

# THE HABITS AMONG HYPERTENSIVE PATIENTS OF SELECTED RURAL AREAS

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## ABSTRACT:

**Background:** This descriptive research is to examine the smoking and alcohol consumption behaviors among hypertensive patients of selected rural areas in Nellore district.

**Objectives:** • To assess the level of habits in hypertensive patients.

• To find out the association between the level of habits in hypertensive patients with their selected socio demographic variables.

**Methods:** The hypertensive patients in this descriptive study, selected rural areas of, Nellore. A total of 50 hypertensive patients were randomly selected. Trained investigators administered a standard questionnaire to each participant during a face to face interview and carried out data collection procedure.

**Results:** The results show that, out of 50 hypertensive patients in context to distribution of smoking 28 (56%) were addicted 22(44%) were non addicted with regard to distribution of alcoholism, 13 (26%) were in Zone-I, 12(24%) were in Zone-II and 11(22%) were in Zone-III and 14(28%) were in Zone-IV.

**Conclusion:** it is noticeable that 28 (56%) were addicted to smoking and 13 (26%) were in Zone-I, 12(24%) were in Zone-II and 11(22%) were in Zone-III and 14(28%) were in Zone-IV of alcoholism. These results indicate lack of knowledge on effects of smoking and alcoholism on hypertension. Therefore, the study recommends that health providers should raise awareness on the control of smoking and alcoholism in every hypertensive patient and educate them on the effects of it.

**Keywords:** Knowledge, smoking, alcoholism, hypertensive patients.

## INTRODUCTION

Cardiovascular risk factors play a significant role to influence the rate and characteristics of some cardiovascular diseases, primarily a coronary and cerebrovascular disease<sup>1</sup>. Among the major cardiovascular risk factors, cigarette smoking and hypertension have been widely investigated with regard to their relationship with heart and blood vessels in an attempt to assess their effectiveness to impair both clinical outcome and prognosis in those patients who met these two factors, but no unanimous conclusion on the subject has been achieved<sup>2</sup>.

Separately taken into account, there is evidence that smoking and hypertension are both independent risk factors for cardiovascular disease<sup>3-5</sup>, although the first factor is strongly associated with the appearance of elevated blood pressure<sup>6</sup>. In addition, the link between smoking and hypertension is still far to be completely identified since, usually, a smoker begins to smoke as before as the appearance of the blood pressure disorder and, therefore, confusion exists to assess whether hypertension will appear spontaneously and independently in the individuals affected or, on the contrary, is a result of smoking habit.

Whatever the assessment of hypertension is approaching, there is evidence that severe pathological alterations characterize the complications of the disease, being hypertension often asymptomatic and occasionally identified during a routine medical control. In addition, establishing the values over which blood pressure is a cardiovascular risk factor is hard, particularly when cigarette smoking is associated<sup>7,8</sup>.

As to alcohol intake, the prevalent ratio of daily habit was 76% for males and 0% for females. There is linear relationship among 3 factors, which are alcohol consumption, blood pressure levels and the prevalence of hypertension. As hypertensive patients with medicine drink more, blood pressure rises<sup>9</sup>. Alcohol consumption from low to moderate extent would give no harm. However, drinking changes from moderate to excessive extent will cause elevated blood pressure, as well as increasing the risk for stroke.

The efficacy of alcohol reduction for blood pressure was investigated by The Prevention and Treatment of Hypertension Study (PATHS). There were 2 groups including intervention and control. The former group showed 1.2/0.7 mmHg greater reduction than the latter at 6-months period<sup>10</sup>. Concerning alcohol intake for ethanol per day, Hypertensive men with alcohol drinking are advised to limit no more than 20-30 g, and hypertensive female are advised to limit no more than 10-20 g. Alcohol intake per week is advised within 140 g for men and 80 g for women. In this study, we investigated 50 patients who led to behavioral change by living adjustment and discontinued antihypertensive agents after lowering blood pressure. Medicated years (mean 25%-75%) before the intervention were 5.5 (2.0-10.0) years vs. 4.0 (1.5-9.0) years in male and female, respectively, ranging rather wide period.

This descriptive research is aimed to examine the smoking and alcohol consumption behaviors among hypertensive patients of selected rural areas in Nellore district.

#### **Detailed Research Plan:**

This descriptive study was carried out in selected rural areas of Nellore district. The accessible population of this study consisted of all hypertensive patients who met the inclusion criteria like who are between 20-60 years, who are available during the data collection time.

