status (multiple responses) (*n*=160)

Chronic diseases	Total (160)	Male (71)	Female (89)
No illness (self-perceived)	37 (23.1)	15 (21.1)	22 (24.7)
Non-specific generalized weakness	77 (48.1)	28 (39.4)	49 (55.1)
Diabetes	16 (10.0)	11 (15.5)	5 (5.6)
Hypertension	61 (38.1)	40 (56.3)	21 (23.6)
Heart diseases	15 (9.4)	11 (15.5)	4 (4.5)
Paralyses/stroke	1 (0.6)	1 (1.4)	0 (0)
Dementia	3 (1.9)	3 (4.2)	0 (0)
Senile deafness	12 (7.5)	5 (7.0)	7 (7.9)
Musculoskeletal problems	46 (28.7)	19 (26.8)	27 (30.3)
Visual impairment/ cataract	38 (23.7)	21 (29.6)	17 (19.1)
Genitourinary tract	3 (1.9)	3 (4.2)	0 (0)
Gastrointestinal problems	71 (44.4)	29 (40.8)	42 (47.2)
Falls	5 (3.1)	3 (4.2)	2 (2.2)
Cancer	1 (0.6)	1 (1.4)	0 (0)
Tuberculosis	2 (1.2)	2 (2.8)	0 (0)
Chronic lung diseases	2 (1.2)	1 (1.4)	1 (1.1)
Tremors	3 (1.9)	2 (2.8)	1 (1.1)
Alcoholic neuritis	2 (1.2)	2 (2.8)	0 (0)
Anemia	28 (17.5)	13 (18.3)	15 (16.8)
Skin conditions	2 (1.2)	0 (0)	2 (2.2)
Dental problems	32 (20.0)	17 (23.9)	15 (16.8)

Table 4: Distribution of elderly according to their self-reported general health status (*n*=160)

Self-reported health status	Number (%)
Good	51 (31.9)
Moderate	88 (55.0)
Bad	21 (13.1)

reported their health as “moderate” and 13.1% elderly rated their health condition as “bad.”

In Table 5, we analyzed the health-seeking behavior of all those elderly who reported having some morbidity or those diagnosed as having morbidity. Among 123 elderly having some chronic morbidity, 104 (84.5%) sought health advice and treatment during illness. About 65.4% preferred allopathic medicine for their illness, 26.0% used both allopathic and AYUSH medication for their problems, while 6.7% used medications bought from AYUSH doctors only. More than half of them, 60 (53.1%) used government hospitals for their treatment. About 25 (22.1%) had gone to the private practitioner. Self-medication was done by 16.8% of them. The study also found that a total 19 (15.5%) individuals of 123 elderly who had any morbidity during the study period did not seek health advice. “Lack of money and family support” (42.2%) and “not feeling necessary to go

Table 5: Distribution of elderly population according to their health-seeking behaviors

Variable	Number (%)
Visited health facility during illness (<i>n</i> =123)	
Yes	104 (84.5)
No	19 (15.5)
Preference of system of medicine of elderly (<i>n</i> =104)	
Allopathic	68 (65.4)
AYUSH medicine	7 (6.7)
Both allopathic and AYUSH medication	27 (26.0)
Others	2 (1.9)
Type of health facility used by elderly (<i>n</i> =104)	
Government hospital	60 (53.1)
Self-medication/ medical shop	19 (16.8)
Private practitioner	25 (22.1)
Reasons for not seeking treatment outside home (<i>n</i> =19)	
Feel not necessary/waiting for recovery	7 (36.8)
Lack of money	4 (21.1)
Distance of health facility	2 (10.5)
Lack of family support	4 (21.1)
Not aware of their own morbidity (Others)	2 (10.5)
Time taken to go for treatment (<i>n</i> =104)	
Within 24 h	45 (43.3)
After 24 h	59 (56.7)

to doctor as the conditions were age related” (36.8%) were two most common reasons for not seeking treatment for their morbidity. About 43.3% of those seeking medical advice could avail of the treatment facility within 24 h.

