## **Original Research Article**

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# Study on health seeking behaviour of elderly population for chronic diseases in a rural area of northern Kerala

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#### **ABSTRACT**

**Background:** The existing global and national demographic structure is evolving towards a greater number of elderly people. Chronic diseases have negative personal, societal, and financial consequences in all communities and economies. Health seeking behaviour is thought to be the result of a complicated interplay between the patient's disease condition and socioeconomic and demographic variables, as well as the quality, availability, and accessibility of healthcare services.

**Methods:** Community based cross sectional study was carried out among the persons aged 60 years or above who had one or more chronic disease residing in rural area of Malappuram district, Kerala. Data was collected from 240 participants by interview method using a pre-designed questionnaire.

**Results:** Hypertension, dyslipidemia, and diabetes mellitus were the three diseases that affect elderly individuals most frequently. Majority (86.7%) of the study population is seeking medical care for chronic conditions. 82.1% of the population prefer modern medicine and 5.8% prefer AYUSH system of medicine. Age, marital status, education, and occupation were all factors that contributed to their health-seeking behaviour.

Conclusions: Immediate attention and action are required from the health care authorities and policymakers to reinforce the geriatric healthcare strategy and enhance the behaviour of people seeking health care for chronic diseases.

**Keywords:** Elderly, Health seeking behaviour, Kerala, Malappuram

#### INTRODUCTION

Elderly population are an integral resource in any society. Aging is an inevitable part of life which brings both opportunities and challenges. Ageing can be defined as the time-related decline of physiological capabilities required for survival and fertility. The existing global and national demographic structure is evolving towards a greater number of elderly people, resulting in "population ageing." Based on WHO reports, one in every six persons in the world will be 60 or older by 2030. At this point, the

population aged 60 and above will grow from 1 billion in 2020 to 1.4 billion. By 2050, the world's population of individuals aged 60 and over is projected to have more than doubled. According to the 2011 Census, India has 104 million elderly individuals (those aged 60 and over); 53 million females and 51 million males. The proportion and size of the elderly population are growing over time. The share has risen from 5.6% in 1961 to 8.6% in 2011. By 2021, the percentage had risen to 10.1%, and it is anticipated that it would rise even more to 13.1% by 2031. A healthy lifestyle which includes a positive

mindset and mental well-being enhances quality of life among the elderly population.<sup>1-4</sup>

Healthcare seeking behaviour (HSB) refers to decisions made by patients regarding remedial measures which includes healthcare facility and/or type practitioner to seek treatment when they become ill. HSB is thought to be the result of a complicated interplay between the patient's disease condition and socioeconomic and demographic variables, as well as the quality, availability, and accessibility of healthcare services. Understanding health seeking behaviour in a community, as well as the factors that influence their decision is critical for developing "need-based" comprehensive health care systems for people, particularly among the elderly population. <sup>5,6</sup>

Chronic diseases have negative personal, societal, and financial consequences in all communities and economies, but they are most detrimental in poor and vulnerable groups such as the elderly. Proper and timely health seeking behaviour among the elderly is required to reduce morbidity and death from chronic diseases and to make sure the elderly have an acceptable quality of life.<sup>7</sup> Therefore, by studying the health seeking behaviour and morbidity pattern for chronic diseases among the elderly population, policymakers can gain a better understanding of the morbidity caused by chronic diseases, the type of healthcare they seek for various chronic diseases, and the barriers that prevent them from contacting existing health care delivery systems. Hence, this study was conducted to assess the health seeking behaviour of population above the age of 60 years for chronic diseases in a rural area of Malappuram District, Kerala.

#### **METHODS**

To assess the health seeking behaviour of elderly population, a community based cross sectional study was carried out among the persons aged 60 years or above who had one or more chronic disease residing in rural area of Malappuram district, Kerala. Ward 1, 2 and 16 of Vettathoor panchayath of Malappuram district, which is the designated field practice area of the MES Rural Health Training Centre (RHTC) was selected as the study area. Other healthcare establishments in the study area includes Community Health Centre, Vettathoor, Primary Health Centre, Poonthanam, Government Ayurvedic Hospital, Pattikkad and numerous private clinics. For the purpose of this study, chronic disease was defined as conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both.8

Persons aged 60 years or more who have one or more chronic disease and persons who know their morbidity status which was diagnosed prior was included in the study. Critically ill elderly persons and mentally ill patients who are unable to respond to interview schedule were excluded. According to study by Sharma et al, 65%

of the elderly people were seeking treatment for their health problems. Hence, p= 65%, q=100-p=35

Relative error, d = 10% of p = 6.5%

Sample size =  $4pq/d^2 = 206$ 

Total of 240 participants were selected using convenient sampling.

House to house survey was conducted by the investigator to identify elderly individuals satisfying eligibility criteria. A participant information sheet which contains all relevant information about the study was explained and the written consent was obtained from participants who are willing to be part of the study. Data was collected by interview method using a pre-designed questionnaire. Convenient sampling method was employed till the sample size is met.

