

# Indian Journal of GERONTOLOGY

(a quarterly journal devoted to research on ageing)

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## **Reaching the Unreached – A Model of Health Care Services for Rural Elderly**

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### **ABSTRACT**

*This study is a report of a camp organized by the geriatric clinic of BLDE DU Shri B M Patil Medical College Hospital and Research Centre, Vijayapura(Karnataka) during the COVID- 19 wave under a scheme named- the 'Reaching the Unreached' programme. One hundred elderly (63 males and 37 females) people registered for the camp on 31/12/2021. The common diseases noted were Hypertension (17%), osteoarthritis (14%), Diabetes (08%), Anaemia (08%), Cataract (05%) Stroke (03%), and heart diseases (03%), while 20 percent of elderly did not have any disease. This camp not only recognized the health issues among the elderly population, but it has also solved major issues like accessibility, affordability, and consistency. This study also proves that the model used by this camp in providing health services to the elderly is cost-effective, sustainable, and reproducible.*

**Keywords :** Health camp, Elderly, Rural, COVID-19.

In India, it is estimated that three-fourths of the elderly population reside in rural areas, while 70 percent of the rural elderly are dependent on others. (Report on status of elderly in India, 2011). The elderly in rural areas do not seek health care services due to unaffordability (Agrawal, *et al.*, 2015). In a study by Indumathi, and Vinayagaram, (2020), it was observed that there is less compliance with medicine use among rural elderly (46%) and high cost involved (21%).

The geriatric clinic of Shri B M Patil Medical College Hospital, and Research Centre, Vijayapura (Karnataka) adopted Arjunagi village (district Bijapur) for Health care services for the elderly people. This village is 40 kilometers from the medical college hospital.

The camp was supported by an NGO named Anand Trust, which initiated this idea and also provided 50 percent of the medicines. The Geriatric Clinic of the medical college provided a vehicle for transport, manpower, postgraduate students and interns, and the remaining 50 percent of medicines. Gram Panchayat of Arjuangi provided a hall for the camp which had senior citizen-friendly facilities. The National Program Health Care of Elderly (NPHCE) Vijayapura, provided educational materials, while the National Service Scheme of KCP Science College provided volunteers. All the services were coordinated by a Geriatrician.

The reasons for choosing this village:

- a) The elderly of this village were not able to reach the hospital due to lack of transport facilities in the lockdown period.
- b) The elderly with disabilities, staying alone, frail and, below the poverty line, who could not afford to reach the health care facilities and
- c) Non-availability of regular medicines for diseases like diabetes, hypertension, heart ailments, and osteoarthritis in the primary health center during a pandemic.

*Aims of the camp were:*

1. to provide healthcare services to those elderly who could not reach us. Hence the phrase "reach the unreached".
2. to provide health services like screening for the diseases and treatment of chronic diseases in the elderly residing in the specified village both accessible and affordable.
3. to promote preventive measures through awareness talks and Immunization
4. to enhance compliance to medicines and ensure the availability of medicines regularly at free of cost.
5. to analyze the demographic pattern of utilization of services, the prevalence of diseases in a study population, and the impact of health care services provided.

**Method***Sample*

410 senior citizens were residing in the village. Out of these elderly people one hundred elderly were registered for the camp for receiving the ongoing health services provided by the hospital.

Among 100 registered elderly persons, 63 were male and 37 were females, which includes two bedridden patients. The oldest patient was 92 years old male. Regarding age distribution, 84 percent were in the age group of 60-74years, 14 percent were in the age group of 75-84 years, and 02 percent were in the 85 + Years age group. (Table -1)

**Table 1***Age and Sex Distribution (n = 100)*

<i>Age group (Years)</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
60-74	51	51%	33	33%
75-84	10	10%	04	04%
More than 85	02	02%	00	00%
	63	63%	37	37%

*Procedure*

Health services like Geriatric Assessment, blood pressure, blood sugar levels, and weight were measured in all patients during every visit. A home visit for the bedridden was also carried out. Awareness talks on various health issues were organized once in six months. The patients who required additional health services were provided a referral letter and were referred to B M Patil Medical College Hospital for further evaluation and treatment. The medicines required for the patients were provided free of cost.

