

Prevalence of hypertension and lifestyle practices of school teachers at Puducherry

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ABSTRACT

High blood pressure is a major public health problem in India and its prevalence is rapidly increasing among both urban and rural populations. In fact, hypertension is the most prevalent chronic disease in India. This present study was aimed to estimate the prevalence of hypertension and lifestyle practices of Government study participants at Bahour Commune, Puducherry. A total of 100 study participants were selected by convenient sampling technique. The data were collected by using demographic characteristics and self-reported questionnaire was used to assess the lifestyle practices followed by blood pressure was taken. The complied data were analyzed through descriptive and inferential statistics. The result shows that 33% had normal level of blood pressure, 45% of study participants had prehypertension, 20% and 2% had stage I & II hypertension respectively. The study concluded that level of blood pressure was significant with gender, income and lifestyle practices were significant with family history of hypertension and spending leisure time activity. The study result stated that prevention and life style modifications can decreases the hypertension related morbidity and mortality.

Key words: - Prevalence, hypertension, lifestyle practice, school teacher.

INTRODUCTION

Hypertension is a leading public health challenge globally due to its high prevalence, constantly increase morbidity and mortality. An estimated 978 million adults or 28 % of the world's adult population had uncontrolled hypertension in 2016. More alarming, conservative estimates indicate that the global burden of hypertension will increase to more than 1.56 billion by Hypertension is directly responsible for 57% of all strokes death and 24% of all coronary heart disease deaths in India.

Hypertension affects about one billion people and kills about nine million globally. Developing countries like India are seeing growing numbers of people who suffer from heart attacks and strokes due to undiagnosed and uncontrolled hypertension.

Prevalence of hypertension in rural areas of Jharkhand is 75.9%. The increasing prevalence is attributable to rapid transition of lifestyle practices in developing countries including India, as well as increased elderly population due to an increase in life expectancy.

Teaching is a challenging but very rewarding profession, teachers are the backbone of the entire system of education. School teacher face tremendous stress during teaching and handling school children continuously for long time which may contribute to the development of hypertension.

Girish B, Sumanth Mallikarjuna Majgi (2017) reported that hypertension among the School teachers was 28.57% which is higher than general population. Reduced sleep, lack of physical exercise and family history of hypertension were important contributors of hypertension among teachers. Positive family history, smoking habit, use of alcohol, non-vegetarian diet was commonly observed among hypertensive teachers. There was lack of practice of yoga, meditation and exercise among teachers with hypertension.

NEED FOR THE STUDY

Hypertension is such major Non Communicable Disease (NCD) and affects about 20% of the population in most communities. Hypertension has a major hand in causation of coronary artery disease, stroke, various other vascular complications and renal disorders. Major risk factor for cardio vascular mortality which accounts for 20% -50 % of all deaths making it a silent killer.

Deyana V C et al (2016) found that elevation of systolic blood pressure was disclosed in teacher more than 45 years old and a significant difference of systolic blood pressure (SBP) between teachers during the I and II half of the fourth decade

Agre Deepchand Hirachand, KattiS. M., Mubashir Angolkar, Mallapur M.D (2015) found that Prevalence of hypertension among secondary school teachers in Belagavi city was 13.25% (14.1% in males and 13.0% in female). Hypertension increases as age advances in both males and females. Hypertension was associated with age, marital status and body mass index.

Fujunwang, V.K. Tiwari et al (2014) revealed that prevalence of hypertension in government school teacher was associated with lifestyle practice such as age and sex, unhealthy diet, overweight and obesity alcohol, physical activity and tobacco.

Teaching consider a highly stressful occupation, teachers should be educated about early stages, treatment, lifestyle modification such as diet, exercise, yoga help them to identify and avoid risk factors of hypertension.

OBJECTIVES

- 1) To assess the prevalence of hypertension and lifestyle practices among school teachers
- 2) To find an association between the level of blood pressure / lifestyle practices and selected demographic variables.

METHODS

A descriptive non- experimental research design was chosen to assess the prevalence of hypertension and lifestyle practices of Government school teachers at Bahour Commune, Puducherry. A total of 100 school teachers who fulfill the inclusion criteria were selected through convenient sampling technique.

