

CHAPTER – I INTRODUCTION

*“Yoga is a practice of calming the mind,
beauty is that people often come to
stretc and leave with a lot more”*

- Liza Ciano

Yoga is an ancient cultural heritage of India and has been accepted by all schools of thoughts as an absolute measure of final achievement in life. The aim of yoga is to control or restrain the mind and keep it in a state of peace and tranquility. Quality of life is a term used to indicate general well being of a person. Yoga therapy is useful in maintenance of posture and well being of women’s health. The achievement of yoga can be spoken in many volumes.

Hypertension is one of the major risk factors for cardio vascular mortality. Hypertension play’s a central role in coronary heart disease and stroke. One of the biggest challenges facing public health authorities and medical practitioners in the control of hypertension. There are various asanas that help to attain this control. Integral part of yoga is meditation, an antidote to the excessive stress of modern life resulting in health problems.

BACK GROUND OF THE STUDY

National Family Health Survey in India (2010 - NFHS). reported that of the hypertensive population in New Delhi already aware of their condition, more than 70% and of them, were uncontrolled. Almost half the

population tested in the New Delhi region had uncontrolled levels of lipids (dyslipidemia) as compared to about one – fifth of the Maharashtra population.

National Family Health Survey of India (2010 - NFHS) as many as 30 million Indians are overweight and obesity continue rise, says the statistics in India, in the past five decades, rates of coronary disease among urban population have risen from 4% to 11%.

World Health Organization in India (WHO – 2010). estimates that 60% of the world's cardiac patients will be Indians by 2010. With the rising tide of hypertension in India, the double jeopardy of diabetes and hypertension is set to result in an explosion of cardiovascular and other complications unless preventive action is taken now, alerts the studies.

Indian health authorities had decided to launch a program to screen over seven crore adult population in the age group of 30 years and above for hypertension, as a measure to prevent the disease through early diagnosis and treatment at early stages.

Thirunarayanamy, Jayabharathi (2010) carried out a study to determine the benefits of pranayama among 30 female students, they were then divided into two groups, experimental group and control group, The experimental group practiced pranayama weekly five days from Monday to Friday, between 6am to 8 am for a period of 12 weeks. Special equipment namely the spirometer was used for collection of the data on the vital capacity, tidal volume and inspiratory reserve volume. After twelve weeks of

training the post test was conducted to find out any changes in the criterion variable. The analysis of covariance (ANCOVA) was used. There was a significant difference among pranayama, practice and in the control group and there were changes in tidal volume, vital capacity and inspiratory reserve volume after twelve weeks of training.

Yoga has been accepted as a therapeutic science all over the world and many scientific studies and researches have been conducted in this field . The effect of yoga on quality of the life elderly is immense. The ancient system and science of yoga is one of the most priceless jewels, which is proved to have positive influence on the physical and mental process of the body. This clearly indicates that yoga therapy can play an important role in the well being of the elderly and reduce hypertension if practiced regularly. The purpose of this study was to determine the effect of yoga therapy on the level of well being of the hypertensive women.

Yoga In American Study S (Y.I.A.S -2008), stated that among the U.S Yoga practioners 72.2% were females and 27.8% were males, 44% of U.S Yoga practioners have a house hold income of more than \$75,000, 24% earn more than \$1,00,000, 40.6% of the yoga practioners belonged to the age group of 18-34 years and 41% belong to the age group of 35 - 45 yrs, and 18.4% were over 55 yrs of age.

Center for disease control in U.S (C.D.C- 2006), reports that blood pressure (hypertension) killed 56,561 people in United States in 2006. About 74.5 million people in the United States age 20 and older have high blood pressure, one in three adults has high blood pressure, Of all people with high

blood pressure, 67.9 percent were under current treatment, 44.1 percent had it under control and 55.9 percent did not have it controlled. From 1996 to 2006 the death rate from high blood pressure increased 19.5 percent and the actual number of deaths rose to 48.1 percent.

Cathy Wong, (2005), sized up 70 studies (published from 1970 to 2004) that examined yoga's effects on cardiovascular disease risk. Results revealed that yoga might aid in the management of cardiovascular disease including high blood pressure.

North American Studio Alliance in North America (NAMASTA – 2005). The organization for mind body professionals, estimated that there were 70,000 yoga teachers in North America. The yoga phenomenon has grown dramatically over the past few years. For instance, it is estimated that there were 30 million people who practiced yoga in United states alone.

A Canadian Yoga Statistics Print Measurement Bureau Toronto (2005). Showed that 5.5% of Canadian adult or 1.4 million people now practiced yoga, an increase of 15% from the prior year and 45.5% from 2003, of the 1.4 million Canadians now practicing yoga, the fastest growing segment is the 18-34 years group which increased by a remarkable 25.7% in one year.

Anne B. Simons (2005) conducted a study among the low income, multicultural, hypertensive patients. The intervention consisted of weekly yoga classes at an urban public health clinic in the neighborhood where patient resided. The classes included simple breathing and meditation

exercises, a warm up session, varied set of yoga positions (asanas) which were designed by a teacher certified in yoga therapy. Many of the yoga postures were modified to accommodate patients movement limitation.

Simple low budget properties were used with modifications. Blood pressure measurements were taken before and after each class, either with sphygmomanometer and stethoscope or on automated digital devices. Patient demonstrated decrease in average systolic blood pressure (5.7mmHg) and in mean arterial pressure (2.6 mmHg) following completion of the hypertension intervention.

NEED FOR THE STUDY

Human being has become sick and medical science is not able to meet the challenges of overall well being. Yoga accomplishes this by kindling the higher quality of mind. Thus manifesting the pure consciousness. When this takes place, the finite awareness operating through the senses are nurtured and the level of well being on the individual increases.

Duesk. J.A et.al., (2008) conducted a study to compare the effect of stress management versus lifestyle modification on systolic hypertension and adopt medication elimination through a randomized trial. The stress management training, in particular reduces essential hypertension, its efficacy in treating isolated systolic hypertension has not been evaluated. A double blind, randomized trial was conducted for comparing 8 weeks of stress management specifically relaxation response training among 61 patients, versus life style modification among 61 patients. The primary outcome measure was changed in (Sy. B.P) after 8 weeks. Patients who achieved

Sy.B.P < 140 mm hg and Systolic Blood Pressure. less than or equal to 5 mmHg were eligible for eight additional weeks of training with supervised medication elimination. Systolic Blood pressure decreased 9.4 mmHg and 8.8 mmHg in stress management and life style modification respectively.

Yang (2007) A comprehensive review of the effect of yoga on chronic disease such as over weight, hypertension, high glucose level and high cholesterol found that yoga is effective in lowering blood pressure. The review linked body mass index to hypertension and found that yoga can significantly reduce weight. It also provided support for blood pressure benefits in subjects with hypertension in seven studies. Blood pressure in these patients improved significantly with yoga practice.

Sivasankaran et.al.,(2006) the study aimed at assessing the benefits of yoga on risk factors for coronary artery disease also found that yoga has a significant effect on lowering blood pressure. Participants engaged in yoga and meditation classes for 90 minutes, a day, three times a week for six weeks, The mean baseline measures for blood pressure for the cohort dropped significantly to 125/124 mmHg

Maccaffrey et al., (2005) conducted a study that focused on the effects of yoga on stress body mass index, heart rate and blood pressure among hypertensive patients and found that yoga practices are associated with decreased blood pressure. Participants practiced yoga three times per week for eight weeks. There was also a control group that received information about hypertension but no yoga instruction. Stress was measured with the stress assessment questionnaire and blood pressure from the medical records. The

study found a significant difference between the stress scores of the experiments and control group. It also found blood pressure decreased continually from the second to the eight week. Prior to the yoga treatment, the mean blood pressure was 160 / 98 mmHg and at the end of the eight week it was 136/ 81 mmHg .This support claims that yoga acts as an effective mode of treatment for hypertension through the reduction of stress to greater extent.

Gupta R (2003) conducted three serial epidemiological studies at jaipur during 1994, 2001, and 2003 which demonstrated rising prevalence of hypertension (30%, 36% and 51%) among males and 34%, 38% and 51% among females respectively.

Andrew Weil (2000) states that healing oriented medicines is that which takes into account the whole person (body, mind and spirit) including all aspects of lifestyles, yoga therapy emphasizes the therapeutic partnership between consumer and healer which it surpasses the conventional medicine which has a lopsided view of the physical, mental and spiritual body.

Austin (2000) states that people seeking alternative medicine are not necessarily dissatisfied with conventional medicine, but they find these health care alternative to be more congruent with their own values, beliefs and philosophical orientation towards health and life. There has been a significant evolution in our time toward a more proactive, holistic view of well being. Research studies done globally have shown that the practice of yoga including pranayama (breath work), asana (movement) and dhyana (meditation) offers numerous physiological and psychological health benefits for all the age groups, when it comes to older yoga students, it is particularly helpful in

relieving the symptoms of hypertension and it decreases the blood pressure this also increases the level of well being. Based on the review of literature and the researcher's experience, it was felt that yoga therapy would help the community to combat hypertension and improve the overall well being of the individuals and society at large. Hence this study was designed to determine the effect of yoga therapy, on the level of well being of hypertensive women.

STATEMENT OF THE PROBLEM

A study to determine the effectiveness of yoga therapy on the well being of hypertensive women residing at Dooming Kuppam in Chennai - 4

OBJECTIVE OF THE STUDY

- 1) To assess the pre test and post test level of well being among the experimental and control group of women.
- 2) To determine the effectiveness of Yoga therapy on level of well being among experimental group
- 3) To associate between the level of well being with selected demographic variables in the well being of the hypertensive women.

OPERATIONAL DEFINITION

- 1) ***Effectiveness:*** Determining the outcome of yoga therapy on the well being scale among hypertensive women.
- 2) ***Yoga Therapy:*** Yoga therapy is a means of balancing and harmonizing the body, mind and emotions. This is done through the practice of Pranayama, Asanas like Savasanas, Makarasanas, Balasanas

and meditation. Discipline that focuses on the body's musculature, posture, breathing mechanisms, and consciousness. Goal of yoga is attainment of physical and mental well-being through mastery of body achieved through exercise, holding of postures, proper breathing and meditation.

- 3) **Well Being :** Is a concept that combines individual's health, quality of life and their satisfaction. The components of well being include their feelings, nervousness, emotions, level of stress, anxiousness. Wellness education teaches people how to care for themselves in a healthy way and includes topics such as physical awareness stress management and self responsibility. Wellness strategies help persons achieve new understanding and control of their lives.

- 4) **Hypertension:** According to World health organization (WHO) hypertension is "a disorder characterized by high blood pressure which includes systolic blood pressure higher than 140 mmHg and diastolic blood pressure over 90mmHg. The most common alteration in blood pressure is hypertension. Hypertension is often asymptomatic. Hypertension is associated with the thickening and loss of elasticity in the arterial walls. Peripheral vascular resistance increases within thick and inelastic vessels. The heart continually pumps against greater resistance. As a result blood flow to vital organs such as the heart, brain and kidney decreases.

HYPOTHESIS

- 1) ***H1*** -There is a significant difference in the level of well being among hypertensive women after the practice of yoga therapy.
- 2) ***H2*** – There is a significant association between the level of hypertension women and selected demography variable

ASSUMPTION

- 1) Yoga Therapy will bring about reduction in blood pressure and improve well being of individuals.
- 2) Yoga Therapy is an healthier approach to induct into our life style
- 3) Yoga therapy helps to alleviate anger, depression and tension which are the major components of well being.

LIMITATION

- 1) The study is limited to women residing at Dooming kuppam, Chennai
- 2) The study period is limited to 6 weeks.
- 3) Critically ill and clients with acute pain cannot be included.

PROJECTED OUTCOME

- 1) The projected outcome of the study is that, the hypertension women who receive yoga therapy will have reduction in blood pressure.
- 2) This will improved knowledge about the management of hypertension to functional ability of better quality of life on the utilization of yoga therapy.

PROTECTION OF HUMAN RIGHTS

1. Ethical clearance was obtained to conduct the study form ethical committee
2. The permission for conducting the study was obtained from Panchayat Officer, Dooming Kuppam.
3. Verbal and written consent was obtained from study samples

CONCEPTUAL FRAME WORK

The Conceptual frame work used in the study was based on General System Theory developed by Von Bertalanffs. According to the general system theory a system is a set of components or units interacting with each other within a boundary that filter and safe of blow of inputs and outputs to the system.

INPUT

It is any type of information, energy and material that enters the system from environment through its boundaries. In this study input is assessing the demography profile and assessing the well being of hypertensive women who is living in dooming kuppam.

