

# A Study to Assess the Knowledge and Practices Regarding Life Style Modification among Hypertensive Patients in the Selected Hospitals of Karkala and Mangalore Taluk

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## Abstract

Hypertension is a condition where individual have high blood pressure. It is a major risk factor for cardiac, cerebral and renal diseases. Hypertension is one of the leading causes of death and disability among adults. Methodology: The research design selected for this study was descriptive survey design. 50 hypertensive patients were selected using non-probability convenient sampling technique. Study was conducted in selected hospitals in Karkala and Mangalore Taluk. The instrument used for the study was structured interview schedule and life style practice rating scale. Results: The result showed that among hypertensive patients 54% had average knowledge, 20% had poor knowledge, 18% had good knowledge and 8% had very good knowledge regarding life style modification of hypertension and 78% had good life style practice and 22% had very good life style practice and also revealed that there was significant correlation between knowledge and life style practice. Conclusion: Hypertensive patients had average knowledge and life style practice was relatively good.

**Keywords:** hypertension, knowledge, practice, life style modification

## 1. Introduction

Hypertension is one of the leading causes of death and disability among adults. Elevated blood pressure accounts for 50% of all deaths in developed countries, and in developing countries, it is nearly 16%. 35% were not diagnosed, 51% are not receiving therapy and 28% are receiving adequate therapy<sup>1</sup>.

Cardiovascular diseases caused 2.3 million deaths in India in the year 1990; this is projected to double by the year 2020. Hypertension is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease deaths in India. Indian urban population studies in the mid -1950s used older WHO guidelines for diagnosis (BP> 160 and/or 95 mmHg) and reported hypertension prevalence of 1.2-4.0%. Subsequent studies report steadily increasing prevalence from 5% in 1960s to 12-15% in 1990s. Hypertension prevalence is lower in the rural Indian population, although there has been a steady increase over time here as well. Recent studies using revised criteria (BP>140 and/or 90 mm Hg) have shown a high prevalence of hypertension among urban adults: men 30% women 33% in Jaipur (1995), men 44%, women 45% in Mumbai (1999), men 31%, women 36% in Thiruvananthapuram (2000), 14% in Chennai (2001), and men 36%, women 37% in Jaipur (2002). Among the rural populations, hypertension prevalence is men 24%, women 17% in Rajasthan (1994). Hypertension diagnosed by multiple examinations has been reported in 27% male and 28% female executives in Mumbai (2000) and 4.5% rural subjects in Haryana (1999). There is a strong correlation between changing lifestyle factors and increase in hypertension in India. At an underestimate, there are 31.5 million hypertensives in rural and 34 million in urban populations. A total of 70% of these would be Stage I hypertension (systolic BP 140-159) and/or diastolic BP 90-99 mm Hg). Recent reports Show that borderline hypertension carry a significant cardiovascular risk and there is a need to reduce this blood pressure. Population – based cost effective hypertension control strategies should developed.<sup>2</sup>

Increasing hypertension in India and other developing countries has been related to sedentary lifestyle, excess dietary salt, calorie and alcohol intake, increasing generalized and central obesity, and stress of migration and urbanization.<sup>3</sup> It has also been proposed that hypertensive individuals are genetically predisposed and that hypertension occurs in only those with a strong genetic contribution. Studies on monozygotic and dizygotic twins have reported a strong genetic component in hypertension. The role of environmental influences has been reported as being relatively minor by some and important by others.<sup>4</sup>

## 2. Materials and methods

The research design adopted for the present study was descriptive survey design. The sample size for the study was 50 hypertensive patients who were selected by non-probability convenient sampling technique. The tools used were demographic proforma, structured interview schedule and life style practice rating scale. Reliability coefficient of the knowledge questionnaire was tested using split half method following Spearman's Brown

Prophecy formulae. The reliability of the structured knowledge questionnaire was found to be  $r(10) = 0.81$ . Reliability of practice rating scale was tested using inter rater method following Spearman's rank correlation coefficient. The reliability of practice rating scale was found to be  $r(10) = 0.85$ .

### 3. Data collection process

Formal written permission was obtained from the Medical Officers of various hospitals. The data was collected from 50 hypertensive patients who met the study criteria. The samples were informed about the purpose of the study and the consent was taken from them. The tool was administered using interview technique. On various days the investigator contacted the study subjects and administered the data collection tool individually. Both descriptive and inferential statistics were used to analyze the data collection.

### 3. Results:

The findings of the study revealed that most of the hypertensive patients (54%) had average knowledge, (20%) had poor knowledge, (18%) had good knowledge (8%) had very good knowledge. The mean percentage of knowledge score was 52.89%

Regarding the practice the findings of the study revealed that majority of the hypertensive patients [78%] had good life style practice and [22%] and very good life style practice. The mean percentage of practice score was 69.18%

**Table 1: Frequency and percentage distribution of subjects according to their level of knowledge**  
**n=50**

level of knowledge	Frequency(f)	Percentage(%)
Poor	10	20
Average	27	54
Good	9	18
Very good	4	8
Total	50	100

**Table 2: Frequency and percentage distribution of subjects according to their life style practice**  
**n=50**

level of knowledge	Frequency(f)	Percentage (%)
Poor	Nil	0
Average	Nil	0
Good	39	78
Very good	11	22
Total	50	100