DESCRIPTION OF TOOL

The following tools were constructed for the purpose of obtaining data for the study. The tool used for data collection was an interview schedule. It consists of three parts.

PART I: It consists of demographic variables such as age, gender, residence, religion, education, teaching experience, monthly income, marital status, dietary pattern, sources of getting health information and co- morbidity, .

PART II: Lifestyle practices consist of family history of hypertension, taking medication for hypertension, following salt restricted diet, taking of road side food, harmful habit, and exercise, leisure time, consuming non vegetarian and deep fried food. Anthropometric measurement (height, weight, BMI),

PART III: Blood Pressure Measurement. .

VALIDITY: Content was validated by experts from various specialties like Medical Surgical Nursing and Medicine. Suggestions given by the experts were incorporated and then the tool was finalized.

DATA COLLECTION PROCEDURE

Formal written permission was obtained from the Headmaster of Government schools at Bahour Commune. The main study was conducted from (20.04.2017 to 25.04.2017). A total of 100 school teacher were selected by convenient sampling technique. The investigator established good rapport with the study participants by an informal talk. The purpose of the study was explained to the study participants to ensure their co-operation and informed consent was received from them. The structured interview was conducted by the investigator to collect demographic and life style practices followed by blood pressure measurement was taken. The time spent for each sample was 30 minutes. The completed sheets were collected and then data was compiled for data analysis.

RESULTS

A total of 100 school teacher were included in the study. Regarding demographic characteristics majority of teachers (47%) were in the age group 26-35 years, (33%) between 36-45 years and most of the teachers were females (62%) and belongs to Hindu religion (97%) and living in urban area (57%). Regarding income majority (63%) of study participants were earned Rs.45, 000-50000 and (17%) between Rs.50000-65000/-. Most of teachers were married (84%) and 87% were taking non vegetarian foods. Fifty eight percentages of teachers were received health information through mass media and 32% from friends. Majority of study subjects were postgraduates (71%) and had 6- 10 years of teaching experiences (24%). None of the subjects had comorbid disease.

Figure No: 1 Distribution of the study participant according to gender

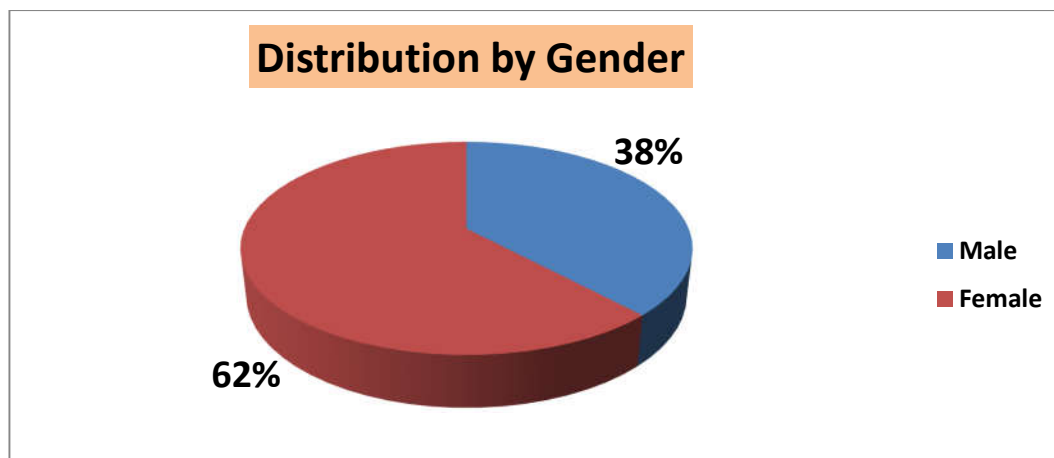


Table:1 Distribution of study participants by their lifestyle practices

(n=100)

Sl. No	Life style Practices	Frequency	Percentage
2	Hypertension	9	9%
	Yes		
	No	91	91%
3	Family History of Hypertension	14	14%
	Yes		
	No	86	86%
4	Taking Medication for Hypertension Regularly	7	7%
	Yes		
	No	93	93%
5	Following Salt Restricted Diet	16	16%
	Yes		
	No	84	84%
	Consuming Road Side Foods Regularly	63	63%

