A COMPARATIVE STUDY TO ASSESS THE LIFESTYLE PRACTICES AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION IN SELECTED SCHOOLS, ERODE DISTRICT

BY

301412151

A DISSERTATION SUBMITTED TO THE TAMILNADU Dr.M.G.R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING

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SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING FROM THE TAMILNADU Dr.M.G.R. MEDICAL UNIVERSITY, CHENNAI.

APRIL – 2016

DECLARATION

This is to certify that the dissertation entitled "A COMPARATIVE STUDY TO ASSESS THE LIFE STYLE PRACTICES AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION IN SELECTED SCHOOLS ERODE DISTRICT" is a bonafide work done by Mr. A.M..ANISH.V..NAYAGAM, Shivparvathi Mandradiar Institute of Health Sciences, College of Nursing in partial fulfillment of the university rules and regulations for award of Master of Science in Nursing under the guidance and supervision of during the year of April 2016.

Signature of the Guide & Head of the department:

Signature of the principal:

DECLARATION

I hereby declare that the present dissertation titled **"A comparative study to assess the Lifestyle practices among Government and private school teachers with hypertension in selected schools at Erode district",** outcome of the original research work undertaken and carried out beme, under the guidance of Research Guide Prof. Mrs M. KAVIMANI, R.N, R.M, M.N.,Ph.D Principal, ShivParvathi Mandradiar Institute of Health Sciences, College of Nursing and the Clinical Speciality Guide Asst. Prof. Mrs .MALLIGA, R. N, R. M, M..N.

I also declare that the material of this has not found in any way, the basis for the award of any degree/ diploma in this University or any other University.

BY

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CERTIFIED THAT THIS IS THE BONAFIDE WORK OF

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ACKNOWLEDGEMENT

I praise and thank God Almighty for giving me the strength to complete this task and for the real treasure of courage, endurance and abundant blessings throughout my career and my personal life.

I raise my heart in gratitude to God Almighty; he has been my shepherd and guiding force behind all my efforts. His omnipresence has been my anchor through the hard time.

Apart from the effort of me, the success of my study comes from every soul who encouraged and guides me in all the aspects. With profound sentiments and gratitude, I the Investigator of this study own my heartfelt gratitude to all those who have contributed for the successful completion of this dissertation.

I lend this opportunity to express my sincere heart full thanks to the Management, **ShivParvathiMandradiar Institute of Health Science, College of Nursing, Palayakottai** for providing me a prospect for my post graduation with necessary amenities to uplift my professional life.

It is my privilege to owe my sincere indebtedness and humble regards to my beloved **Prof. Mrs. M. Kavimani, Principal, SPMIHS, Palayakottai**, for his patience, motivation, enthusiasm, and immense knowledge. Her guidance helped me in all the time of research and writing of this project. I feel motivated

and encouraged every time during the course of my study. Without her encouragement and guidance this project would not be materialized.

It's my pleasure and privilege to express my deep sense of gratitude to our respective **Prof. Mrs. MALLIGA**, H.O.D of Medical and Surgical Nursing, SPMIHS, Palayakottai. The investigator feels that words would not be sufficient to express her gratefulness towards her for having not spared herself, being patiently available always, the timely correction, suggestions and ideas which have contributed to the concretization of this research.

I am indeed thankful to **Prof. Dr. K. Dhanapal,** Bio-statistician, SPMIHS, Palayakottai, for his guidance in carrying out the necessary statistical analysis and presentation of the data in the study.

I would like to give my very special thanks toall the teaching staff and non teaching staff of SPMIHS, for their contribution during my course of my study.

A memorable note of gratitude to **Ms. B. Vanitha,** Librarian SPMIHS for the timely help, kind cooperation and attention for completing the project work successfully.

I express my special gratitude and thanks to **Mrs. Rajam** Principal, Navarasam Matriculation Higher Secondary School, Palliyuthu, Government Higher Secondary School, Arachalur, Government Girls Higher Secondary

School, PSpark Erode, Seventh Day Adventist Matriculation Higher Secondary School, Erode district for providing a wonderful opportunity for conducting the study and I am very grateful to all the teachers of the schools for their kind cooperation during the study period.

I would like to convey my warm and heartfelt thanks to all the participants who have willingly shared their precious time during the process of data collection. Without their kind cooperation nothing is possible for me to go ahead with this study.

I owe my profound gratitude and exclusive thanks to the panel of experts namely Ms. Petricia, Ms. Ouvai, Mr. Sathish Kumar,Mr.George joe kumar, Ms. Nimy for validating the tool amidst their busy schedule and providing valuable suggestions and also I gladly thankful for her valuable suggestions.

Words are beyond expression for the meticulous, I express my love and gratitude to my beloved parents Mr.Manohar And Mrs. Meena Manohar who supported me in all my ways for their care, support, unending love, special prayers, constant encouragement and strength which made my study, a dream come true

I extend my sincere thanks to every soul who helped me directly or indirectly in making this study a successful one, but not mentioned in this acknowledgement.

I extend my profound thanks to all my friends and classmates for supporting me in many ways during the study and I thank all the well wishers for their unconditional love and support in every step of the project.

Above all I bow my head in reverence to **God Almighty** for guiding me to reach the steps and complete my study. His omnipresence has been my anchor through the fluctuating hard times and making it all possible.

Thanks to all

301412151

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LIST OF ABBREVATIONS

ABBREVATIONS	EXPLANATIONS
SPMIHS	Shiv ParvathiMandradiar Institute of Health Sciences
Fig	Figure
H	Hypothesis
M.Sc (N)	Master of Science in Nursing
n	Total Number of Samples
No	Number
%	Percentage
SD	Standard Deviation
MD	Mean Difference
P	Probability
SPSS	Statistical Package for Social Sciences
ANOVA	Analysis of Variance
BP	Blood pressure
HT	Hypertension

ABSTRACT

A comparative study to assess the lifestyle practices among Government and Private school teachers with hypertension at selected schools, Erode district was done by 301412151 as a partial fulfillment of the requirement of the Degree of Master of Science in Nursing at Shivparvathi Mandradiar Institute of Health Science, under the Tamil Nadu Dr. M. G. R. Medical University, Chennai, April 2016.

The Objectives of the study were

- To assess the lifestyle practices of Government and private school teachers with Hypertension.
- To compare the lifestyle practices of Government and private school teachers with Hypertension.
- To find out the association between the lifestyle practices and the selected background factors among Government and private school teachers with Hypertension.

The Research Hypothesis formulated and tested were :

H 1 : There is a significant difference in the lifestyle practices among Government and private school teachers with Hypertension.

H 2 : There is a significant association between the lifestyle practices and their selected background factors among Government and private school teachers with Hypertension.

Review of literature was done in the following heading,

- Studies related to the prevalence and determinants of hypertension
- Studies related to knowledge and attitude regarding hypertension

The conceptual framework for the present study is formulated by the investigator based on Roy's adaptation model. The research design used was a non experimental descriptive comparative design. The data collection tool was validated by a physician and the four nursing experts. Reliability was established by test – retest method, r = 0.9 for the structured knowledge questionnaire. The samples (82) for the study were chosen by using purposive sampling technique, Data was collected by using Structured Questionnaire regarding Lifestyle Practice. Data was collected for a period of One month.

The data collected were edited, tabulated, analyzed and interpreted manually. The obtained mean value was 4, SD 6.69, Range, 23among Government school teachers with hypertension whereas among private school teachers with hypertension the obtained mean value was 56, SD 5.6, Range 24 and Mean difference of lifestyle practices between Government and private school teachers was 9, and the obtained 't' value was 5.4 which was significant at the level of $P<0.05$.

The findings of the study revealed that there was a significant difference in the lifestyle practices between the Government and Private school teachers with hypertension. There was a significant association between the lifestyle practices and the selected demographic variable monthly income of the participant among private school teachers with hypertension. None of the demographic varaibles were associated with lifestyle practices among government school teachers with hypertension. The implications, limitations, recommendations and conclusion were clearly spelt.

CHAPTER I

INTRODUCTION

"We cannot change our genes or sex, but we can definitely modify our lifestyle there by protecting ourself from hypertension."

- Robert C Schlant (2000)

BACKGROUND OF THE STUDY

Chronic Non communicable diseases are important among adult population all over the world. The prevalence of chronic diseases like hypertension, diabetes, etc is showing an upward trend. The main factors responsible for this rising trend of hypertension are changing lifestyles, obesity and behavioural pattern of people, etc. Hypertension plays a role in human health has been known for quite a while. Hypertension, the medical term for high blood pressure was first described as a disease in the early 1800s and the inflatable cuff that is used in measuring blood pressure was invented in 1896. Although blood pressure is easily measurable it has taken several decades to realize that hypertension is a frequent worldwide health disorder. Hypertension, the silent killer which remains asymptomatic until the

damage effect of it can be seen. It is an important and common risk factor for considerable morbidity and mortality not only in the industrialiased world but also in developing countries. Thus, the problem of hypertension can be truly considered as pandemic.

High blood pressure is ranked as the third most important risk factor for attributable burden of disease in South Asia. The factors contributing to the increased prevalence of hypertension is mainly based on environmental factors, genetic factors and factors like alcohol intake, high fat intake, body mass index and hormonal problems. Hypertensives when compared to normotensives develops twice as much as coronary heart disease, four times as much congestive heart failure and seven times as much stroke. It exerts a substantial public health burden on cardiovascular health status and healthcare systems in India.

Hypertension also known as high blood pressure or arterial hypertension is a chronic medical condition in which the blood pressure in the arteries is persistently elevate. Blood pressure is expressed by two measurements, the systolic and diastolic pressures, which are the maximum and minimum pressures respectively, in the arterial system. The systolic pressure occurs when the left ventricle is most contracted; the diastolic pressure occurs when the left ventricle is most relaxed prior to the next contraction. Normal blood pressure at rest is within the range of 100-140 millimeters mercury (mmHg) systolic and 60-90 mmHg diastolic. Hypertension is present if the resting blood pressure is persistently at or above 140/90 mmHg for most adults; different numbers apply to children.

Hypertension is classified as either primary hypertension or secondary hypertension. About 90-95% of cases are categorized as primary hypertension defined a high blood pressure with no obvious underlying cause. The remaining 5-10% of cases are categorized as secondary hypertension, defined as hypertension due to an identifiable cause, such as chronic kidney disease, narrowing of the aorta or kidney arteries, or an endocrine disorder such as excess aldosterone, cortisol or catecholamines.

The emergence of hypertension and other cardio vascular diseases as a public health problem in developing countries is strongly related to the aging of the populations, urbanization, and socioeconomic changes favouring sedentary habits, obesity, alcohol consumption, salt intake. Hypertension usually does not cause symptom initially, but sustained hypertension over time is a major risk factor for hypertensive heart disease, coronary artery disease, stroke, aortic aneurysm, peripheral artery disease, and chronic kidney disease.

Hypertension is a risk factor for coronary heart disease and the single most important risk factor for stroke. It causes about 50% of ischemic strokes and increases the risk of hemorrhagic stroke. It stresses our body's blood vessels, causing them to clog or weaken. It can lead to atherosclerosis and narrowing of the blood vessels making them more likely to block from blood clots or bits of fatty material breaking off them from the lining of the blood vessel wall. Damage to the arteries can also create weak places that rupture easily or thin spots that ballon out the artery wall resulting in an aneurysm.

Hypertension is a controllable disease and it has been reported that targeted reductions in people with hypertension are expected to produce large reductions in the burden of cardiovascular disease. According to the seventh report of the Joint National Committee (JNC-7) on prevention, detection, evaluation and treatment of high blood pressure, adoption of healthy lifestyles by all individuals is critical for the prevention of high blood pressure.

Hypertension is easily diagnosable and treatable with lifestyle modifications and effective medicines. According to a 2012 World Health Organization report, non communicable diseases are responsible for two-thirds of the total morbidity burden and about 53% of total deaths in India. Hypertension provides an entry point to other non-communicable diseases. Therefore, a precise estimate of the prevalence of hypertension in the urban and rural population of the India is required to assess the magnitude of the problem that has to be addressed.

Hypertension is emerging as a public health problems in various ethnic groups in the developing countries like India. Prevalence of Hypertension has been found to be increasing in epidemic proportions in urban, rural and tribal population of India. High blood pressure is one of the most important modifiable risk factors for cardiovascular diseases, which accounts for one in every eight deaths worldwide. Total deaths due to cardiovascular diseases were 9.1 million in developing countries and 1.5 million in India. It has been predicted that by 2020, there would be 111 percent increase in cardiovascular deaths in India. Hypertension is directly responsible for 57 percent of all stroke deaths and 24

percent of all coronary heart diseases in India. In analysis of worldwide data for the global burden of Hypertension, 21 percent of Indian men and women were found to suffer from Hypertension.

The first line of treatment for hypertension is lifestyle changes, including dietary changes, physical exercise and weight loss. These have all been shown to significantly reduce blood pressure in people with hypertension. Dietary and lifestyle changes can lower blood pressure and decrease the risk of health complications , although treatment with medication is still often necessary in people for whom lifestyle changes are not enough or not effective.

Dietary changes shown to reduce blood pressure include diets with low sodium, vegetarian diets and high potassium diets. Physical exercise regimens which are shown to reduce blood pressure include isometric resistance exercise, aerobic exercise, resistance exercise and device guided breathing. Stress reduction techniques such as biofeedback or transcendental meditation may be considered as an add on to other treatments to reduce hypertension, but do not have evidence for preventing cardiovascular disease on their own.

Lifestyle measures for lowering blood pressure include reduced alcohol intake, reduced sodium chloride intake, increased physical activity, and control of overweight. Lifestyle interventions also have the potential to reduce the need for

or the amount of medications in hypertensives and prevent high BP from developing in nonhypertensives. Furthermore, lifestyle interventions are instrumental in controlling other concomitant cardiovascular risk factors not necessarily related to hypertension such as smoking, raised cholesterol level, or diabetes, hence the importance of a multifactorial approach to effective risk reduction in hypertensives.

Several models have been proposed to account for health behaviours and sustained behavioural changes. Although they may differ in content and perspective, models for behaviour change stress the importance of evaluating the perceptions, attitudes, beliefs and outcome expectations of individuals as a crucial means to understand observed behaviours and to guide behavioural change. A proper assessment and understanding of Knowledge, Attitude, Practice factors is particularly helpful in the area of chronic conditions such as hypertension, for which prevention and control necessitate a lifelong adoption of healthy lifestyles.

NEED FOR THE STUDY

The World Health Organization (WHO) has estimated that globally about 62% of cerebrovascular diseases and 49% of ischemic heart diseases are attributable to suboptimal blood pressure (systolic > 115 mmHg), with little variation by sex. The theme for World Health Day (WHD) 2013 was “high blood

pressure". The goal of WHD 2013 was to reduce heart attacks and strokes. Keeping in line with the WHO-Government of India Country Cooperation Strategy, the WHD 2013 events in India were aimed at raising the awareness amongst national policymakers, program managers and other stakeholders on the need to strengthen the Indian health system to make it competent enough to respond to hypertension and related co morbidities.