Data was coded and entered in Microsoft Excel and analysed using SPSS version 26.0. Dependent Categorical variables includes presence of chronic disease, preferred system of medicine, facility of healthcare etc. Descriptive statistics was used to express the pattern of chronic morbidity and assess the health seeking behaviour and associated factors in the above population. Proportions was expressed as percentage and confidence intervals. For associations chi-square test was used. For statistical significance P value of less than 0.05 was taken.

#### **RESULTS**

In the current study carried among 240 study participants, 135 (56.3%) were females and 105 (43.8%) were males. Mean age of the study population was 72±7.8 years. Majority of the study population were employed (74.2%) and more than half of them belonged to lower or lower middle class of socioeconomic strata according to BG Prasad classification. 60.4% of the study participants were currently married. Almost two-third of the population were living in a three-generation family followed by joint family and nuclear family (Table 1).

When the morbidity pattern was compared, hypertension (77.1%) was the most common chronic condition in the study population, followed by dyslipidemia (65%) and diabetes mellitus (63.7%). Arthritis (35.8%), dental issues (32.9%), cataract (21.3%), and other chronic illnesses were also noted among study population (Figure 1).

The vast majority (86.7%) of the study population is seeking medical care for chronic conditions whereas only 13.3% is not seeking medical care. Majority (82.1%) of the population prefer modern medicine and 5.8% prefer AYUSH system of medicine which includes Ayurveda, Yoga, Unani, Siddha and Homeopathy. 8.8% of the population prefer both modern medicine and AYUSH system. When comparing the types of health facilities,

nearly half of the study population prefers the government system, while the others favour the private system (Table 3).

Table 1: Socio-demographic characteristics.

Variables		Frequency	<b>%</b>
Gender	Male	105	43.8
	Female	135	56.3
Age (in years)	60-69	105	43.8
	70-79	93	38.8
	> 80	42	17.5
Religion	Hindu	43	17.9
	Muslim	188	78.3
	Christian	9	3.8
Occupation	Unemployed	51	21.3
	Unskilled	40	16.7
	Semi-skilled or Skilled	18	7.5
	Home maker	120	50
	Retired	11	4.6
Socio- economic class	Upper class	3	1.3
	Upper middle class	16	6.7
	Middle class	84	35
	Lower middle class	96	40
	Lower class	41	17.1
Education	Upto primary level	140	58.3
	Higher than primary level	100	41.7
Marital status	Single	3	1.3
	Married	145	60.4
	Divorced / Separated	12	5
	Widowed	80	33.3
Type of family	Nuclear	22	9.2
	Joint	70	29.2
	Three generation	148	61.7

Age, marital status, education, and occupation were all factors that contributed to their health-seeking behaviour. Health-seeking behaviours has been reported to decline as people get older. In this study, only 61.9% of people over the age of 80 showed health-seeking behaviour, compared to 91.9% of people under the age of 80. This difference was found to be statistically significant on chisquare test (p value = 0.001). Similarly, people above primary level education had greater health-seeking behaviours than those with lower education (p value = 0.02). 96.6% of the employed people had health seeking behaviour whereas among the unemployed population the corresponding value is only 83.5%. This was found to be statistically significant on Fischer Exact Test (p value = 0.008). Married people had significantly better health seeking behaviour than those who are single, divorced or separated (p value = 0.001) (Table 2, 3).

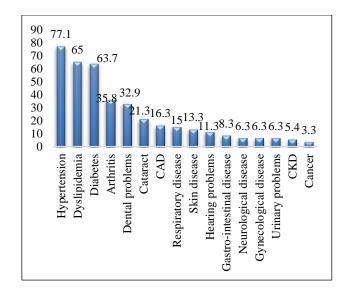


Figure 1: Morbidity pattern of study population (n=240).

Table 2: Pattern of health seeking behaviour.

Health seeking pattern		Frequency	%
Health seeking behaviour	Present	208	86.7
	Absent	32	13.3
System of medicine	Modern medicine	197	82.1
	AYUSH	14	5.8
	Both modern medicine and AYUSH	21	8.8
	Others	8	3.3
Type of health facility	Government	101	48.5
	Private	107	51.5

Table 3: Factors affecting health seeking behaviour.

Variables	Health seeking behavio- ur	%	p-value	
Age group				
Less than 80 years (n=192)	182	91.9	0.001	
More than 80 years (n=42)	26	61.9	0.001	
Occupation				
Unemployed (n=182)	152	83.5		
Employed (n=58)	56	96.6	0.008*	
Education				
Upto primary level (n=140)	115	82.1		
More than primary level (n=100)	93	93	0.02	
Marital status				
Married (n=145)	134	92.4		
Single/widowed/separated (n=95)	74	77.9	0.001	
*Fischer Exact Test				



Figure 2: Reasons for not seeking health care (n=32).