6	One Time		
	Two Times	10	10%
	Three Times	2	2%
	More than Three Times	4	4%
	Nil	21	21%
7	Consuming Non- Vegetarian and Deep Fried Foods in a Week	88	88%
	One Time		
	Two Times	12	12%
	Three Times	0	0%
	More than Three Times	0	0%
8	Doing Exercise Regularly	25	25%
	Yes		
	No	75	75%
9	Have any Harmful Habits	18	18%
	Smoking		
	Alcoholism	10	10%
	Tobacco Chewing	4	4%
	Any other	0	0%
	No harmful habits	68	68%
10	How do you Spend Your Leisure Time	4	4%
	Watching TV		
	Chatting with others	23	23%
	Doing Yoga/Meditation	33	33%
	Involving in Homemade Activities or Gardening	21	21%
	Taking Rest Most of the Time	5	5%
	Sleeping / Taking Rest	14	14%
11	BMI	0	0%
	Very Sever Underweight (<16)		
	Severely Underweight (16-17)	1	1%
	Underweight (17-18.5)	2	2%
	Normal (18.5-25)	62	62%
	Overweight (25-30)	25	25%
	Obese Class I (30-35)	10	10%
	Obese Class II (35-40)	0	0%
	Obese Class III (>40)	0	0%

Table No: 1. reveals that 91% study participants had no hypertension. Majority of study participants (86%) had no family history of hypertension. Among that (93%) were not taking hypertensive medications and (84%) were not taking salt restricted diet and only 16% were taking restricted salt diet. Most of the study participants 63(63%) were consuming road side food once in a week, 10% were consuming twice in a week and (21%) never takes the road side food. Majorities (88%) were taking non-vegetarian and deep fried foods and (12%) were consuming twice in a week. Among that 75% were not doing exercise and 25% were doing

exercise regularly. With regard to harmful habits 10% were consuming alcohol, 18% were smoking and 4% had the habit of tobacco chewing. Thirty three percentages of study participants were doing yoga and meditation and 21% were involving in homemade activities or gardening. Majority of study participants (62%) had normal BMI and 25% had over weight.

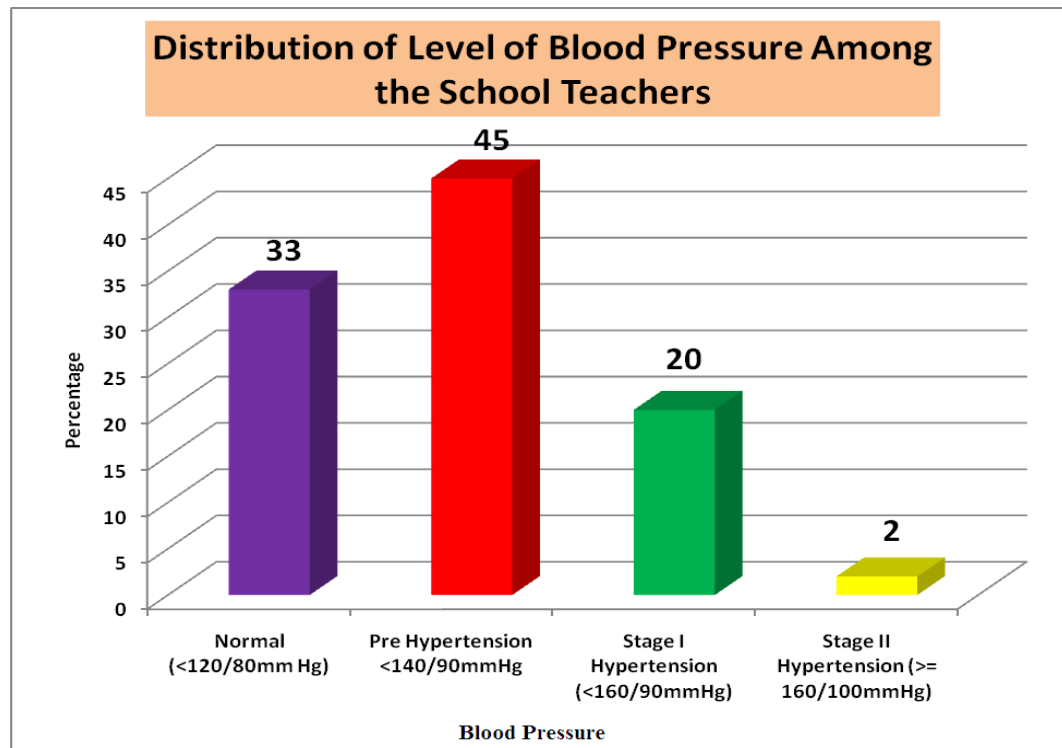
Table 2: Distribution of study participants by their level of Blood Pressure

