

## Home based primary care for elderly in an Indian city

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**Abstract:** *Background:* With increased age there is decreased quality of life due to increased spur in disabling chronic noncommunicable diseases. Every country should prepare themselves to meet the growing challenge of caring for its aged population. This increase in health care challenge for aged makes the government to find alternate care giving strategies. One such strategy is to provide home based physical care to the aged *Aim:* Study was undertaken to know the perception of aged persons care taker about the need of home based care services for chronically ill patients above the age of 60 years. *Material & Methods:* Study was carried out at different localities of Pune for the cancer patients who were previously admitted in a tertiary care hospital. 50 care takers of the patient were given the questionnaire by e mail. *Results:* Among the various responses maximum assistance was required in assisted bed movements accounting to 62%, this was followed by 60% of patients requiring assistance in walking. *Conclusion:* With limited elderly specialized centers & expenses involved in the hospitals, home base care appears to be a good alternative for the elderly as a cost effective approach leading to patient's satisfaction.

**Keywords:** Chronic Noncommunicable Diseases, Government, Hospitals, Patients.

### Introduction

World is moving towards demographic shift with more aged population & India is also following the trend. This increase in aged population is subsequent to increase in life expectancy and decreased fertility [1]. Over the age of 60 years by 2050, there will be 2 billion people, 80 % of these will be from developing countries [2]. With increased age there is decreased quality of life due to increased spur in disabling chronic noncommunicable diseases. Every country should prepare themselves to meet the growing challenge of caring for its aged population. This increase in health care challenge for aged makes the government to find alternate care giving strategies [3].

In developed countries some recognized paid care service centers are available to take care of aged, but the expensiveness of these centers makes it out of reach for large set of aged population [4-5]. There has been an increasing cognizance to make efficient and cost-effective strategies to provide health care & monitoring facilities at reasonable

cost for the aged population. One such strategy is to provide home based physical care to the aged. It is the physical care of patients which provide daily care by licensed professionals or nonprofessionals like aged persons relatives, in order to help the aged that will in turn help them in meeting and carrying out necessary activities of life on routine basis. Hence the study was undertaken to know the perception of aged persons care taker about the need of home based care services for chronically ill patients above the age of 60years.

### Material and Methods

The study was carried out at different localities of Pune for the cancer patients who were previously admitted in a tertiary care hospital. Patients of age 60 & above were included in the study. 50 care takers of the patient were given the questionnaire by e mail which was obtained during previous hospital admissions in order to ensure strict precautions during the COVID-19 lockdown in the country.

The questionnaire were send on 02 May 2020 & seven days' time was given to respond to the questionnaire & reply by e mail were asked. Questionnaire had two sections, section A & section B. Section A of the questionnaire contained questions related to age of the patient, gender of the patient and qualification of the patient. Section B of the questionnaire contained 15 questions related to the home based care. Some questions in section B were further subdivided. 1 to 5 Likert Scale was used to answer the questions in section B. The data was interpreted through Likert scale and scoring was done according to assigned categories;

1. Strongly Disagree,
2. Disagree,
3. Neutral,
4. Agree
5. Strongly Agree.

Analysis of questionnaires based on 5 point Likert scale was done by the authors.

**Results**

All 50 responded to both sections A & B of the questionnaire. Maximum number of patients were in the age group 65-69 years corresponding to 42% [table 1], with 56% belonged to male gender [table 2]. 10% of patients were postgraduates. The other details of the education qualification of the patients is shown in table 3.

Among the various responses maximum assistance was required in assisted bed movements accounting to 62%, this was followed by 60% of patients requiring assistance in walking. 58% require assistance during

medication. Other responses for section B are given in Table 4. Table 5 shows the percentage response of the patients who agreed & strongly agreed for various questions.

**Table-1: Age distribution of different patients**

Age Group	Frequency	Percent %
60-64	8	16
65-69	21	42
70-74	9	18
75-79	10	20
80-84	1	2
85-89	1	2

**Table-2: Gender distribution**

Gender	Frequency	Percent %
Male	28	56
Female	22	44

**Table-3: Education qualification of different patients**

Education	Frequency	Percent %
Nil	12	24
Primary	5	10
Secondary	19	38
Graduation	9	18
Post Graduation/PHD	5	10

