

## Original Research Article

# Lay perspectives on causes and complications of hypertension; and barrier to access health care by known hypertensive patients: a qualitative study from a rural area of South India

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## ABSTRACT

**Background:** Global prevalence of hypertension in the year 2000 was estimated to be 26% with approximately 1 billion people affected by it. By 2025 this has been projected to increase to 29%, expecting greater proportion of population will be consists of elderly people. Limited qualitative studies on hypertension are available in India. We intended to conduct a qualitative study on the perception about hypertension causes, complications and barrier to get medications, among known hypertensive patients residing in rural area or south India.

**Methods:** A qualitative study has been undertaken in August 2016 by the interns posted in Rural Health Training Centre of Pondicherry Institute of Medical Sciences (RHTC-PIMS). The study was completed after conducting in depth interview among 40 randomly selected known hypertensive patients. All the interviews were audio taped. Verbatim were done from the recording in local language (Tamil) and then translated to English. Coding and thematic analysis was done by analysis team consisting of one Assistant Professor in Community Medicine, one medical social worker (MSW) and three interns.

**Results:** There is a huge lack of awareness about the causes of hypertension among the patients. There is also a huge lack of awareness about the complications of hypertension, among hypertensive patients. This may result in poor adherence to medication and prevention of complications. Almost all the patients reported that they were following Allopathic medications and getting medications from government primary health centre. There is a need to visit the health centre every week, as the medicines provided to them are only weekly basis.

**Conclusions:** There is a huge lack of knowledge about hypertension among known hypertensive patients. There is a need for a holistic approach in managing hypertensive patients in rural area in India.

**Keywords:** Adherence, Perception about hypertension, South India

## INTRODUCTION

Hypertension refers to a chronic medical condition relating to an elevation in blood pressure.

Global prevalence of hypertension in the year 2000 was estimated to be 26% with approximately 1 billion people

affected by it. By 2025 this has been projected to increase to 29%, expecting greater proportion of population will be consists of elderly people.<sup>1</sup> In India prevalence of hypertension was around 30.9 % in urban and 21% in rural communities in 2005.<sup>1,2</sup> About 9.4 million deaths and 7% of disability adjusted life years (DALYs) in 2010 was estimated to be associated with hypertension as risk

factor.<sup>3</sup> Population based studies have found that around two thirds of people with hypertension are either untreated or inadequately controlled, including many remain undiagnosed.<sup>4-6</sup>

Many quantitative studies have published in knowledge, attitude and practice including adherence, whereas qualitative studies are subtle. The main aim of this study was to assess the knowledge of hypertensive patients about their disease in terms of causes, complications and barrier to get medications by in depth interview method.

## METHODS

### *Study area*

A qualitative study has been undertaken in August 2016 by the interns posted in Rural Health Training Centre of Pondicherry Institute of Medical Sciences (RHTC-PIMS), as a part of strengthening CHIMS (community health information management system). CHIMS is a computerized record of the family and individual members in the field practice area of Pondicherry Institute of Medical Sciences – Rural Health Training Centre in Chunampet, Kanchepuram district of Tamilnadu. Field practice area covers 10 villages around Chunampet consisting of around 10700 total population. The centre is continuously collecting and maintaining the family and individual records from 1992. These records were computerized since 2014 which is named as CHIMS. Each individual was assigned an eleven digit UID (Unique Identification Number) which is mandatory while collecting data. Social mapping also done whose house numbers were interlinked with UID. By this each individual can be traced after study for further intervention. This also improves the quality of data. Totally 419 participants (hypertensive patients) were line listed from CHIMS and the study participants were selected randomly from the line list to avoid bias.

The study was completed after interviewing 40 participants, when the results reached a saturation point. Personal face to face interviews were carried out using an interview guide which was developed in the local language (Tamil) based on the literature review. Questions were asked broadly under four themes. Themes were decided even prior to interview. Students and Medical Social Workers (MSWs) were trained for two days in interview and collecting data. All the interviews were audio taped. Verbatim were done from the recording in local language (Tamil) and then translated to English. Coding and thematic analysis was done by analysis team consisting of one Assistant Professor in Community Medicine, one MSW and three interns.

Three men who could not be contacted during the study period after two visits were excluded from the study. The participants were explained about the study. Participant information sheet was provided and informed written consent was obtained from the patients.

## RESULTS

### *Theme 1: causes of hypertension*

Most of the patients don't know the cause of hypertension. Few of them felt that stress is the main cause for developing hypertension and few others think that unhealthy food habits cause hypertension.

Female, 60 yrs (years): “ Kari, muttai meen pondravatrai athigamaga undaal, rethakkothippu athigamaga varum endru solkiraarkal”

Female, 60yrs: “People says that, If we eat meat, egg or fish in excess, we will develop hypertension”

### *Theme 2: complications of hypertension*

Most of the patients thought that Giddiness and weakness of arms and legs are complications of hypertension. Few of them thought that knee pain is a complication of hypertension, and few others don't know the complications of hypertension. Very few said stroke and heart diseases are complications of hypertension.