n=100

SL.NO	Blood Pressure classification	No. of person	Percentage	Mean	Standard Deviation
1.	Normal (<120/80mm Hg)	33	33%	25	15.95
2.	Pre-Hypertension (<140/90mmHg)	45	45%		
3.	Stage I Hypertension (<160/90mmHg)	20	20%		
4.	Stage II Hypertension (>= 160/100mmHg)	2	2%		

Table.2. shows that majority of teachers were (45%) had pre hypertension, (33%) had normal level of blood pressure, (20%) had stage I-hypertension and only (2%) had stage II-hypertension. The results are shown in diagrammatic representation in figure.2.

Figure No: 2. Distribution of study participants by their level of Blood Pressure



Association between level of blood pressure / lifestyle practices with selected demographic variables.

Level of blood pressure was significant with gender, income and lifestyle practices were significant with family history of hypertension and spending leisure time activity (*p-value* < 0.0006) and rest of the variables had no significant relation with the demographic variables.

DISCUSSION

Objectives 1: To assess the prevalence of hypertension and lifestyle practices among study participants.

The study findings shows that almost 45(45%) teachers had pre hypertension, 33(33%) had normal blood pressure, 20(20%) teachers had stage I-hypertension and only 2(2%) had stage II-hypertension.

The study findings were similar Sarah Jane Monica et al (2017) estimated that the prevalence rate of pre-hypertension and hypertension among school teacher was found to be 20% and 12% respectively. Age, waist circumference, body fat percent and personal history of diabetes was significantly associated with hypertension ($p < 0.05$).

The study findings were consistent with Ali and Asadi (2014) conducted a study on prevalence and lifestyle determinants of hypertension among secondary school female teachers in Basrah. A total of 403 female teachers were randomly selected from 16 schools. The result shows that the prevalence of hypertension among the study population was 21.3%, and about one fifth of them (20.3%) were pre hypertensive.).

Objective: 2: To associate the level of blood pressure and lifestyle practices with selected demographic variables

The study findings reveals that the level of blood pressure has significant association with the demographic variables such as gender and monthly income and lifestyle practices was significant with family history of hypertension and leisure time.

The study results were similar with P.S. Singh et al (2017) determined the prevalence of hypertension in rural areas of western Uttar Pradesh by health camp and door to door approach. The result shows that the prevalence of hypertension was found to be 17%, which was observed to be higher among female i.e.170 (18.3%) than males 153 (15.8%).

The other findings were similar with Girmafekadu, and Lemma (2014) determined the association between socioeconomic status and hypertension among teacher and bankers at Ethiopia. The result shows that 70.3% of teachers and 54.1% of bankers are having hypertension. The study concluded that a socioeconomic factor (income) was strongly associated with hypertension among teachers and bankers.

CONCLUSION

The results of this study suggest that majority of the study participants had pre hypertension. Level of blood pressure was significantly associated with gender, income, family history and life style practice such as spending leisure time. The study concluded that early detection of hypertension and educational health programs regarding lifestyle behaviors were highly recommended.

RECOMMENDATION:

1. A similar study can be conducted with larger sample size in different settings.
2. A comparative study can be done between rural and urban population.
3. A study can be done with schedule interval of follow-up for certain period of time.
4. A qualitative study can be conducted on lived experience of hypertension patients
5. A structured teaching programme can be conducted to create awareness among school teachers regarding life style modification and prevention of hypertension

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