Worldwide, hypertension is estimated to cause 7.5 million deaths, about 12.8% of the total deaths and One in three adults worldwide has high blood pressure. Hypertension accounts for 57 million disability adjusted life years (DALYS) or 3.7% of total DALYS. Globally cardiovascular disease accounts for approximately 17 million deaths a year, nearly one third of the total. Of these, complications of hypertension account for 9.4 million deaths worldwide every year. Treating raised blood pressure and maintaining it below 140/90 mmHg is associated with a reduction in cardiovascular complications.

Hypertension is directly responsible for 57% of all stroke deaths and 45% of all coronary heart deaths in India. One third of urban adult Indians and close to one fourth of rural adult Indians are hypertensive. The WHO rates Hypertension as one of the most important causes of premature death worldwide. There are 970 million people worldwide who have elevated blood pressure. In the developed world, about 330 million people have hypertension, as do around 640 million in the developing world. In 2025 it is estimated there will be 1.56 billion adults living

with high blood pressure. In the US alone, about a third of all people over the age of 20 years have hypertension.

Hypertension is a risk factor for coronary heart disease and the single most important risk factor for stroke. It causes about 50% of ischaemic strokes and increases the risk of hemorrhagic stroke. It stresses our body's blood vessels, causing them to clog or weaken. It can lead to atherosclerosis and narrowing of the blood vessels making them more likely to block from blood clots or bits of fatty material breaking off them from the lining of the blood vessel wall. Damage to the arteries can also create weak places that rupture easily or thin spots that ballon out the artery wall resulting in an aneurysm.

Bansal et.al, had shown that both males and females, age and high BMI were significant predictors of hypertension.

Benovitz Neal L observed that sodium absorption was higher among persons smoked cigarettes and chewed tobacco as compared to non tobacco users. This increased sodium absorption in the body due to tobacco use, has got some role in association of hypertension.

Gilberts et.al, carried out a study in rural Tamilnadu in the age group of 20 years and above found a prevalence of 12.5%, whereas in the study conducted in the tribal populations in Salem district, Tamilnadu found that about 42% males

and 30% females were in the stage of prehypertension and 36% males and 26% female are hypertensives.

Grewen et.al, found that men and women reporting high relationship quality had lower ambulatory BPs at home and at work, compared with those reporting intermediate or low relationship quality, as well as those without a partner.

Gupta et.al, sreported a prevalence of 24% in males and 17% in females in the age group of 20 years and above from rural Rajasthan.

Kinra et.al, suggested that a nutrition transition (coexistence of over-nutrition and under-nutrition) may have progressed to some parts of rural India. He observed that obesity, dyslipidemia, diabetes and hypertension were more prevalent in higher socioeconomic groups in the rural areas. This epidemiological transition is a cause for serious concern as it is likely that the prevalence of risk factors, and thereby the prevalence of hypertension and cardiovascular diseases, would rise with the socioeconomic development of rural areas.

A study carried out by **Kokiwar and Gupta** using the JNC seven criteria for assessment of hypertension among the age group 30 years and above found the prevalence of hypertension was 19.04% in the rural population of central India. The prevalence of hypertension in rural areas of Tamilnadu in the age group of 45-60 years was 33%.

Kusuma et.al, confirmed the hypothesis that acculturation/ modernization may elevate the risk of hypertension.

Malhothra et.al, showed increased prevalence of hypertension in females when compared with males.

Padmavathi and Guptha et.al, at Delhi, **Gosh and Joshi** at Simla found that hypertension was more common in professional group as compared to unskilled and semiskilled groups.

Stevens et.al, conducted a random control trial which showed that 65% of US adults have a body mass index greater than or equal to 25 kg meter square among 30% are of hypertensive and the study concluded that there is an increased association of BMI and hypertension.s

Yadav et.al, observed that there was a high prevalence of cardiovascular risk factors in the general population [central obesity (86.7%), elevated LDL cholesterol (22.8%), abnormal glucose tolerance (41.6%) and smoking (20.3% of males)]. Two or more of the cardiovascular risk factors were present in a higher proportion of hypertensives (66%, OR = 3.0, $P < 0.0001$) and pre-hypertensives, (56%, OR = 2.0, $P < 0.0001$) compared to normotensive subjects (39%). The current rate of hypertension in the urban areas and the rising trend in the rural population is a warning to institute lifestyle changes in the community in order to put a halt to the increasing rates.

According to the reports of the eleven recent studies done in India among hypertensive patients the risk factors associated with Hypertension were age, alcohol, smoking and chewing tobacco, BMI, central obesity, consumption of low vegetables/fruits, high consumption of dietary fat and salt and sedentary activity.

It has been suggested that chronic exposure to psychological stress can cause increased blood pressure and lead to hypertension development. A cohort study of over 3,000 young adults showed that urgency/impatience behaviour, and hostility assessed during young adulthood were strongly associated with a higher risk of developing hypertension 15 years later. Chronic stress due to financial strain has been reported to predict high blood pressure during three to seven years follow-up.

Hypertension disproportionately affects populations in low and middle income countries where health systems are weak. There are significant health and economic gains attached to early detection, adequate treatment and good control of hypertension. Treating the complications of hypertension entails costly intervention such as cardiac bypass surgery, carotid artery surgery and dialysis, draining individual and government budgets.

A large scale study undertaken recently in rural Tamil Nadu has confirmed the high prevalence of hypertension in Tamilnadu. A study published in the International Journal of Public Health reported 21.4 % hypertension prevalence in about 10,500 people aged 25-64 in 11 villages in the state. Prevalence was nearly the same in both sexes. Though earlier studies had documented 16 percent in rural areas, studies carried out later in other States had reported 20 percent prevalence. Prevalence of hypertension in urban areas is 22-30%. The latest study gains importance as there is very little data on prevalence of hypertension in rural Tamilnadu.

Dr.Pradheep Kaur, Scientist at the National Institute of Epidemiology, Chennai said that about 75% of people with hypertension were ignorant of their condition. A large percentage of people remaining ignorant of their condition is indeed a major cause for concern. According to the study, about 24.5% of deaths in people aged 45-59 years in rural Tamilnadu are caused by diseases of the circulatory system. Even more shocking is the fact that a mere 6.6 percent of

people on treatment had their blood pressure under control and control rates were low among both males and females in all age groups.

A study done among the school teachers to assess the prevalence of hypertension in the year 2013 found that most of the 300 public elementary and high school teachers in Cebu city were found out to have hypertension during the medical outreach mission conducted by the Phillippine Heart Association and Dr.Yape said the teachers might have developed the condition due to stress from work, their kind of lifestyle and their diet. Dr.Yape said that according to their recent study, 32% of the teachers are suffering from hypertension.

There is an emphasis on healthy living these days. Although more people trying to live their lives in a healthy way, there is still a long way to go when it comes to spreading awareness about the right lifestyle choices. Some people would try some healthy practice, but still cling on to their unhealthy habits. It is important that people especially the teachers become aware of those lifestyle mistakes and what their effects are so they can avoid them. By teaching the students about the unhealthy lifestyles practices and its negative effects, they will make the future generation to become more healthy and happy.

The high prevalence of hypertension in the urban and rural population in India presents a formidable challenge to the Indian health system. In countries like

India, the out-of-pocket expenditures incurred for non-communicable diseases (NCDs) like hypertension are high, which hits the impoverished households the most. Medicines for these chronic diseases account for a large portion of expenditure. Therefore, population based prevention strategies have a high impact and are cost-effective as these target lifestyle change.

Interventions utilizing the power of public policies for reducing salt, fat, sugar and alcohol intake through regulatory and consumer education approaches; increasing physical activity through sound urban planning and creation of activity-promoting environments; increasing fruit and vegetable intake through appropriate agricultural and pricing mechanisms; and implementing comprehensive tobacco control have the potential to prevent a large proportion of disease events in the whole population.

Above all, numerous studies have shown that, it is the teacher in the classroom who inspires, cultivates and enthuses learning of the pupils who are believed to be the future of our nation. If the teachers are not healthy, they cannot mould the pupil. the present study is undertaken to create awareness regarding the lifestyle practices of teachers.

STATEMENT OF THE PROBLEM

A comparative study to assess the lifestyle practices among Government and private school teachers with hypertension at selected schools, Erode.

OBJECTIVES OF THE STUDY

- To assess the lifestyle practices of Government and private school teachers with Hypertension.
- To compare the lifestyle practices of Government and private school teachers with Hypertension.
- To find out the association between the lifestyle practices and the selected background factors among Government and private school teachers with Hypertension

HYPOTHESIS

H 1 : There is a significant difference in the lifestyle practices among Government and private school teachers with Hypertension.

H 2 : There is a significant association between the lifestyle practices and their selected background factors among Government and private school teachers with Hypertension.

OPERATIONAL DEFINITION

Lifestyle practices : It refers to the teacher's habits, attitudes, tastes, moral standards, economic level, etc. that together constitute the mode of living of an individual.

Hypertension : It refers to elevated blood pressure reading of more than 140/90 mm of Hg diagnosed by the physician and on medication.

Teachers : It refers to a person whose job is to teach the students about certain subjects in the school maintained either by Government or private sector.

Government school : It refers to the school which is maintained at public expense for the education of the children of a community.

Private school : It refers to the school founded, conducted and maintained by private group rather than by the public.

ASSUMPTIONS

- Information provided by the teachers truly represents lifestyle practices.
- Every human being have unique lifestyle practices.
- Assessment of the lifestyle may bring an insight in the participants to become aware and modiy their lifestyle practices.

LIMITATIONS

- Study is limited to selected Government and private school teachers with hypertension.
- Study is limited to those who are willing to participate.
- Study is limited to the teachers who are present on the day of data collection.

CONCEPTUAL FRAMEWORK

A conceptual framework or model refers to a set of concept and assumption that integrate them into a meaningful configuration. A good researcher generally integrated researcher findings to an orderly, coherent system.

Polit and **Hungler (2004)** states that conceptual framework is interrelated concepts or abstractions that are assembled together in some rational scheme be their relevance to a common theme. A framework may serve as a spring board for scientific advancement.

A conceptual framework is a concept, which is a mental image of a phenomenon. Those concepts are linked together to express the relationship between them. It guides the researchers to know what data has to be collected and provides direction to the whole research process.

In the present study the researcher developed a conceptual frame work based on Roy's adaptation model. Roy identified four adaptive modes for assessment of behavior that results from the regulator and cognator mechanism of response. The adaptive modes are the physiological, self concept, role function and interdependence mode. Behaviour related to the modes is the manifestation of the stimuli; the person's adaptation level and coping process.

Here the stimuli are lifestyle practices of school teachers working in Government and private schools. Physiological mode is used to explain the conceptual framework of the study.

Roy considers the recipient of care to be an open adaptation system . Adaptaion is the process and outcome of individual and group who use conscious awareness, self reflection and choice to create human and environment integration.

STIMULUS

In Roy's system ,input is defined as stimulus which can come from the environment or from within a person ,In this study stimulus is defined as assessment of the selected demographic variable of the school teachers such as Age, Gender, Education, Religion, Residential area, Type of family, Family size, Number of children, Monthly income, Level of the students that the teachers handling at present, Duration of antihypertensives.

ORGANISM

In Roy's system organism makes use of a person's processes and effectors process refers to the control mechanism that a person uses an adaptive system . Effector refers to the physiological function. Self concept and role function involved in adaption.

In this study organism refers to the government and private school teachers whose life style practice including, personal and behavioural factor, dietary factor, obesity, physical activity, psychological factor, were assessed using self structured questionnaire.

RESPONSE

In Roy's system response is categorized as adaptive or ineffective responses

In the study it refers to life style practices of teachers with hypertension. The response includes good life style practice / moderate life style practice/ poor life style practice depending upon the adaptive or maladaptive strategies used.

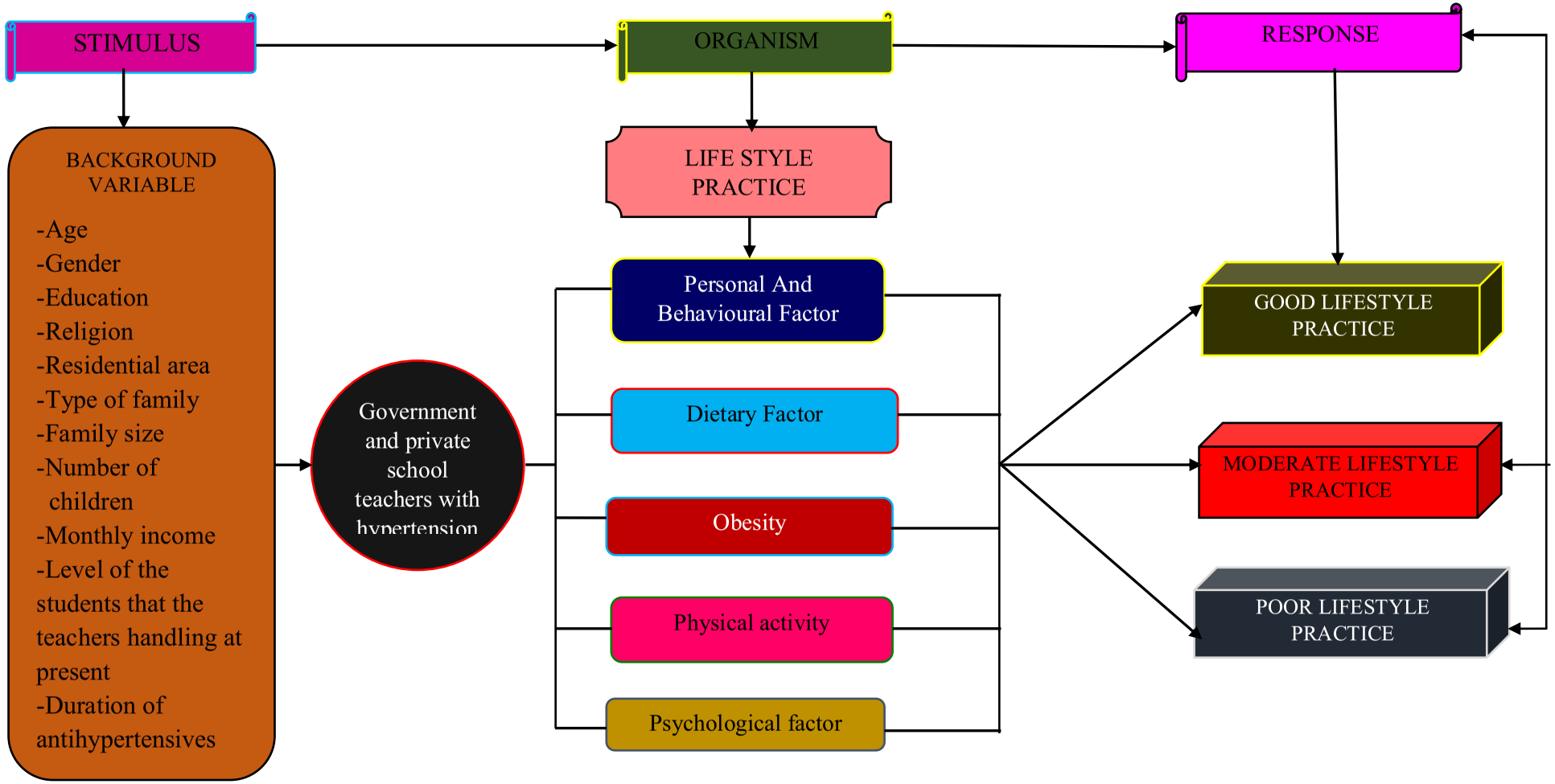

Fig 1 : CONCEPTUAL FRAMEWORK BASED ON ROY'S ADAPTATION MODEL

CHAPTER – II

REVIEW OF LITERATURE

According to **Shinde M**, reviewing of literature is to gain a better understanding and insight necessary to develop a broad conceptual framework in which the problem can be examined. It means the activity involved in identifying and searching for information of a topic and developing a comprehensive picture of the state of knowledge of that topic, doing literature reviews before conducting a study.

