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# TREATMENT SEEKING BEHAVIOR AND HEALTH CARE EXPENDITURE INCURRED FOR HYPERTENSION AMONG ELDERLY IN URBAN SLUMS OF BELGAUM CITY

Sulakshana S Baliga<sup>1</sup>, Praveen S Gopakumaran<sup>2</sup>, Sangappa M Katti<sup>3</sup>, Maheshwar D Mallapur<sup>4</sup>

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**Author's Affiliation:**

<sup>1</sup>Assistant Professor; <sup>2</sup>Post graduate; <sup>3</sup> Professor and Head; <sup>4</sup>Statistician, Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum, Karnataka

**Correspondence:**

Dr. Sulakshana Baliga  
Email : baliga1983@rediffmail.com

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## ABSTRACT

**Background:** Hypertension is the commonest cardiovascular disorder, among elderly population .It is evident that the urban poor living in slums has poor access to healthcare, partly related to their poor purchasing ability. Present study was undertaken to determine treatment seeking behavior and health expenditure incurred among elderly hypertensive.

**Objectives:** To determine treatment seeking behavior and health expenditure incurred for hypertension among elderly.

**Material and methods:** A Cross sectional study was conducted among elderly population aged 60 years and above in three slums of urban health centre Ram Nagar, Belgaum.

**Results:** Out of the 336 elderly population studied, 174(52%) were found to be hypertensive. Of the 174 hypertensive's, 146 were found to be known hypertensive's. Among the known hypertensive patients only 41 (28%) took regular treatment. High level of out of pocket spending by elderly is observed by way of purchase of medicines, high cost of hospitalization of varying length and charges for diagnostic services.

**Conclusion:** With reduced ability to generate resources, the elderly lack basic needs that affect their health status. Emphasis for an effective health policy for the elderly is recommended.

**Key words:** Hypertension, Treatment seeking behavior, urban slums, Expenditure pattern.

## INTRODUCTION

India is witnessing a rising incidence of non-communicable diseases (NCDs) and old age diseases.<sup>1</sup> In next 50 years elderly population is expected to climb more rapidly in the less developed countries.<sup>2,3</sup> Elderly population contributed to 7% of total population in India in 2001 & expected to rise to 9% by 2016.<sup>4</sup> Elderly population includes persons who are 60 years & above.<sup>5</sup>

Chronic NCDs contributed to 35 of the 58 million deaths (60.3%) in the world in 2005, 80% of these deaths occurred in low and middle income countries.<sup>6</sup> Based on available trends, by 2020

NCDs are predicted to account for 73% of deaths and 60% of disease burden. In India, NCDs were responsible for 53% of deaths and 44% of disability adjusted life years lost.<sup>7</sup> Hypertension is the commonest cardiovascular disorder, posing a major public health challenge to elderly population residing in regions undergoing and socio-economic epidemiological transition. It is one of the major risk factor for cardiovascular mortality, which accounts for 20-50% of all deaths.<sup>8</sup>

A meta-analysis of 34 epidemiological studies from rural and urban populations of India, showed hypertension as a major emerging health

problem more in urban than in rural population.<sup>9</sup> The issue of health care-seeking (or medical-care) behavior is crucial to all society. Attribution of ill health to ageing, low economic status and negative attitude of health workers towards the care of the elderly are some of the factors associated with delay in seeking health care.<sup>10,11,12</sup> Large gaps still exist in the knowledge on the health status and health seeking behavior of the elderly persons in India especially regarding hypertension. It is evident that the urban poor living in slums adopts a more urbanized lifestyle which places them at a higher risk for hypertension and has poor access to healthcare, partly related to their poor purchasing ability. Where one finds well developed maternal and child health services in the developed countries, a vacuum still exist in the elderly health policy.

Present study was undertaken to determine treatment seeking behavior and health expenditure incurred among elderly hypertensives. The results may be used in designing programmes for prevention and management of health problems among the elderly, which would enable them to have a successful ageing.

## METHODOLOGY

The present study was a cross sectional study conducted in three urban slums (Ram nagar, Waddarchavni & Gang wadi) of urban health centre Ramnagar attached to Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum. The study was conducted during September 2011 to October 2011.

All the elderly (336), aged 60 years and above residing in three slums of urban health centre Ram Nagar, Belgaum were included for the study to know the overall prevalence of hypertension. Only the known hypertensive's since last one year based on history or clinical reports and residing in the study area for at least 6 months were included as study participants. The identification of known hypertensive's was self reported and on physician report. Elderly individuals who were critically ill and unable to comprehend questions were excluded. Written informed consent was obtained from all the participants. Information on socio demographic variables, health expenditure and treatment seeking behavior was recorded using pre tested and pre designed questionnaire.

Blood pressure in newly diagnosed cases was measured using the auscultatory method with a standardized mercury sphygmomanometer and

an appropriate sized cuff encircling at least 80% of the arm in the seated posture, with feet on the floor and arm supported at heart level. The reading at which korotkoff sound is first heard was considered as systolic blood pressure and at which the korotkoff sound disappears was taken as diastolic blood pressure. Three readings were taken at three minutes interval and the lowest of the three was taken as the final value. A person was labeled as hypertensive if the systolic BP  $\geq$  140mmHg and/or diastolic BP  $\geq$  90 mmHg as per the JNC-VII criteria.<sup>13</sup>

During assessment of treatment seeking behavior and expenditure incurred, newly diagnosed cases were excluded. Expenditure on treatment for hypertension was self-reported and calculated based on the money spent on consultation with a private practitioner and that spent on purchasing anti-hypertensive medications outside the government health system.

