

## EXPLORE THE LIFESTYLE PRACTICES AND ITS RELATION TO LEVEL OF BLOOD PRESSURE AMONG PEOPLE ATTENDING OPD OF PIMS HOSPITAL.

\*Dr. M. Navaneetha, & \*Prof. Mallika Rajadurai

### Abstract

Chronic diseases are the leading cause of deaths world-wide and their impact is steadily growing. High blood pressure – also known as raised blood pressure or hypertension – increases the risk of heart attacks, strokes and kidney failure. According to WHO in 2008 the metabolic risk factors in India are : Raised blood pressure 33.2% for males and 31.7% for females. The risk of developing high blood pressure can be reduced by: reducing salt intake; eating a balanced diet; etc. Hence we undertook a study to identify the risk factors among people and its relation with blood pressure. A three point scale which ranged from always to never was used to assess lifestyle. Among the participants nearly half of them were sedentary workers (44.30%) and most of them had weight of 61-80kgs (58.40). Only vegetarian diet and yoga ( $\chi^2=6.87$ ,  $p=0.03$ ,  $\chi^2=6.16$ ,  $p= 0.04$  respectively) were associated with level of blood pressure and that 23.49% had high blood pressure out of which four were found out newly.

**Key words:** High blood pressure, Lifestyle practices

### Objectives

- 1.To identify the level of High blood pressure
- 2.To identify the lifestyle practices
- 3.To associate the level of High blood pressure with lifestyle practices
- 4.To associate the level of High blood pressure with demographic variables

### Introduction

Chronic diseases are the leading cause of deaths world-wide and their impact is steadily growing. Approximately in South-East Asian region 51% of all deaths are due to chronic diseases and 89 million are likely to occur in India alone. However, high blood pressure is both preventable and treatable. In some developed countries, prevention and treatment of the condition, together with other cardiovascular risk factors, has brought about a reduction in deaths from heart disease.<sup>1</sup>

### Materials and Methods

A descriptive survey with a three point scale which ranged from always to never was

used to assess lifestyle<sup>1,2,3</sup> which was operationalised as the practices followed by people in day to day life. In this study it includes practices regarding diet, exercise and sleep as measured by the rating scale.

The B.P and weight was checked and demographic factors sex, age, occupation, family history of hypertension and presence of other diseases was collected. Name was not collected for ethical reasons. Samples included people attending the OPD between 9AM and 4PM on that day (World Health Day, 2013).

### Findings

Data was collected from a total of 169 samples out of which the data for 149 samples was complete. The analysis of frequency and distribution of sample characteristics showed that majority were males (65.77%), majority were in the age group of 21-40 yrs (61.74%), nearly half of them were sedentary workers (44.30%) and most of them had weight of 61-80kgs (58.40%). Majority of them did not have a family history of hypertension (74.5%) or any

other diseases (79.87%). The Blood pressure of participants were checked which implied that 23.49% had high blood pressure out of which 4 were found out newly. One in three adults worldwide has high blood pressure. The proportion increases with age, from 1 in 10 people in their 20s and 30s to 5 in 10 people in their 50s. Prevalence of high blood pressure is highest in some low-income countries in Africa, with over 40% of adults in many African countries thought to be affected.<sup>4</sup>

According to WHO<sup>1</sup> 17 million people die prematurely each year as a result of the global epidemic of chronic diseases. Low and middle income countries share 80% of deaths caused due to chronic diseases while only 20% are present in high income countries. According to WHO in 2008 the metabolic risk factors in India are : Raised blood pressure 33.2% for males and 31.7% for females. The study also found high blood pressure to be common.

**Table -1. Frequency and percentage of distribution of lifestyle practices (N = 149)**

S.no	Lifestyle Practices	Always		Sometimes		Never	
		f	%	f	%	f	%
1	Vegetarian diet	102	68.46	38	25.50	9	6.04
2	Non-vegetarian diet	44	29.53	95	63.76	10	6.71
3	Spicy food	54	36.24	64	42.95	31	20.81
4	Salty food	57	38.26	68	45.64	24	16.11
5	Fiber food	86	57.72	53	35.57	10	6.71
6	Milk and milk products	73	48.99	50	33.56	26	17.45
7	Bakery items	53	35.57	58	38.93	38	25.50
8	Junk foods	33	22.15	34	22.82	82	55.03
9	Walking	22	14.77	22	14.77	105	70.47
10	Exercise	15	10.07	13	8.72	121	81.21
11	Yoga	6	4.03	5	3.36	138	92.62
12	Disturbed sleep	13	8.72	28	18.79	108	72.48

Table-1 shows that majority of the samples took vegetarian diet always (68.46%), most of them took fiber food always (57.72%) and milk and milk products (48.99%). It also infers that most of them never took junk foods (55.03%), regarding walking, exercise and yoga majority of them have never done (70.47%, 81.21%, 92.62% respectively). Majority never had disturbed sleep (72.48%).

The association of the level of blood pressure with life style shows that only vegetarian diet and yoga practices ( $\chi^2=6.87$ ,  $p=0.03$ ,  $\chi^2=6.16$ ,  $p=0.04$  respectively) had a significant association. The purpose of the study was to examine whether five major cardiovascular disease related lifestyle factors ie smoking, alcohol consumption, physical activity, obesity and consumption of vegetables predicts the future increase of blood pressure and development of clinical hypertension, and need for antihypertensive drug treatment. It was a large prospective population-based cohort study conducted among 9,637 Finnish men and 11,430 women who were 25 to 74 years of age and free of hypertension during the baseline measurements (1982-2002). The hazard ratios for hypertension associated with adherence to leisure time physical activity at least 3 times per week was 0.34 for men and 0.41 for women and for daily consumption of vegetables was 0.33 for men and 0.37 for

women. Both these are similar to the present study findings.

A study by F Tesfaye et al<sup>4</sup> on Association between body mass index and blood pressure across three populations in Africa and Asia found no correlation between occupation and high blood pressure, the Mean BP levels increased with increasing BMI. The risk of hypertension was higher among population groups with overweight and obesity but contrary to this the present study found a significant between level of blood pressure and occupation  $\chi^2=8.026$   $p=0.05$ .

**According to WHO<sup>1</sup> the risk of developing high blood pressure can be reduced by:**

- **reducing salt intake;**
- **eating a balanced diet;**
- **avoiding harmful use of alcohol;**
- **taking regular physical activity;**
- **maintaining a healthy body weight;**
- and**
- **avoiding tobacco use.**

**Conclusion**

The study found that there is association between vegetarian diet and yoga and level of hypertension and that 23.49% had high blood pressure out of which four were found out newly.

**References**

WHO, World Health Day Report-2013  
 Beilin LJ. Lifestyle and hypertension--an overview. *Clin Exp Hypertens*. 1999 Jul-Aug;21 (5-6):749-62.  
 Chhabra MK, Lal A, Sharma KK. Status of lifestyle modifications in hypertension *J Indian Med Assoc*. 2001 Sep;99(9):504-8 available from <http://www.ncbi.nlm.nih.gov/pubmed/12018559>.