The accessible population of this study consisted of 50 hypertensive patients. Sample size was calculated to estimate the prevalence of different health outcomes investigated in the survey, considering a confidence level of 95%, sampling error of 3 percentage points, percentage of losses estimated at 10%. Based on these parameters, we obtained a sample size of 50 hypertensive patients.

Sample size formula is

$$n = \left( \frac{Z\sigma}{E} \right)^2$$

Where, **Z** is the value from the table of probabilities of the standard normal distribution for the desired confidence level (e.g., Z = 1.96 for 95% confidence)

**E** is the margin of error that the investigator specifies as important from a clinical or practical standpoint.

**σ** is the standard deviation of the outcome of interest.

#### **TOOLS FOR DATA COLLECTION:**

**SECTION A:** Socio-demographic variables includes age in years, gender, religion, educational qualification, occupation, family income per month, marital status, type of family, type of diet, habits.

The demographic variables of the adults such as Age, Gender, Educational status, Occupation, Family Income, Marital status, Type of family, Dietary pattern, Use of anti hypertensive medication.

**SECTION B:** The tool consist of 2 parts as follows,

**Section-I:** It deals with demographic variables Age, Gender, Educational status, Occupation, Family Income, Marital status, Type of family, Dietary pattern, Use of anti hypertensive medication.

**Section-II:** It deals with the Cigarette Dependence Scale and Modified Alcohol Use Disorders Identification Test (AUDIT), the number of items 12 were used in Cigarette Dependence Scale and 10 were used in Modified Alcohol Use Disorders Identification Test (AUDIT), the study to assess habits of hypertensive and diabetic patients among adults.

### DATA COLLECTION PROCEDURE:

This cross-sectional study was conducted in Saraswathi Nagar at Nellore district during 2019. This study comprises of both male and female adults between 20-60 years, adults on leave and is not willing to participate and to give informed consent were excluded from the study. Structured questionnaire was developed to assess the knowledge on causes of coronary artery disease among the adults, Nellore. Institutional ethics committee approved the study protocol. Written informed consent was obtained from participants.

Data was analyzed using the Statistical Package of Social Sciences (SPSS) 20.0 version of window software. Descriptive and inferential statistics were used to test the assumption.

### RESULTS AND DISCUSSION:

A total of 50 hypertensive patients were participated in the study. The table 1 shows the socio demographic profile of the hypertensive patients.

**Table 1 . Frequency and percentage distribution of socio demographic data. (N=50)**

Socio demographic variable	Frequency (f)	Percentage (%)
<b>Age in years</b>		
21-30 years	12	24
31-40 years	28	56
41-50 years	8	16
51-60 years	2	4
<b>Gender</b>		
Male	38	76
Female	12	24
<b>Marital status</b>		
Married	26	52
Un married	12	24
Divorced	8	16
Widow	4	8
<b>Educational qualification</b>		
No formal education	18	36

Primary education	12	24
High school	14	28
Intermediate	6	12
<b>Occupation</b>		
House wife	19	38
Coolie/ agriculture	28	56
Government job	2	4
Private/ business	1	2
<b>Family income per month</b>		
Rs.<5000/-	12	24
Rs.5000-7000/month	24	54
Rs.7001-9000/month	12	20
Rs.9001-11000/month	2	2
<b>Type of family</b>		
Nuclear	22	44
Joint	26	52
Extended	2	4
<b>Type of diet</b>		
Vegetarian	17	34
Non vegetarian	23	46
Ova vegetarian	8	16
Lacto vegetarian	2	4
<b>Use of anti hypertensive medication</b>		
Yes	50	100

From the above table Frequency and percentage distribution of adults based on their age with relation to age, 12(24%) adults are between 21-30 years, 28(56%) are between 31-40 years, 8(16%) are between 41-50 years and 2(4%) are between 51-60 years of age. With regard to gender, 38(76%) are males and 12(24%) are females. In context to marital status, 26(52%) adults are married, 12(24%) are un married, 8(16%) are divorced, and 4(8%) are widow. In context to educational qualification, 18(36%) adults had No formal education, 12(24%) had primary education, 14(28%) studied high school education and 6(12%) studied intermediate. With relation to occupation, 22(44%) adults are coolies, 12(24%) are farmers, 4(8%) are unemployees, 2(4%) are doing business