## RESULTS

Out of the 336 elderly population studied 174(52%) were found to be hypertensive, 134 (39.8%) were male and 202 (60.1%) were female.

Of the 174 hypertensive's, 28(16.09%) were newly diagnosed during the study and 146 were known hypertensive's. The newly diagnosed cases were excluded from the study and only 146 known hypertensives were included for study. The newly diagnosed cases were advised regarding the measures to control hypertension and prompt treatment and indicated cases were referred to the KLE hospital.

Of the 146 known hypertensive's patients, 49 (33.5%) were males and 97(66.43%) were females. 60.1% of the participants were found in the age group of 60-69 years. The mean age of the hypertensive's was  $66.47 \pm 4.54$  years. 52% of study participants were Hindus. Majority of them were illiterate (61.4%) and belonged to the lower socio economic strata (76.3%). Nearly 29% of the elderly were living in joint families, 34.2% in three generation families, 30.6% in nuclear families and 6.2% elderly were living alone.

Of the 146 hypertensive patients only 41 (28%) took regular treatment, and 105 (72%) did not seek treatment regularly. 41(28%) participants who took treatment of which, 16% took treatment once a year, 6% every 6 months, 5% every 3 months and only a mere one percent took treatment every month.

Among 105 patients, who were not taking treatment regularly, reasons being financial constraints in 62% of participants and lack of a health facility nearby in 20% of them. And 15% of them were unaware of treatment facilities.

Majority of patients (77%) visited a private hospital /physician for obtaining treatment for hypertension. Only 20% visited a government hospital, while rest 3% consorted alternate systems of medicine.

Decision for treatment seeking was done by themselves in only 17 % of cases, whereas 81% of people took treatment due to pressure from their children, friends, spouses and neighbors.

The expenditure per month for hypertension was found to be Rs.134.88±11.84 for medication and Rs 227.64± 18.03 for routine checkup and investigations. Out of the 146 hypertensive's; 37 (25.4%) had suffered some complication due to hypertension for the past one year and were admitted in hospital. During hospital admission the mean expenditure was Rs 3294± 217.

## DISCUSSION

In the present study, 134(39.8%) were male and 202(60.1%) were female participants. Majority (60.1%) were found in the age group of 60-69 years. Similar age distribution was reported by studies conducted in urban elderly population.<sup>14</sup> <sup>15</sup>Where as more male participants were reported by studies conducted in Orissa.<sup>4</sup>

Out of the 336 elderly population studied 174 (52%) were found to be hypertensive. Similar prevalence of hypertension among elderly was found in studies conducted in Orissa and Kerala<sup>4,16</sup>, whereas low prevalence (8.6%) was reported by study conducted in Tirupati.<sup>17</sup>

In the present study majority (61.4%) were illiterate and belonged to low socioeconomic strata (76.3%). Various studies<sup>4,14,18,19</sup> have reported similar literacy and socioeconomic status.

Nearly 29% of the elderly were living in joint families, 34.2% living in three generation families, 30.6% living in nuclear families and 6.2% elderly living alone. Similar observations were observed by study done by Anjali.<sup>14</sup>

Of the 146 hypertensive patients only 41 (28%) took regular treatment, and 105 (72%) did not seek treatment regularly. The reasons for not taking regular treatment (n=105) were financial constraints (62%) and lack of a nearby health facility (20%). Various studies<sup>20,21,22</sup> showed

similar reasons for not taking treatment, whereas another study<sup>23</sup> has shown that majority (73%) of the elderly took treatment in urban areas, irrespective of economic status.

Majority (77%) of hypertensive's visited a private hospital/physician for obtaining treatment for hypertension. 20% visited a government hospital, while rest 3% consorted alternate systems of medicine. Whereas another study<sup>19</sup> showed that 65% took medication from government hospitals and 32% from chemist shop.

The expenditure per month for hypertension was found to be Rs.134.88±11.84 for medication and Rs 227.64± 18.03 for routine checkup and investigations. Out of the 146 hypertensive's; 37 (25.4%) had suffered some complication due to hypertension for the past one year and were admitted in hospital. During hospital admission the mean expenditure was Rs 3294± 217. The present study shows the preference towards private practitioners and spending money from their pocket for diagnosis as well as treatment of hypertension. Similar expenditure pattern was shown by study conducted in Puducherry where in mean expenditure on consultation was Rs77 ±34.6 per visit and for anti-hypertensive medications was Rs 290±183.7.<sup>19</sup>

Awareness regarding diagnosis and treatment of hypertension should be carried out routinely in the government hospitals. Barriers of geriatric care should be identified and rectified so that they can seek better care for their morbidity.

## Limitations of study

Single visit was used to ascertain hypertension status which could have led to over estimation of prevalence of hypertension. Assessment of treatment status was based only on medication, without considering nonpharmaceutical strategies like dietary salt consumption.

## CONCLUSIONS

More than half of the elderly people are suffering from hypertension which is very high and among them 16% were diagnosed during the study which emphasis need for regular screening for hypertension among elderly population. Majority hypertensive elderly patients preferred private treatment provider. Reasons for less preference towards government services need to be explored and appropriate action to rectify them might help to reduce existing expenditure for medication and routine check up.

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