THROUGHPUT

Throughput is the activity phase, where steps taken to implement in yoga therapy of

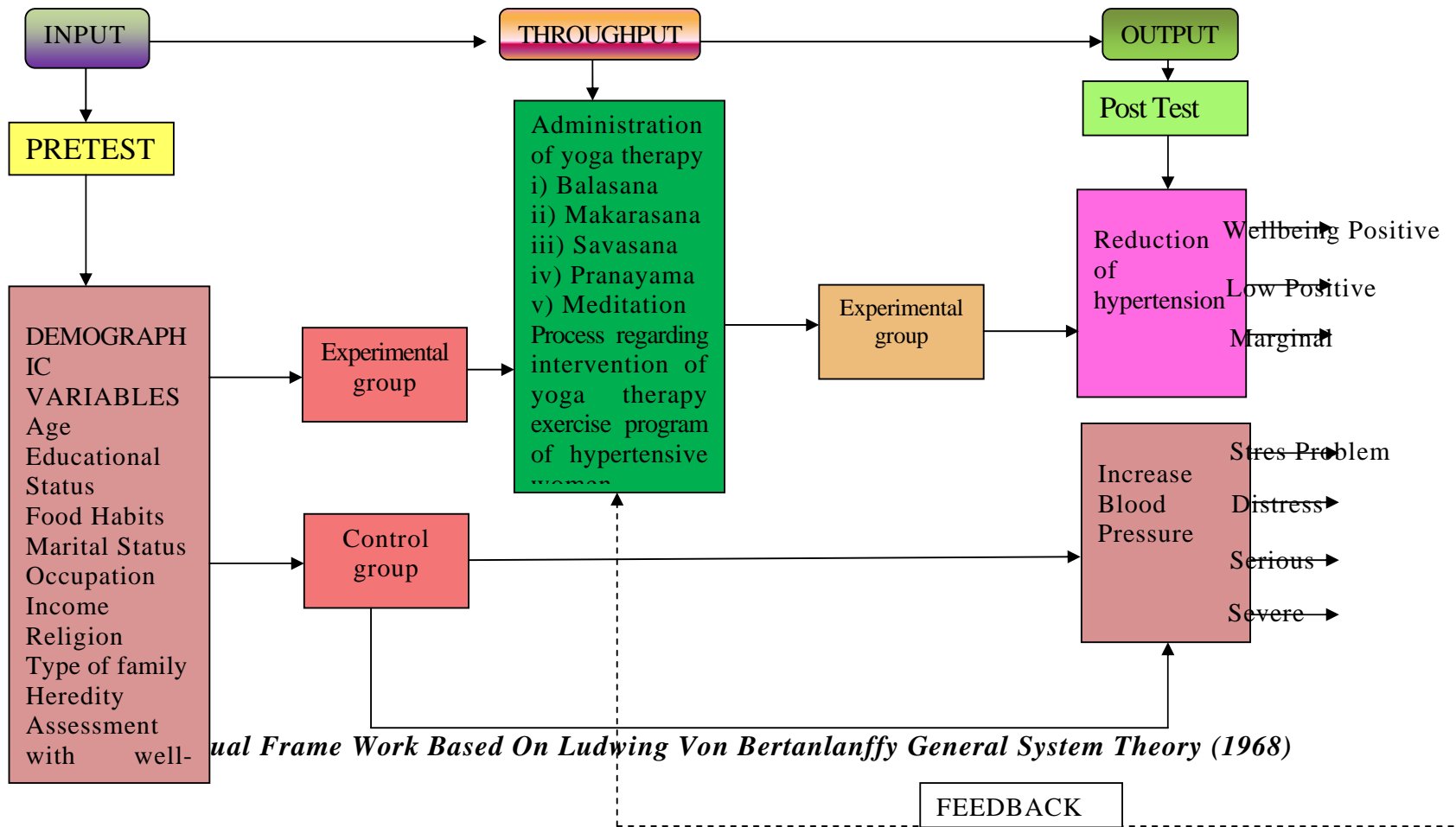
Balasana, Makarasana, Savasana, Pranayama and meditation. Yoga therapy was done in between 5am-6am

OUTPUT

It is any information , energy and material that leave the system and enters the environment through system boundaries in this study, the output is assessing the well being of hypertensive women by maintaining blood pressure within the limits by yoga therapy.

FEEDBACK

It is the information given back to the system to determine whether the purpose or end result of the system has been achieved in this study feedback monitors the adequacy of input and changes in throughput. If the Hypertensive women gain well being positive level, low positive level and marginal level on reduced blood pressure they were practice regularly in daily life. It helps to prevent complication and improve the well being of life.



CHAPTER – II

REVIEW LITERATURE

INTRODUCTION

Review Literature is an important step in the development of a research project. The written literature review provides the reader with a back ground on understanding what has already been learnt in a topic and illuminates what is significant in the new study.

The investigator has done an extensive review of literature on studies done previously related to hypertension.

This chapter is discussed under the following heading,

- 1) Overview of hypertension and yoga
- 2) Studies related to alternative therapies and hypertension
- 3) Studies related to therapy of yoga

REVIEW OF RELATED LITERATURE

Overview of hypertension and yoga.

WHO (2010) Hypertension is defined as a systolic blood pressure above 140 mmHg and a diastolic pressure above 90 mmHg, it is based on two or more measurement.

Hypertension can be classified as follows

Normal: Systolic <120mmHg; diastolic<80mmHg.

Prehypertension:systolic120 to 139 mmHg; diastolic 80 to 89 mmHg.

Stage 1: Systolic 140 to 159 mmHg diastolic 90 to 99 mmHg.

National Family Health Survey (2010-NFHS) in India reported that of the hypertensive population in New Delhi already aware of their condition, more than 70% of them, were uncontrolled. Almost half the population tested in the New Delhi region had uncontrolled levels of lipids (dyslipidemia) as compared to about one – fifth of the Maharashtra population.

World Health Organization (2010) in India hypertension statistics show that the estimated direct and indirect cost of high blood pressure was \$76.6 billion. Hypertension prevalence in selected countries of the Eastern Mediterranean Region which had an average prevalence of 29 percent, Iran with 43.8% Sudan with 19.8%, Oman with 27.6%, Egypt with 19.4%, Jordan with 36% of hypertensive prevalence.

Arya SN. 2000 conducted the problems of hypertension in the elderly. The cut off age for elderly person in India is 60-65 years, in the USA is 75-80 years and 6th Joint Committee on Detection, evaluation and treatment of High Blood Pressure (JNC-VI) has identified it as above 60 years. Elderly people may have (i) systolic-diastolic hypertension, (ii) isolated systolic hypertension or (iii) pseudo hypertension. JNC-VI has classified hypertension in stage 1, stage 2 and stage 3 according to its severity. Hypertension is confirmed when BP measured on three separate occasions over 1-2 weeks and when consistently it is raised above 140/90 mmHg. The management includes lifestyle modification and drug treatment. Lifestyle modification includes rationality of diet, regular exercise; stop smoking, stoppage of alcohol or moderation and yoga. Drug commonly used are diuretics and beta-blockers.

Other antihypertensive drugs are calcium channel blockers, ACE-inhibitors, alpha-blockers and vasodilators.

Andrew Weil [2000] states that healing oriented medicines is that which takes into account the whole person (body, mind and spirit) including all aspects of lifestyles, yoga therapy emphasizes the therapeutic partnership between consumer and healer which it surpasses the conventional medicine which has a lopsided view of the physical, mental and spiritual body.

Rao Nanduri, Venkata Reddy state that blood pressure benefits of yoga claim that the mind is central to the development of hypertension and that yoga eliminates the imbalance of the mind that causes stress, thus lowering blood pressure hypertension treatment without medication 80% of hypertension cases are the result of stress and that yoga can treat hypertension by helping patients free themselves of stress.

Studies related to alternative therapies and hypertension

Chhabra MK, et.al. (2001), conducted on status of life style modification in hypertension. In treating hypertension, anti hypertensive's some lifestyle modifications. As regarding dietary interventions, calorie restriction may influence the minimization of Blood Pressure, body weight reduction, less alcohol consumption; salt restriction, potassium and calcium supplementation can enhance the process of lowering Blood Pressure. The role of magnesium in hypertension is debatable. Serum cholesterol level is commonly elevated in hypertensive patients and its reduction reduces the risk of non-fatal coronary events. The finding of diet rich in plant fibers alone or with a low fat, low sodium could lower the BP by about 5mmHg in

hypertensive patients. The omega -3 – polyunsaturated fatty acids found in highest concentrations in cold water fishes have a modest antihypertensive effect. Caffeine contained in two cups of coffee may raise the Blood Pressure by 5 mmHg in infrequent users but in habitual users, caffeine has no role. Deficiency of vitamin C might lead to hypertension. As regarding behavioral changes, stopping smoking, regular physical exercise, relaxation therapies like yoga, etc., have definite beneficial effect on hypertension in one or more of the lifestyle modifications should be tried initially in all hypertensive patients.

Silverberg D.S (1990), have made studies on non-pharmacological treatment of hypertension, weight reduction, alcohol restriction, mild salt restriction, eating, a vegetarian diet and increasing aerobic exercise will generally lower the blood pressure in patients with essential hypertension. Eating a diet rich in potassium and reducing caffeine intake may also be helpful in reducing the pressure, but increasing the fiber or calcium intake will generally be ineffective reducing fat intake from the usual 40% of total calories to 25-30% may reduce hypertension directly or by weight reduction. smoking, when combines with excessive caffeine or alcohol intake may have an additive effect on blood pressure, biofeedback, meditation, yoga, progressive muscular relaxation or cognitive therapy may reduce the blood pressure to a variable degree, and combinations of these treatments may be even more successful.

Damodaran A. et.,al (2002), conducted therapeutic potential of yoga practices in modifying cardiovascular risk profile in middle aged men and women, the aim of the study was to study the effect of yoga on the

physiological, psychological well being, psychomotor parameter and modifying cardiovascular risk factors in mild to moderate hypertensive patients. The twenty patients (16 males, 4 females) in the age group of 35 to 55 years with mild to moderate essential hypertension underwent yogic practices, biochemical parameters included, blood glucose, lipid profile, catecholamine's, Vitamin C Cholinesterase. Psychological evaluation was done by using personal orientation inventory and subjective well being. Results showed decrease in blood pressure and drug score modifying risk factors i.e., blood glucose, cholesterol and triglycerides decreased overall improvement in subjective well being and quality of life. There was decrease in Catecholamine, suggestive decrease in sympathetic activity and oxidant stress. The study finding for yoga, can play an important role in risk modification for cardiovascular diseases in mild to moderate hypertension.

Anand.MP,(1997), did research on non-pharmacological management of essential hypertension. Lifestyle modifications are universally accepted, not only as the first step in the management of hypertension but also a way to prevent hypertension. The INTERSALT study of 52 communities worldwide showed that weight, among all measured characteristics except age, had the strongest, significant, most consistent and independent correlation with blood pressure. INTERSALT epidemiological data had demonstrated a positive association between sodium intake and level of blood pressure . A rigorous analysis of 23 randomly controlled trials showed that 100 mmol/day reduction in sodium intake was associated with a decline of 5-7 mm Hg (systolic) / 2.7 mmHg (diastolic) in hypertensive subjects. Excessive alcohol consumption is another important risk factor for hypertension and has been reported to

account for 5-30% of all hypertension. Moderately intense exercise at 40 to 60% of maximum oxygen consumption e.g., 30 to 45 minutes of brisk walking on 4-5 days a week, can lower blood pressure. The incidence of stroke and coronary artery disease in hypertensive patients who smoke 2-3 times greater than in non-smoking patients with comparable blood pressure and stopping smoking rapidly reduces the risk. such as yoga, relaxation biofeedback, transcendental meditation and psychotherapy benefits hypertensive patients by lowering their blood pressure.

Labarthe D, Ayala C, (2002) worked on nondrug interventions in hypertension prevention high blood pressure and control. This study was undertaken to address the relation of various factors to HBP and their potential for preventing and controlling this widespread problem. With respect to salt intake and Blood Pressure, the 1999 Workshop on sodium and blood pressure of the (US) National Heart Lung, and Blood Institute will serve the reader well as a point of departure. The body of the present review provides more detailed discussion especially of recent epidemiologic research, including the DASH-Sodium trial, published more recently than the proceedings, of that workshop. The DASH-Sodium trial demonstrated significant increase in SBP and DBP, with sodium intake greater than 65 mmol /d (=3.7 g NaCl) and with the usual American diet (versus the DASH diet). These results provide substantial evidence against current dietary practices in many populations where daily intakes of salt are much higher than recommended. They also have addressed alcohol consumption, micronutrients/macronutrients, physical activity and inactivity, obesity, cigarette smoking and alternative approaches to treatment such as stress reduction/biofeedback, yoga/meditation and acupuncture.

Evidence for the efficacy of certain non pharmacologic approaches to preventing and controlling HBP is strong. This evidence offers a basis for public health policies and clinical approaches that can greatly affect the incidence and consequences of HBP in the population at large. What is needed now is implementation of the policies and practices addressed here. Unless such action is taken on a large scale, we will have made poor use of the knowledge accrued over decades of research.

Studies related to therapy of yoga

Kuei – Min chen, et.al.,(2007) Silver yoga exercises improved physical fitness of transitional frail elders. A convenient sample of 69 elders in assisted living facilities were assigned randomly to the silver yoga exercises experimental group had 38 samples, the control group had 31 samples. This pre test and post test study intervention was conducted three times per week, 70 minutes for 24 weeks, physical fitness indicated [body composition, cardiovascular respiratory function, body flexibility, muscle power and endurance, balance and agility] of participants in the study group had improved significantly and they had better physical fitness than participants in the control group.

Madanmohan et.al., (2005) conducted a study to find out effect of slow and fast pranayams on reaction time and cardio-respiratory variable. A comparative study of the effect of short term 3 weeks training in slow breathing and fast breathing pranayams on respiratory pressures, endurance, reaction time, blood pressure, heart rate, rate pressure product and double product. Two groups of 15 each were selected group I was slow breathing

(savitri pranayam) slow, rhythmic and deep breathing group II fast breathing (bhastrika pranayam) which is bellows type rapid and deep breathing. Parameters were measured before and after 3 weeks training period. Slow breathing produced a significant increase in respiratory pressure, respiratory endurance. In both the groups, there was an appreciable but statistically product decreased in savitri pranayam group but increased significantly in bhastrika group. It is concluded that different types of pranayama produced different physiological responses in normal young volunteers.

Smith, et.al., (2007) study found that yoga reduces stress and anxiety. The effects of yoga on chronic disease, over weights, hypertension, high glucose level and high cholesterol found that yoga can significantly is effective in lowering blood pressure and reduced weight Blood Pressure in these patients improved significantly with yoga practice.

Bera TK, et.al., (1998), conducted, recovery from stress in two different postures and in shavasana- a yogic relaxation posture. The recovery from induced physiological stress in Shavasana (a yogic relaxation posture) and two other postures (resting in chair and resting supine posture) was compared. Twenty one males and 6 females (age 21-30 yrs) were allowed to take rest in one of the above postures immediately after completing the schedule treadmill running. The recovery was assessed in terms of Heart Rate (HR) and Blood Pressure (BP) . HR and BP were measured before and every two minutes after the treadmill running till they returned to the initial level. The result revealed that the effects of stress was reversed in significantly ($P <$

0.01) shorter time in Shavasana,, compared to the resting posture in chair and a supine posture.

Telles.S, Reddy.SK, Nagendra HR.(2000), The present study was conducted to evaluate a statement in ancient yoga texts that suggest that a combination of both “calming and stimulating” measures may be especially helpful in reaching a state of mental equilibrium. Two yoga practices, one combining “calming and stimulating” measures (cyclic meditation) and the other, a “calming” technique (shavasana), were compared. The oxygen consumption, breath rate, and breath volume of 40 male volunteers (group mean SD, 27.0 5.7 years) were assessed before and after sessions, of cyclic meditation (CM) and before and after sessions of shavasana (SH). The 2 sessions (CM, SH) were 1 day apart. Cyclic meditation includes the practice of yoga postures interspersed with periods of supine relaxation. During SH the subject lies in a supine position significant decrease in the amount of oxygen consumed throughout the practice. There was in breath rate and an increase in breath volume after both types of sessions (2-factor ANOVA, paired t test). However, the magnitude of change on all 3 measures was greater after cyclic meditation: (1) Oxygen consumption decreased 32.1% after cyclic meditation compared with 10.1% after SH, breath rate decreased 18.0 % after CM and 15.2% after SH and breath volume increased 28.8% after CM and 15.9% after SH. These results support the idea that a combination of yoga postures interspersed with relaxation reduces arousal more than relaxation alone does

CHAPTER – III RESEARCH METHODOLOGY

The purpose of the study is to determine the effectiveness of yoga therapy on the level of well being of hypertension women with selected demographic variables. This chapter deals with research approach, research design, description of research setting, population, sample and sampling technique, criterion for sample selection(inclusion criteria and exclusion criteria), instruments, development of a tool, validity, method of data collection and data analysis.

