

**EFFECTIVENESS OF SHAVASANA ON BLOOD PRESSURE
AMONG HYPERTENSIVE CLIENTS AT SELECTED
COMMUNITY, SALEM.**

By

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**A DISSERTATION SUBMITTED TO
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ABSTRACT

A Study Was Conducted To Assess The Effectiveness Of Shavasana On Blood Pressure Among Hypertensive Clients At Selected Community, Salem.

A Quasi experimental pre and post-test research design was adopted. 60 samples were selected by convenience sampling technique. 30 samples from Poolavari and Veerapandi community were assigned to experimental group and 30 samples from Karipatti community were assigned to the control group. The general information was collected and the samples were categorized according to the JNC-VII classification based on their blood pressure readings. After the pre-test, shavasana was demonstrated to the 30 samples in the experimental group using video assisted programme. Post test was done after 21 days. During pre test, in experimental group, 19 (63.3%) of them belonged to stage I hypertension, 11 (36.7%) belonged to stage II hypertension. In the control group 23(76.7%) belonged to stage I hypertension and 7(23.3%) belonged to stage II hypertension. During post test, in experimental group 16 (53.3%) of them belonged to stage I hypertension, 4(13.4%) belonged to stage II hypertension, 10(33.3%) belonged to prehypertension. In the control group 15(50%) belonged to stage I hypertension, 10(23.3%) belonged to stage II hypertension and 5(16.7%) belonged to prehypertension. In control group, the pre test mean score on blood pressure was 2.23 ± 0.43 and the post test mean score was 2.17 ± 0.7 , with a difference of 0.06. In experimental group, the pre test mean score on blood pressure was 2.37 ± 0.49 , and the post test mean score was 1.80 ± 0.66 , with a difference of 0.57, which shows that shavasana was effective in reducing blood pressure. The 't' value of 4.92 shows that shavasana was effective in reducing blood pressure at $p < 0.05$ level. The chi square test revealed that Hypothesis H₂ was rejected for both experimental and control group except for the variables like age ($\chi^2=6.316$), duration of hypertension ($\chi^2=11.54$), and classification of drugs ($\chi^2=7.50$) in experimental group at $p > 0.05$ level. Therefore shavasana is a very safe and easy method for reducing blood pressure.

CHAPTER I

INTRODUCTION

In this new mechanized and competitive era, man is passing through a very busy life and has got little time for physical and mental relaxation. The mental worries in association with sedentary habits have contributed to a lowering of vitality and causation of many diseases including hypertension. Hypertension has become a major cause of morbidity and mortality world wide and it is now ranked third as a cause of disability adjusted life years. It is called a ‘silent killer’ because people who have it are often symptom free. **(Haggon and Kitchen, 2003)**

Public health efforts to reduce the prevalence of hypertension have rightly focused on non pharmacological approaches like diet control, exercises, yoga etc that lower blood pressure. Recent research states that a 2% reduction in diastolic blood pressure could prevent 300,000 deaths by 2020. **(WHO, 2003)**

The old Indian traditional therapy of yoga has again rejuvenated the interest of the physician in the management of hypertension after the widespread campaign by Baba Ramdev. If we believed in the principle of old is gold, yoga is most effective and widely believed to reduce blood pressure. Yoga, a practice of controlling the mind and body is an ancient art that began in India over thousands of years ago, because it involves breath control, meditation and physical postures, it is supposed to increase the vitality of the human body, help with concentration, calm the mind, and improve common physical ailments. **(Lamb, 2004)**

Yoga is capable of eradicating stress by stilling the turbulent mind and by having control over the physical, mental, emotional and spiritual energies. By removing stress one can remove the causative factors that lead to hypertension.

Shavasana is an excellent yogic practice which is based on these two aspects of human existence, relaxation and awareness. **(Paul. B, 2007)**

Need for the Study

Hypertension is a worldwide epidemic with an estimated 690 million people having high blood pressure. The prevalence of high blood pressure among citizens of the United States and Canada is 20.4% and 22% respectively. According to recent estimates, nearly one in three United States adults has high blood pressure. **(Lewis, 2006)**

According to World Health Organization expert committees' estimates by the year 2025, India will have the highest number of heart disease, diabetes and the highest blood pressure in the world. Every hour approximately 90 Indians are dying due to heart diseases. Every day 2500 new cases of hypertension are detected in India. According to the recent review on the global burden of hypertension, the estimated prevalence of hypertension in India, 2000 was 20.6% among males and 20.9% among females and is projected to increase to 22.9% and 22.6% respectively by 2025. Pooling of epidemiological studies shows that hypertension is present in 25% urban and 10% rural subjects in India. At an underestimate, there are 31.5 million hypertensive's in the rural and 34 million in the urban population. **(Mridul, Indal, 2009)**

A study was conducted to assess the effectiveness of sukha pranayama on heart rate and blood pressure among hypertensive clients residing at Pondicherry. 23 hypertensive patients were instructed to do sukha pranayama for five minutes at the rate of six breaths per minute. Heart rate and blood pressure were recorded before and immediately after the intervention. Rate pressure product and double product were derived by formula. Sukha pranayama produced a significant reduction in heart rate from 79.5 ± 3.09 to 78 ± 3.24 beats per minute and highly significant reduction in

systolic pressure from 132.5 ± 5.45 to 123 ± 3.83 mm Hg. Pulse pressure decreased from 61.5 ± 3.39 to 52.5 ± 2.21 mm Hg, mean arterial pressure from 91.5 ± 3.19 to 88 ± 2.35 mm Hg. They concluded that sukha pranayama at the rate of 6 breaths per minute can reduce heart rate and blood pressure in hypertensive patients' within five minutes of the practice. The researcher even suggested other yogas for reducing blood pressure. **(Jayasettiaseelon , 2010)**