**Table 3: Correlation between knowledge and practice score.**

**n=50**

	Mean	Standard deviation	correlation
<b>Knowledge</b>	<b>9.52</b>	<b>3.2</b>	<b>-0.292</b>
<b>Practice</b>	<b>37.36</b>	<b>4.088</b>	

**Table 4(a): Association between knowledge score and selected demographic variables**

n=50

Sl.no	Demographic data	Over all knowledge score		Chi square value (df)
		< median(9)	≥median(9)	
1.	Age in years			
a.	40-50	8	11	1.3614 (2)
b.	51-60	5	10	
c.	61-70	4	12	
2.	Sex			
a.	Male	2	11	0.0792 (1)
b.	Female	12	22	
3.	Religion			
a.	Hindu	12	23	0.00424 (1)
b.	Christian and Muslim	5	10	
4.	Marital status			
a.	Married	15	29	0.0379 (1)
b.	Single	2	4	
5.	Education			
a.	No education, primary education	11	23	.60629 (2)
b.	Higher secondary, high school	4	8	
c.	Graduate, post graduate and others	1	3	

**Table 4(b): Association between knowledge score and selected demographic variables**

n=50

Sl.no	Demographic data	Over all knowledge score		Chi square value (df)
		< median(9)	≥median(9)	
6.	occupation			
a.	Coolie agriculture	9	18	1.113 (2)
b.	Business employee	4	9	
c.	Nil	2	8	
7.	Type of family			
a.	Nuclear	8	22	1.797 (1)
b.	Joint	9	11	
8.	Income			
a.	≤2000	6	5	6.117 (3)
b.	2001-4000	7	9	
c.	4001-6000	2	7	
d.	>6000	2	12	
9.	Dietary pattern			
a.	Vegetarian	4	9	0.227 (1)
b.	Non vegetarian	13	24	
10.	Family history of hypertension			
a.	Yes	6	10	0.034 (1)
b.	No	11	23	
11.	Duration of illness in years			
a.	<1	9	10	3.2785 (3)
b.	1-3	5	14	
c.	3-5	2	7	
d.	>5	1	2	

Table value  $X^2_{(1)}=3.841$ , Table value  $X^2_{(2)}=5.991$ , Table value  $X^2_{(3)}=7.895, P<.05$

The data presented 4[a] and [b] show that there were no significant association between knowledge score and selected demographic variables. Hence the null hypothesis is accepted and the research hypothesis is rejected thus the investigators interpreted that the knowledge scores regarding life style modification among hypertensive patient were not influenced by the demographic variables.

**Table 5(a): Association between practice scores and selected demographic variables**

Sl.no	Demographic data	Over all practice score		Chi square value (df)
		< median(37)	≥median(37)	
1.	Age in years			
a.	40-50	10	9	0.5734 (2)
b.	51-60	6	9	
c.	61-70	8	8	
2.	Sex			
a.	Male	8	16	0.03766 (1)
b.	Female	8	18	
3.	Religion			
a.	Hindu	16	19	0.243 (1)
b.	Christian and Muslim	8	7	
4.	Marital status			
a.	Married	24	20	3.2192 (1)
b.	Single	1	5	
5.	Education			
a.	No education, primary education	19	15	6.0351 (2)
b.	Higher secondary, high school	4	8	
c.	Graduate, post graduate and others	0	4	

**Table 5(b): Association between practice scores and selected demographic variables**

n=50

Sl.no	Demographic data	Over all knowledge score		Chi square value (df)
		< median(37)	≥median(37)	
6.	occupation			
a.	Coolie agriculture	13	14	1.260 (2)
b.	Business employee	5	8	
c.	Nil	6	4	
7.	Type of family			
a.	Nuclear	15	15	0.1201 (1)
b.	Joint	9	11	
8.	Income			
a.	≤2000	4	7	1.722 (3)
b.	2001-4000	7	9	
c.	4001-6001	5	4	
d.	>6000	8	6	
9.	Dietary pattern			
a.	Vegetarian	7	6	0.103 (1)
b.	Non vegetarian	18	19	
10.	Family history of hypertension			
a.	Yes	8	8	0.1(1)
b.	No	17	17	
11.	Duration of illness in years			
a.	<1	9	10	4.436 (3)
b.	1-3	10	9	
c.	3-5	5	4	
d.	>5	0	3	

Table value $X^2_{(1)}=3.841$ , Table value $X^2_{(2)}=5.991$ , Table value $X^2_{(3)}=7.895, P<.05$

#### 4. Discussion

The data presented in the Table 4 a & b shows that there was no significant association between knowledge score and selected demographic variables like age in years, sex, religion, marital status, education, occupation, type of family, income, dietary pattern, family history of hypertension, duration of hypertension.

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#### **Limitations**

- The study was confined to specific geographical area which imposes a limit on generalization.
- The study did not use control group. Hence the results of the study must be generalized with caution as there is threat to internal validity due to history.

#### **Recommendations**

- A similar study can be replicated with different population.
- A survey can be conducted to find the incidence and prevalence of hypertension.
- An experimental study can be conducted to determine the effectiveness of various alternative therapies on hypertension.

#### **Conclusion**

In view of the magnitude of the problem, the prevalence of hypertension in developing country is consistently high. This indicates that there is need for health education campaign for the improvement of knowledge and life style practices regarding hypertension to the community.

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