Research approach: Research approach for this study was an quantitative research approach. It is a study designed to explore the dimension of a phenomenon or to develop or define hypothesis and about the relationship between phenomena (polit 1999).

Research Design: The investigator had utilized Quasi experimental research design chosen for this study. The purpose of the study was to determine the effectiveness of yoga therapy on the level of well being of hypertensive women.

The study design employed can be schematically represented as follows.

Experimental Group	O1	x	O2
Control Group	O1	-	O2

O1 – Pre test

O2 – Post test

X – Yoga therapy

VARIABLES

Independent variable : Yoga therapy

Dependent variable : Hypertensive women.

SETTING

The study was conducted in dooming kuppam, Chennai at the distance of 5kms from Chennai high court. The total dooming kuppam population is 4756. The female population is 2200. People obtain health care facilities from santhome health post, Ghosa hospital and Madras Medical College and Hospital. The occupation of most of them are fisherman and coolie.

POPULATION

The population of this study includes all the hypertensive women who were permanent residents of dooming kuppam, Chennai. Population includes religions like Hindu, Muslim and Christian.

SAMPLE SIZE

The sample size was 60 hypertensive women.

SAMPLING TECHNIQUES

Non – probability convenient sampling technique.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

- 1) Patients having essential hypertension, mild and moderate blood pressure

- 2) Mild Hypertension : 140 – 159mmHg systolic, 90 – 99 mmHg diastolic pressure
- 3) Moderate Hypertension : 160 – 179 mmHg systolic, 100 – 109 mmHg.
Women who were willing to participate in this study.

Exclusion criteria

- 1) Significant co-morbidity condition like angina, uncontrolled Stroke, Diabetes Mellitus, Chronic Obstructive Pulmonary Diseases, Chronic Renal Failure, Acquired Immune Deficiency Syndrome, Tuberculosis, Malignancy, severe anemia and respiratory infections
- 2) Patient's who don't understand Tamil and English.
- 3) Women who were already practicing yoga

DESCRIPTION OF THE TOOL

- ❖ The investigator had utilized a questionnaire to determine the level of well being of hypertensive women.
- ❖ The questionnaire consists of two sections A and B

SECTION-A

It consisted of questions related to selected socio – demographic data which include age, educational status of the women, occupational status, family type, family income and Blood Pressure.

SECTION-B

Assessment of the effectiveness of yoga therapy was done using Well being scale (WBS) which consisted of 18 questions, 14 questions of the scale

were measured through a five point likert's scale and four questions has a rating scale ranging between 0-10. The scoring was done by adding up all the points for the answers, finally it was scored as below, the well being scale was based on Fahey/ Insel/ Roth, Fit and well.

Scoring

81 – 110 +ve (Well Being Scale)

76 – 80 Low positive well being

71 – 75 Marginal well being

56 – 70 Stress

41 – 55 Distress

26 – 40 Serious distress

0 – 25 Severe distress

DATA ANALYSIS AND INTERPRETATION

The chapter deals with statistics analysis which is a method of rendering qualitative, meaningful and intelligible information of the data collection from 60 women in dooming kuppam. The study was done to determine the effectiveness of yoga therapy on the level of well being of hypertensive women.

Description and inferential statistics were used for analyzing data on the basis of objectives of the study.

The data was obtained, classified and presented under the following sections.

VALIDITY

Content validity for the tool is obtained from the two Medical experts from Community Medicine Department and two Nursing experts in the field of Community Health Nursing, the content consistency of the tool and the relevance, clarity and appropriateness of the items were validated.

RELIABILITY

Reliability is the degree of consistency or dependability with which instrument measures. The attribute is designed to measure (polit1999) the method adopted for testing reliability of the tool was test retest method.

Correlation coefficient is obtained between two scores and reliability was checked by test retest method the reliability score was good.

PILOT STUDY

After obtaining the formal approval from the Panchayet Officer in Dooming Kuppam, The investigator conducted the pilot study at Dooming Kuppam, Chennai -4. The pilot study was conducted and the feasibility of the instrument was assessed and validated sessions of yoga was conducted in morning times. To assess the practicality of the yoga postures.

The Pilot study was conducted for 6 samples of hypertensive women from Dooming Kuppam, Chennai. The Investigator conducted the study from 07-03-2011 to 21-06-2011 for one week.

The Pre-Test was conducted by using the planned interview schedule for the Hypertensive women residing in Dooming Kuppam. Yoga exercise program was conducted

An interview schedule was made to assess the knowledge of patient with the effective of hypertensive women. It consist of 18 questions, 14 questions of the scale were measured through a five points likert's scale and 4 questions has a rating scale ranging from between 0-10. The scoring was done by adding up all the points for the answers, finally it was scored as below, the well being scaled based on Fahey/Insel/Roth, Fit and well.

SCORING

81 – 110 +ve (Well Being Scale)

76 – 80 Low positive well being

71 – 75 Marginal well being

56 – 70 Stress

41 – 55 Distress

26 – 40 Serious distress

0 – 25 Severe distress

After the Pilot study the following modification was done to individual patient giving time consuming and hence was changed to group teaching.

PROCEDURE

Method of data collection

After obtaining the formal approval from the Panchayat Office in Dooming Kuppam, the study was done by collecting the total number of hypertensive women. By non probability convenient sampling 60 samples was be drawn and they were divided again by lottery method into experimental group and control group. Pre test was applied using well being scale to all 60 samples. Yoga therapy was done in between 5 am–6am for the experimental group of 30 samples for 4 weeks and post test was administered for all the 60 samples using well being scale and the effectiveness of yoga therapy was determined.

Data collection procedure.

The permission for conducting the study was obtained from Panchayat Officer, Dooming Kuppam. The main study was conducted in Santhome Dooming Kuppam, Chennai-4, 04.06.2011 – 15.07.2011. Hypertensive patients who met the inclusive criteria were selected. The aim of the study was explained to the in-charge of the institution before starting the data collection. So extensive co-operation was achieved, a demonstration and practice of yoga therapy extended up to one hour on all the days of morning session.

The Schedule for Data Collection

- ❖ Week 1 : Pre-assessment level of hypertension among the residential women.
- ❖ Week 2-6: Yoga therapy for study of 60 samples. Practise of yoga under supervision Balasana (Child Pose, Makrasan(Crocodile Pose),

Savasana(Corpse Pose), Bhramari Pranayama (HummingBreath) ,
Meditation.

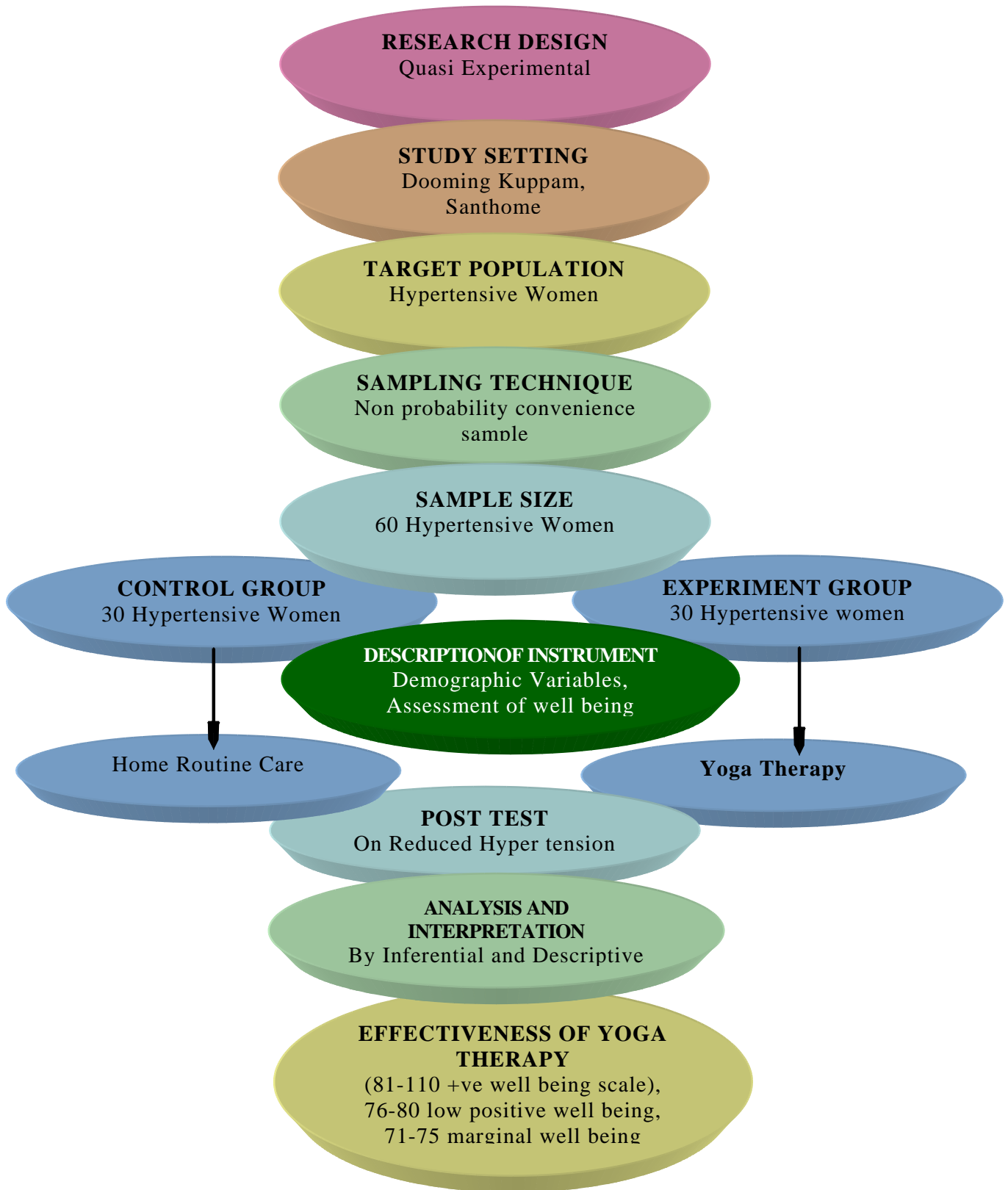
- ❖ Week 7 : Post assessment of level of hypertension and level of well being among the study samples.

PLAN FOR DATA ANALYSIS

Quasi Experimental Design

S. No	Objective	Data Analysis
1	To assess the pretest and post test level of well being among the experimental and control group of women	Descriptive statistics (Number % mean standard deviation)
2	To determine the effectiveness of yoga therapy on level of well being among experimental group.	Paired 't' Test
3	To associate between the level of well being with selected demographic variables in the well being of the hypertensive women.	Chi- Square

Fig-2: Schematic Representation of Research Design



CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION OF FINDINGS

This chapter deals with the data analysis and interpretation to assess the effectiveness of yoga therapy on the well being of hypertensive women residing at Dooming Kuppam in Chennai .

Descriptive and inferential statistics were used for the analysis of the data. According to the study objectives the interpretation has been tabulated and organized as follows:

ORGANIZATION OF DATA

- ❖ **Section A:** Description of demographic variables of hypertensive women in the experimental and control group.
- ❖ **Section B:** Assessment of pre and post assessment level of well being of hypertensive women in the experimental and control group.
- ❖ **Section C:** Determination of effectiveness of yoga therapy on the well being of hypertensive women in the experimental and control group.
- ❖ **Section D:** Determination of effectiveness of yoga therapy on the well being of hypertensive women between the experimental and control group.
- ❖ **Section E:** Association of post test level of well being of hypertensive women with their selected demographic variables in the experimental groups

SECTION A

Table-1: Frequency and percentage distribution of demographic variables of hypertensive women in the experimental and control group. N = (30 + 30)

S. No	Demographic Variables	Experimental Group		Control Group	
		No.	%	No.	%
1.	Age				
	30 - 40 years	9	30.00	12	40.00
	41 - 50 years	10	33.33	12	40.00
	51 - 60 years	11	36.67	6	20.00
	60 years	0	0.00	0	0.00
2.	Educational Status				
	Non literate	5	16.67	6	20.00
	Primary	21	70.00	18	60.00
	Secondary	4	13.33	6	20.00
	Higher Secondary & Graduation	0	0.00	0	0.00
3.	Occupational Status				
	Working	9	30.00	10	33.33
	Not working	21	70.00	20	66.67
4.	Monthly Income				
	Rs.2000 - 3000/-	12	40.00	9	30.00
	Rs.3001 - 4000/-	14	46.67	16	53.33
	Rs.4001 - 5000/-	1	3.33	5	16.67
	Rs.5001 - 6000/-	3	10.00	0	0.00
	>Rs.6000/-	0	0.00	0	0.00
5.	Food Habits				
	Vegetarian	0	0.00	6	20.00
	Non Vegetarian	1	3.33	0	0.00
	Both	29	96.67	24	80.00

<i>S. No</i>	<i>Demographic Variables</i>	<i>Experimental Group</i>		<i>Control Group</i>	
		<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
6.	Religion				
	Hindu	7	23.33	12	40.00
	Muslim	2	6.67	1	3.33
	Christian	21	70.00	17	56.67
	Others	0	0.00	0	0.00
	Type of family				
	Nuclear family	15	50.00	19	63.33
	Joint family	15	50.00	11	36.67
7.	Marital Status				
	Married	21	70.00	25	83.33
	Unmarried	1	3.33	1	3.33
	Divorced	0	0.00	0	0.00
	Widow	8	26.67	4	13.33
8.	Family History of BP				
	Yes	6	20.00	17	56.67
	No	24	80.00	13	43.33
9.	Already taken medication for BP				
	Yes	14	46.67	17	56.67
	No	16	53.33	13	43.33
10.	Following food habits for BP				
	Yes	18	60.00	17	56.67
	No	12	40.00	13	43.33
11.	Years of taking treatment for Blood Pressure?				
	0 - 3 years	22	73.33	8	26.67
	3 - 6 years	5	16.67	18	60.00
	6 - 9 years	3	10.00	3	10.00
	More than 9 years	0	0.00	1	3.33

<i>S. No</i>	<i>Demographic Variables</i>	<i>Experimental Group</i>		<i>Control Group</i>	
		<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
12.	Height				
	140 - 150 cm	10	33.33	2	6.67
	151 - 160 cm	20	66.67	26	86.67
	161 - 170 cm	0	0.00	2	6.67
	>170 cm	0	0.00	0	0.00
13.	Weight				
	40 - 50 Kg	3	10.00	0	0.00
	51 - 60 Kg	7	23.33	24	80.00
	71 - 80 Kg	19	63.33	6	20.00
	>80 Kg	1	3.33	0	0.00
14.	Higher Blood Pressure				
	120/80 - 130/85 mmHg	7	23.33	0	0.00
	131/86 - 140/90 mmHg	11	36.67	18	60.00
	140/91 - 150/95 mmHg	12	40.00	12	40.00
15.	Waist Circumference				
	80 - 85 cm	2	6.67	0	0.00
	86 - 90 cm	13	43.33	21	70.00
	96 - 100 cm	15	50.00	9	30.00

The table 1 shows that majority 11(36.67%) were in the age group of 51 – 60 years in the experimental group and in the control group, majority 12(40%) were in the age group of 30 – 40 years and 41 – 50 years respectively.

