# Health seeking behaviour in elderly hypertensive patients: a hospital based study 

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#### Abstract

Background: Hypertension is now widely prevalent in several developing countries particularly those in rapid transition and is affecting both the elderly and middle aged alike. Prior studies have shown that anti-hypertensive drug treatment for older hypertensive persons confers highly significant and clinically relevant reductions in cardiovascular morbidity and mortality rates. Nevertheless, a considerable percentage of older persons with hypertension are not detected or are not adequately treated for hypertension. Material and Methods: A Hospital-based cross-sectional study was carried out in the Department of Medicine of Chirayu Medical College and Hospital, Bhopal located in central India. A pretested and pre-structured oral questionnaire was used to interview the subjects and to collect data on demographic characteristics, health seeking behaviour and expenditure on treatment for hypertension (in previously diagnosed cases). Results: All the elderly hypertensives were visiting the doctor at least once in a month. $80 \%$ of the hypertensives had their BP checked once in 15 days. Out of total patients, $60 \%$ reported that they missed at least single dose in the last one month period. $8 \%$ reported that they skipped their medicine for more than 7 days due to some reasons. Conclusion: urgent steps to improve health education and health promotion (specifically on modifiable risk factors and awareness of BP) measures have to be made by the policy makers on a large scale.


Keywords: Elderly, Hypertension, Health seeking Behaviour

## Introduction

Among all the degenerative problems, Hypertension is one of the most important causes of cardiovascular morbidity and mortality in the elderly. With the increase in the number of elderly in India hypertension is likely to emerge as an important public health problem [1]. Hypertension is now widely prevalent in several developing countries particularly those in rapid transition and is affecting both the elderly and middle aged alike. Our population is aging, and as hypertension affects most elderly people (more than 65 years of age), these individuals are more likely to have organ damage or clinical cardiovascular disease (CVD). They represent management dilemmas because most hypertension trials had upper age limits or did not present age-specific results. However, because the Hypertension in the Very Elderly Trial (HYVET) documented antihypertensive therapy benefits in persons more than 80 years of age, it is timely to place into perspective issues relevant to hypertension

[^0]management in elderly patients [2]. The benefits of antihypertensive drug therapy for older persons have been clearly established. Prior studies have shown that antihypertensive drug treatment for older hypertensive persons confers highly significant and clinically relevant reductions in cardiovascular morbidity and mortality rates [3]. Nevertheless, a considerable percentage of older persons with hypertension are not detected or are not adequately treated for hypertension [4]. Hypertension is the one of the most common cardiovascular problem encountered in clinical practice in India [5]. 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 [6]. 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 [7]. Hypertension is the commonest cardiovascular disorder, posing a major public health challenge to elderly population residing in regions undergoing and socioeconomic epidemiological transition. It is one of
the major risk factor for cardiovascular mortality, which accounts for $20-50 \%$ of all deaths [8].

## Material and Methods

A Hospital-based cross-sectional study was carried out in the Department of Medicine of Chirayu Medical College and Hospital, Bhopal located in central India. All the patients aged more than 60 years of age who visited hospital out-patient department were included in the study. Elderly patients who were critically ill and unable to respond to the questions were excluded. A pretested and pre-structured oral questionnaire was used to interview the subjects and to collect data on demographic characteristics, health seeking behaviour and expenditure on treatment for hypertension (in previously diagnosed cases).

BP measurement was done as per the standard guidelines, i.e. using mercury sphygmomanometer in
right arm in the sitting position with feet kept firmly on ground and arm kept at the level of the heart. BP was measured on two separate occasions with a minimum interval of at least 5 minutes between the two measurements. A systolic BP of $\geq 140 \mathrm{~mm} \mathrm{Hg}$ and/or a diastolic BP of $\geq 90 \mathrm{~mm} \mathrm{Hg}$ measured on two separate occasions with a minimum interval of at least 5 minutes between the two measurements OR a self-reported history of taking anti-hypertensive medications is defined as hypertension [9].

Expenditure on treatment for hypertension was selfreported and calculated based on the money spent on consultation with a private practitioner and that spent on purchasing anti-hypertensive medication outside the government health system.

Statistical Analysis: Data were entered in excel sheet and then analyzed using Microsoft Excel 2007.