"Researchers almost never conduct a study in an intellectual vacuum; Their studies are undertaken within the context of an existing base knowledge". Review of literature refers to an extensive, exhaustive and systematic examination of publications relevant to the research project. It helps to analyze what is known about the topic and to describe the methods of enquiry used in earlier work including the success and short comings. It gives a broad understanding of the problem. The main goal is to develop the evidence based study that will contribute to further knowledge in development of nursing theory, education practice and research. Review of literature is an important step in the development of a research project. It involves the systematic identification location, scrutiny and summary of written materials that contain information on research problem.

"The literature is reviewed to summarize knowledge for use in practice or to provide a basis for conducting study.**"**

- Nancy Burns 2002

"A literature review is an account of what has been already established or published on a particular research topic by accredited scholars and researche

-University of Toronto, 2001

This chapter attempts to preset a broad review of the studies conducted, the methodology adopted and conclusion drawn by earlier investigation, it helps to study the problem in depth. The literature reviewed for the present had been presented under the following heading

- ❖ Studies related to prevalence and determinants of hypertension
- ❖ Studies related to knowledge and attitude regarding hypertension

STUDIES RELATED TO PREVALENCE AND DETERMINANTS OF HYPERTENSION

Bhansali A et.al, (2014)conduted a cross sectional study to determine the prevalence of hypertension and its risk factors in urban and rural India. Individuals aged 20 years and above were surveyed using a stratified multistage sampling design, in three states Tamil Nadu, Maharashtra and Jharkhand and one union territory (Chandigarh) of India. 14,509 samples were selected to participate in the study. Data was collected by measuring the blood pressure of the participants. Descriptive and inferential statistics were used to analyse the data. The study found that overall age standardized prevalence of Hypertension was 26.3%. Urban residents of Tamilnadu, Jharkhand, Chandigarh and Maharshtra (31.5, 28.9, 30.7, and 28.1%) had significantly higher prevalence of Hypertension compared with rural residents (26.2, 21.7,19.8, and 24%). Multivariate regression analysis showed that age, male gender, urban residence, generalized obesity, diabetes, physical inactivity and alcohol consumption were significantly associated with Hypertension. Salt intake more than 6.5 gm/day showed significantly higher risk for hypertension. The study concluded that prevalence of undiagnosed hypertension is high in India and this calls for regular screening.

Laxmaiah, (2014) conducted a community based cross sectional study to estimate the prevalence and determinants of hypertension among tribals and their awareness, treatment practices and risk behaviours in nine states of India. About 120 Integrated Tribal Development Authority villages were selected randomly

from each state. From each village, 40 household and all men and women > 20 years of age in the selected households were included in the study. Totally 26260 were participated in the study. Data was collected by using structured questionnaire and anthropometric measurement was also taken. Data analysis was done by SPSS window 19 version. The study revealed that the prevalence of Hypertension was 27.1% and 26.4% among men and women, respectively. It was highest in the States of Odisha (50-54.4%) and Kerala (36.7-45%) and lowest in Gujarat (7-11.5%). The risk of hypertension was 6-8 times higher in elderly people and 2-3 times in 35-39 years compared with 20-34 years. Only below 10% of men and women were known hypertensives and more than half on treatment (55-68%). Men with general and abdominal obesity were at 1.69 and 2.42 times higher risk of hypertension, respectively, while it was 2.0 and 2.35 times higher in women. Those using tobacco and consuming alcohol were at higher risk of hypertension compare with thenon users. The study concluded that high prevalence of hypertension among tribals in India. Age, Literacy, Physical activity, Consumption of tobacco, Alohol and Obesity were significantly associated with hypertension. They recommended that appropriate intervention strategies need to be adopted to increase awareness and treatment practices of hypertension among tribals.

Shankar (2014) conducted a study to determine the prevalence rate of type 2 diabetes mellitus and hypertension and its associated risk factors among the tribal population in Salem district, Tamilnadu. A total of about 525 tribal population above 40 years of age from various tribal places in Yercaud were selected by participants by using cluster sampling method. Data was collected by screening them for diabetes, checking the random blood glucose levels and blood

pressure, body mass index, dietary patterns, and physical activity level and the knowledge was assessed by questionnaire. Among the study population people whose were in the prehypertensive was 185(males 92 and females 93) and people in the stage I hypertension was 102 (male = 47 and females =54) and in stage II hypertension was 64(male =25 and female =20). Among the study population 1 was obese and 39 were overweight. Among the various risk factors smoking, alcohol only the family history was found to have a statistically significant association or males whereas among females only the family history was found to have a statistically significant association for both diabetes and hypertension. The knowledge of diabetes among the study population was very poor. None of them were aware about the normal level of blood sugar and risk factors. The study concluded that the prevalence of diabetes and hypertension is increasingly high in the tribal areas and their awareness levels were very poor.

Olivier PanchaMbouemboue (2012) conducted a cross sectional survey to estimate the determinants of awareness and treatment of hypertension in a Cameroonian population under cardiology follow up in a regional hospital in the northern Cameroon. A total of 117 hypertensive Cameroonians aged between 25-64 years were recruited by consecutive sampling technique. Data was collected by self administered questionnaire and Anthropometric measurements also done. Mean, frequency, Percentage, Standard deviation, Multivariate analysis were used to analyse the data. The study revealed that 40.2% were aware of their hypertension and 65.8% were on treatment. Multivariate analysis showed that duration of hypertension >10 years, professional occupation, cratsmen/traders compared with inactive population were directly associated with higher hypertension awareness. There was a increasing cost of hypertension medication

was associated with a lower likelihood treated. Overweight and high cost of hypertensive medication were independently associated with treatment of hypertension. The study concluded that health programs are needed to improve hypertension awareness and treatment.

Deyanov C (2010) conducted a cross sectional study to investigate the age related changes of blood pressure and prevalence of arterial hypertension among school teachers. 168 female teachers between 25 and 55 years of age from comprehensive and technical schools in Sofia were studied. A group of 103 female employees served as controls. Simple random sampling were used to select the participants. Data were collected by measuring the blood pressure and the self administered questionnaire was used to collect the informations regarding the lifestyle practices. Descriptive and Inferential statistics were used to analyze the data. The study found that there was an abrupt elevation of mean Systolic BP was disclosed in teachers more than 45 years old and a significant difference of Systolic blood pressure between teachers during the first and second half of the fourth decade. The elevation of the diastolic blood pressure with age was more expressed among the teachers than the controls. There was a strong correlation between teachers length of service and the levels of Systolic and Diastolic BP was revealed ($r = 0.56$, $p < 0.001$ and $r = 0.50$, $p < 0.001$) respectively. The study concluded that Arterial hypertension prevalence among teachers over 40 years old was 31% which can classify this occupation as high risk for Arterial hypertension.

Nivya 2010 conducted anon experimental descriptive study to compare the lifestyle practices of Government and private school teachers with hypertension and to find out the association between the demographic variables and the lifestyle practices in selected Government and private schools in Hyderabad. Samples were selected by using purposive sampling technique and data were collected by using structured questionnaire. BP was measured by digital BP apparatus and Height, Weight, Hip measurement, Waist hip ratio also measured. Descriptive and inferential statistics was used to analyze the data. The obtained mean value was 50, SD 4.6 among Government school teachers with hypertension and the obtained mean value among the private school teachers with hypertension was 56, SD 5.9, and the t value was 6.04. The study revealed that there was a difference in the lifestyle practices between Government and private school teachers with hypertension and the demographic variable handling the students and the total working hours per week was associated with the life style practices of hypertension. The study concluded that awarenesscompaigns regarding hypertension should be done in the schools and the teachers were periodically screened for hypertension.

Kannan (2009) conducted a cross sectional study to measure the prevalence of hypertension and to indentify the risk factors of hypertension with reference to medical, social, and individual characteristics among the adults in the age group 30 years and above residing at Mugalivakkam primary health centre area of Kancheepural District, Tamilnadu. Among 12,051 adults in the age group of 30 years and above 750 individuals were selected by cluster sampling method. Data was collected by administering questionnaire and data was analyzed by SPSS version 8. Among the total samples 189 individuals (25.2%) were found to have

hypertension including 93 known hypertensives. Among 357 adult males 81(22.6%) and among 393 adult females, 108(27.4%) were found to be suffering from hypertension. Among 357 males studies 233(65.26%) were prehypertensives followed by 61(17.08%) who were stage I hypertensives and 20(5.6%) were stage II hypertensives. Of 393 females 196 (49.87%) were pre hypertensives followed by 6(17.04%) in stage I hypertension and 41(10.4%) were stage II hypertensives. The research variables smoking, alcohol use, obesity, tobacco chewing, diabetes and oral contraceptives use were associated with hypertension. The study concluded that the prevalence rate of hypertension was 25.2%. The prevalence rate was higher (27.4%) among females. The study recommended that health care providers should take note and institute appropriate preventive measures.

Ibrahim (2008) conducted a cross sectional study to investigate the prevalence and associated risk factors of Hypertension and pre hypertension among 1476 preparatory and secondary school teachers selected by multistage stratified random sampling technique in Jeddah, Alexandria. Data was collected by using the structured questionnaire regarding lifestyle determinants of hypertension through interview method. Arterial blood pressure, Fasting blood sugar, Anthropometric measurements also taken. The collected data was reviwed, coded, and analyzed using SPSS software version 13. The study found that prevalence of hypertension and pre hypertension were 25.2 % and 43.0% respectively among 1476 participants. Only 30.4% o hypertensive teachers were aware of their condition. Linear regression indicated that for every 4 Kg increase of weight, there is increase of one mm Hg of Systolic Blood pressure and Diastolic Blood pressure. It also illustrated that Age, Body Mass Index and Diabetes were significantly associated with Hypertension. Predictors of hypertension were male

gender and BMI more than 25. The study concluded that the prevalence of Hypertension and pre hypertension was high among teachers in Jeddah and BMI was the strongest modifiable risk factor. The study recommended that lifestyle modification and implementation of screening programs for obesity, diabetes, pre hypertension and Hypertension.

Col Bhalwar (2008) conducted a cross sectional study to determine the prevalence of hypertension and its determinants in rural population in Maharashtra. 406 people aged 30 years and above were selected by random sampling. Data was collected by structured questionnaire and the data was analysed by mean, frequency, percentage, SD, Chi square test. The study revealed that prevalence of smoking and tobacco use was 16%, alcohol intake 9.4%, daily salt intake > 5 gm 34.2%, daily saturated fat intake 4% and physical inactivity 18%, BMI > in 18% and >30 in 3.2% men and women. Prevalence o truncal obesity was 8.5% with higher incidence in men. Differences in prevalence of risk factors between men and women were statistically significant in case of smoking, alcohol consumption and abdominal obesity. 18.5% men and women were suffering from systolic hypertension > 140 mm Hg and 15% from diastolic hypertension > 90 mm Hg. Prevalence of risk factors for hypertension was significantly more among subjects suffering from systolic and diastolic hypertension than normotensive subjects. The study concluded that there was a significant association between hypertension with respect to age in men whereas it was not significant in case of women.

Hanan Ali (2008) conducted a descriptive cross sectional study to determine the prevalence of hypertension among secondary school female teachers and to identify lifestyle related risk factors in Basrah city. 403 participants were selected randomly from 16 schools and data was collected by a special questionnaire and Height, Weight, Blood pressure were measured. Data analysis was done by SPSS version 15. The study revealed that the prevalence of hypertension among the population was 21.3% and about one fifth of them(20.3%) were prehypertensive. The prevalence lifestyle risk factors among the study population was 67% physical inactivity, 40.9% overweight, 37.7% obesity, 18.6% contraceptive pills use, 18.1% salty diet, 15.4% fatty diet, 12.4% taking non steroidalanti inflammatory drugs, 6.5% coffee intake and 0.5% smoking. There was a significant association was found between some lifestyle risk factors and hypertension were financial status, drug intake and BMI. The study recommended early detection of hypertension and educational health programs regarding lifestyle behavior.

STUDIES RELATED TO KNOWLEDGE AND ATTITUDE REGARDING HYPERTENSION

Micheal (2014) conducted a non experimental descriptive study to assess the level of knowledge regarding hypertension and its management among the hypertensive patients and to associate the level of knowledge with selected demographic variables in a selected rural community in Kanchipuram district among 30 samples selected by non probability convenient sampling technique.

The knowledge level was assessed by structured questionnaire. The collected data were analysed by using descriptive statistics and inferential statistics. The study revealed that 67.7% of the hypertensive elderly were having moderately adequate knowledge regarding hypertension and its management, there is also a significant relationship between occupational status and their knowledge score. The study concluded that health awareness programs are to be conducted by the educational institutions and various health agencies which will be an eye opener to the community to prevent the complications due to hypertension thereby reducing mortality and morbidity rates among elderly population.

Vikneswari et.al, (2014) conducted a descriptive study to assess the awareness and knowledge of about Hypertension at Jaswanth Rai super speciality hospital, Karnataka. Totally 32 male patients and 18 female patients were selected for the study by purposive sampling technique. Data was collected by using structured questionnaire. Mean, frequency, percentage, student t test were used to analyse the data. The study revealed that most of the patients were educated, 7 patients were skilled employee. 40% of patients were suffering from hypertension for more than 2 years. 64% patients were taken other medication for their other illness. 70% of patients know that they are hypertensive. 60% of participants reported that a blood pressure of 120/80 mm Hg was normal. 76% knew about high blood pressure can cause kidney problems and more than 90% of the patients were about high blood pressure can cause heart attack and stroke and they knew that eat they have to take low salt diet to reduce the blood pressure.

Gowda (2013) conducted a descriptive survey design to assess the knowledge and practices regarding lifestyle modification among 50 hypertensive

patients by using non probability convenient sampling technique in selected hospitals in Karkala and Mangalore Taluk. The tool used for the present study was structured interview schedule and life style practice rating scale. The results showed that among hypertensive patients 54% had average knowledge, 20% had poor knowledge, 18% had good knowledge and 8% had very good knowledge regarding lift style modification of hypertension and 78% had good life style practice and 22% and very good life style practice and also revealed that there was significant correlation between knowledge and lifestyle practice. The study concluded that hypertensive patients had average knowledge and lifestyle practice was relatively good.