With regard to educational status in the experimental group, majority 21(70%) had primary level education and in the control group majority 18(60%) had primary level education.

Considering the occupational status of the hypertensive women, majority 21(70%) were working in the experimental group, whereas in the control group, majority 20(66.67%) were working.

With respect to the monthly income of the hypertensive women, majority 14(46.67%) were earning between Rs.3001 – 4000/- in the experimental group and in the control group, majority 16(53.33%) were earning Rs.3001 – 4000/-

Regarding the food habits of the hypertensive women in the experimental group, majority 29(96.67%) non vegetarian and in the control group, majority 24(80%) were non vegetarian.

Considering the religion of the hypertensive women in the experimental group, majority 21(70)5 were Christians and in the control group, majority 17(56.67%) were Christians.

On analyzing the type of family of the hypertensive women in the experimental group, majority 15(50%) were from nuclear as well as joint family whereas in the control group, majority 19(63.33%) were from nuclear family.

On considering the marital status of the hypertensive women in the experimental group, majority 21(70%) were married whereas in the control group, majority 25(83.33%) were married.

With regard to family history of BP, majority 24(80%) had no family history in the experimental group and in the control group, majority 17(56.67%) had family history of BP.

With respect to medication already taken for BP by the hypertensive women in the experimental group, majority 16(53.33%) had not taken any medication already and in the control group, majority 17(56.67%) had already taken medication for BP.

On analyzing the food habits followed for BP by the hypertensive women, majority 18(60%) were following food habits for BP in the experimental group whereas in the control group, majority 17(56.67%) were following food habits for BP.

Considering the numbers of years taking treatment for BP in the experimental group, majority 22(73.33%) were taking for 0 – 3 years and in the control group, majority 18(60%) were taking treatment for 3 – 6 years.

Regarding the height of the hypertensive women, majority 20(66.67%) were in the range of 151 – 160 cm whereas in the control group, majority 26(86.67%) were in the range of 151 – 160 cm.

Taking into account the weight of the hypertensive women, majority 19(63.33%) were weighing 71 – 80 kg and in the control group, majority 24(80%) were weighing 51 – 60 kg of weight

On analyzing the high blood pressure range, majority 12(40%) were in the range of 131/86 – 150/95 mmHg in the experimental group and in the control group, majority 18(60%) were in the range of 131/86 – 140/90 mmHg.

With respect to waist circumference of the hypertensive women in the experimental group, majority 15(50%) were in the range of 96 – 100 cm and in the control group, majority 21(70%) were having the waist circumference of 86 – 90 cm.

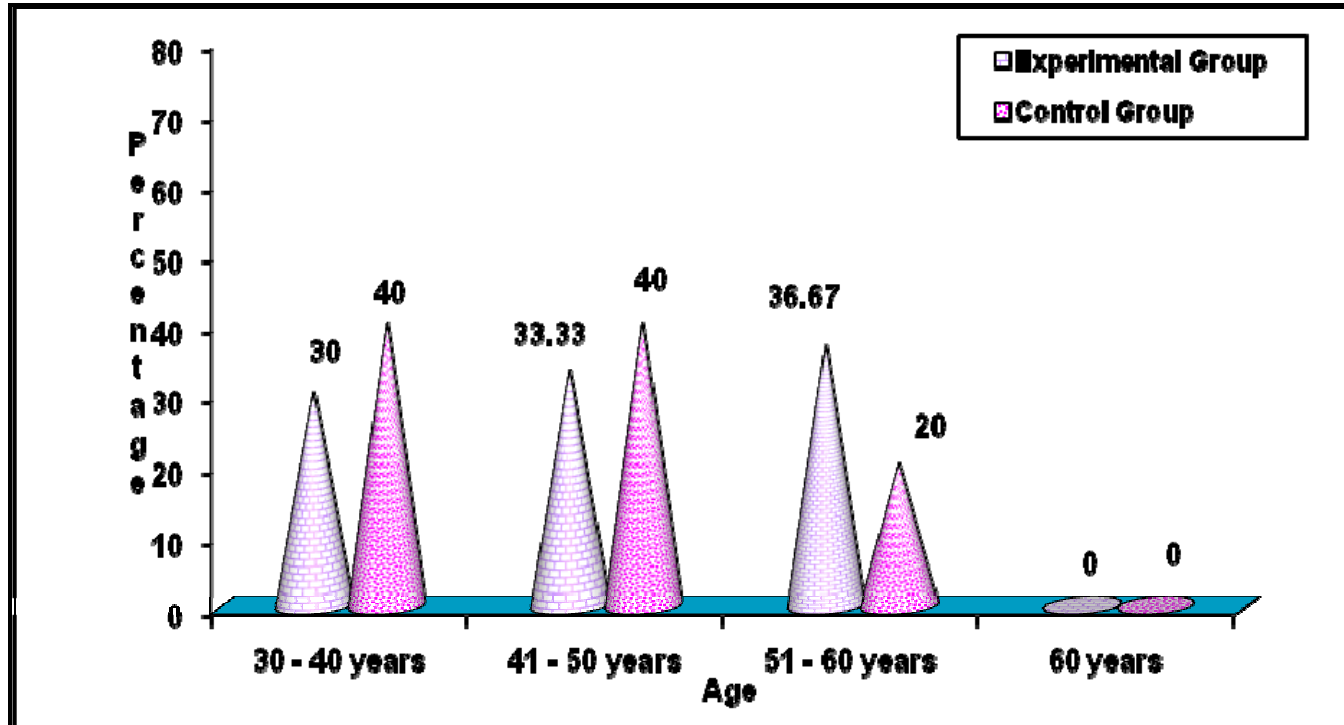


Fig.3: Percentage distribution of age of the hypertensive women in the experimental and control group

The table 1 shows that majority 11(36.67%) were in the age group of 51 – 60 years in the experimental group and in the control group, majority 12(40%) were in the age group of 30 – 40 years and 41 – 50 years respectively.

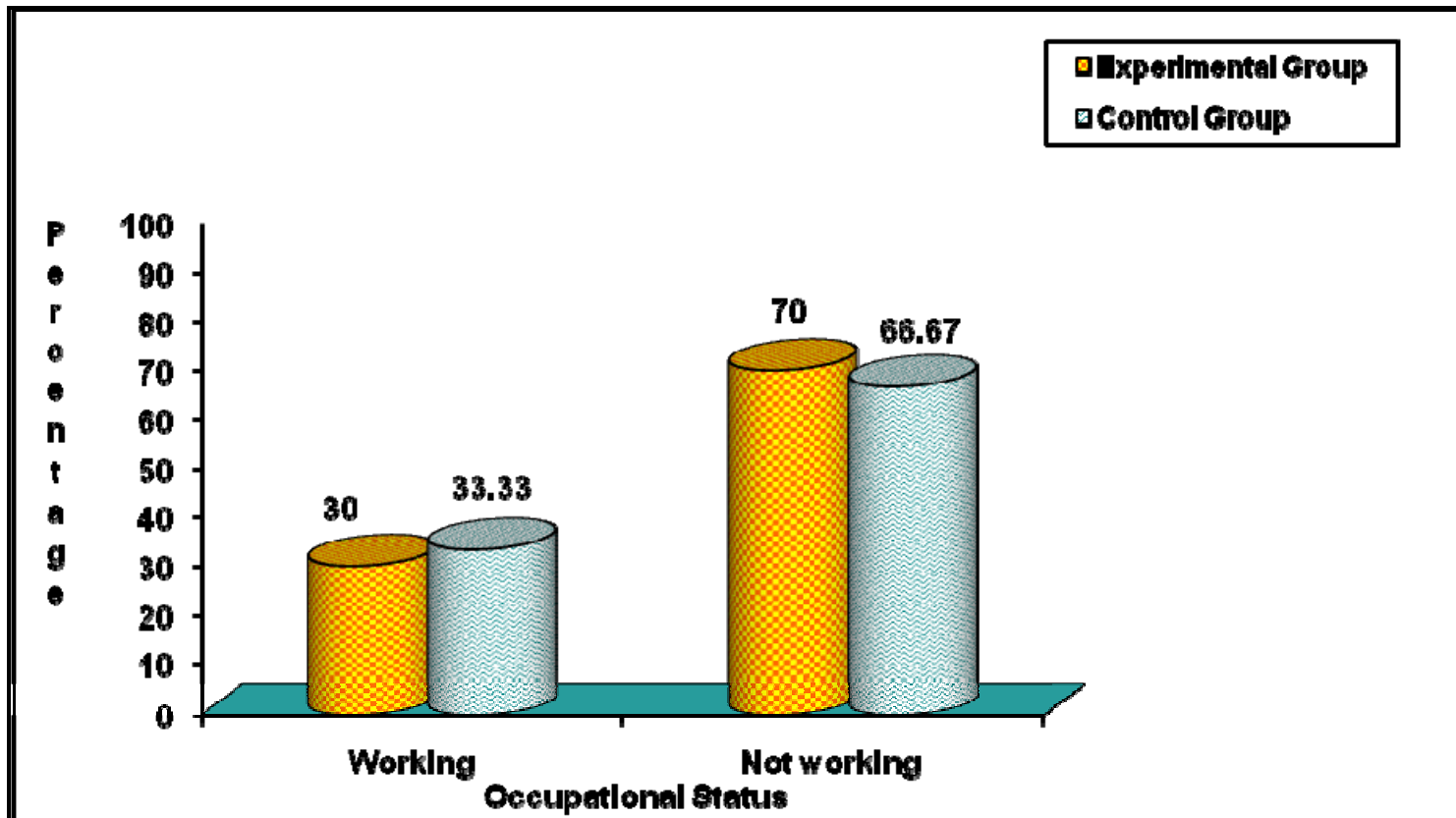


Fig.4: Percentage distribution of occupational status of the hypertensive women in the experimental and control group

Considering the occupational status of the hypertensive women, Fig 3 shows majority 21(70%) were working in the experimental group, whereas in the control group, majority 20(66.67%) were working.

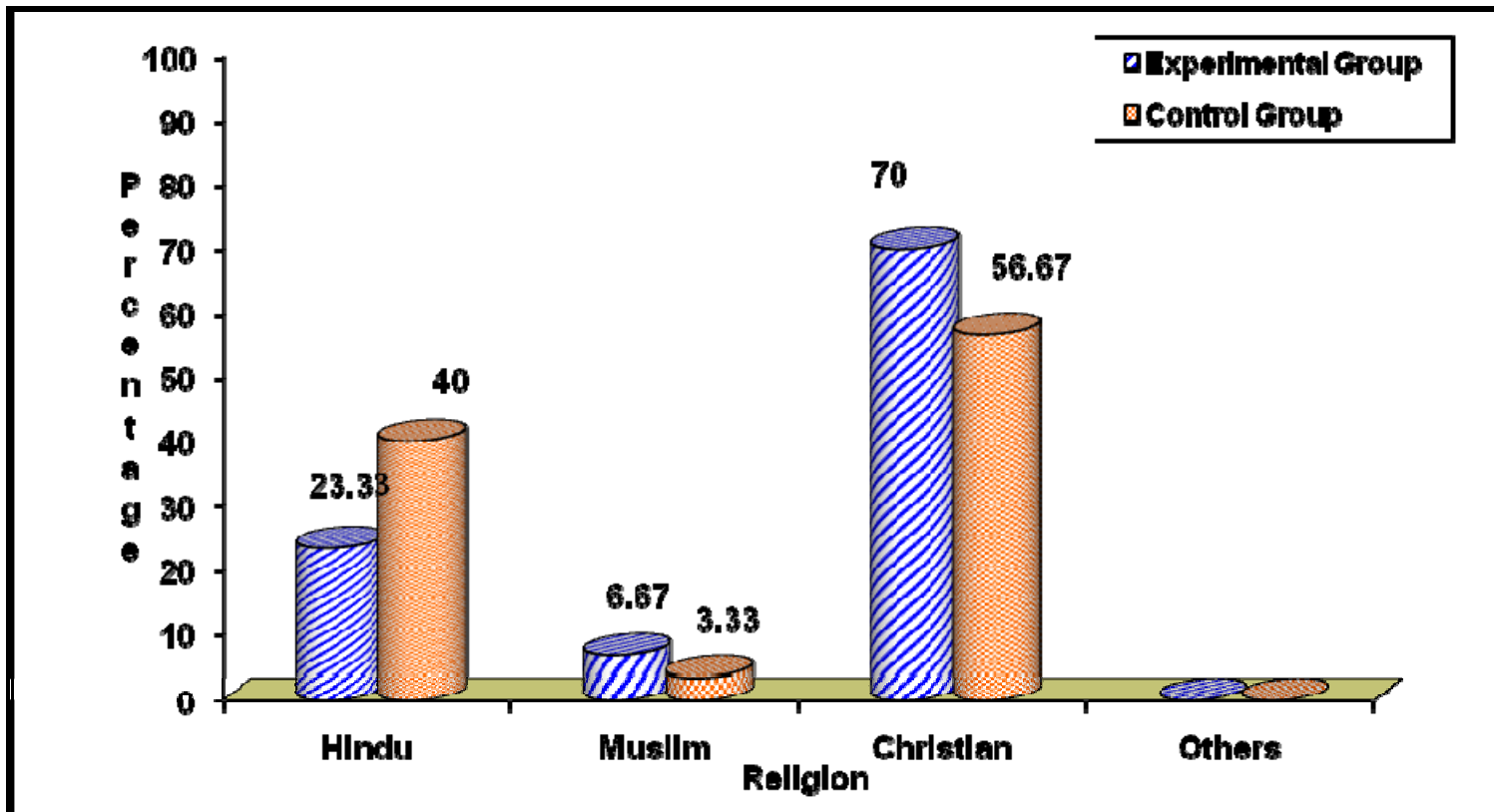


Fig.5: Percentage distribution of religion of the hypertensive women in the experimental and control group

Considering the religion of the hypertensive women in the experimental group Fig 6 shows, majority 21(70) were Christians and in the control group, majority 17(56.67%) were Christians.