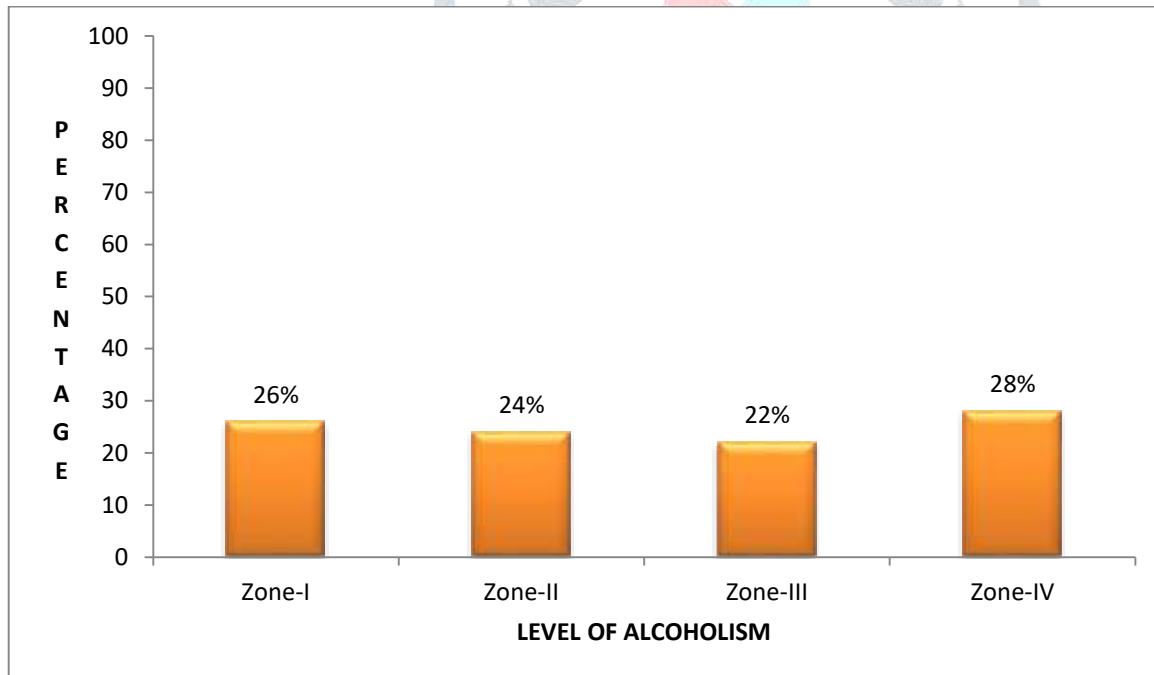
and 10(20%) are housewives. In context to family income, 12(24%) are earning Rs.<5000/-, 24(48%) are earning Rs.5000-7000/-, 12(24%) are earning Rs. 7001-9000/- and 2(4%) are earning Rs.9001-11000/- per month. In relation to type of family, 22(44%) adults are living in nuclear family, 26(52%) are living in joint family and 2(4%) are living in extended family. In association to diet, 17(34%) adults are vegetarian, 23(46%) are non vegetarians, 8(16%) are ova vegetarians and 2(4%) are lacto vegetarians. In context to use of anti-hypertensive medication, 50(100%) said yes.

**Table no.2: Frequency and percentage distribution of alcoholism among hypertensive patients**

(n=50)

Distribution of alcoholism	Frequency	Percentage
a. Zone-I	13	26
b. Zone-II	12	24
c. Zone-III	11	22
d. Zone-IV	14	28
<b>Total</b>	<b>50</b>	<b>100</b>

From the above table in context to distribution of alcoholism, 13 (26%) are having Zone-I, 12(24%) are having Zone-II and 11(22%) are having Zone-III and 14(28%) are having Zone-IV alcoholism.