## Results

Table 1: Socio-demographic characteristics of study subjects

| Variables | Values |
| :--- | :--- |
| Age in years |  |
| Mean | $63 \pm 8.9$ |
| Median | 65 |
| Gender | 70 |
| Male | 42 |
| Female | 09 |
| Literacy | 103 |
| Illiterate |  |
| Literate | 32 |
| Widow | 42 |
| Lost their spouse | 52 |
| Economic dependency |  |
| Dependent | 48 |
| Occupational status | 12 |
| Currently employed in some work | 16 |
| Smoking status | 24 |
| Ever smoker |  |
| Current smoker |  |
| Smokeless tobacco user | Diabetes |
| Yes |  |

The study comprised of 112 cases of hypertension Maximum numbers of patient were observed in the age range 56-75 years comprising 70(62.5\%) males and 42(37.5\%) females. Out of total 112 cases 84(75\%)
cases were previously diagnosed cases of hypertension whereas $28(25 \%)$ cases were diagnosed at the time of study. Among the previously diagnosed cases of hypertension, $50(59.5 \%)$ were diagnosed at government
hospital whereas $34(41.5 \%)$ were diagnosed at private setups. $90 \%$ of the previously diagnosed patients aware that they are suffering from hypertension. Out of total 112 cases of hypertension $55 \%$ were taking their antihypertensive medications from government hospitals and $45 \%$ were taking their medications from medical stores.

All the elderly hypertensives were visiting the doctor at least once in a month. $80 \%$ of the hypertensives had their BP checked once in 15 days. Out of total patients, $60 \%$ reported that they missed at least single dose in the last one month period. $8 \%$ reported that they skipped their medicine for more than 7 days due to some reasons. About $40 \%$ reported that they follow a diet pattern, like consuming less oily foods and restricted salt intake in the diet. $85 \%$ of the patients know that medications have to be continued for life time.

When we asked the previously diagnosed cases of hypertension about the expenditure incurred on medicines, the mean expenditure on consultation came out to be rupees $35 \pm 13.5$ per visit and expenditure on medicines was about rupees $245 \pm 40$ per month.

## Discussion

In our study the mean age of patients was $63 \pm 8.9$ years comprising $70(62.5 \%)$ males and $42(37.5 \%)$ females. Only $8 \%$ Of the study subjects were found to be illiterate in our study and $90 \%$ of the previously diagnosed patients aware of their hypertensive status whereas in a study conducted by Palanivel Chinnakali and Bharathy Mohan in kerala, $65 \%$ of the study participants were illiterate in their study and $62 \%$ were found to be hypertensive were already aware of their hypertensive status [10].

Out of total 112 study subjects $34(41.5 \%$ ) were diagnosed at private health facilities whereas Palanivel Chinnakali and Bharathy Mohan found in their study that about half of hypertensives had been diagnosed by private practitioners [10]. This finding shows the preference toward government health facilities and that the elderly were spending less money from their pocket for diagnosis and as well as treatment of hypertension [10].

About $60 \%$ of the hypertensives had reported that they missed at least one dose of anti-hypertensive drug during the last one month whereas Palanivel Chinnakali and Bharathy Mohan found in their study that about half
of hypertensives missed at least one dose of antihypertensive drug during the last one month [10].

The study was carried out in the hospital and sample was selected by a convenience sampling method. Findings of this study cannot be generalized to whole population, but it provides an overview of the problem and puts forward suggestions for early diagnosis and management of hypertension in the elderly.

Information regarding alcohol intake, body mass index, and dyslipidemia were not collected. Estimates of expenditure on treatment for hypertension and adherence to anti-hypertensive medication were based on smaller sample of individuals.

As the elderly population is likely to increase in future, and there is definite shift in the disease pattern, i.e. from communicable to non-communicable, it is high time that the health care system gears itself to growing health needs of the elderly in an optimal and comprehensive manner.

## Conclusion

In view of these findings, urgent steps to improve health education and health promotion (specifically on modifiable risk factors and awareness of BP) measures have to be made by the policy makers on a large scale. Existing interventions should look at incorporating multicomponent and multilevel approaches for better managing BP among Indians, as current rates for awareness, treatment of BP , and control of BP among those on treatment are very low.

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