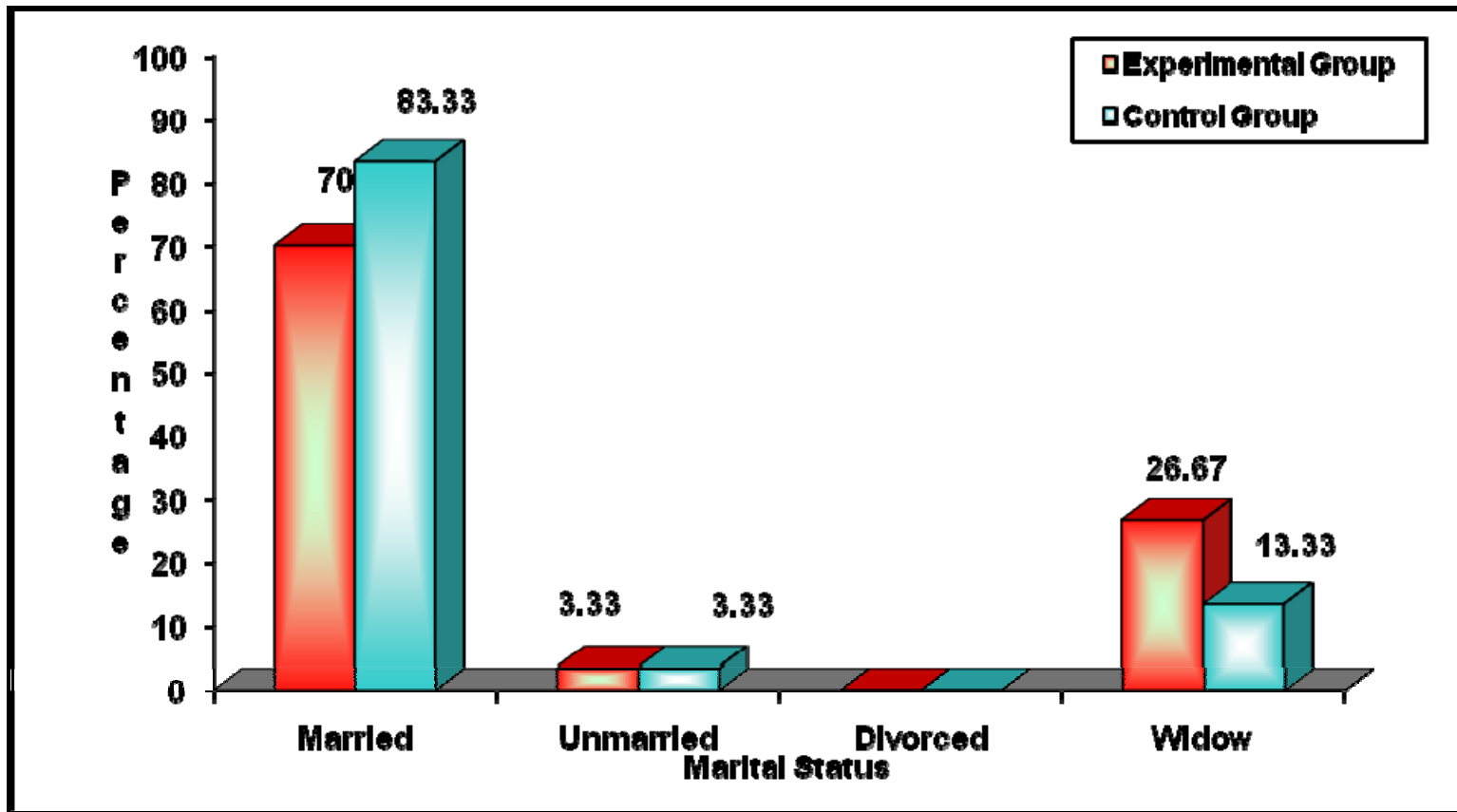


Fig. 6: Percentage distribution of material status of the hypertensive women in the experimental and control group

On considering the marital status of the hypertensive women in the experimental group Fig 8 shows majority 21(70%) were married whereas in the control group, majority 25(83.33%) were married.

SECTION B

Table-2: Frequency and percentage distribution of pretest and post test level of well-being in the experimental group. n = 30

Well being Scale		Pre Test	%	Post Test	%
Severe distress	0-25	0	0%	0	0%
Serious distress	26-40	0	0%	0	0%
Distress	41-55	9	30%	0	0%
Stress	56-70	20	67%	1	3%
Marginal well being	41-75	1	3%	11	37%
Low Positive well being	76-80	0	0%	3	10%
Positive well Being	81-110	0	0%	15	50%

The table 2 shows that in the pretest, majority 20(67%) had stress problem followed by 9(30%) had distress. In the post test, majority 15(50%) were in well being status followed by 11(37%) were in the marginal level of well being.

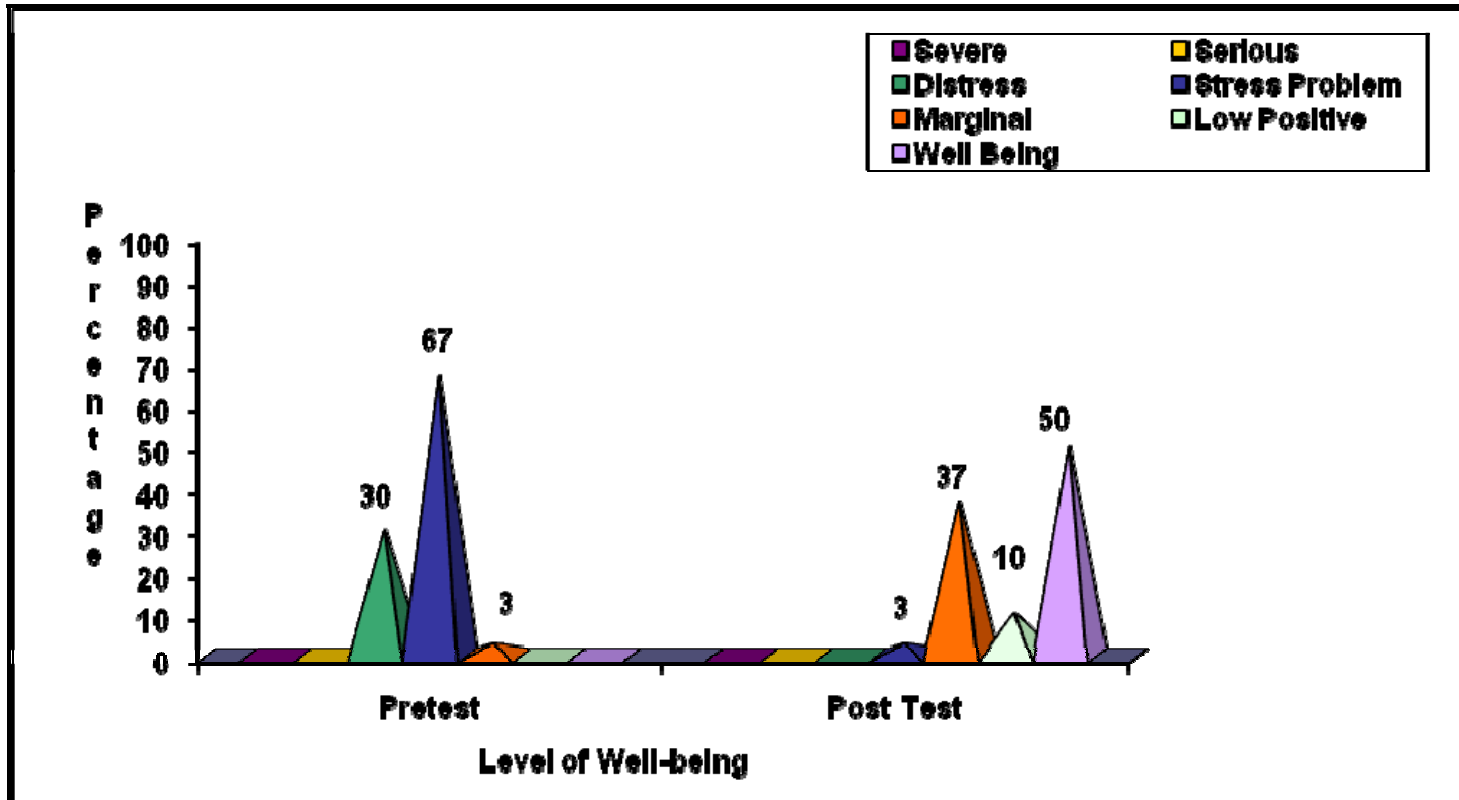


Fig.7: Percentage distribution of pretest and post test level of well-being among hypertensive women in the experimental group

Table-3: Frequency and percentage distribution of pretest and post test level of blood pressure of the hypertensive women in the experimental group. n = 30

Blood Pressure	Pretest		Post Test	
	No.	%	No.	%
120/80 - 130/85 mmHg	7	23.33	25	83.33
131/86 - 140/90 mmHg	11	36.67	5	16.67
140/91 - 150/95 mmHg	12	40.00	0	0
>150/95 mmHg	0	0.00	0	0

The table 3 depicts that in the pretest majority of the hypertensive women i.e., 12(40%) had blood pressure in the range of 140/91 – 150/95 mmHg and in the post test, majority of the hypertensive women i.e., 25(83.33%) had blood pressure in the range of 120/80 – 130/85 mmHg.

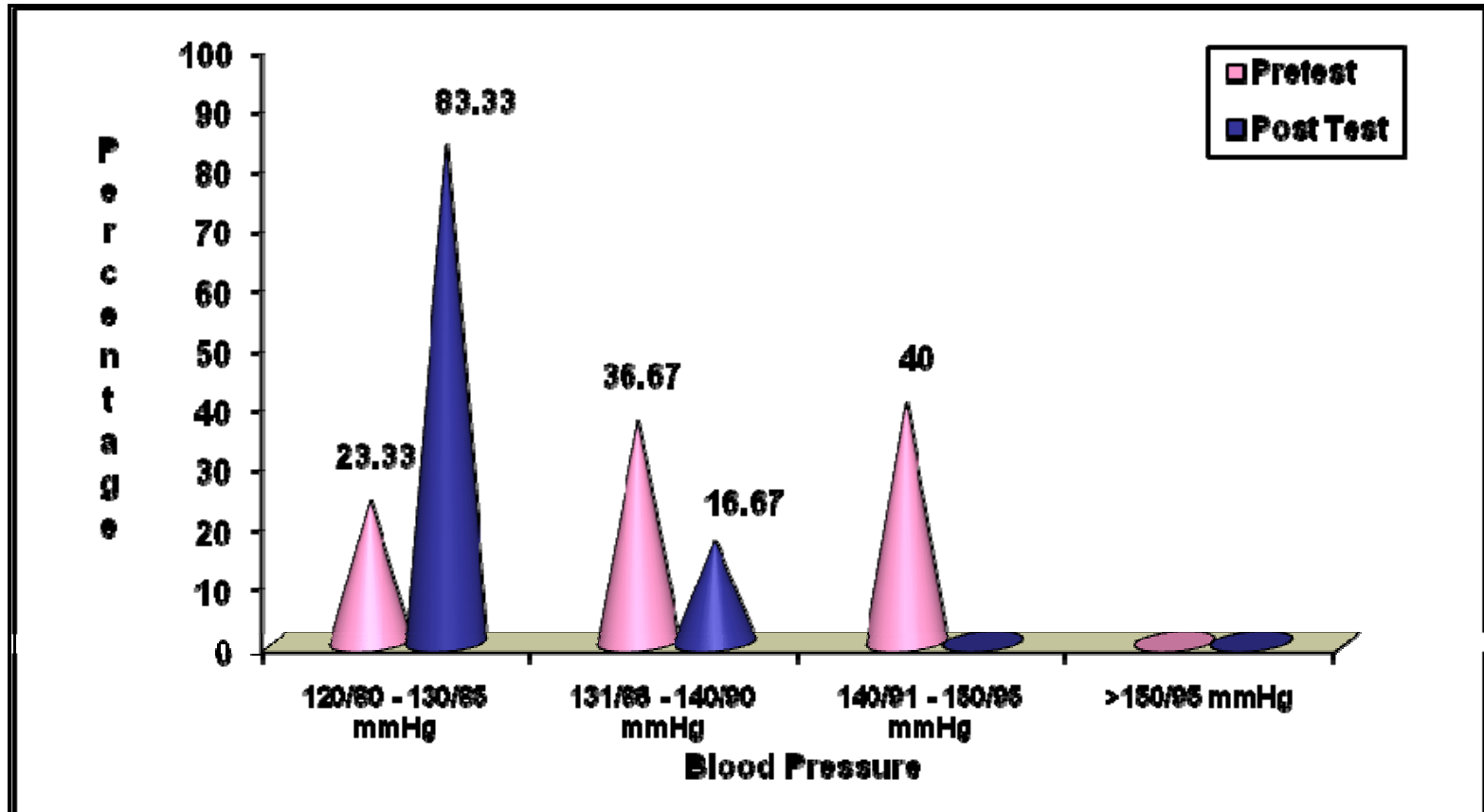


Fig.8: Percentage distribution of blood pressure of hypertensive women in the experimental group

Table-4 : Frequency and percentage distribution of pretest and post test level of well-being of the hypertensive women in the control group. n = 30

Well being Scale		Pre Test	%	Post Test	%
Severe distress	0-25	0	0%	0	0%
Serious distress	26-40	0	0%	0	0%
Distress	41-55	10	33%	6	20%
Stress	56-70	19	63%	17	57%
Marginal well being	41-75	1	3%	5	17%
Low Positive well being	76-80	0	0%	1	3%
Positive well Being	81-110	0	0%	1	3%

The table 4 shows that in the pretest, majority 19(63%) had stress problem followed by 10(33%) had distress. In the post test, majority 17(57%) were in well being status followed by 5(17%) were in the marginal level of well being.