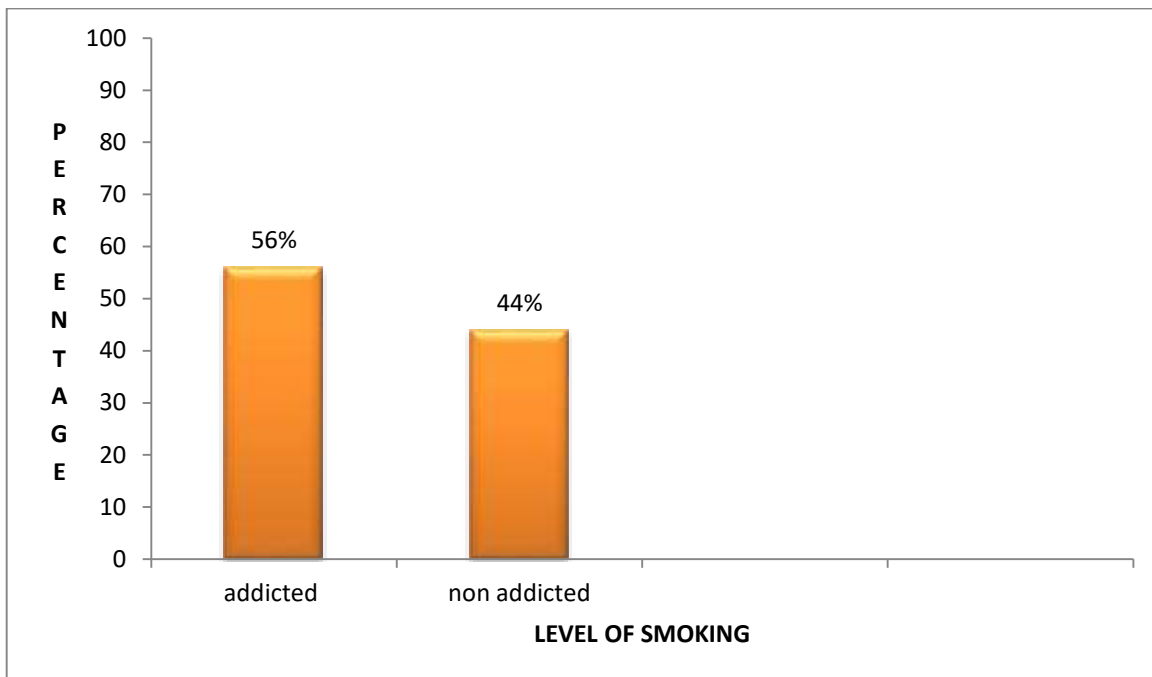
**Fig no.1: Percentage distribution of alcoholism among hypertensive patients**

**Table no.3: Frequency and percentage distribution of smoking among hypertensive patients** (n=50)

Distribution of smoking	Frequency	Percentage
a. Addicted	28	56
b. Non addicted	22	44
<b>Total</b>	<b>50</b>	<b>100</b>

From the above table in context to distribution of smoking 28 (56%) are addicted 22(44%) are non addicted.





**Fig no.2: Percentage distribution among adults based on level of smoking.**

## Discussion

Hypertension is an important health problem in both urban and rural areas of India. Results of the present study showed that in context to alcoholism, 13 (26%) are having Zone-I, 12(24%) are having Zone-II and 11(22%) are having Zone-III and 14(28%) are having Zone-IV alcoholism and in context to distribution of smoking 28 (56%) are addicted and 22(44%) are non addicted.

These findings were similar to those reported by Awino et al.<sup>11</sup>, Laxmaiah et al.<sup>12</sup>, and Mahmood et al.<sup>13</sup> found that age, education, obesity, smoking, and alcohol consumption were predictors of hypertension; similarly, Ganesh et al.<sup>14</sup> also found that factors such as higher age group, current use of alcohol, less than 7 servings of fruits in a week, moderate stress level, and waist circumference more than 90 cm were associated with higher prevalence of hypertension. These differences may be due to variations in cultural acceptance.

This light the need for further improvement of the public knowledge on causes of Coronary artery disease which are highly prevalent among the population of India and also the lifestyle modification to prevent the occurrence of CAD. Although knowledge of diseases alone is inadequate for better healthcare outcomes, it is a vital pre requisite to change the individual's health attitudes, behaviors and lifestyle practices<sup>12&13</sup>.

**CONCLUSION:** The finding of a high prevalence of smoking and alcohol consumption among men in this rural population of India is of serious concern and therefore needs remedial measures. We should create an environment in the community that help smokers who want to quit, and those who quit should continue to persuade and help other smokers to quit. Awareness should be made of the ill effects of smoking and alcohol use by individual and group discussions at the community level through health workers and through the media (at the national level) and encourage adopting healthy lifestyles. Besides health professionals, religious pundits may be powerful agents for influencing change of smoking and drinking behaviors in rural areas. We too need to learn about the factors that have an influence on cessation. Medical assistance should be provided to those wishing to quit smoking to overcome the withdrawal effects. Apart from familial support, some cessation services should be provided to people who are not able to gather sufficient support from outside or within them to quit the habit and sustain it.

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