Zungu et.al, (2012) conducted a cross sectional descriptive survey to assess the lifestyle practices of patients with hypertension who were attending a primary health clinic in Botswana. A total of 446 participants were recruited by using simple random sampling technique. Data were collected by using self administered structured questionnaire. Descriptive and Inferential statistics were used to analyse the data. A total of 446 participants, 293(65.9%) were females and 285(63.9%) were aged greater than 40 years. 219(49.1%) of the participant reported a family history of hypertension. Among those 171 (78%) stated that their biological parents had hypertension, 31(14.1%) stated that it was their grandparents and only 8(3.7%) indicated other like their uncles and aunts. Participants level of knowledge varied from average to high as almost all of them 96% and 9% gave a correct response for practices related to prohibiting/preventing smoking and reducing the levels of stress respectively. Only 3% of the participants scored greater than 75% for assessment of their knowledge regarding the acceptable lifestyle practices for persons with hypertension cumulatively 59% can

be rated as having acceptable knowledge of lifestyle practices in relation to their chronic disease. The study confirmed that a relation exists between the knowledge of hypertension, demographic factors practices among participants.

Almas (2012) conducted a cross sectional study to assess the knowledge about hypertension in hypertensive patients and to compare the knowledge of those with uncontrolled hypertension and controlled hypertension at three tertiary care centers in Karachi, Pakisthan. 447 hypertensive patients above 18 years of age, taking anti hypertensive medications attending the out patient department of the hospitals in the year 2012 were taken as study samples by simple random sampling method. Data was collected by questionnaire. Standardized methods were used to record Blood pressure in the sitting position. Data was analysed by SPSS version 17. On comparison of knowledge as a composite score between uncontrolled and controlled hypertensive Mean and SD was 21.85 and 4.74 vs 18.67 and 4.70 ($p<0.001$). Knowledge score on most of individual item questions between the two group was significantly different. The demographic variables gender, uncontrolled blood pressure, sindhi ethnicity, pukhtoon ethnicity were significantly associated with knowledge score. The study concluded that knowledge about hypertension in hypertensive patients is not adequate and is alarmingly poor in patients with uncontrolled hypertension.

Mahajan (2012) conducted a cross sectional study to assess the knowledge, attitude and practice of hypertensive patients and to assess the risk factors and associated co- morbidities in them. The study was conducted at Shivaji

Nagar urban slum in Mumbai among 340 hypertensive patients above 40 yearso age and the information was gathered by personal interview using semi structured questionnaire. Descriptive and inferential statistics were used to analyse the data. The study found that 38.52% patients had the family history of Hypertension and 34.41% had smokeless tobacco addiction, followed by 13.23% cigarette smoking. Alcohol consumption and smokeless tobacco chewing both in 12.64%. 26.47% had diabetes mellitus along with Hypertension followed by Anaemia 20% and Osteoarthritis/Osteoporosis 15%. 221 (65%) hypertensive patients had BMI equal to or more than 25 Kg. Poor knowledge, attitude and practices were in 83.42% 69.11%, 73.24% respectively. Mean systolic Blood pressure and Diastolic Blood pressure, Body Mass Index and weight was 145.58 mm of Hg, 92 mm of Hg, 25.09 Kg/m2 respectively. The study concluded that most of the patients had associated co morbidities and poor practices regarding hypertension is the main reason for higher blood pressure, Body Mass Index. The study recommended that there was a need for encouraging health services including health education regarding risk factors.

Ramchandra (2012) conducted a evaluative study one group pre test and post test design to improve knowledge of selected rural population regarding prevention of hypertension and to identify risk factors and associate with selected demographic variables among 30 Karve rural population by using interview schedule method. Samples were selected by convenient sampling technique. Descriptive and inferential statistics were used to analyse the data. The study revealed that among 30 samples 0 were having good knowledge 23(76.66%) had poor knowledge, 7 (13.33%) had average knowledge in pre test followed by structured teaching programme regarding Hypertension. In post test 10% population have poor knowledge regarding prevention of risk factors of

hypertension. 13.33% population having good knowledge and 76.66% population having average knowledge. The study found that structured teaching programme was effective. The study concluded that there was a significant association between knowledge and demographic variable education and all samples were not aware about risk factors of hypertension.

Kadri (2012) conducted a cross sectional study to assess the level of awareness of diabetic and hypertensive eye diseases in public in Mangalore, India. 653 patients were selected by simple random sampling technique to participate in the study. They were requested to answer an interview based questionnaire which included questions regarding awareness of diabetic and hypertensive eye diseases. Data was analysed by SPSS version 16. The study revealed that 147 (22.5%) of the patients were diabetics and 294 (32.8%)of the patients were hypertensive. Awareness of diabetic retinopathy was found in 182(27.9%). Only 5.1% (33) patients were aware of hypertension related eye diseases. 435 (66.5%) of the patients were advised by the physicians for eye check up. Awareness of treatment for diabetic retinopathy was seen in 59(9%) patient's only. The study concluded that there is a great need for health education in this Indian population to increase the level of awareness and knowledge of systemic disease related eye problems and this will help in early detection and treatment of eye diseases and reducing visual morbidity.

Rizwana et.al,(2011) conducted a cross sectional survey by using pre tested, structured, self administered to assess the knowledge on risk factors of hypertension and association of risk factors with socio demographic variables among 160 university students selected by simple random sampling technique in

Gulf Medical University Ajman, United Arab Emirates. Data was analysed by using PASW -17. Chi square test was done for association. The study revealed that 75.5% were considered as stress as a risk factor. 73.6%, 73.6%, 71.8% were considered that high cholesterol, obesity and smoking as a risk factor for hypertension respectively. 69.1% considered high salt intake as a risk factor. 62.7% considered high calorie diet was a risk factor. Energy drink and coffee consumption were considered as risk factors by 64.5% and 46.4% respectively. Nearly half 47% of the respondents were aware of physical inactivity being a risk factor, whereas only 13.6% had knowledge of the risk of oral contraceptives in hypertension. The overall knowledge of modifiable risk factors was better than that of non modifiable risk factors wherein 88% did not know the risk related to male gender, 60% the risk with increasing age and 50% the risk of family history of cardio vascular disease. The study concluded that sound prevention and control programs should be conducted to improve knowledge attitudes and lifestyle practices early in lift to control hypertension.

Lyalomhe (2010) conducted a qualitative phenomenological survey to determine hypertensive patient's knowledge, perceptions, attitudes and lift style practices in Central Hospital Auchi, Nigeria. 108 randomly selected cohort of hypertensive were examined by means of self structured questionnaire and a detailed interview. Data analysis was done by SPSS and Chi square of the Graphpad Prism software was used for significance test at 0.05 level. The study revealed that 61% respondents knew hypertension to be high blood pressure, 20% thought it meant excessive thinking and worrying while 53% claimed it was hereditary. 40% felt it was caused b malevolent spirits, 30% believed it was caused by bad food or poisoning. A few (18%) knew some risk factors. Symptoms attributed to hypertension were headache, restlessness, palpitation, excessive

palpitation, excessive pulsation of the superficial temporal artery and internal heat but 74% attested to its correct diagnosis by BP measurement. Although 90.7% felt the disease indicated serious morbidity, only 33.3% were adherent with treatment and fewer practiced lift style modification. 30% knew at least one antihypertensive drug they use. Psychosocial factors like depression and anxiety, fear of addiction and intolerable drug adverse effects impacted negatively on patients attitude to treatment. The study concluded that patients knowledge of hypertension is low and their attitudes to treatment negative.

Lin (2008) conducted a study to compare knowledge about hypertension between elderly Chinese urban patients with preferences for either traditional medicine or western medicine. 222 patients aged above 65 years who visited the out patient department of 6 hospitals in Guangzhou and Ganzhou were selected by simple randon sampling. Data was collected by interview method and the data was analyzed by SPSS version 11.0. The study revealed that 32.6% of participants correctly identified hypertension as a main risk factor of coronary heart disease and stroke, 22.3% of patients answered that the main purpose of hypertension control was preventing cardio vascular disease. The reasons for these patients to seek medical treatment for their hypertension included were persuasion by physicians or their family members 21.6%, alleviating symptoms such as head ache and dizziness 16.8%, lowering blood pressure without knowing specific reason 21.4%. Television and newspaper were the most frequent sources of hypertension information for both the groups. The predictors for poor knowledge o hypertension similar irrespective of preference for western medicine or traditional Chinese medicine and included those with lower levels of education and older age. The study concluded that knowledge of hypertension is similar among Chinese urban patients with preferences for either Western medicine and Traditional

Chinese Medicine treatment and that misunderstandings about hypertension are common the elderly patients. The study recommended the necessity of public health education particularly for those with a lower level of education and older age.

Kaur et.al, (2007)conducted a descriptive study to assess the knowledge and learning needs of 50 hypertensive patients visiting OPD selected by purposive sampling technique at D.M.C & H, Ludhiana. Interview method was used to assess the knowledge and learning needs of hypertensive patients. Data was analysed by using descriptive statisitics. The study revealed that 54% patients had good knowledge followed average 30%, excellent 14% and poor knowledge 2% regarding hypertension. It was found that 46% patients gave top priority for measures to control hypertension that included lifestyle changes, diet, relaxation therapy and physical activity. Another 34% patients showed priority to learn about meaning of blood pressure where as another 10% gave priority to knowing about signs and symptoms and measure of blood pressure respectively. A comparison of knowledge scores of subjects and their selected demographic variables was done using F test and statistically no significant relationship was found ($p>0.05$). The study concluded that there was a significant knowledge and learning needs of hypertensive patients and all of them expressed desire to learn different aspects of hypertension as per their priority. The study recommended that nursing personnel should be appointed in cardiology OPD to assess the learning needs of hypertensive patients to give health education to patients to control blood pressure.

CHAPTER III

RESEARCH METHODOLOGY

Methodology is a significant part of any research which enables the researcher to organize the procedure of collecting reliable data for the problem under study or investigation. This chapter deals with the description of methodology and the various steps adopted to collect and organize data for the study.

According to **Polit and Beck (2004**) research methods are the techniques used by the researcher to structure a study to gather and analyze information relevant to research question.

The methodology section includes the research approach, research design, variables, settings, population, sample, sample size, sampling technique, sampling criteria, development of the tool, description of the tool, validity, reliability, pilot study, data collection procedure, plan for analysis and ethical consideration.

RESEARCH APPROACH

According to **Suresh K. Sharma (2011**) the research approach involves the description of the plan to investigate the phenomenon under study in a quantitative, qualitative or a combination of the two methods. Furthermore, it helps to decide whether the presence or absence as well as manipulation and control over variables.

The present study is a non experimental descriptive design comparative in nature. Descriptive design helps to gain more information about characterisitic within particular field of study. It helps to describe, observe and document aspects of a situation in natural setting. It serves as a starting point for hypothesis or theory development.

The ultimate aim of the present study is to compare the lifestyle practices of Government and Private school teachers with hypertension in selected schools, Erode district.

RESEARCH DESIGN

According to **Kothari,** a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

The research design selected for this study is descriptive study comparative in nature. The comparative study involves comparing two or more groups regarding a specific variables. In this present study, the investigator intended to compare the lifestyle practices of Government and private school teachers with hypertension in selected schools, Erode district.

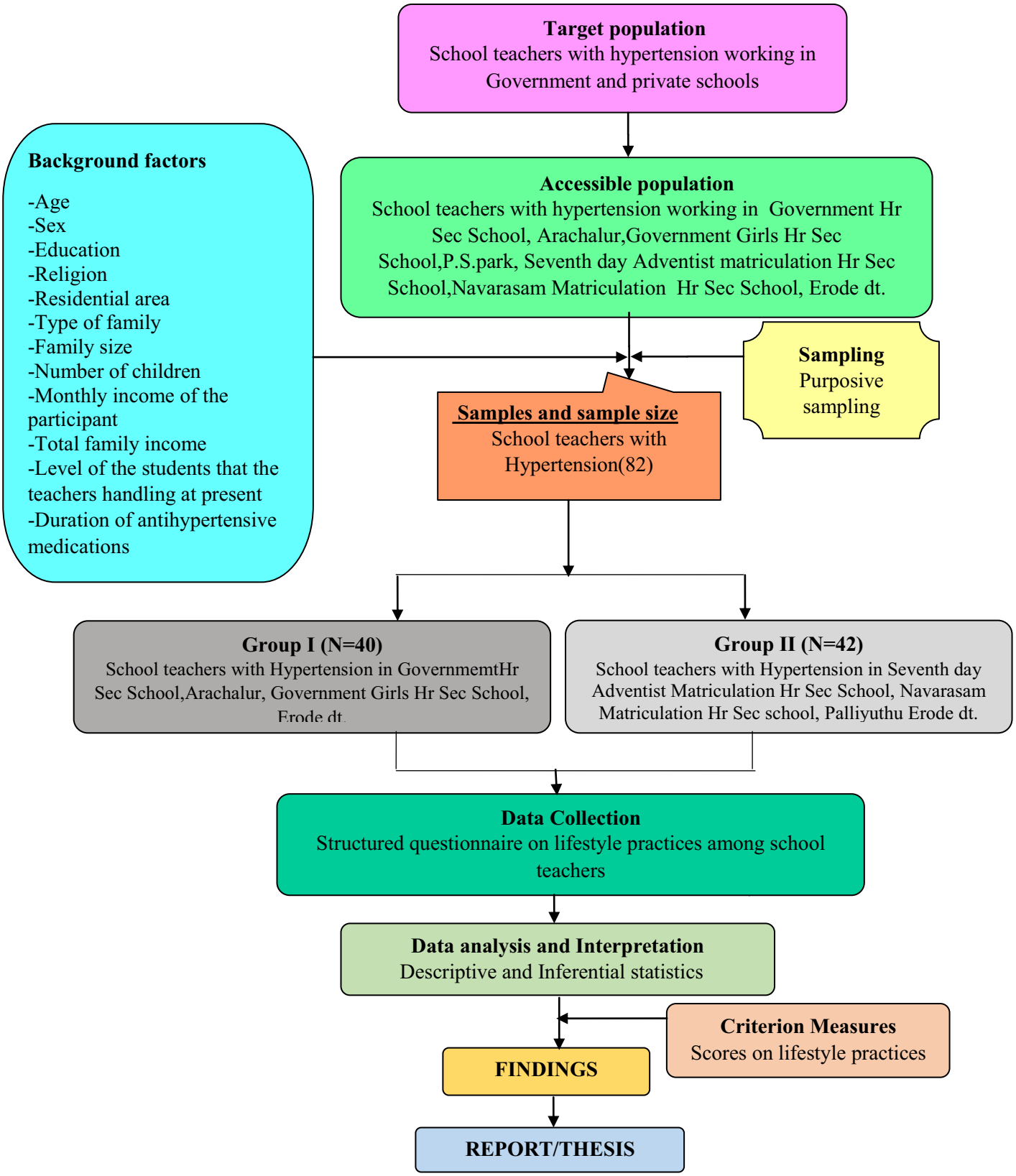

FIG 2 : SCHEMATIC PRESENTATION OF RESEARCH DESIGN

VARIABLES

Variables are qualities, properties or characterisitics of person, things, or situations that change or vary.