Female, 65 yrs: “vela vela vena varukirathu. Oru mathiriya sornthu pogirathu”

Female, 65yrs: “feeling palpitation and feeling weekness”

### *Theme 3: health seeking behaviour*

Almost all of them preferred allopathic over alternative medicine (Ayurveda, Siddha) and almost all of them getting medications from nearby government Primary Health Centre. All most all the patients reach the health facilities of their own, without any others help. For very few their siblings were helping. Few of them told that they have to visit the health centre once in a week.

Male, 66 years: “Eppoluthavathu pillaikal, magankal varuvarkal allathu nane senru marunthu vaanki varuven”

Male, 66 years: “Rarely my siblings may accompany with me, else I have to go alone”

Female, 60 years: “Ovvoru eelu natkalukkum maruthuvamanai senru marunthu vaanka vendum. Thaniyaga senru vankuvatharku siramamaga ullathu”

Female 60 years: “Once in a week I have to go to the health facility to get medications. It is very difficult for me go alone and get the medication”

### *Theme 4: barriers of getting medications from health facilities*

Few of them said crowded Primary health Centres and long queues make it difficult for them to get the

medicines. Some of them told that distance, non availability of transport were barriers in getting medications. Others told that they have only minimal difficulty in getting medication from health facilities.

Female, 42 years: “Inkirunthu poga auto kidaikathu, athanal vandi irunthal poven allathu nadanthu poven”

Female, 42 years: “No auto will be available for going from here, so I may have to go by bike if available, or I have to walk”

Male, 66 years: “Nadanthu Poga mudiyathathala than mathirai vaanka kastama irukku. Aaspathiri ponalum nirpatharku kastama irukkum. Utkanthu utkanthu maathirai vanka vendum”

Male, 66 years: “Difficulty in walking is the main reason for not getting medication. Even if I visit the health facility, I can’t even stand in a queue continuously. I have to sit now and then while standing in the queue”

**Table1: Socio-demographic and other variables of study participants.**

Variable	n (%)
Family members mean (SD)	3.8 (2.2)
Age mean (SD)	56.95 (9.5)
<b>Sex</b>	
Male	10 (25)
Female	30 (75)
<b>Marital status</b>	
Married	32 (80)
Widow/widower	8 (20)
<b>Caste</b>	
SC/ST	19 (47.5)
MBC	16 (40)
BC/OC	5 (12.5)
<b>Education</b>	
Illiterate	23 (57.5)
Others	17 (42.5)
<b>Occupation</b>	
Unemployed	14 (35)
Employed	26 (65)
<b>Tobacco user</b>	13 (32.5)
<b>Alcoholic</b>	9 (22.5)
<b>Diabetic</b>	12 (30)
Antihypertensives taken yesterday	30 (75)

## DISCUSSION

This community based study has been conducted in a remote rural area in South India. Very limited qualitative studies are available in India for comparison. The main aim of this study was to assess the knowledge of hypertensive patients about their disease in terms of causes, complications and barrier to get medications. This study has shown that there is a huge lack of awareness

about the causes of hypertension among the patients. Similar findings observed in other studies also.<sup>7-9</sup> There is a need to create awareness about the causes of hypertension among the patients, which may create a behaviour change individually as well as in their family.

Results also have shown that there is a huge lack of awareness about the complications of hypertension, among hypertensive patients. This may result in poor adherence to medication and prevention of complications. There is a need to educate the patients about the complications of hypertension.

Almost all the patients reported that they were following Allopathic medications and getting medications from government Primary Health Centre. This is an encouraging result. This gives the health providers an opportunity to impart facility based behaviour change communications and health education among the patients, in a remote rural area.

As mentioned by some patients, that they need to visit the health centre every week, as the medicines provided to them are only weekly basis. This will reduce the adherence to medication and will increase the out of pocket expenditure to the patient. There is a need to calibrate the frequency of visits as recommended by standard guidelines, which will reduce the burden on health facility as well as on patients. This should be done by supporting Primary Health Centres with adequate logistic supply including medications.

Recently World Health Organization has rolled “Package of Essential Non communicable (PEN) Disease” Interventions for Primary Health Care in Low-Resource Settings with the aim of Closing the gap between what is needed and what is currently available to reduce the burden, health-care costs and human suffering due to major NCDs by achieving higher coverage of essential interventions in LMIC (Low and Middle income Countries).<sup>10</sup> It is recommended that NPCDCS (National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke) should consider the above suggestions, while implementing the programmes in rural area for effective coverage and better service, as almost all the patients in rural area depends on government facilities specially primary care to avail treatment.<sup>11</sup>

## CONCLUSION

The results from this community based study reveals that there is a huge lack of knowledge about their disease among hypertensive patients and the barriers in getting medications in rural area in south India. This study also offers more support for the need of a holistic approach in managing hypertensive patients in rural area.

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