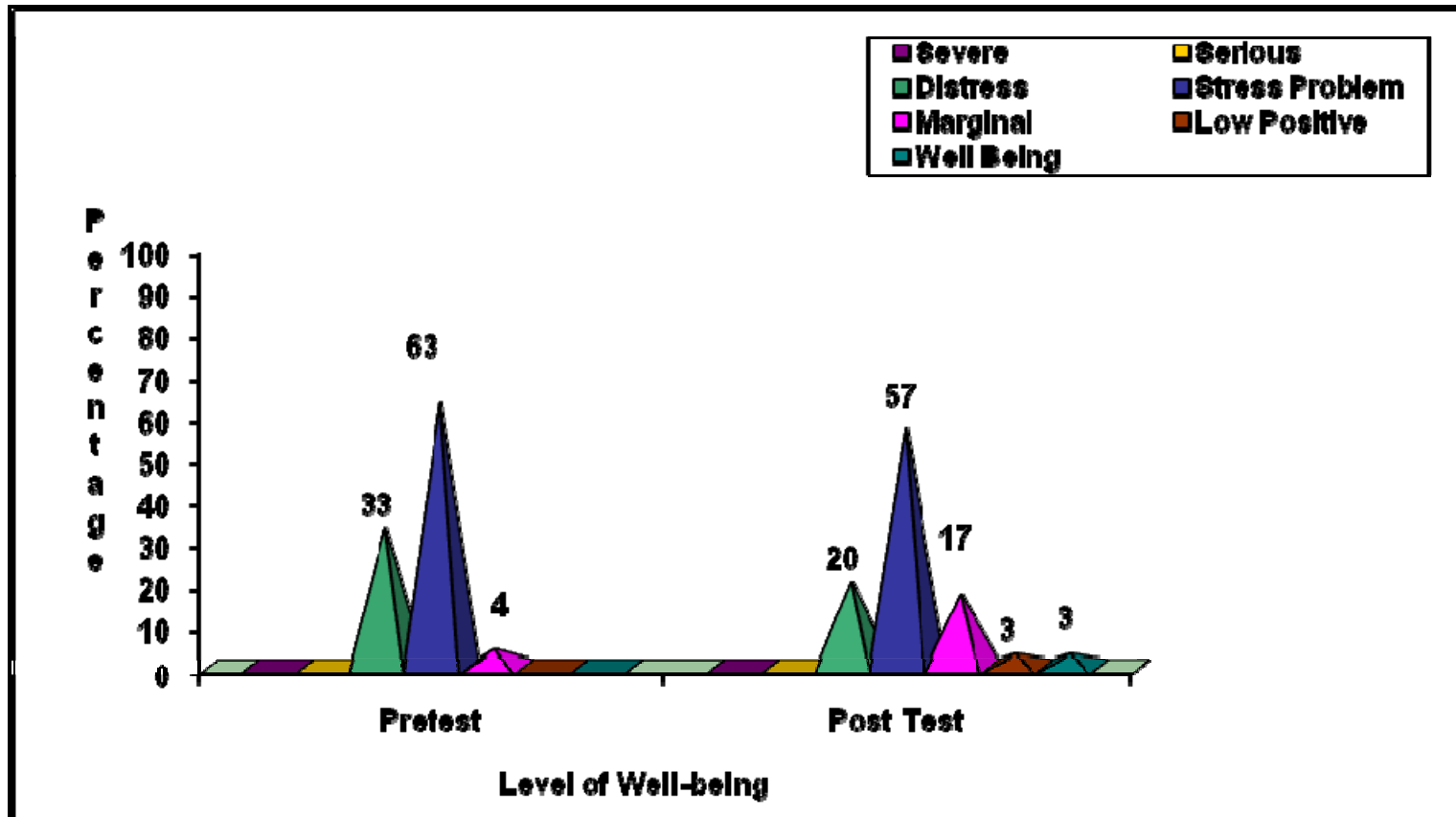


Fig.09: Percentage distribution of pretest and post test level of well – being among hypertensive women in the control group

Table-5: Frequency and percentage distribution of pretest and post test level of blood pressure of the hypertensive women in the control group. n = 30

Blood Pressure	Pretest		Post Test	
	No.	%	No.	%
120/80 - 130/85 mmHg	0	0.00	1	3.33
131/86 - 140/90 mmHg	18	60.00	21	70.0
140/91 - 150/95 mmHg	12	40.00	8	26.67
>150/95 mmHg	0	0.00	0	0

The table 5 depicts that in the pretest majority of the hypertensive women i.e., 18(60%) had blood pressure in the range of 131/86 – 140/90 mmHg and in the post test, majority of the hypertensive women i.e., 21(70%) had blood pressure in the range of 131/86 – 140/90 mmHg.

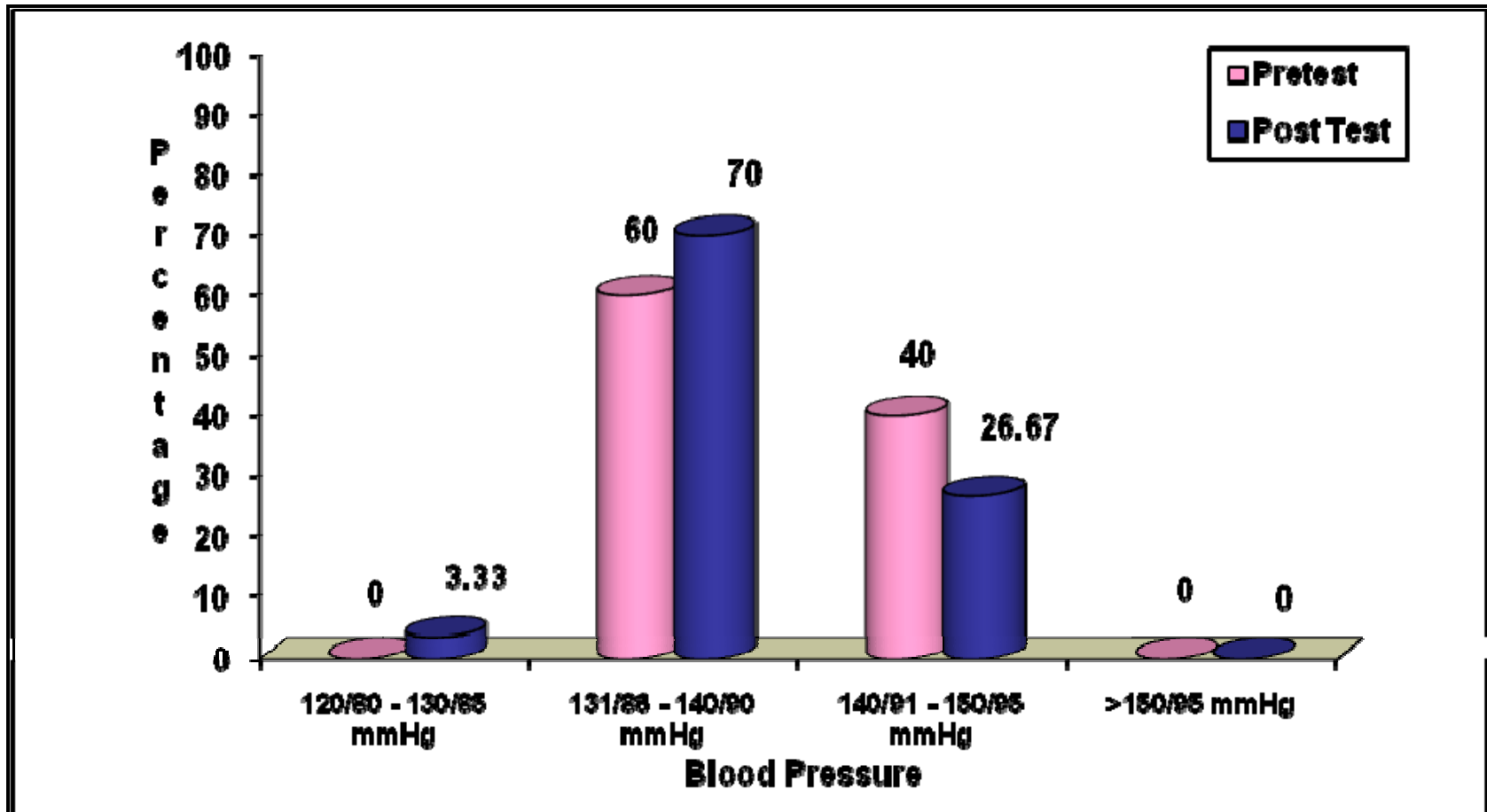


Fig.10. Percentage distribution of blood pressure of hypertensive women in the control group

SECTION C

Table-6: Determination of pretest and post test level of well-being in the experimental group. n = 30

Well-being	Mean	S.D	't' Value
Pretest	57.67	4.38	10.701***
Post test	78.40	10.48	p = 0.000, (S)

***p<0.001, S – Significant

The table 6 shows that in the experimental group, the pretest mean score of well being was 57.67 with S.D 4.38 and the post test mean score of well being was 78.40 with S.D 10.48. The calculated 't' value of 10.701 was statistically highly significant at p<0.001 level. This shows that there is a significant difference between the pretest and post test level of well being of hypertensive women. This indicates that the yoga therapy administered to the hypertensive women was effective in improving their level of well being in the post test.

Table-7: Determination of pretest and post test level of well-being in the control group n = 30

Well-being	Mean	S.D	't' Value
Pretest	59.63	5.68	-0.720
Post test	60.27	6.35	p = 0.477, (N.S)

N.S – Not Significant

The table 7 shows that in the control group, the pretest mean score of well being was 59.63 with S.D 5.68 and the post test mean score of well being was 60.27 with S.D 6.35. The calculated 't' value of -0.720 had not shown any statistical significance. This clearly shows that there is no significant difference between the pretest and post test level of well being of hypertensive women in the control group.

SECTION D

Table-8: Comparison of post test level of well-being of hypertensive women between the experimental and control group. N = (30 + 30)

Well-being	Mean	S.D	Unpaired 't' Value
Experimental Group	78.40	10.48	t = 7.440***
Control Group	60.27	6.35	p = 0.000, (S)

***p<0.001, S – Significant,

The table 8 shows that the post test mean score of well being was 78.40 with S.D 10.48 in the experimental group and in the control group the post test mean score of well being was 60.27 with S.D 6.35. The calculated 't' value of 7.440 was statistically highly significant at p<0.001 level. This shows that there is a significant difference in the post test level of well being of hypertensive women between the experimental and control group. This clearly indicates that the yoga therapy given to the hypertensive women was effective in increasing the level of well being in the experimental group.

SECTION E

**Table-9: Association of post test level of well-being of hypertensive women with their demographic variables in the experimental group.
n = 30**

S. No	Demographic Variables	Low (<50%)		Normal (50 – 75%)		Good (>75%)		Chi-Square Value
		No.	%	No.	%	No.	%	
1.	Age							$\chi^2 = 3.328$ d.f = 2 p = 0.189 N.S
	30 - 40 years	-	-	5	16.7	4	13.3	
	41 - 50 years	-	-	2	6.7	8	26.7	
	51 - 60 years	-	-	6	20.0	5	16.7	
	60 years	-	-	-	-	-	-	
2.	Educational Status							$\chi^2 = 1.115$ d.f = 2 p = 0.573 N.S
	Non literate	-	-	3	10.0	2	6.7	
	Primary	-	-	9	30.0	12	40.0	
	Secondary	-	-	1	3.3	3	10.0	
	Higher Secondary & Graduation	-	-	-	-	-	-	
	Occupational Status							$\chi^2 = 0.006$ d.f = 1 p = 0.936 N.S
	Working	-	-	4	13.3	5	16.7	
	Not working	-	-	9	30.0	12	40.0	
3.	Monthly Income							$\chi^2 = 1.105$ d.f = 3 p = 0.776 N.S
	Rs.2000 - 3000/-	-	-	6	20.0	6	20.0	
	Rs.3001 - 4000/-	-	-	6	20.0	8	26.7	
	Rs.4001 - 5000/-	-	-	0	0	1	3.3	
	Rs.5001 - 6000/-	-	-	1	3.3	2	6.7	
>Rs.6000/-	-	-	-	-	-	-		
4.	Food Habits							$\chi^2 = 1.353$ d.f = 1 p = 0.245 N.S
	Vegetarian	-	-	-	-	-	-	
	Non Vegetarian	-	-	1	3.3	0	0	
	Both	-	-	12	40.0	17	56.7	

S. No	Demographic Variables	Low (<50%)		Normal (50 – 75%)		Good (>75%)		Chi-Square Value
5.	Religion							$\chi^2 = 0.039$ d.f = 2 p = 0.981 N.S
	Hindu	-	-	3	10.0	4	13.3	
	Muslim	-	-	1	3.3	1	3.3	
	Christian	-	-	9	30.0	12	40.0	
	Others	-	-	-	-	-	-	
6.	Type of family							$\chi^2 = 0.136$ d.f = 1 p = 0.713 N.S
	Nuclear family	-	-	6	20.0	9	30.0	
	Joint family	-	-	7	23.3	8	26.7	
7.	Marital Status							$\chi^2 = 1.033$ d.f = 2 p = 0.597 N.S
	Married	-	-	10	33.3	11	36.7	
	Unmarried	-	-	0	0	1	3.3	
	Divorced	-	-	-	-	-	-	
	Widow	-	-	3	10.0	5	16.7	
8.	Family History of BP							$\chi^2 = 1.663$ d.f = 1 p = 0.197 N.S
	Yes	-	-	4	13.3	2	6.7	
	No	-	-	9	30.0	15	50.0	
9.	Already taken medication for BP							$\chi^2 = 0.475$ d.f = 1 p = 0.491 N.S
	Yes	-	-	7	23.3	7	23.3	
	No	-	-	6	20.0	10	33.3	
10.	Following food habits for BP							$\chi^2 = 0.023$ d.f = 1 p = 0.880 N.S
	Yes	-	-	8	26.7	10	33.3	
	No	-	-	5	16.7	7	23.3	
11.	How many are you taking treatment for BP?							$\chi^2 = 1.666$ d.f = 2 p = 0.435 N.S
	0 - 3 years	-	-	8	26.7	14	46.7	
	3 - 6 years	-	-	3	10.0	2	6.7	
	6 - 9 years	-	-	2	6.7	1	3.3	
	More than 9 years	-	-	-	-	-	-	

S. No	Demographic Variables	Low (<50%)		Normal (50 – 75%)		Good (>75%)		Chi-Square Value
12.	Height							$\chi^2 = 3.326$ d.f = 1 p = 0.068 N.S
	140 - 150 cm	-	-	2	6.7	8	26.7	
	151 - 160 cm	-	-	11	36.7	9	30.0	
	161 - 170 cm	-	-	-	-	-	-	
	>170 cm	-	-	-	-	-	-	
13.	Weight							$\chi^2 = 3.586$ d.f = 3 p = 0.310 N.S
	40 - 50 Kg	-	-	2	6.7	1	3.3	
	51 - 60 Kg	-	-	4	13.3	3	10.0	
	71 - 80 Kg	-	-	6	20.0	13	43.3	
	>80 Kg	-	-	1	3.3	0	0	
14.	Higher Blood Pressure							$\chi^2 = 0.034$ d.f = 2 p = 0.983 N.S
	120/80 - 130/85 mmHg	-	-	3	10.0	4	13.3	
	131/86 - 140/90 mmHg	-	-	5	16.7	6	20.0	
	140/91 - 150/95 mmHg	-	-	5	16.7	7	23.3	
	>150/95 mmHg	-	-	-	-	-	-	
15.	Waist Circumference							$\chi^2 = 0.230$ d.f = 2 p = 0.891 N.S
	80 - 85 cm	-	-	1	3.3	1	3.3	
	86 - 90 cm	-	-	5	16.7	8	26.7	
	96 - 100 cm	-	-	7	23.3	8	26.7	
	>100 cm	-	-	-	-	-	-	

N.S – Not Significant

The table 9 shows that none of the demographic variables had shown significant association with the post test level of well being of hypertensive women in the experimental group.