Chinn and Kramer stated that *"*Variables are concepts at different level of abstracts that are concisely defined to promote their measurement or manipulation within study". Variables are classified as Independent and dependent variable, Research variable, Demographic variable and Extraneous variable.

Dependent variable

It is the focus of the study and reflects the empirical aspects of the concepts being studied.

In this study the dependent variable is Hypertension.

Independent variable

Variable causing change is referred to the independent variable. It is the intervention or treatment that the investigator performs to see the resulting change in the dependent variable.

In this study the independent variable is Lifestyle practices.

Demographic variables

In most of the studies, researchers make the attempt to study the sample characteristics and present them in research findings. In addition, sometimes researchers even try to establish relations of the demographic variables with the research variables. Research variables can be defined as qualities, attributes, properties or characteristics which are observed or measured in a natural setting without manipulating and establishing cause and effect relationship.

In this study the selected demographic variables to which the investigator tries to establish relationship are Age, Sex, Education, Religion, Residential area, Type of family, Family size, Number of children, Monthly income of the participants, Level of the students that the teachers handling at present, Duration of anti hypertensives.

SETTINGS

According to **Polit and Hunger (2002**) selection of the setting should be done on the basis of the availability of subjects, co-operation from the authorities and feasibility of time, money and the material.

For the present study Two Government schools namely Government Higher Secondary School, Arachalur, Government Girls Higher Secondary School, P.S. Park and Two private schools namely Seventh Day Adventist Matriculation Higher Secondary School, Erode and Navarasam Matriculation Higher Secondary School, Palliyuthu, Erode district were selected based on the availability of samples, acquaintance of the investigator with the area and the cooperation from the institution. In Government Higher Secondary School, Arachalur 19 males and 38 females were working. Among them 4 male teachers and 14 female teachers had hypertension.It was located in the distance of 8.5 kilometres from SPM College of Nursing. Government Girls Higher Secondary School, PS Park, Erode was 30 kilometres away from SPM College of Nursing. Totally 65 female teachers were working. Among them 22 had hypertension. Navarasam Matriculation Higher Secondary School was 13 kilometres away from SPM College of Nursing. Totally 163 female teachers were working. Among them 51 samples had hypertension. 32 had fulfilled the inclusion criteria and selected for the study. Seventh Day Adventist Matriculation School was 35 kilometres away from SPM College of Nursing. Among 45 teachers 10 had hypertension.

POPULATION

According **to Nirmala. V.** population is referred as the totality or aggregate of elements showing some common set of criteria. It includes anything in totality. Population are of two types : Target population, Accessible population.

Target population

It refers to the population under study and the population to which the researcher wants to generalize the research findings. The target population of this study was School teachers with hypertension working in Government and private schools.

Accessible population

It refers to the part of the population that is available to the research. The accessible population in the study was school teachers with hypertension working at Government Higher Secondary School, Arachalur, Government Girls Higher

Secondary School, PS Park and Seventh Day Adventist Matriculation Higher Secondary School, Erode, Navarasam Matriculation Higher Secondary School, Palliyuthu, Erode district.

SAMPLE AND SAMPLE SIZE

Polit and Beck (2004) state that a sample consist of the subset of the population selected to participate in the research study. Sample size is the number of individuals from whom the required information is obtained. Sample size is determined by the type of the study, nature of variables, level of significance, required type of data, feasibility to conduct the study and the availability of the samples.

In this study, the sample size is arbitrarily decided to be 82 school teachers with hypertension. 18 samples from Government Higher Secondary School, Arachalur, 22 samples from Government Girls Higher Secondary School, PS Park and 32 samples from Navarasam Matriculation Higher Secondary School, Palliyuthu, 10 samples from Seventh Day Adventist Matriculation Higher Secondary School, Erode district.

SAMPLING TECHNIQUE

Sampling is an important step in the research process. It refers to the process of selecting the portion of the population to represent the entire population.

In this study purposive sampling technique was adopted. It is one of the non probability or non random method in which the deliberate selection of sample units that confirm to some predetermined criteria.

SAMPLING CRITERIA

In sampling criteria the researcher specifies the characteristics of the population under the study by detailing the inclusion and exclusion criteria. Inclusion criteria are characteristics that each sampling element must possess to be included in the sample. Exclusion criteria are characteristics that could confound or contaminate the results of the study therefore such participants are excluded from the study.

The study samples were selected by using the following criteria:

Inclusion criteria

- Teachers who have hypertension for the period of six months and above.
- Teachers including both males and females.
- Teachers who know to read, write, understand tamil and english.
- Teachers working in selected Government and private schools.

Exclusion criteria

- Teachers who are not willing to participate.
- Teachers who are sick.
- Teachers who had hypertension recently.

DEVELOPMENT OF THE TOOL

The instrument selected in a research should be as far as possible the vehicle that would best obtains data for drawing pertinent to the study and add to

the body of knowledge in the discipline. The tool is a written device that a researcher uses to collect the data. After careful and detailed review of literature, extensive library research, internet sources and consultation with experts the investigator prepared and developed a Structured questionnaireas a tool for the present study.

DESCRIPTION OF THE TOOL

Description of the tool refers to the explanation of the content of the tool. The researcher lists the number of items and the scoring for each item in the tool. The tool used for the present study consists of following sections.

PART I : Socio-demographic variables

The section sought information regarding the school teachers with hypertension working in selected Government and private schools. It consists of 11 items which includes Age, Sex, Education, Religion, Residential area, Type of family, Family size, Number of children, Monthly income of the participants, Level of students that the teachers handling at present, Duration of anti hypertensives.

PART II : Structured questionnaire regarding life style practices

It consists of 5 sections seeking to know the information related to the lifestyle practices of the samples participated in the study.

SECTION I : Personal and behavioural factors

It consists of 6 questions which collects information regarding the habits like cigarette smoking, tobacco chewing and alcohol consumption of the individual participated in the study. The maximum score was 11 and the minimum score was 0.

SECTION II : Dietary factor

It consists of 10 items which provides information about the dietary pattern of the participant which includes the intake of carbohydrate, protein,fat, sugary items, deeply fried items, non veg, potassium, vitamin D, salt, coffee and tea. Maximum score of dietary factor was 38 and the minimum score was 0.

SECTION III : Obesity

It consists of 3 items seeking to know the information regarding height, weight, BMI, Waist circumference, Hip circumference, Waist Hip ratio of the individuals participated in the study. Maximum score was 7 and the minimum score was 0.

SECTION IV : Physical activity

It consists of 3 items measuring the participants's daily routine of physical activity, sleeping habits and the mode of transport that the participant used to reach the school they work. Maximum score was 14 and the minimum score was 0.

SECTION V : Check list for Psychological factors

It consists of 7 items seeking to know the informations regarding the home atmosphere, work atmosphere, how he or she perceive the co workers and the students. Maximum score was 7 and the minimum score was 0.

INTERPRETATION OF SCORES

Total score of the questionnaire was 77.

Score	Percentage	Interpretation
0 - 26	0 – 33.76%	Poor
27 - 53	35. 06% - 68.83%	Moderate
54 - 77	70.12% - 100%	Good

VALIDITY OF THE TOOL

According to **Polit and Hungler** Validity of an instrument refers to the degree to which an instrument measures what it is supposed to be measuring.

The Structured Knowledge Questionnaire was constructed by the investigator and the experts were requested to check for relevance, sequence and clarity of the tool. Four nursing experts and one General physician validated the tool for its content. Suggestions were considered and the questions were modified according to the opinion of the experts.

RELIABILITY

Reliability is the degree of consistency and accuracy with which an instrument measures the attribute for which it is designed to measure.

Reliability was established by test-retest method. The structured knowledge questionnaire was administered to 5 teachers with hypertension working in Navarasam Matriculation Higher Secondary School, Erode district and reassessed after an interval of seven days. Reliability was computed by Karl Pearson's correlation coefficient method. The correlation coefficient of teachers participated in the study was r = 0.9. The tool was found reliable for the study.

PILOT STUDY

The pilot study is miniature trial run of methodology planned for the majority research study, which facilitates to improve the methodology of the study, can assess the feasibility of the study and may identify the problems that may be faced by the researcher in actual larger project.

After obtaining permission from the authorities concerned of the school, a pilot study was conducted among 5 teachers with hypertension working at Thalapathi Arjuna Mandradiar Memorial Government Higher Secondary School, Nathakadaiyur, Thirupur District, Seventh day Adventist matriculation school, Aval Poonthurai, who fulfilled the criteria for sample selection. Consent was obtained from the samples and Confidentiality was ensured. The duration of the study was one week. Pilot study helped the investigator to ascertain the feasibility and practicability of the designed methodology.

DATA COLLECTION PROCEDURE

Phase I : Screening phase

The study was conducted in selected schools at erode district namely Government Higher Secondary School, Arachalur, Government Girls Higher Secondary School, PS Park, Seventh Day Adventist Matriculation Higher Secondary School, Navarasam Matriculation Higher Secondary school, Palliyuthu, Erode district. Data was collected for 4 weeks in the month of January 2016. Prior permission was obtained from the District Educational officer and the concerned authorities of the school.

Screening of Hypertension was done for all the school teachers working in the selected schools. Teachers's date of birth and Age, History of hypertension was asked orally to select the samples and Blood Pressure measurement was done by digital BP apparatus. Total of 285 samples 82 samples fulfilled the selection criteria and were selected by purposive sampling in which 18 from Government Higher Secondary School, Arachalur, 22from Government Girls Higher Secondary School, P.S.Park, 32 from Navarasam Matriculation Higher Secondary School, Palliyuthu, 10 from Seventh Day Adventist Matriculation Higher Secondary School, Erode district.

Phase II : Data collection and Implementation Phase

After identifying the samples, the purpose and procedure of data collection was explained to the teachers and written consent was obtained from them. Confidentiality was ensured. The investigator gave the questionnaire to the samples to collect information regarding the lifestyle practices and the selected demographic variables. Blood Pressure of the participants was measured by digital BP apparatus. Waist circumference, Hip circumference and Waist hip ratio was also measured.

Phase III : Termination phase

The tool was verified for completion. The investigator shared his vote of thanks to the teachers and principal for the permission, cooperation and willingness to participate in the study. The teachers were assured about the confidentiality of the data. This phase lasts for 10 minutes.

PLAN FOR DATA ANALYSIS

Data analysis is the systematic organization and synthesis of research data and testing of the research hypothesis using the data.

The data collected from the subjects were compiled and analyzed by using descriptive and inferential statistics. The following plan of analysis was developed.

- Distribution of samples according to background factors were explained by using frequency and percentage.

- Mean, Standard Deviation, Mean Difference and 't' value was used to compare the lifestyle practices among Government and private school teachers with hypertension.

- Chi square was used to associate the lifestyle practices and background factors among Government and private school teachers with hypertension.

ETHICAL CONSIDERATION

For the present study, ethical values were taken into consideration. The study was accepted by the research ethical committee of the college. Prior permission was obtained from the District Educational officer and the authorities of Government Higher Secondary school, Arachalur, Government Girls Higher Secondary School, P.S.Park, Seventh Day Adventist Matriculation Higer Secondary School, Erode, Navarasam Matriculation Higher secondary school, Palliyuthu, Erode district. Purpose of the study was explained to the teachers and the authorities. Informed written consent was taken and the confidentiality was promised and ensured. The participants were given freedom to quit from the study if they are not willing to fill the questionnaire. No routine duties of the teachers are withheld. No invasive procedures were involved in the study. No physical and psychological pain was caused. Thus the ethical issues were ensured in the study.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

Data analysis is the systemic organization and synthesis of research data and the testing of research data and the testing of research hypothesis using data. Interpretation is the adequate exposition of the facts presented in terms of purpose of the study.

This chapter deals with the analysis and interpretation of the data collected regarding the lifestyle practices of school teachers with hypertension working in Arachalur Government Higher Secondary School, Arachalur, Navarasam Matriulation Higher Secondary School, Palliyoothu, Erode district.

The data collected were edited, tabulated, analysed and interpreted a finding obtained were presented in the form of table and diagram under the following sections.

OBJECTIVES OF THE STUDY

- To assess the lifestyle practices of Government and private school teachers with Hypertension.
- To compare the lifestyle practices of Government and private school teachers with Hypertension.
- To find out the association between the lifestyle practices and the selected background factors among Government and private school teachers with Hypertension.

THE DATA ANALYSIS WERE PRESENTED AS FOLLOWS

Section I : Data on background factors of Government and private school teachers with hypertension.

Section II : Data on lifestyle practices of Government and private school teachers with Hypertension.

Section III : Data on association between the selected demographic variables and the lifestyle practices among Government and private school teachers with Hypertension.

SECTION – I : DATA ON BACKGROUND FACTORS OF GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

TABLE – 1

FREQUENCY, PERCENTAGE DISTRIBUTION OF BACKGROUND FACTORS AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

S.No	Demographic Variables	Government school teachers with Hypertension(N=40)		Privateschool teachers with Hypertension(N=42)	
		Fre	Per	Fre	Per
1.	**Age**				
	a)31-40 years	3	7.5%	5	11.90%
	b)40-50 years	23	57.5%	25	59.52%
	c)50 years and above	14	35%	12	28.57%
2.	**Sex**				
	a)Male	4	10%	0	0
	b)Female	36	90%	42	100%
3.	**Education**				
	a)Diploma in education	12	30%	10	23.80%
	b)Bachelor degree in education	15	37.50%	18	42.85%
	c)Master degree in education	13	32.50%	14	33.33%

4.	**Religion**				
	a)Hindu	32	80%	34	80.95%
	b)Muslim	3	7.5%	0	0
	c)Christian	5	12.5%	8	19.04%
	d)Others	0	0	0	0
5.	**Residential area**				
	a)Urban	17	42.50%	18	42.85%
	b)Rural	23	57.50%	24	57.14%
6.	**Type of family**				
	a)Nuclear family	16	40%	31	73.80%
	b)Joint family	22	55%	11	26.19%
	c)Extended family	2	5%	0	0
7.	**Family Size**				
	a)1-4 members	22	55%	32	76.19%
	b)More than 4 members	18	45%	10	23.80%
8.	**Number of children**				
	a)1	12	30%	14	33.33%
	b)2	10	25%	12	28.57%
	c)3	14	35%	14	33.33%
	d)4 and above	4	10%	2	4.7%
9.	**Monthly Income of the participant**				
	a)Below10,000 rupees	0	0	0	0
	b)10001-20,000 rupees	0	0	10	23.80%
	c)20,001-30,000 rupees	28	70%	22	52.38%
	d)Above 30,000 rupees	12	30%	10	23.80%

10.	**Handling the students at**				
	a)Primary level	14	35%	12	28.57%
	b)Secondary level	18	45%	18	42.85%
	c)Higher secondary level	8	20%	12	28.57%
11.	**How long you are taking anti hypertensive medications?**	13	32.50%	15	35.71%
	a)6 months – 3 years	18	45%	20	47.61%
	b)3 years – 6 years	9	22.50%	7	
	c)Above 6 years				16.66%

Table 1 : Shows the frequency and percentage distribution of background variables among Government and Private school teachers with hypertension.