**Results***Common diseases*

The common diseases noted were Hypertension (17%), Osteoarthritis (14%), Chronic bronchitis (10%), Diabetes (08%), Anaemia (08%), Cataract (05%), Heart disease (05%), Post-stroke (04%), Bronchial Asthma (03%), Valvular heart diseases (03%), Parkinson's (02%), Depression (02%), Dementia (01%) and Epilepsy (01%) either in a single or in combination, while 20 percent of elderly did not have any disease. These elderly persons visited the camp for a general check-up and they motivated other elderly persons to attend the camp. (Table -2) Diseases in a combination of two and three were seen in many patients.

**Table 2**  
*Comorbidities*

<i>Name of the Disease</i>	<i>Number</i>	<i>%</i>
Hypertension	17	17
Osteoarthritis	14	14
Chronic bronchitis	10	10
Diabetes	08	08
Anemia	08	08
Cataract	05	05
Ischemic Heart Disease	05	05

Post-stroke	04	04
Bronchial Asthma	03	03
Valvular Heart Diseases	03	03
Parkinson's Disease	02	02
Depression	02	02
Dementia	01	01
Epilepsy	01	01
Cancer Breast operated	01	01
No diseases	20	20

#### *Disabilities*

The most common disability seen was partial blindness (08%), hearing impairment (08%), Parkinson's (02%), and, dementia (01%), while the commonest aids used were walking stick, spectacles, and hearing aids.

#### *Follow up rate*

Every month 25-30 elderly patients visited the camp and got examined for their health and got blood sugar and blood pressure measured and then collected medicines for one month. Five patients were referred for detailed evaluation and treatment to the medical college hospital and all five have visited B M Patil Medical College Hospital.

#### *Mortality*

In the last fifteen months, two deaths were reported among the registered patients.

#### **Discussion**

Male dominance (63%) was seen in receiving health care services in this study. It is similar to a study by Kusuma (2015), while equal proportions of males and females were reported by Agrawal, *et al.*, (2015) and Narapureddy, *et al.*, (2012) whereas Indumathi, (2020) reported female dominance.



Regarding age distribution, in our study 73 were in the age group of 60 to 70 years while 57 were in a study by Indumathi., (2020) and 72 percent in a study by Lena, *et al.*, (2009).

The most common disease noted in our study group is Hypertension in 17 percent, Arthritis in 14 percent, Diabetes in 08 percent, and heart disease in 05 percent, whereas Hypertension in 39 percent, Arthritis in 56 percent, Diabetes in 25 percent, and heart disease in 19 percent, respectively were reported in the study by Kusuma., (2015).

In this study, 20 percent, of the elderly were healthy and not suffering from any diseases while it was 6 percent, in a study by Nair (1989) and 30 percent, in Kusuma, (2015).

All the elderly people in this study group were below the poverty line. The middle and rich-class people visited hospitals in nearby bigger cities. In a study by Agrawal, *et al.*, (2015), the people of low socioeconomic class constituted 50 percent, similar in the study by Sanjel, S., *et al.*, (2012)

#### *Impact of the camp*

The regular camp in the same village helped in:

- 1) diagnosing new cases of Diabetes mellitus in 4, Cataracts in 5, and, Hypertension in 3 elderly people.
- 2) to improve compliance to medicines and good control of diseases as we were providing an uninterrupted supply of medicines which had a positive impact on the Quality of Life of elderly people.
- 3) providing first-hand experience of rural geriatrics to postgraduate students and interns of B M Patil Medical College.
- 4) The camp continued to screen all the new patients for diseases and provided consultation and medicines.
- 5) Created awareness about the prevention of diseases like Malaria and Dengue.

### Implications

The strength of this study was that it brought the real scenario of the health status of the rural elderly from the clinician's point of view and not by the questionnaire method. This activity was carried out for 15 months and provided health care services to the elderly who were not able to reach the hospital for reasons like being 1) differently-abled 2) having no caregivers and 3) could not afford to visit hospitals. Teamwork involving Private Medical colleges, NGOs, Government schemes, and, support from gram panchayat, helped 'reach the unreached in a cost-effective and sustainable model.

This camp not only recognized the health issues among the elderly population, but also solved major issues like accessibility, affordability, and consistency. This camp mainly catered to the needs for screening, and management of Non-Communicable Diseases. This study may be helpful to policymakers in drafting public health reforms for the rural elderly.

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