CHAPTER-V DISCUSSION

Chapter deals with the discussion of a study to determine the effectiveness of yoga therapy on the well being of hypertension women residing at dooming kuppam in Chennai -4 The finding of this study revealed that the effectiveness of yoga therapy on the wellbeing of hypertensive women.

DESCRIPTION OF THE POPULATION

The sample comprise of 60 Hypertension patients,30 in experimental group and 30 in control group with regard to the demographic variables of 60 hypertension patient in the experimental group and control group age, educational status, occupational status, monthly income, food habits, religion, type of family, marital status, family history of blood pressure, already taken medication for blood pressure, food habits, taking treatment for blood pressure, height, weight blood pressure, waist circumference. The Experiment aimed a study to determine the effectiveness of yoga therapy in reducing blood pressure amongst essential hypertensive residing women.

The ultimate goal is to reduce the blood pressure of hypertension in patients by giving the yoga therapy to the group of hypertensive women for the well being and to maintain optimum health

DISCUSSION BASED ON THE OBJECTIVE

The first objective was to assess the pretest and post test level of well being among the experimental and control group of women

The first objective to assess the pretest level of well being among the experimental and control group Table 2 shows that in pretest majority 20(67%) had stress problem followed by 9(30%) had distress, and 1(3%) marginal in the experimental group. Table 3 reveals that in pretest in experimental group majority of the hypertensive women 12(40%) had blood pressure in the range of 140/91 – 150/95 mmHg. Table 4 depicts that in control group pretest values show majority had 19 (63%) problem followed by stress. Table 5 depicts that majority of the hypertensive women 18(60%) had blood pressure in the range of 131/86 – 140/90 mmHg in the control group. To assess the post test level of well being among the experimental and control group on the group of hypertensive women after structured yoga therapy exercise when compared to the pretest, the overall aspects of knowledge of patient. Table 2 in post test shares that 15(50) % were in well being state and 11(37%) were in well being state were in marginal level of well being in experimental group. Table 3 shows that post test in experimental group the blood pressure range was majority of the Hypertension women 25(83.33%) had blood pressure in range of 120/80 – 130/85 mmHg. Table 4 shows that in post test control group majority had 17(57%) followed by stress problem and 6(20%) were in distress problem in control group. Table 5 depicts that in post test control group the blood pressure range was majority of the hypertension women 21(70%) had blood pressure in range of 131/86 to 140/90mmHg 21(70%).

Tiffany field (2010) Yoga clinical research review In this paper recent research is reviewed on the effect of yoga poses on psychological effect of yoga including decreased heart rate and blood pressure and the physical effects including weight loss and increased muscle strength are reviewed .Yoga has been effective with patient who have mild to moderate hypertension In this study yoga was practiced daily for 1hr for three month. By the end of the study, the participants had decreased blood pressure and improved subjective well being and quality of life. In another group who were at risk for cardiovascular disease, resting systolic and diastolic blood pressure decreased after 20 weeks of yoga.

The second objective was to assess the effectiveness of yoga on level of well being among experimental group

The table 6 shows that in the experimental group, the pretest mean score of well being was 57.67 with S.D 4.38 and the post test mean score of well being was 78.40 with S.D 10.48. The calculated 't' value of 10.701 was statistically highly significant at $p < 0.001$ level. This shows that there is a significant difference between the pretest and post test level of well being of hypertensive women. This indicates that the yoga therapy administered to the hypertensive women was effective in improving their level of well being in the post test, there by **hypothesis** is accepted With respect to overall aspects of knowledge on prevention of hypertension 90 % had poor knowledge on optimum health care. Hypertension is one of the important measure for heart patients, because once blood pressure increases, the chances of heart attack is high among the patients and so the healing process will not take place soon.

The group of hypertensive women after structured Yoga therapy exercises. When compared to the pretest, the overall aspects of knowledge of patients was significantly improved in post-test especially tremendous improvement was found on the knowledge to related hypertension (definition, cause, signs & symptoms), dietary management, exercise program, maintenance of health and blood pressure.

The third objective was to associate between the level of selected demographic variable and the well being of the hypertensive women.

The third objective was to associate between the level of selected demographic variable and the well being of the hypertensive women on prevention of hypertension with intervention programme on yoga therapy exercise. The table 9 shows that none of the demographic variables had shown significant association with the post test level of well being of hypertensive women in the experimental group. There is association between the selected demographic variables like age, sex, dietary, educational status, occupational status, monthly income, food habits, religion, type of family, marital status, family history of blood pressure, height, weight, waist circumference.

CHAPTER-VI

SUMMARY, FINDING, RECOMMENDATION AND IMPLICATION

SUMMARY

The aim of the study to determine the effectiveness of Yoga therapy on the well being of women . A sample of 90 patients using a simple random sampling technique was selected. The study design was quasi experimental. The pilot sample on 6 sample was conducted for 7 day and the main study was carried out within the given period.

MAJOR FINDING OF THE STUDY

The table 1 showed that majority 11(36.67%) were in the age group of 51 – 60 years in the experimental group and in the control group, majority 12(40%) were in the age group of 30 – 40 years and 41 – 50 years respectively. Considering the occupational status of the hypertensive women, majority 21(70%) were working in the experimental group, whereas in the control group, majority 20(66.67%) were working. On considering the marital status of the hypertensive women in the experimental group, majority 21(70%) were married whereas in the control group, majority 25(83.33%) were married. An analyzing the high blood pressure range, majority 12(40%) were in the range of 131/86 – 150/95 mmHg in the experimental group and in the control group, majority 18(60%) were in the range of 131/86 – 140/90 mmHg. The table 2 showed that in the pretest, majority 20(67%) had stress problem followed by 9(30%) had distress. In the post test, majority 15(50%) were in well being status followed by 11(37%) were in the marginal level of well being.

The table 3 depicts that in the pretest majority of the hypertensive women i.e., 12(40%) had blood pressure in the range of 140/91 – 150/95 mmHg and in the post test, majority of the hypertensive women i.e., 25(83.33%) had blood pressure in the range of 120/80 – 130/85 mmHg.

The table 4 showed that in the pretest, majority 19(63%) had stress problem followed by 10(33%) had distress. In the post test, majority 17(57%) were in well being status followed by 5(17%) were in the marginal level of well being. The table 7 showed that in the control group, the pretest mean score of well being was 59.63 with S.D 5.68 and the post test mean score of well being was 60.27 with S.D 6.35. The calculated 't' value of -0.720 had not shown any statistical significance. This clearly shows that there is no significant difference between the pretest and post test level of well being of hypertensive women in the control group.

The table 8 showed that the post test mean score of well being was 78.40 with S.D 10.48 in the experimental group and in the control group the post test mean score of well being was 60.27 with S.D 6.35. The calculated 't' value of 7.440 was statistically highly significant at $p < 0.001$ level. This shows that there is a significant difference in the post test level of well being of hypertensive women between the experimental and control group. This clearly indicates that the yoga therapy given to the hypertensive women was effective in increasing the level of well being in the experimental group.

The table 9 showed that none of the demographic variables had shown significant association with the post test level of well being of hypertensive women in the experimental group. The table 1 shows that majority

11(36.67%) were in the age group of 51 – 60 years in the experimental group and in the control group, majority 12(40%) were in the age group of 30 – 40 years and 41 – 50 years respectively.

CONCLUSION

The above results make it obvious that yoga, yoga therapy benefited hypertensive residing women to a great extent and also improve their quality of life .We have to turn our steps in the direction of a spiritual life, if we want to live a long healthy and happy life on this earth. The quality of life matters more than the length of life, in the final analysis.

Every individual understands that his health in his hands. The health personnel at hospitals and at the community level should take part in education Yoga therapy patients in the prevention of foot ulcer, especially, the rural people with low socio – economic condition and illiteracy need more care, to prevent complications.

The investigator identified that there was poor knowledge of well being in the prevention of hypertension before Yoga therapy program. After the Yoga therapy program the investigator found that there was an increase in the knowledge of well being . It was confirmed by paired ‘t’ test .

Globally hypertension is a vast major health issue. In order to increase the life span of hypertensive patients, they themselves should take part in the line of management. Every individual understands that this health is in his/her hands. The health personnel at hospitals and at the community level should take part in educating hypertension prevention especially on the rural people

with low socio-economic group and illiteracy need more care to prevent complications.

IMPLICATIONS

The findings of the study have practical application in the field of nursing .The implication of the study could be discussed in four areas namely nursing practice, nursing administration, nursing education and nursing research

IMPLICATION FOR NURSING PRACTICE

1. The finding of the study will help the community health nurse in the following ways.
2. Early identification of the risk factors and prevention of hypertension in residing women.
3. Encouraging the proper diet and exercise program and to improve their functional ability
4. Health education program can be conducted regarding physical changes in residing women with hypertension in the community.

IMPLICATION FOR NURSING ADMINISTRATION

1. It helps to provide critical thinking regarding hypertension and management.
2. These findings help the administration to arrange the mass media health education program for community health nurse regarding complimentary therapies on the management of hypertension.

3. It can motivate the administration to conduct awareness program about hypertension and management.

IMPLICATION FOR NURSING EDUCATION

1. This study helps the nursing students to acquire knowledge regarding assessment of residing women functional ability and helps them in performing.
2. This study enhance the student to think comprehensively in planning the intervension in preventing complication of hypertension.
3. This study helps the nurse educator to plan classes to teach the student about importanous of early screening of hypertension residing women in community.
4. In the curriculum the comprehension treatment for education of hypertension can be included.

IMPLICATION FOR NURSING RESEARCH

This study motivates for further studies related to this community field.

1. This study paves way for further study on other therapies to improve functional ability in women with hypertension. This study will help the researches to functional formulate new methods to prevent complication in hypertension. .

RECOMMENDATION

1. The following recommendations were made by the research after the study-
2. A similar study can be conducted on a large scale to generalize the study finding.
3. A similar study can be conducted to find out the effectiveness of comprehensive therapies like acupuncture and acupressure in management of hypertension
4. Yoga therapy can also be taught to the student.

BIBLIOGRAPHY

BOOKS

- 1) Basavanthappa B.T (2007). **Nursing theories.** (1st edition). New Delhi: Jaypee brothers Medical (P) Ltd New Delhi, pg. no 205-224.
- 2) Brunner and Suddarth's (2008). **Text Book of Medical Surgical Nursing.** (11th Edition). New Delhi: Wolter Kluwar Pvt Ltd.
- 3) Park. K (2009).**Text Book of Preventive and social Medicine.**(20th edition). India: Bannarsida Bhanot.
- 4) Luckman and sorensens (2000).**Medical and Surgical Nursing.** Philadelphia: W.B Saunders Company.
- 5) Dutta Ray. S (1998). **Yogic Exercise Physiologic and Psychic Processes** (First Edition). New Delhi: Jaypee Brothers.
- 6) Swami Sathanand Saraswathi (2005). **Asana Pranayama Mudra Bandha.** India: Yoga Publication trust Bihar
- 7) Potter. Perry (2010), **Fundamental of Nursing** (7th Edition). Missouri: Mosby pg. No. 774-777
- 8) Polit DF, Hungler BF. (1999) **Nursing research Principles and methods** (6th edition) Philadelphia: J.B Lippincott Company.
- 9) Allender Ann Judith et.al (2005) **Community health Nursing** (6th edition) Philadelphia: Lippincot Williams Company.

JOURNAL REFERENCE:

- 10) **Anand. MP** (1997). Non- pharmacological management of essential hypertension. – Journal Indian medical association 97(6):220-5.
- 11) **Arya SN (2000)**. Hypertension in the elderly. Journal of Indian medical association 98(4):176-9.
- 12) **Anne B Simons MD (2005)** Yoga for hypertension a successful group intervention for low income. Multi cultural hypertensive patients at a large urban public health clinic.
- 13) **Andrew weil** (2000) Healing oriented medicines.
- 14) **Astin (2000)** People seeking alternative medicine are not necessarily dissatisfied with conventional medicine
- 15) **Bera TK. Gore MM. Oak J P 1998**. Recovery from stress in two different postures and in shavasana. Indian journal of physiology pharmacology 42(4):473-8.
- 16) **Cathy wong** (2005)
- 17) **Chhabra MK et. al., (2001)**. life style modification in hypertension. Journal of Indian medical association 99(9):504-8
- 18) **Damodaran A et. al., (2002)** Yoga practices in modifying cardiovascular risk profile in middle aged men and women.