**Table-4: Response to questions in Section B**

	Item	Frequency					Percentage				
		SD	D	N	A	SA	SD	D	N	A	SA
1	My patient requires assistance in face cleaning	19	6	7	6	12	38	12	14	12	24
2	My patient requires assistance in brushing	19	6	7	6	12	38	12	14	12	24
3	My patient requires assistance in toilet	15	4	7	10	14	30	8	14	20	28
4	My patient requires assistance in bathing	11	5	8	9	17	22	10	16	18	34
5	My patient requires assistance in changing clothes	12	5	5	9	19	24	10	10	18	38
6	My patient requires assistance in nail cutting	15	5	8	6	16	30	10	16	12	32
7	My patient requires assistance in hair combing	13	5	7	8	17	26	10	14	16	34

	Item	Frequency					Percentage				
		SD	D	N	A	SA	SD	D	N	A	SA
8	My patient requires assistance in feeding	11	1	14	8	16	22	2	28	16	32
9	My patient requires assistance in medication	7	3	11	12	17	14	6	22	24	34
10	My patient requires assistance in bed making	9	5	10	9	17	18	10	20	18	34
11	My patient requires assistance in walking	12	4	4	9	21	24	8	8	18	42
12	Assisted Bed movements	8	6	5	7	24	16	12	10	14	48
13	My patient require assistance in home based physical care	19	2	11	5	13	38	4	22	10	26
14	My patient is aware of home based physical care	17	3	12	8	10	34	6	24	16	20
15	My patient requires home based physical care for	14	4	11	9	12	28	8	22	18	24
15.1	1-5 hours	2	2	3	2	2	4	4	6	4	4
15.2	5-10 hours	7	1	4	2	6	14	2	8	4	12
15.3	10-15 hours or more	7	2	4	2	4	14	4	8	4	8

**Table-5: Percentage for agreed & strongly agreed**

S.No	Item	Agreed %
1	My patient requires assistance in face cleaning	36
2	My patient requires assistance in brushing	36
3	My patient requires assistance in toilet	48
4	My patient requires assistance in bathing	52
5	My patient requires assistance in changing clothes	56
6	My patient requires assistance in nail cutting	44
7	My patient requires assistance in hair combing	50
8	My patient requires assistance in feeding	48
9	My patient requires assistance in medication	58
10	My patient requires assistance in bed making	52
11	My patient requires assistance in walking	60
12	Assisted bed movements	62
13	Do my patient require assistance in home based physical care	36
14	My patient is aware of home based physical care	36
15	My patient requires home based physical care for	42

**Discussion**

Taking care of the elderly is fast evolving component of both the public and private concern [6]. There is a need to have a new approach towards health sectors in managing chronic diseases and the special needs of the elderly. As the life expectancy increases more people in later part of life suffer from chronic comorbidities, which require care in specialized elderly centers or home based care [7]. Health monitoring from home platform allows people to remain in their comfortable home environment rather than in

expensive specialized elderly centers or hospitals [8].

People are looking for an affordable, and comprehensive healthcare solution with minimal employees or even the relative of the patient to provide long-term health care and monitoring, for rapidly rising elderly population. In the developed countries the progress is made towards the development of smart homes, along with the development of low cost sensors which can measure various

physiological signs of the elderly & will lead to the development of cost effective solution to the long term health monitoring. This will also permit the elderly to lead an independent life in their homes with maximum comfort [8].

Professional licensed caregivers who have better professional knowledge, mainly includes visiting nurses, rehabilitation therapists and healthcare workers. These workers help the elderly as per their requirement along with the support of the family. In some developed countries like USA there is increase in demand of the health care aides. Total number of health care aides is projected to grow in USA to over 3 million by 2022 [9]. Compared to the professional licensed caregivers these health care aides have done short term home health care training program. Family caregiver usually work with lot of emotions for their loved ones. Family care givers are usually themselves in the higher age bracket. When need arises they provide professional care at home or hospital setting.

In our study we found that maximum assistance/ care was required during assisted bed movements, followed by assistance during walking &

medication accounting to 62%, 60% & 58% respectively. 56% of people also required assistance while changing the clothes. Only 36% of patients require assistance during brushing of teeth & cleaning of face. The above percentages depends upon multiple factors like the age of the patient, comorbidity the patient is suffering from, type of health care provider & even the education status of the patient.

### Conclusion

Developing countries like India with high population is facing growing health needs and limited resources to care for their elderly population. With limited elderly specialized centers & expenses involved in the hospitals, home base care appears to be a good alternative for the elderly as a cost effective approach leading to patient's satisfaction, less admissions in hospitals. Development of the smart homes as per the requirement of individual elderly is the way forward.

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