Regarding Age, among Government school teachers with hypertension majority 23(57.5%) were between 40-50 years of age and 14(35%) were between 50 years and above, only 3 were in the age group between 30-40 years whereas among private school teachers with hypertension majority 25(59.52%) were in the age group between 40-50 year and 12(28.57%) were between 50 years and above and only 5(11.90%) were between 30-40 years.

Regarding Gender, among Government school teachers with hypertension majority 36(90%) were females and only 4(10%) were males whereas among private school teachers with hypertension majority 42(100%)were females and and no males were working in the school selected for the study.

Regarding Education, among Government school teachers with hypertension majority 15(37.50%) were in the category of Bachelor degree in education, 13(32.50%) were qualified as Master degree of education and 12(10%) were diploma holders in education whereas among the private school teachers with hypertension majority 18(42.85%) were fallen in the category of Bachelor degree of education, 14(33.33%) were in the category of Master degree in education, 10(23.80%) were diploma holders in education.

Regarding Religion, among Government school teachers with hypertension majority 32(80%) were Hindus, 5(12.5%) were Muslims and only 3(7.5%) were Christians and no one belong to other religions whereas among private school teachers with hypertension majority 34(80.95%) were Hindus, 8(19.04%) were Christians, and no one belong to Muslim and other religions.

Regarding residential area, among Government school teacherswith hypertensionmajority 23(57.50%) were coming from rural and 17(42.50%) had their residence in the urban whereas among private school teachers with hypertension majority 24(57.14%) were from rural and 18(42.85%) were from urban.

Regarding Type of family, among Government school teachers with hypertension majority 22(55%) were living in Joint family, 16(40%) were living in Nulear family, and only 2(5%) were in extended family whereas among private school teachers with hypertension majority 31(73.80%) were living in Nuclear family, 11(26.19%)were living in Joint family and no one were in extended family.

Regarding Family size, among Government school teachers with hypertension majority 22(55%) were in the family size between 1-4 members and 18(45%) were in the family size more than four members whereas among private school teachers with hypertension majority 32(76.19%) were in the family size between 1-4 members and 10(23.80%) were in the family size more than 4 members.

Regarding Number of children, among Government school teachers with hypertension majority 14(35%) had 3 children, 12(30%) had only one children, 10(25%) had 2 children, 4(10%)were in the category of 4 children and above whereas among private school teachers with hypertension majority 14(33.33%) were equally distributed in the category of one children and three children and 12(28.57%) had two children and only 2(4.7%) were in the category of four children and above.

Regarding Monthly Income of the participant, among Government school teachers with hypertension majority 28(70%) were getting the salary between 20,001-30,000 rupees and 12(30%)were getting above 30,000 rupees and no one was in the category below 10,000 rupees and 10,001-20,000 rupees whereas among private school teachers with hypertension majority 22(52.38%)were getting the salary between 20,001-30,000 rupees and 10(23.80%) were equally distributed in the category 10,001-20,000 rupees and above 30,000 rupees and no one was in below 10,000 rupees.

Regarding the level of students that the teacher handling, among Government school teachers with hypertension majority 18(45%) were handling the students at secondary level , 14(35%) were handling the students at primary level and 8(20%) were handling the higher secondary students whereas among private school teachers with hypertension majority 18(45%) were handling the students at secondary level, and 12(28.57%) were taking classes for primary students and 12(28.57%) were teaching higher secondary students.

Regarding the duration ofantihypertenstive medications, among Government school teachers with hypertension majority 18(45%) were in the duration of 3-6 years, 13(32.50%) were in the duration of 6 months – 3 years and 9 (22.50%) were taking medications more than 6 years whereas among private school teachers with hypertension majority 20(47.61%) were in the duration of 3-6 years, 15(35.71%) were in the category of 6 months – 3 years and 7(16.66%) were taking medications more than 6 years.

It was inferred that among Government school teachers with hypertension majority 23(57.5%) were between 40-50 years of age, 36(90%) were females, 15(37.50%) were in the category of Bachelor degree in education, 32(80%) were Hindus, 23(57.50%) were coming from rural, 22(55%)were living in Joint family, 22(55%) were in the family size between 1-4 members, 14(35%) had 3 children, 28(70%) were getting the salary between 20,001-30,000 rupees, 18(45%) were handling the students at secondary level , 18(45%) were in anti hypertensive medications for 3-6 years.

Among private school teachers with hypertension majority 25(59.52%) were in the age group between 40-50 year, 42(100%)were females, 24(57.14%) were in the category of Master degree in education, 34(80.95%) were Hindus, 24(57.14%) were from rural, 31(73.80%) were living in Nuclear family, 32(76.19%) were in the family size between 1-4 members, 14(33.33%) were equally distributed in the category of one children and three children, 22(52.38%)were getting the salary between 20,001-30,000 rupees, 18(45%) were handling the students at secondary level, 20(47.61%) were in anti hypertensive medications for 3-6 years.

SECTION – II : DATA ON LIFESTYLE PRACTICE OF HYPERTENSION AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

FIGURE – 3 : FREQUENCY AND PERCENTAGE DISTRIBUTION OF LIFESTYLE PRACTICES AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

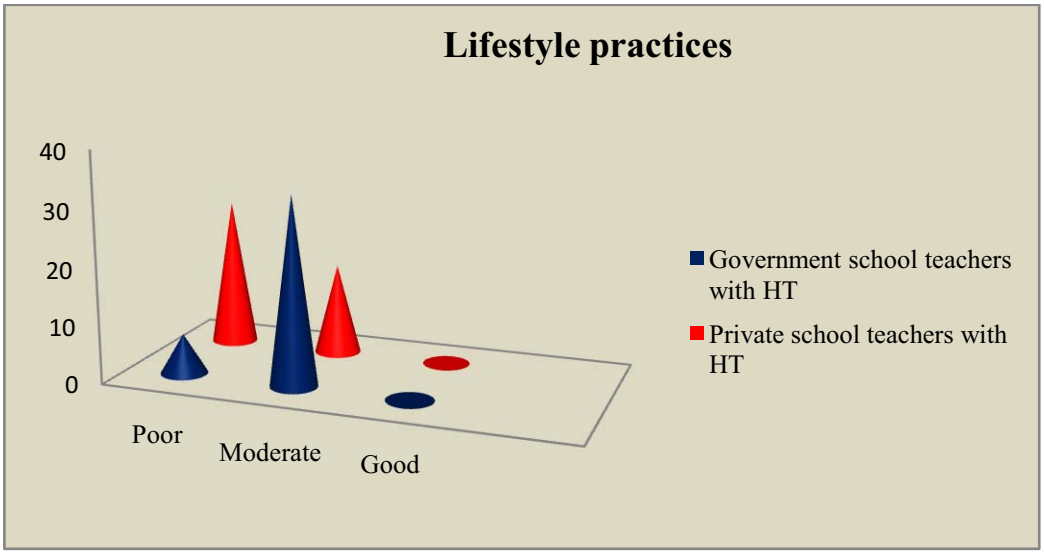

fig 3 : Reveals frequency and percentage distribution of lifestyle practices among Government and Private school teachers with hypertension.

It was inferred that in Government school teachers with hypertension among 40 participants majority 33(82.50%) had moderate lifestyle practices and 7(17.50%) had poor lifestyle practices and no one had good lifestyle practices whereas in Private school teachers with hypertension among 42 participants majority 26(61.9%) had poor lifestyle practice and 16(38.09%) had moderate lifestyle practices and no one fell down in the category of good lifestyle practices.

SECTION – II : DATA ON LIFESTYLE PRACTICES OF HYPERTENSION AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

TABLE – 2 : MEAN, SD, RANGE, MD AND 't' VALUE OF LIFESTYLE PRACTICES AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

S.No	Samples	Lifestyle practices			MD	't' value
		Mean	SD	Range		
1.	Government school teachers with Hypertension	47	6.69	60-37 (23)	9	5.4 P < 0.05 S
2.	Private School teachers with Hypertension	56	5.6	67-43 (24)		

S – Significant

Table 2 : Reveals Mean, SD, Range, MD and 't" value of lifestyle practices among Government and private school teachers with hypertension

In Government school teachers with hypertension the obtained mean value was 47, SD 6.69, Range 23 Whereas in private school teachers with hypertension the obtained mean value was 56, SD 5.6, Range 24 and Mean difference of lifestyle practices between Government and private school teachers was 7.06, and the obtained 't' value was 5.4 which was significant at the level of $P<0.05$.

Therefore Hypothesis 1 was accepted.

FIGURE : 4 MEAN AND STANDARD DEVIATION OF LIFESTYLE PRACTICES AMONG GOVERNMENT AND PRIVATE SCHOOL TEACHE RS WITH HYPERTENSION

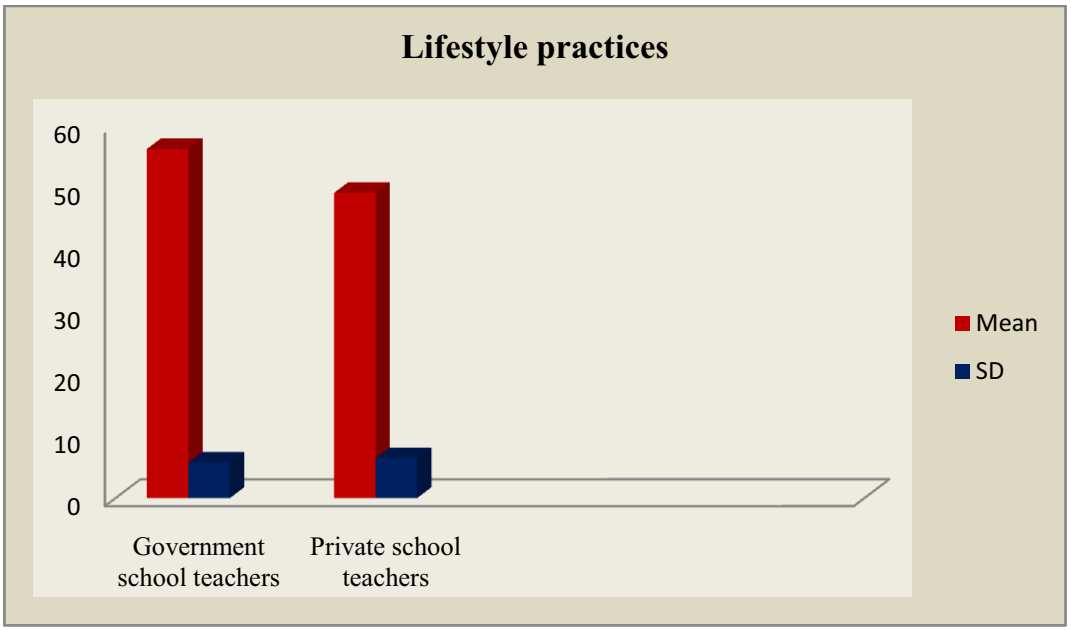

Fig 4 : Reveals mean, SD of lifestyle practices of Government and private school teachers with hypertension

In Government school teachers with hypertension the obtained mean value was 47, SD 5.7, Range 23 Whereas in private school teachers with hypertension the obtained mean value was 56, SD 6.4, Range 24 and Mean difference was 7.06 and the obtained ‘t’ value was 5.4 which was significant at the level of $P<0.05$.

It was inferred that there was a significant difference in the lifestyle practices of Government and private school teachers with hypertension. Therefore hypothesis 1 was accepted.

SECTION – III : DATA ON ASSOCIATIION BETWEEN LIFESTYLE PRACTICES AND THE SELECTED DEMOGRAHIC VARIABLES OF GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

TABLE – 3 : FREQUENCY, PERCENTAGE DISTRIBUTION AND CHI SQUARE VALUE REGARDING THE ASSOCIATION BETWEEN LIFESTYLE PRACTICES AND THE SELECTED DEMOGRAPHIC VARIABLES AMONG GOVERNMENT SCHOOL TEACHERS WITH HYPERTENSION

S.No	Demographic Variables	Government school teachers with Hypertension(N=40)		χ^2
		Fre	Per	
1.	**Age**			χ^2 = 3.319
	a)31-40 years	5	11.90%	Df = 4
	b)40-50 years	25	59.52%	P>0.05
	c)50 years and above	12	28.57%	NS
2.	**Gender**			χ^2 = 0.161
	a)Male	4	10%	Df = 2
	b)Female	36	90%	P>0.05
				NS

3.	**Education** a)Diploma in education b)Bachelor degree in education c)Master degree in education	 12 15 13	 30% 37.50% 32.50%	χ^2 = 3.115 Df = 4 P>0.05 NS
4.	**Religion** a)Hindu b)Muslim c)Christian d)Others	 32 3 5 0	 80% 7.5% 12.5% 0	χ^2 = 6.155 Df = 6 P>0.05 NS
5.	**Residential area** a)Urban b)Rural	 17 23	 42.50% 57.50%	χ^2 = 0 Df = 2 P>0.05 NS
6.	**Type of family** a)Nuclear family b)Joint family c)Extended family	 16 22 2	 40% 55% 5%	χ^2 = 7.399 Df = 4 P>0.05 NS
7.	**Family Size** a)1-4 members b)More than 4 members	 22 18	 55% 45%	χ^2 = 0.014 Df = 2 P>0.05 NS
8.	**Number of children** a)1 b)2 c)3 d)4 and above	 12 10 14 4	 30% 25% 35% 10%	χ^2 = 0.296 Df = 6 P>0.05 NS

9.	**Monthly Income of the participant**			χ^2 = 0.004
	a)Below 10,000 rupees	0	0	Df = 6
	b)10001-20,000 rupees	0	0	P>0.05
	c)20,001-30,000 rupees	28	70%	NS
	d)Above 30,000 rupees	12	30%	
10.	**Handling the students at**			χ^2 = 0.968
	a)Primary level	14	35%	Df = 4
	b)Secondary level	18	45%	P>0.05
	c)Higher secondary level	8	20%	NS
11.	**How long you are taking anti hypertensive medications?**			χ^2 = 2.452
	a)6 months – 3 years	13	32.50%	Df = 4
	b)3 years – 6 years	18	45%	P>0.05
	c)Above 6 years	9	22.50%	NS

Table 3 : Shows the frequency, percentage distribution and chi square value regarding the association between lifestyle practices and the demographic variables among Government school teachers with hypertension.

It was inferred that the selected demographic variables Age, Gender, Education, Religion, Residential area, Type of family, Family size, Number of children, Monthly Income of the participant, Level of the students handled by the participant and Duration of anti hypertensive medications were not significant with life style practices among Government school teachers with hypertension at P < 0.05.