- 19) **Duesk. JA et.al., (2008).** Effect of stress management versus lifestyle modification on systolic hypertension and meditation elimination a randomized trial.
- 20) **Gupta R (2003)** Three serial epidemiological studies Jaipur:
- 21) **Kuei Min chen et. al.,(2007).** Silver yoga exercises improved physical fitness of transitional frail elder Journal of nursing research Sep/Oct 2010 Vol 59 No.5 pg.364-370
- 22) **Labarthe D, Ayala C (2002)** .Nondrug interventions in hypertension prevention and control Cardio clinical 20(2): 249-63
- 23) **Madanmohan et. al., (2005).** Effect of slow and fast pranayamas on reaction time and cardio- respiratory variable we planned to undertake a comparative study. Indian journal of physiology pharmacology 49(3):313-8
- 24) **Maccaffrey et. al., (2005)** The effects of yoga on hypertensive persons Holist Nursing Journal of 99(4):173-180.
- 25) **RaoNanduri, Venkata Reddy.** Blood pressure benefits of yoga
- 26) **Siva Sankaran et. al., (2006).**The benefits of yoga
- 27) **Silverberg DS (1990)** Non-pharmacological treatment of hypertension. Journal of hypertension supplementary 8(4):S21-6
- 28) **Smith, et. al., (2007).** Yoga reduces stress and anxiety.

- 29) **Telles S, Reddy SK, Nagendra HR (2000)** Oxygen consumption and respiration following two yoga relaxation techniques - Application psychophysiology biofeedback 25(4):221-7
- 30) **Thirunarayananasamy, Jayabharathi (2010)** Effects of pranayama, Journal of health action. October 2010. pg. no 35-36.
- 31) **Yang.** Effect of yoga on hypertension Oct 2008.
- 32) Field T,(2010) Yoga clinical research review, Complementary therapies in clinical practice xxx 1-8.

NET REFERENCE

- 1) [http://www.Pub.med.com/yoga for hypertension](http://www.Pub.med.com/yoga%20for%20hypertension)
- 2) [http://www.Statistical.com/hypertension/html.](http://www.Statistical.com/hypertension/html)
- 3) [http://www.yoga/research studies.com/html](http://www.yoga/research%20studies.com/html)
- 4) [http://www.who estimates 2025/html.](http://www.who.estimates%202025/html)
- 5) [http://www.yahoo.com/yoga reduces hypertension.](http://www.yahoo.com/yoga%20reduces%20hypertension)
- 6) [http://www.health line /yoga /technique /html.](http://www.healthline.com/yoga/technique/html)
- 7) [http://www.yogapoint.come/therapy/hypertension yoga.htm](http://www.yogapoint.com/therapy/hypertension%20yoga.htm)
- 8) [http://www.personal md.com/news/yoga.](http://www.personal.md.com/news/yoga)
- 9) [http://www..medlin.com/ yoga reduces hypertension.](http://www.medlin.com/yoga%20reduces%20hypertension)

**EFFECTIVENESS OF YOGA THERAPY ON THE
WELL BEING OF HYPERTENSIVE WOMEN
RESIDING AT DOOMING KUPPAM IN
CHENNAI – 600 004.**

By
Vanisree.G



Dissertation Submitted to

**THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY,
CHENNAI.**

*In the partial fulfillment of the
requirement for the award of the degree of*

**MASTER OF SCIENCE IN NURSING
COMMUNITY HEALTH NURSING**

APRIL – 2012

**QUASI EXPERIMENTAL STUDY ON
EFFECTIVENESS OF YOGA THERAPY ON THE
WELL BEING OF HYPERTENSIVE WOMEN
RESIDING AT DOOMING KUPPAM IN
CHENNAI – 600 004.**

Certified that this is the bonafied work of

Vanisree.G

Mohamed Sathak A.J College of Nursing, Chennai-01.

Signature

Prof.Mrs.R.RAMA SAMBASIVAN, M.SC.(N).,Ph.D.,
Principal,
Mohamed Sathak A.J.College of Nursing,
No.180,Thambu chetty street,parrys,
Chennai –600 001,Tamil Nadu.

College seal:

Dissertation Submitted to

**THE TAMIL NADU DR.M.G.R.MEDICAL UNIVERSITY,
CHENNAI**

In the partial fulfillment of requirement for the award of degree of

**MASTER OF SCIENCE IN COMMUNITY HEALTH
NURSING**

APRIL- 2012

**EFFECTIVENESS OF YOGA THERAPY ON THE
WELL BEING OF HYPERTENSIVE WOMEN
RESIDING AT DOOMING KUPPAM IN
CHENNAI – 600 004.**

Title approved by the dissertation committee on 10.01.2012

Professor in Nursing Research
Mrs.Prof.RAMASAMBASIVAN, M .Sc (N), Ph.D.
Principal,
M.S.A.J College of Nursing
Thambu Chetty Street, Parrys
Chennai - 1

Professor in Clinical Specialty
Mrs.ANNIE ELIZABETH M. Sc (N)
Department of Community Health Nursing
M.S.A.J College of Nursing
Thambu Chetty Street, Parrys
Chennai – 1

Medical Expert
Dr. Mrs. SAVITHRI
M.B.B.S., DPH.,MBA(HEALTH CARE HOSPITAL MANAGEMENT),
Medical Officer,
Sanjeeverayanpet health post,
Chennai-600 021,Tamil Nadu.

A dissertation Submitted to

**THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY,
CHENNAI**

*In the partial fulfillment of the requirement
for the award of the degree of*

**MASTER OF SCIENCE IN COMMUNITY HEALTH
NURSING.**

APRIL 2012.

ACKNOWLEDGEMENT

This dissertation work was conducted with the assistance and guidance of many outstanding professional experts. The investigator is indebted to her research advisors for their assistance in various way.

I would like to extend my sincere thanks to **Mrs.Prof.R.Rama Sambasivan**, M.Sc.(N), Ph.D Principal, Mohamed Sathak A.J College of Nursing for her valuable guidance and essential suggestions throughout the course of this study.

I extend my heart felt thanks to **Prof.Mrs.I.Safreena**, M.Sc.(N), Vice Principal, Mohamed Sathak A.J College of nursing for the expert guidance and valuable suggestion to carry out dissertation work successfully.

I wish to express my sincere gratitude to **Mrs.Annie Elizabeth**, M.Sc. (N) Professor in Community Health Nursing, Mohamed Sathak A.J College of Nursing, Chennai for the valuable suggestion and motivation to carry out the dissertation and complete it on time.

I extend my thanks to express **Mrs.S.Mahalakshmi**, M.Sc.(N) M.Sc, M.Phil, Ph.D Reader, Department of Community Health Nursing Mohamed Sathak A.J College of Nursing Chennai, for the co operation and help to complete the study fruitfully.

I am obliged to experts for **Dr.S.Kanchana,M.Sc(N)**, Ph. D(N)., Principal, Omayal Aachi College of Nursing, Avadi, Chennai – 62. Validated

the content of the tool and thankful for their valuable suggestions to improve the quality of the tool.

I express my sincere thanks to Prof **Mrs.D.Celina,M.Sc(N).**, Vice Principal, Omayal Aachi College of Nursing, Chennai – 62 has validated the tool by providing necessary suggestion.

I express my gratitude to **Mr.Venkatraman**, for the efficient guidance given towards statistical analysis of the data which is the core of the study.

A special thanks to **Panchayet Head S.Arogyaswamy** of Dooming kuppam, for granting permission to conduct the study.

My sincere thanks to **Mr.Senthil** M.A Ph. D, Professor in Tamil correction in, Madras University Chennai.

My special thanks to Mrs. **R.K.Esther**, M.A M. Ed., Principal in English correction in, YMCA College Matric school Nandanam Chennai. 35.

I extend my thanks to Librarian and Computer lab in-charges of Mohamed Sathak A.J College of Nursing Chennai for the help in using library and computer labs

I extend my sincere thanks to all the faculty of Mohamed Sathak A.J College of Nursing. Chennai.

We express our heart felt thanks to all the mother and family of Doomingkuppam who extended their kind co-operation which facilitated us to complete the study successfully.

My sincere gratitude to my husband **Mr.M.Yoganarayanan**, Mother, Sisters, Brothers and husband for their moral support and encouragement throughout this study.

I extend my thanks to my friends for all their guidance and support in completing the study.

Above all I thank the OMNIPOTENT GOD for sustaining me in the completion of the study.

TABLE OF CONTENT

CHAPTER NO	CONTENT	Page. No
I.	INTRODUCTION	1
	Back ground of the study	1
	Need for the study	5
	Statement of the problem	8
	Objectives of the study	8
	Operational definitions	8
	Hypothesis	10
	Assumptions	10
	Limitations	10
	Projected outcome	10
	Conceptual frame work	12
II	REVIEW OF LITERATURE	
	Review of related literature	15
III	RESEARCH METHODOLOGY	24
	Research approach	24
	Research design	24
	Setting	25
	Population	25
	Sample	25
	Sampling Techniques	25
	Criteria for the selection of the sample	25
	Description of the tool and Score interpretation	26
	Pilot study	28
	Data collection procedure	30
	Plan for data Analysis	31

CHAPTER NO	CONTENT	Page. No
IV	DATA ANALYSIS AND INTERPRETATION OF FINDINGS	33
V	DISCUSSION	57
VI	SUMMARY, IMPLICATION AND RECOMMENDATION	61
VII	REFERENCES	

LIST OF TABLES

TABLE	TITLE	Pg. No
1.	Frequency and percentage distribution of demographic variables of hypertensive women in the experimental and control group.	34
2.	Frequency and percentage distribution of pretest and post test level of well-being in the experimental group.	43
3.	Frequency and percentage distribution of pretest and post test level of blood pressure of the hypertensive women in the experimental group.	45
4.	Frequency and percentage distribution of pretest and post test level of well-being of the hypertensive women in the control group.	47
5.	Frequency and percentage distribution of pretest and post test level of blood pressure of the hypertensive women in the control group.	49
6.	Determine of the pretest and post test level of well-being in the experimental group.	51
7.	Comparison of pretest and post test level of well-being in the control group.	52
8.	Comparison of post test level of well-being of hypertensive women between the experimental and control group.	53
9.	Association of post test level of well-being of hypertensive women with their demographic variables in the experimental group.	54

LIST OF FIGURES

FIGURES	TITLE	Page.No
1.	Theoretical frame work based on General system theory of Ludwing Von Bertalanffy Model (1968)	14
2.	Schematic representation of research design	32
3.	Distribution of age of the hypertension women in the experimental and control group	39
4.	Distribution of occupational status of the hypertensive women in the experimental and control group	40
5.	Distribution of religion of the hypertensive women in the experimental and control group	41
6.	Distribution of marital status of the hypertensive women in the experimental and control group	42
7.	Percentage distribution of pretest and post test level of well being among hypertensive women in the experimental group	44
8.	Percentage distribution of pretest and posttest level of blood pressure of hypertensive women in the experimental group	46
9.	Percentage distribution of pretest and post test level of well being among hypertensive women in the Control group	48
10.	Percentage distribution of pretest and posttest level of blood pressure of hypertensive women in the Control group	50

APPENDICES

S.NO	APPENDICES	Appendix No
1.	Structured Questionnaire tool: Tamil English	I
2.	Intervention schedule	II
3.	Handout: a. Tamil b. English	III
4.	Content Validity Certificate	IV
5.	Permission letter from the community	V

ABSTRACT

INTRODUCTION:

Hypertension is a major Chronic life style disease and an important public health problem. Recent report indicates that approximately 1 billion people world wide have high blood pressure and this number is expected to increase to 1.56 billion people by the year 2025. Well being is a concept that combines individual's health, quality of life and their satisfaction. The well ness education teaches health way and include topics as physical awareness yoga therapy is a low cost, non pharmacological yoga therapy is very simple of the physical exercise. It is emphasized in the home setup with the daily activities to decrease the blood pressure and to avoid blood pressure related complication.

AIMS:

- a. To assess the pretest and post test level of well being among the experimental and control group of women.
- b. To determine the effectiveness of yoga therapy on level of well being among experimental group
- c. To associate between the well being of the hypertensive women.

METHODOLOGY:

A quasi experimental study was conducted to determine the effectiveness of yoga therapy on the well being of hypertensive women residing of dooming kuppam in Chennai – 4. Sample were selected by non probability convenient sampling as per the inclusive criteria. The data was

collected using a structured questionnaire by the investigator and analysed using mean, standard deviation, Independent t test and chi-square.

RESULT:

In the (T=60) experimental group (N= 30), the pretest mean score of well being was 57.67 with standard deviation 4.38 and the post test mean score of well being was 78.40 with standard deviation. 10.48. The calculated t value of 10.701 was statistically highly significant at $P < 0.001$ level. The control group (N=30) pretest mean score of well being was 59.63 with standard deviation. 5.68 and the post test mean score of well being was 60.27 with standard deviation 6.35 the 't' value of 0.720 had not shown non statistical significance.

CONCLUSION:

Thus the study concludes that there is significant in the level of well being in the experimental group than the control group.

nahfh cl%ogÆ%áÆ<nghJ nk%obfhÿsnt©oa ÉâKiwfÿ

- 1) vÿbghGJ« czÉ%F K<ò nahf gÆ%á brÆâlš nt©L«
- 2) eh« czÉš Fiw^aj msî r®;fiu, cÿò, vLœjš mtáa« nkY«
ÄF^aj btÿgkhd czîfÿ, ÄF^aj FË®çáahd czîfis jÉ®œjš
mtáa«
- 3) czÉ%F K<ò gHšfÿ rhÿãLjš ey«
- 4) e« clÈš r®;fiu, iuœj mGœj« iUÿgt®fÿ kUœJtÇ<
Mnyhridÿgo rÇahd cl%ogÆ%çáia nj^abjLœjš mtáa«
- 5) cl%ogÆ%çáÆ< nghJ Äfi« js^aj Milfÿ clÈš mÂjš
mtáa«
- 6) bjhl®çáahd cl%ogÆ%á clY;F Mnuh;»a« jU«
- 7) nahfh cl%ogÆ%áÆid NÇa cjaœâ%F K<ò brÆejš nt©L«
- 8) czî c©gj%F K<ò nahfh cl%ogÆ%áÆid brÆejš ey«
- 9) nahfh cl%ogÆ%áÆš cÿnsh® rœJ Äiw^aj gHšfÿ,
fhÆf;fÿ, âut czîfÿ cłbfhÿSjš nt©L«.

Clr W/P.No: 1-13,15-31,33-38,43,45,47,49,51-66