The main cause for individuals who do not seek treatment was the lack of people to accompany them to the hospital (68.8%), followed by dissatisfaction with the doctor or hospital staff (15.6%). Other explanations included not feeling better following therapy (9.4%) and believing that the treatment was unnecessary (6.3%).

#### **DISCUSSION**

Malappuram is the most populous district of Kerala, accounting for over 13% of the state's total population. According census reports, average literacy rate of Malappuram was 93.57%. As per NFHS 5 data, sex ratio of the district is 1101 females per 1000 male population. In this study carried out among 240 elderly study participants, 56.3% were females and 43.8% were males. Mean age was 72±7.8 years. Majority of the study population were employed and more than half of them belonged to lower or lower middle class of socioeconomic strata. Almost two-third of the population were living in a three-generation family.

According to the results of the current study, hypertension, dyslipidemia, and diabetes mellitus were the three diseases that affect elderly individuals most frequently. This is consistent with another study from Kerala by B Areekal et al., which indicated that older people are more likely to have diabetes, hypertension, and musculoskeletal conditions. In contrast to these results, a study done in Karnataka by Davalagi et al discovered that respiratory illnesses and musculoskeletal issues were the most prevalent illnesses. Another study conducted in Assam revealed that arthritis and vision impairment are the two most prevalent issues affecting the elderly. Other prevalent conditions identified in our study include arthritis, dental issues, cataract etc.

The majority of the participants in this study are seeking medical care for their chronic diseases. Percentage of elderly population who seek medical care varies according to studies. According to a study by Sharma D. et al. in Shimla, India, 65% of the elderly population are seeking for medical attention. Based on a different study carried out in Jharkhand, two-thirds of old individuals did

not seek medical assistance. <sup>14</sup> In the current study nearly half of the study population prefers government hospitals. The majority of the elderly prefer modern medicine, with only a minority opting for the AYUSH system of treatment. It was also observed that a very few elderly individuals preferred both systems of medicine. Similar outcomes were reported from a study conducted by Davalagi et al. According to the study, 56% of those surveyed opted for government hospitals, while only 4% favoured the AYUSH system of medicine. <sup>13</sup>

The present study found that poor health-seeking behaviour was influenced by factors such as ageing, lack of education and unemployment. Additionally, it was discovered that married individuals exhibited better health-seeking behaviour than single, divorced, or separated individuals. Therefore, the presence of the partner affects health-seeking activity. According to a study carried out in Uttarakhand, there are gender differences in the way people seek out health care. The majority of males received treatment at the government hospital, but the majority of females sought treatment at home and through other means. 15 In contrary to this, the current study found no gender difference in health seeking behavior. This could be attributable to Kerala's high literacy rate, economic independence, and improved access to health care.

This study emphasizes that lack of companions to accompany them to the hospital and dissatisfaction with the doctor or hospital staff as the major reasons why people were not seeking health care. According to studies by Davalagi et al. and Soren et al, accessibility issues and financial constraints were the main causes of poor health seeking behaviour. A fraction of the study population believed that old age itself is an illness. <sup>13,14</sup> According to Areekal et al, common reasons for avoiding seeking health treatment include believing the sickness is unimportant or believing it is a normal part of the ageing process. <sup>12</sup>

The difference between the findings of this study with that of other previous research could be attributed to the fact that different geographic areas may have different cultural norms, healthcare access, health system delivery, and morbidity patterns. The major strength of the study was that it was conducted as a house-to-house community survey using a pre-structured questionnaire. But there were some limitations which include use of non-probability sampling. All chronic diseases were recorded as perceived by the individual. As a result, there may be undetected chronic diseases among the older population for which they are not seeking medical care.

#### **CONCLUSION**

This research revealed that among the study population's chronic diseases, hypertension, dyslipidemia, and diabetes mellitus were the most prevalent. Despite the fact that the majority of the studied population seeks

medical care for chronic diseases, 13.3% do not. The majority of people favour modern medicine, whereas very few favour AYUSH or both systems. Nearly half of the study participants prefer the government health care facilities. Age, marital status, education, and occupation were all characteristics that influenced their health-seeking behaviour. Lack of company to the hospital and displeasure with the doctor or hospital staff were the main reasons for which individuals did not seek medical attention. Other factors include not feeling better after therapy and thinking the treatment wasn't essential.

These results call for immediate attention and action from health care authorities and policymakers to reinforce the geriatric healthcare strategy and enhance the behaviour of people seeking health care for chronic diseases. This could involve expanding outreach activities for the elderly, early diagnosis of diseases through screening programmes, early initiation and maintenance of treatment, as well as giving additional care for people who are single, unemployed, and undereducated. All aforementioned activities will lead to improved health outcome and decrease in out-of-pocket expenditure and thereby achieving SDG target of attaining healthy lives and promote well-being for all at all ages.

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Ethical approval: The study was approved by the MES AMS Institutional Ethics Committee (IEC/MES/109/2022)

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