SECTION – III : DATA ON ASSOCIATION BETWEEN LIFESTYLE PRACTICES AND THE SELECTED DEMOGRAHIC VARIABLES OF GOVERNMENT AND PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

TABLE – 4 : FREQUENCY, PERCENTAGE DISTRIBUTION AND CHI SQUARE VALUE REGARDING THE ASSOCIATION BETWEEN LIFESTYLE PRACTICES AND THE SELECTED DEMOGRAPHIC VARIABLES AMONG PRIVATE SCHOOL TEACHERS WITH HYPERTENSION

S.No	Demographic Variables	Private school teachers with Hypertension(N=42)		χ^2
		Fre	Per	
1.	**Age**			χ^2 = 3.319
	a)31-40 years	5	11.90%	Df = 4
	b)40-50 years	25	59.52%	P>0.05
	c)50 years and above	12	28.57%	NS
2.	**Sex**			χ^2 = 0
	a)Male	0	0	Df = 2
	b)Female	42	100%	P>0.05
				NS

3.	**Education** a)Diploma in education b)Bachelor degree in education c)Master degree in education	 10 18 14	 23.80% 42.85% 33.33%	χ^2 = 1.773 Df = 4 P>0.05 NS
4.	**Religion** a)Hindu b)Muslim c)Christian d)Others	 34 0 8 0	 80.95% 0 19.04% 0	χ^2 = 6.074 Df = 6 P>0.05 NS
5.	**Residential area** a)Urban b)Rural	 18 24	 42.85% 57.14%	χ^2 = 1.572 Df = 2 P>0.05 NS
6.	**Type of family** a)Nuclear family b)Joint family c)Extended family	 31 11 0	 73.80% 26.19% 0	χ^2 = 0.692 Df = 4 P>0.05 NS
7.	**Family Size** a)1-4 members b)More than 4 members	 32 10	 76.19% 23.80%	χ^2 = 8.059 Df = 2 P>0.05 NS
8.	**Number of children** a)1 b)2 c)3 d)4 and above	 14 12 14 2	 33.33% 28.57% 33.33% 4.7%	χ^2 = 7.412 Df = 6 P>0.05 NS

9.	**Monthly Income of the participant**			χ^2 = 32.269
	a)Below 10,000 rupees	0	0	Df = 6
	b)10001-20,000 rupees	10	23.80%	P < 0.05
	c)20,001-30,000 rupees	22	52.38%	S
	d)Above 30,000 rupees	10	23.80%	
10.	**Handling the students at**			χ^2 = 0.98
	a)Primary level	12	28.57%	Df = 4
	b)Secondary level	18	42.85%	P>0.05
	c)Higher secondary level	12	28.57%	NS
11.	**How long you are taking anti hypertensive medications?**			χ^2 = 5.508
		15	35.71%	Df = 4
	a)6 months – 3 years	20	47.61%	P>0.05
	b)3 years – 6 years	7	16.66%	NS
	c)Above 6 years			

Table 4 : Shows the frequency, percentage distribution and chi square value regarding the association between lifestyle practices and the demographic variables among private school teachers with hypertension.

It was inferred that the selected demographic variable monthly income of the participant was significant with life style practices among Private school teachers with hypertension at P < 0.05. The other variables such as Age, Gender,

Religion, Residential area, Type of family, Family size, Number of children, Level of the students that the participants handling, Duration of anti hypertensive medications were not significant with the life style practices among private school teachers with hypertension at $P < 0.05$.

Therefore Hypothesis 2 was accepted.

CHAPTER – V

SUMMARY, FINDINGS, DISCUSSION, IMPLICATIONS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

This chapter deals with summary, findings, discussion, implications, limitations, recommendations and conclusion. The essence of any research project is based on study findings, limitations, interpretation, of the research results and recommendations to incorporate the study implications. It also gives meaning to the results obtained in the study.

SUMMARY

The main aim of the study was to compare the lifestyle practices of Government and Private school teachers with hypertension.

OBJECTIVES OF THE STUDY

- To assess the lifestyle practices of Government and private school teachers with Hypertension.
- To compare the lifestyle practices of Government and private school teachers with Hypertension.
- To find out the association between the lifestyle practices and the selected background factors among Government and private school teachers with Hypertension.

The study attempted to examine the following research hypothesis

H 1 : There is a significant difference in the lifestyle practices between the Government and private school teachers with Hypertension.

H 2 : There is a significant association between the lifestyle practices and their selected background factors among Government and private school teachers with Hypertension.

The review of the related literature helped the investigator to develop the conceptual framework and the methodology of the study. Review of literature was done and arranged as follows, Studies related to prevalence and determinants of hypertension, Studies related to knowledge and attitude regarding hypertension, Studies related to complications of hypertension.

The conceptual framework adopted of this study was developed by the investigator based on Roy's Adaptation Model. Physiological mode was used to explain the conceptual framework.

The research design adopted for the study was non experimental descriptive, comparative design and the setting chosen to conduct the study was Government Higher Secondary School, Arachalur, Government Girls Higher Secondary School, P.S.Park, Seventh Day Adventist Matriculation Higher Secondary School, Erode,Navarasam Matriculation Higher Secondary School, Palliyuthu, Erode district.

The target population in the study was the school teachers with hypertension aged above 30 years. Totally 285 teachers were screened. Date of Birth, Age, History of hypertension and Duration of taking anti hypertensive medications were asked. Blood Pressure of the participant was measured by digital BP apparatus. Hip circumferene, Waist circumference, Waist hip ratio, Height and

Weight of the participants also was measured. In this study the sample size was 82. Out of 82, 18 teachers were from Government Higher Secondary School, Arachalur, 22 from Government Girls Higher Secondary School, P.S.Park, 10 from Seventh Day Adventist Matriculation Higher Secondary School and 32 from Navarasam Matriculation Higher Secondary School, Palliyuthu, Erode district. Purposive sampling technique was used to select the samples.

The investigator formulated the Structured knowledge Questionnaire to collect the information regarding background factors, Personal and Behavioural factors, Dietary factors, Obesity, Physical activity, Psychological factors of the participant. The content validity of the tool was established by 5 experts. The reliability of the tool was done by test retest method and found to be r = 0.9. The tool was found to be reliable.

Pilot study was conducted in Seventh Day Adventist Matriculation School, Aval Poonthurai, Erode district and ThalapathiArjuna Mandradiar Memorial Government Higher Secondary School, Nathakadaiyur, Thirupur District, The main study was conducted in Government Higher Secondary School, Arachalur, Government Girls Higher Secondary School, PS Park, Navarasam Matriculation Higher Secondary School, Palliyuthu, Erode district. The participants fulfilled the sampling criteria were included in the study. The data gathered and analyzed by using descriptive and inferential statistics manually. Interpretation was made on the basis of the objectives of the study.

FINDINGS

The findings of the study were arranged based on objective of the study.

I. Findings on background factors of Government and private school teachers with hypertension.

Among Government school teachers with hypertension majority 23(57.5%) were between 40-50 years of age, 36(90%) were females, 15(37.50%) were in the category of Bachelor degree in education, 32(80%) were Hindus, 23(57.50%) were coming from rural, 22(55%)were living in Joint family, 22(55%) were in the family size between 1-4 members, 14(35%) had 3 children, 28(70%) were getting the salary between 20,001-30,000 rupees, 18(45%) were handling the students at secondary level , 18(45%) were in anti hypertensive medications for 3-6 years.

Among private school teachers with hypertension majority 25(59.52%) were in the age group between 40-50 year, 42(100%)were females, 24(57.14%) were in the category of Master degree in education, 34(80.95%) were Hindus, 24(57.14%) were from rural, 31(73.80%) were living in Nuclear family, 32(76.19%) were in the family size between 1-4 members, 14(33.33%) were

equally distributed in the category of one children and three children, 22(52.38%)were getting the salary between 20,001-30,000 rupees, 18(45%) were handling the students at secondary level, 20(47.61%) were in anti hypertensive medications for 3-6 years.

II. Findings on lifestyle practices of Government and private school teachers with Hypertension.

Among Government school teachers with hypertension among 40 participants majority 33(82.50%) had moderate lifestyle practices and 7(17.50%) had poor lifestyle practices and no one had good lifestyle practices whereas among Private school teachers with hypertension among 42 participants majority 26(61.9%) had poor lifestyle practice and 16(38.09%) had moderate lifestyle practices and no one fell down in the category of good lifestyle practices.

Among Government school teachers with hypertension the obtained mean value was 47, SD 6.69, Range 23 Whereas among private school teachers with hypertension the obtained mean value was 56, SD 5.6, Range 24 and Mean difference of lifestyle practices between Government and private school teachers was 9, and the obtained ‘t’ value was 5.4 which was significant at the level of $P<0.05$.

III. Findings on association between the selected demographic variables and the lifestyle practices among Government and private school teachers with Hypertension.

Among Government school teachers with hypertension the selected demographic variables Age, Gender, Education, Religion, Residential area, Type of family, Family size, Number of children, Monthly Income of the participant, Level of the students handled by the participant and Duration of anti hypertensive medications were not significant with life style practices at $P < 0.05$.

Among private school teachers with hypertension the selected demographic variable monthly income of the participant was significant with life style practices at $P < 0.05$. Other variables Age, Gender, Religion, Residential area, Type of family, Family size, Number of children, Level of the students that the participants handling, Duration of anti hypertensive medications were not significant with the life style practices at $P < 0.05$.

DISCUSSION

The purpose of the study was to compare the lifestyle practices of Government and Private school teachers with hypertension.

The results of the study were discussed based on objectives of the study.

Objective 1: To assess the lifestyle practices of Government and Private school teachers with hypertension.

Among Government school teachers with hypertension among 40 participants majority 33(82.50%) had moderate lifestyle practices and 7(17.50%) had poor lifestyle practices and no one had good lifestyle practices whereas Among Private school teachers with hypertension among 42 participants majority 26(61.9%) had poor lifestyle practice and 16(38.09%) had moderate lifestyle practices and no one fell down in the category of good lifestyle practices.

The above findings were supported by **Ibrahim (2008)** conducted a cross sectional study to investigate the prevalence and associated risk factors of Hypertension and pre hypertension among 1476 preparatory and secondary school teachers selected by multistage stratified random sampling technique in Jeddah, Alexandria. Data was collected by using the structured questionnaire regarding lifestyle determinants of hypertension through interview method. The study concluded that the prevalence of Hypertension and pre hypertension was high among teachers in Jeddah and the study recommended that lifestyle modification and implementation of screening programs for obesity, diabetes, pre hypertension and Hypertension.

Objective 2: To compare the lifestyle practices of Government and Private school teachers with hypertension.

It was inferred that in Government school teachers with hypertension the obtained mean value was 56, SD 6.69, Range, 24 whereas in private school teachers with hypertension the obtained mean value was 47, SD 5.6, Range 23 and Mean difference of lifestyle practices between Government and private school teachers was 9, and the obtained 't' value was 5.4 which was significant at the level of $P<0.05$.

The above findings were supported by **Nivya 2010** conducted anon experimental descriptive study to compare the lifestyle practices of Government and private school teachers with hypertension and to find out the association between the demographic variables and the lifestyle practices in selected Government and private schools in Hyderabad. The obtained mean value was 50, SD 4.6 among Government school teachers with hypertension and the obtained mean value among the private school teachers with hypertension was 56, SD 5.9, and the t value was 6.04($P < 0.05$)The study revealed that there was a difference in the lifestyle practices between Government and private school teachers with hypertension and the demographic variable handling the students and the total working hours per week was associated with the life style practices of hypertension.

Objective 3 : To find out the association between the lifestyle practices and the selected demographic variables of Government and Private school teachers with hypertension.

It was inferred that none of the demographic variables were significant with the lifestyle practices among Government school teachers with hypertension. Among Private school teachers with hypertension monthly income of the participant was significant with the lifestyle practices at $P<0.05$. Other variables were not significant with the lifestyle practices of private school teachers with hypertension.

The above findings were supported by **Hanan Ali (2008)** conducted a descriptive cross sectional study to determine the prevalence of hypertension among secondary school female teachers and to identify lifestyle related risk factors in Basrah city. 403 participants were selected randomly from 16 schools. The prevalence lifestyle risk factors among the study population was 67% physical inactivity, 40.9% overweight, 37.7% obesity, 18.6% contraceptive pills use, 18.1% salty diet, 15.4% fatty diet, 12.4% taking non steroidalanti inflammatory drugs, 6.5% coffee intake and 0.5% smoking. There was a significant association was found between some lifestyle risk factors and hypertension were financial status, drug intake and BMI.

IMPLICATIONS

The findings of the study have implications on the field of nursing education, nursing research. If the nurses can educate to the rural and urban population then it will helpful to change their attitude.

Nursing Education

- A nurse educator needs to assess the level of knowledge to impart more insights into subjects that area of importance to the group.
- Reinforcement of known ideas and impartation of new ones regarding hypertension allows the learner to correlate all the areas included in counseling programme.
- Making use of teaching methods like lecture and discussion and presentation of posters and flash cards regarding hypertension not only improves the performance of the teacher but also helps the learner to capture every detail meticulously due to the colorful, designed focused display of matter with appropriate picture.

Nursing Research

The present study conducted by the investigator can be source of review of literature for others who are intending to conduct studies on hypertension.

LIMITATIONS

- All variables were assessed based on the information as reported by verbally by the teachers. There were limitations in verifying the responses.
- All measurements were made by single observer.
- Physical activity was recorded as told by the teachers, no observation was done.

RECOMMENDATIONS

- There is a need to create awareness among school teachers regarding hypertension and its complications.
- School authorities should organize screening programmes in school particularly for HTN.
- Teachers should be educated about increasing prevalence of hypertension.
- Teachers should be educated about good life style and healthy food habits.
- Awareness programmes should be conducted among school through Medias. These programs should concentrate on lifestyle changes including smoking cessation, dietary modification, normal weight maintenance, weight reduction intervention as well as diabetes control.
- Teachers should be educated to practice traditional and healthy dietary habits in their home.

- Teachers should be sensitized on over nutrition and the health hazards of chronic nutrition excess.
- Periodic surveys should be done in schools on hypertension and tracking of blood pressure should be done, which will us helps in identifying the "at risk" group of, who can develop Hypertension in future period, so that preventive care can be provided.

CONCLUSION

This study confirms that a relation exists between the demographic factors and lifestyle practices among participants. Similar findings confirm moderate to strong relation between those factors in others countries. Thus, hypertension is a chronic but preventable disease; and thus adequate knowledge of the disease and lifestyle modification are important features in its effective control and management. This study discloses the need of a comprehensive health education and health promotion programme targeting the teachers who are at risk and the community in general. The programme should be based on areas highlighted by the present study including general knowledge of hypertension, signs and symptoms of hypertension and knowledge of the recommended lifestyle practices. Behavioural interventions are required to translate the knowledge to behavioural change in attitudes and life style practices.

APPENDIX – I

LETTER SEEKING PERMISSION TO CONDUCT MAIN STUDY

Date **:---------**

To

Chief Educational Officer,

Erode district.

Respected Sir,

Greetings from Shivaparvathi Mandradiar Institute of Health Science, Tirupur.

Sub : requisition to avail the permission to conduct project – Regarding.

This is to certify that Reg. No 301412151 is a bonafide student of our college studying M.Sc. Nursing II year in the academic year of 2014-2016. As part of the M.Sc Nursing Curriculum prescribed by the Tamilnadu Dr. M. G. R. Medical University, Chennai, he needs to conduct a project and he is willing to do the study among Government and Private school teachers with hypertension. So, kindly do the needful and grant him permission to conduct the study in Government Higher Secondary School, Arachalur and Government Girls Higher Secondary School, Erode district.