DISCUSSION

In this study, it was found that of the total of 160 subjects, 61.2% were in the age category of 60–69 years, with 57.7% males and 64.0% females. Anjali and Aarti found similar age distribution in their study.^[9] In our study, 88.1% population were found to be illiterate, 8.1% were educated up to primary level, 2.5% secondary, and 1.2% constituted those who had attended college. A similar finding was revealed in the study done by Sudarshan in 2016.^[10]

In this study, smoking, alcohol, and tobacco use has been found to be significantly associated with male. Tobacco use is the most common (15%) form of addiction among elderly people of the rural area. This is different from a study done in Tripura by Karmakar *et al.*, who found smoking (31.2%) as the most common form of addiction.^[11]

In the present study, we found that of 160 elderly people, 123 (76.9%) were suffering from at least one chronic morbidity at the time. Similar studies done in other parts of the country also have revealed a high prevalence of morbidity

(84%, 88.9%, and 88%, respectively)^[12-14] among old age people. This might be an indicator of poor general health condition of inhabitants. In our study, the most common morbidities were found to be a non-specific generalized weakness (48.1%) followed by gastrointestinal problems (44.4%). A similar finding was observed by Karmakar *et al.*, where generalized weakness was the most common (62.7%) morbidity followed by overall gastrointestinal problems (56%).^[11] This is, in contrast, to study done by Jadav and Bavarva in Gujarat, where the most common morbidity was musculoskeletal disorder (64.9%) followed by depression (54.2%).^[15] Ghosh *et al.* found a lower prevalence of generalized weakness (22.73%) but an almost similar pattern (51.04%) of gastrointestinal problems.^[16] Hypertension was found to be more common (38.1%) in the current study than found by Karmakar *et al.* (12.3%).^[11] Much higher (56.8%) prevalence was seen in a study by Hameed *et al.*^[17] Purty *et al.* in their rural-based study on elderly observed eye problems in 57%, arthritis 43.4%, hypertension 14%, respiratory 18%, and diabetes in 8.1%.^[18]

Although the study indicated that morbidity was high among elderly, only 13.1% of them rated their health condition as “bad,” 31.9% reported it to be “good,” while majority (55.0%) reported their health as “moderate.” This may be due to their beliefs that the diseases are an expected part of aging. This is in contrast to Joshi *et al.* in their study in Kolkata, who found that more than 80% of the elderly felt themselves as ill.^[13]

In our study, 104 of 123, i.e., 84.5% have visited a health facility during illness. Most elderly (65.4%) had faith on allopathic medication. It is also found that more than half of the ill patients (53.1%) used government hospitals for their treatment and self-medication was done by 16.8% of them. Lower socioeconomic condition and availability of government health facility may be the reasons of using government health facility. The study by Sharma *et al.* among the old age population in North India also found that most of the elderly favored allopathic drugs (81.2%). Majority of the older persons also preferred government hospital for treatment of their morbidities.^[12] A study done by Goswami *et al.* regarding self-medication found that 10% of the old age people were using over-the-counter medicines.^[19] The study also found that “Lack of money and family support” (42.2%) and “Not feeling necessary to go to a doctor as the conditions were age related” (36.8%) are the most common causes of not going for treatment. Sharma *et al.* in his study found that “diseases are expected part of aging” (49.6%), “health services too far” (19.1%), and “trust in God for healing” (15.8%) are common reasons for not seeking medical treatment.^[12]

Strength and Limitations

The strength of the study was its uniqueness. The elderly population of the rural area is generally ignored. This study stresses the need to provide better health facility to the elderly.

Small sample size was limitation of this study. Area covered in the study was small. Investigations for morbidity were not carried out in detail.

CONCLUSIONS

With the gradual increase in elderly population in India, the burden on morbidity is also on the rise. The current study was done in RHTC area of MIMS, Barabanki, to know the prevalence of morbidity and health-seeking behavior among the elderly population. The study showed a high prevalence of morbidities among the old age population, with the most common being Non-specific generalized weakness followed by gastrointestinal problems. The cause of this weakness must be revealed in detail by further research so that proper action could be taken. Some of the ill people could not get health facility due to lack of money and family support. This highlights the need to provide suitable health facilities and affordable health care. Some did not go for treatment as they thought the conditions were age related. In this regard, there must be strategic implementation of policies focusing on the problems and beliefs of elderly, which prevent them from seeking health care.

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