The details of the project will be briefed to you by him in person.

Thanking you ,

Yours sincerely,

(PRINCIPAL).

LETTER SEEKING PERMISSION TO CONDUCT MAIN STUDY

Date **:---------**

To

Mrs.Rajam

Principal

Navarasam Matriculation Higher Secondary School, Palliyuthu,

Erode.

Respected Madam ,

Greetings from Shivaparvathi Mandradiar Institute of Health Science, Tirupur.

Sub : Requisition to avail the permission to conduct project – Regarding.

This is to certify that Reg.No : 301412151 is a bonafide student of our college studying M.Sc. Nursing II year in the academic year of 2014-2016. As part of the M.Sc Nursing Curriculum prescribed by the Tamilnadu Dr. M. G. R. Medical University, Chennai, she needs to conduct a project and he is willing to do at your esteemed institution. So, kindly do the needful and grant him permission to conduct the study.

The details of the project will be briefed to you by him in person.

Thanking you ,

Yours sincerely,

(PRINCIPAL)

LETTER SEEKING PERMISSION TO CONDUCT MAIN STUDY

Date **:---------**

To

Mr. jeyaraj,

Principal,

Seventh Day Adventist Matriculation Higher Secondary School,

Erode.

Respected Madam ,

Greetings from Shivaparvathi Mandradiar Institute of Health Science, Tirupur.

Sub : Requisition to avail the permission to conduct project – Regarding.

This is to certify that Reg.No : 301412151 is a bonafide student of our college studying M.Sc. Nursing II year in the academic year of 2014-2016. As part of the M.Sc Nursing Curriculum prescribed by the Tamilnadu Dr. M. G. R. Medical University, Chennai, she needs to conduct a project and he is willing to do at your esteemed institution. So, kindly do the needful and grant him permission to conduct the study.

The details of the project will be briefed to you by him in person.

Thanking you ,

Yours sincerely,

(PRINCIPAL)

APPENDIX – II

LETTER GRANTING PERMISSION TO CONDUCT MAIN STUDY

G.O.M.S.No. : 40 dt : 05.02.2007

SHIVPARVATHI MANDRADIAR INSTITUTE OF HEALTH SCIENCE

(COLLEGE OF NURSING)

Palayakottai (Po) Tirupur (Dt) - 638 108. TamilNadu.
Tel : 04257-242200, 241800, Mobile : 9486033000 Fax : 04257-242200
E-Mail : spmihs@gmail.com. Web : www.spmihscollegeofnursing.org
(Recognized by Indian Nursing Council, Tamilnadu Nurses & Midwives Council, Affiliated to The TamilNadu Dr.M.G.R.Medical University)

Date : 08/01/2016

To

The Chief Educational officer
Erode District
Erode.

Respected Madam/ Sir

Greetings from Shivparvathi Mandradiar Institute of Health Sciences, Palayakottai.

Sub: Requisition to avail the permission to conduct project -Reg.

This is to certify that Mr.A.M. Anish V.Nayagam is a bonafide student of our college studying M.Sc Nursing II Year in the academic year of 2015-16.As part of the M.Sc Nursing Curriculum prescribed by the Tamil Nadu Dr.M.G.R Medical University , Chennai . He need to conduct a project and he is willing to do at the Government Schools .So kindly do the needful and grant him permission to conduct the study.

The details of the project will be briefed will be briefed to you by him in a person

Thanking you

Yours Sincerely

PRINCIPAL,
SHIVPARVATHI MANDRADIAR
INSTITUTE OF HEALTH SCIENCES
PALAYAKOTTAI - 638 108

11.1.16
Chief Educational Officer,
Erode.

LETTER GRANTING PERMISSION TO CONDUCT MAIN STUDY

GOVERNMENT HIGHER SECONDARY SCHOOL

Arachalur, Erode (District)-638101

Ref. No 2015/16 Date..06/01/16

To
The Principal,
Shivparvathi Mandradiar Institution of health,
Science College of Nursing,
Palayakottai,

Madam,

Sub: Permission to conduct project – reg.

******

Greetings with reference to your permission requested for 301412151 to conduct project study in Our School, we permit him to do for the Stipulated period without affecting the School routine work.

Thanking you,

06/01/16
தலைமை ஆசிரியர்
அரசு மேல் நிலைப்பள்ளி
அறச்சலூர்-638 101.
ஈரோடு மாவட்டம்

LETTER GRANTING PERMISSION TO CONDUCT MAIN STUDY

✆ 0424 - 2331409

NAVARASAM MATRICULATION HIGHER SECONDARY SCHOOL

(Recognized by the Director o f School Education of Tamil Nadu)

Palliyuthu, Palliyuthu (Po), Arachalur (Via), Erode (Dt) - 638 101.

Ref. No. 2015-2016

Date 01/02/2016

To

The Principal ,
Shivparvathi Mandradiar Institution of health ,
Science College of Nursing ,
Palayakottai ,
Tiruppur (DT) .

Madam ,

Sub: Permission of conduct project –reg .

****

Greetings , with reference to your permission requested for 301412151 to conduct project study in Our School , we permit him to do for the stipulated period without affecting the school routine work .

Thanking you ,

Yours faithfully ,

01/02/16

PRINCIPAL
NAVARASAM M H S S,
Palliyuthu (P.o) Arachalur (Via),
Erode District. Pin - 638 101.

APPENDIX - III

LETTER SEEKING EXPERTS OPINION FOR THE CONTENT VALIDITY OF THE TOOL USED FOR THE STUDY

From

301412151,

M.Sc nursing 2nd year,

SPM college of nursing,

Palayakottai,

Erode .

To

Forward through

The Principal,

SPM college of nursing,

Erode.

Respected Sir/Madam,

Sub: Requisition for expert opinion and suggestion for content validity of the tool.

I am, 301412151 post graduate student in Medical and Surgical nursing , Shivparvathi Mandradiar College of Nursing affillated to The Tamilnadu Dr. MGR Medical University, Chennai. As a partial fulfillment of the M.Sc nursing programme, I have selected the following topic for the research.

Topic :"A comparative Study to assess the lifestyle practices of Government and Private school teachers with Hypertension at selected schools, Erode district."

I hereby , enclose the following documents for your kind reference

1. Introduction
2.Statement of the problem
3. Objetives of the study
4. Operational definition
5. Research methodology
6.Structured questionnaire.

Hence ,I request you to kindly examine the tool item wise and give your valuable opinion and suggestions for improvements of this tool.

Kindly sign the certificate of validation starting that you have validate the tool,Your kind co-operation and expert judgement will be very much appreciated and gratefully acknowledged.

Thanking you,

Date:

Place: Palayakottai. Your's sincerely,

(301412151)

APPENDIX – IV

CONTENT VALIDITY CERTIFICATE

I hereby certify that I have validated the tool of301412151, MSc Nursing student who is undertaking "**A comparative study to assess the lifestyle practices among Government and private school teachers with hypertension at selected schools at Erode District."**

Signature of the Expert:

Name:

Designation:

Date:

APPENDIX – V

LIST OF EXPERTS

DR.SATISH KUMAR, MBBS

BEWELL HOSPITALS PRIVATE LTD

ERODE

MRS. OUVAI, MSC NURSING,

DEPARTMENT OF MEDICAL SURGICAL NURSING,

SHIVAPARVATHI MANDRADIAR COLLAGE OF NURSING,

THIRUPUR.

MISS.PETRICIA,MSC NURSING,

DEPARTMENT OF MEDICAL SURGICAL NURSING,

SHIVAPARVATHI MANDRADIAR COLLAGE OF NURSING,

THIRUPUR.

MR. GEORGE JOE KUMAR, MSC NURSING,

DEPARTMENT OF MEDICAL SURGICAL NURSING,

ST, XAVIERS CATHOLIC COLLAGE OF NURSING,

NAGERCOIL

MISS. NIMY,MSC NURSING,

DEPARTMENT OF MEDICAL SURGICAL NURSING,

ST, XAVIERS CATHOLIC COLLAGE OF NURSING,NAGERCOIL**.**

APPENDIX – VI

CONSENT FORM FOR STUDY PARTICIPANTS

I ……..give my consent to participate in the research titled, **"A comparative study to assess the lifestyle practices of hypertension among Government and Private school teachers at selected schools, Erode district",** which is being conducted by 301412151, II Year M.Sc (N), Shivaparvathi Mandradiar Institute of Health Sciences, Palayakottai, Tamil Nadu, as part of his curriculum. I understand that this participation is entirely voluntary can withdraw consent at any time. I have understood that

1.The reason for the research is to compare the lifestyle practices among Government and private school teachers with hypertension.

2. No discomforts or stresses are foreseen.

3. No risks are foreseen.

4. No invocatory procedures are involved.

5. The results of this participation will be confidential.

6. The researchers will answer any further questions about the research, now or during the course of the project, and can be reached by phone at 8124674324.

Name and Signature of Researcher **Name and Signature of the participant**

APPENDIX – VII

STRUCTURED QUESTIONNAIRE ON LIFESTYLE PRACTICES

Code No ----------

Note : The following questions seek information about yourself. Kindly go through all the questions listed below and choose the appropriate response by placing a tick mark.

PART I – SELECTED DEMOGRAPHIC FACTORS OF SCHOOL TEACHERS WITH HYPERTENSION

1) Age Group

a) 31-40 years

b) 40-50 years

c) 50 years and above

2)Sex

a) Male

b) Female

3)Education

a) Diploma in education

b) Bachelor degree in education

c) Master Degree in education

4)Religion

a) Hindu

b) Muslim

c) Christian

d) Others

5)Residential area

a) Urban

b) Rural

6)Type of Family

a) Nulear family

b) Joint family

c) Extended family

7)Family size

a) 1-4 members

b) More than 4 members

8) Number of children

a. 1

b. 2

c. 3

d. 4 and above

9)Monthly Income of the participant

a) Below 10000 rupees

b) 10001-20,000 rupees

c) 20,001-30,000 rupees

d) Above 30,000 rupees

10) Handling the students at

a) Primary level

b) Secondary level

c) Higher secondary level

11)How long you are taking anti hypertensive medications?

a) 6 months – 3 years

b) 3 years – 6 years

c) Above 6 years

12) Blood pressure of the participant at the time of study --------

PART II – STRUCTURED QUESTIONNAIRE REGARDING LIFESTYLE PRACTICES AMONG SCHOOL TEACHERS

I) PERSONAL AND BEHAVIOURAL FACTORS

1)Do you smoke ?

a) Never
b) Ex smoker
c) Current smoker
d) Passive smoker

a)If you are a current smoker, How many cigaretts or beedis per day do you smoke? ----------

2)If, yes Duration of smoking

a) Nil
b) <10
c) >10

3)Do you drink alcohol?

a) Yes
b) No

4)If yes, Duration of alcohol consumption

a) Nil
b) Less than 10 years
c) More than 10 years

5)Do you chew tobacco?

a) Yes
b) No

6)If yes, Frequency of tobacco chewing

a) Below 10 times/day
b) Above 10 times/day

II) DIETARY FACTORS

S.No	Food items	Daily (A)	Often (B)	Sometimes (C)	Rare (D)	Never (E)
1.	Consumption of carbohydrate					
2.	Consumption of protein					
3.	Consumption of fat					
4.	Consumption of sugary items such as jams, jelly, creams					
5.	Consumption of oil containing food such as deep fried chips, fast food, etc.					
6.	Consumption of nonvegetarian diet					
7.	Consumption of potassium like banana, potato, beans, yogurt,etc.					
8.	Consumption of vitamin D					

9.Consumption of salt

a) 3-4 gm per day
b) 5-6 gm per day
c) 7-8 gm per day
d) More than 8 gm per day

10.Consumption of coffee and tea beverages

a) Don't drink coffee and tea
b) Once in a day
c) Twice a day
d) More than twice a day

III) OBESITY

Height of the participant ---------- Weight of the participant ----------

1)Body Mass Index of the participant

a) Below 18.5 is under weight
b) 18.5 to 24.9 healthy weight
c) 25 and above over weight
d) 30 and above obese

2)Waist circumference

For males	**For females**
a) Below 40 inches	a) Below 35 inches
b) 40 inches	b) 35 inches
c) Above 40 inches	c) Above 35 inches

3)Waist hip ratio (should be below 0.90 for males, 0.85 for females)

Waist circumference ----------, Hip circumference ----------

For males	**For females**
a) Below 0.90 inches	a) Below 0.85 inches
b) 0.90 inches	b) 0.85 inches
c) Above 0.90 inches	c) Above 0.85 inches

IV PHYSICAL ACTIVITY

S.No	Statements	Daily (A)	Often (B)	Sometimes (C)	Rare (D)
1.	Mild physical activity like household activity				
2.	Moderate physical activity like walking, running, jogging, cycling, swimming, etc.				
3.	Vigorous physical activity like fast swimming, fast running, etc.				

5)How many hours do you sleep per day?

a) Below 6 hours
b) 6-8 hours
c) More than 8 hours

6) Mode of transport to the school

a) By walk
b) By two wheeler
c) By four wheeler
d) By public transport

V – PSYCHOLOGICAL FACTORS

S.No	Statements	Yes (A)	No (B)
1.	Are you happy and satisfied with your home atmosphere?		
2.	Are you happy and satisfied with your coworkers?		
3.	Are you happy and satisfied with your superiors?		
4.	Do you feel the expectation of your superiors increasing your stress?		
5.	Do you feel that you are extremely tired and drained at the end of the day?		
6.	Did workload affects the mood		
7.	Handling the students belong to different age group affects the mood		

SCORE KEY

Note : Highest risk factor gets maximum score and the normal life style practice gets score Zero.

I) PERSONAL AND BEHAVIOURAL FACTORS

Question No	A	B	C	D
1.	0	2	3	1
2.	0	1	2	-
3.	1	0	-	-
4.	0	1	2	-
5.	1	0	-	-
6.	1	2	-	-

Minimum score 0, maximum score 11

II) DIETARY FACTORS

Question No	A	B	C	D	E
1.	0	1	2	3	4
2.	0	1	2	3	4
3.	4	3	2	1	0
4.	4	3	2	1	0
5.	4	3	2	1	0
6.	4	3	2	1	0
7.	4	3	2	1	0
8.	0	1	2	3	4
9.	0	1	2	3	-
10.	0	1	2	3	-

Minimum score 0, Maximum score 38

III) OBESITY

Question No	A	B	C	D
1.	0	1	2	3
2.	0	1	2	-
3.	0	1	2	-

Minimum score 0, Maximum score 7

1V) PHYSICAL ACTIVITY

Question No	A	B	C	D
1.	0	1	2	3
2.	0	1	2	3
3.	0	1	2	3
4.	2	0	1	-
5.	0	1	2	3

Minimum score 0, Maximum score 14

V) PSYCHOLOGICAL FACTORS

Question No	A	B
1.	0	1
2.	0	1
3.	0	1
4.	1	0
5.	1	0
6.	1	0
7.	1	0

Minimum score 0, Maximum score 7

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