A study was conducted to assess the effectiveness of yoga and biofeedback on blood pressure. 20 patients with high blood pressure were selected and the intervention period was for a period of three months. The result showed that 10 patients were able to stop their antihypertensive drugs completely and six were able to reduce significantly the amount of medication that they were taking and the remaining had lower blood pressure when compared to the beginning of the three month study. **(Yuena, 2005)**

Studies conducted at ZIPMER among 6 hypertensive's with shavasana and savithripranayama concluded that 10 minutes of shavasana and savithripranayama reduces heart rate and blood pressure implying normalization of the cardiovascular autonomic regulatory mechanisms. **(Ananda Balayogi, 2010)**

Presently, all available guidelines like WHO, IHS guidelines, European hypertension society recommended life style modification as the most effective approach to prevent hypertension and viewed as the first line treatment for hypertension. So the investigator has chosen shavasana as an intervention on Blood pressure among hypertensive clients, also it is easy to practice and has minor contraindications.

Statement of the Problem

A Study To Assess The Effectiveness Of Shavasana On Blood Pressure Among Hypertensive Clients At Selected Community, Salem.

Objectives

1. To assess the level of blood pressure among hypertensive clients in experimental and control group.
2. To evaluate the effectiveness of shavasana on blood pressure among hypertensive clients in experimental group.
3. To find out the association between pretest category of hypertension among hypertensive clients and their selected background variables in experimental and control group.

Operational Definition

Assess:

Statistical measurement of the effectiveness of shavasana on blood pressure among hypertensive clients.

Effectiveness:

Effectiveness refers to the outcome of shavasana on blood pressure among hypertensive clients in experimental group.

Shavasana:

It is a relaxation posture intended to rejuvenate body, mind and spirit and is taught through a video.

Blood pressure:

Blood pressure refers to the pressure exerted laterally on the walls of the blood vessels.

Hypertensive clients:

It refers to all diagnosed individuals who are having systolic blood pressure above 140mmHg and diastolic above 90mmHg, on regular antihypertensive drugs and classified based on JNC VII, 2003

Assumptions

1. Hypertensive clients may have some knowledge regarding yogasanas.
2. Shavasana is one type of yogasana that will have effect on blood pressure.

Hypotheses

H₁: There will be a significant difference in the post test category of hypertension among hypertensive clients after shavasana in experimental group and control group at $p < 0.05$ level.

H₂: There will be a significant association between the pretest category of hypertension among hypertensive clients and their selected background variables in experimental group and control group at $p < 0.05$ level.

Delimitation

1. The findings of the study were limited to selected community, Salem.
2. The study period was limited to 4 weeks.
3. The study was limited to shavasana on blood pressure among hypertensive clients.

Projected outcome

- The study would evaluate the effectiveness of Shavasana on blood pressure among hypertensive clients.
- Findings of this study would help the staff nurses to teach shavasana in hospital and community setting and the hypertensive clients could practice at home to reduce the blood pressure.

Conceptual framework

A conceptual framework can be defined as a set of concept and assumptions that integrate them into a meaningful configuration (**Fawcett, 1994**).

A conceptual framework facilitates communication and provides systematic approach to nursing research, educational status, administration and practice.

The conceptual framework selected for this project is Wiedenbach's Helping Art Model for Clinical Practices (1964).It consists of three factors, central purpose, prescription, and realities of the situation.

1) Central purpose:

It refers to what the nurse want to accomplish. It is an overall goal towards which a nurse strives.

2) Prescription:

It refers to plan of care for a client. It will specify the nature of action that will fulfill the nurse central purpose.

3) Reality:

It refers to the physical, psychological, emotional and spiritual factors that come into play in a situation involving nursing actions.

The five realities identified by Wiedenbach are agent, recipient, goal, means and framework.

The conceptualization of nursing practice according to this theory consists of three steps as follows,

Step-I: Identifying the need for help

Step II: Ministering the needed help

Step III: Validating that the need for help was met.

Step-I: Identifying the need for help

The investigator identified the hypertensive clients who require appropriate management of blood pressure.

Step II: Ministering the needed help

After identifying the need for controlling blood pressure, video assisted teaching on shavasana was provided.

Agent: Investigator

Recipient: Hypertensive clients between the age group of 40 and 60 years, residing at Poolavari and Veerapandi community, Salem.

Goal: Reducing the Blood pressure.

Mean activities: Providing video assisted teaching on shavasana and follow up.

Framework: Community

Step III: Validating that the need for help was met

It is accomplished by means of post test on blood pressure using sphygmomanometer and categorizing according to JNC-VII classification. The pretest and posttest on blood pressure was compared. The effectiveness of shavasana among hypertensive clients in experimental group showed reduction of blood pressure whereas the hypertensive clients in control group had no change in blood pressure.

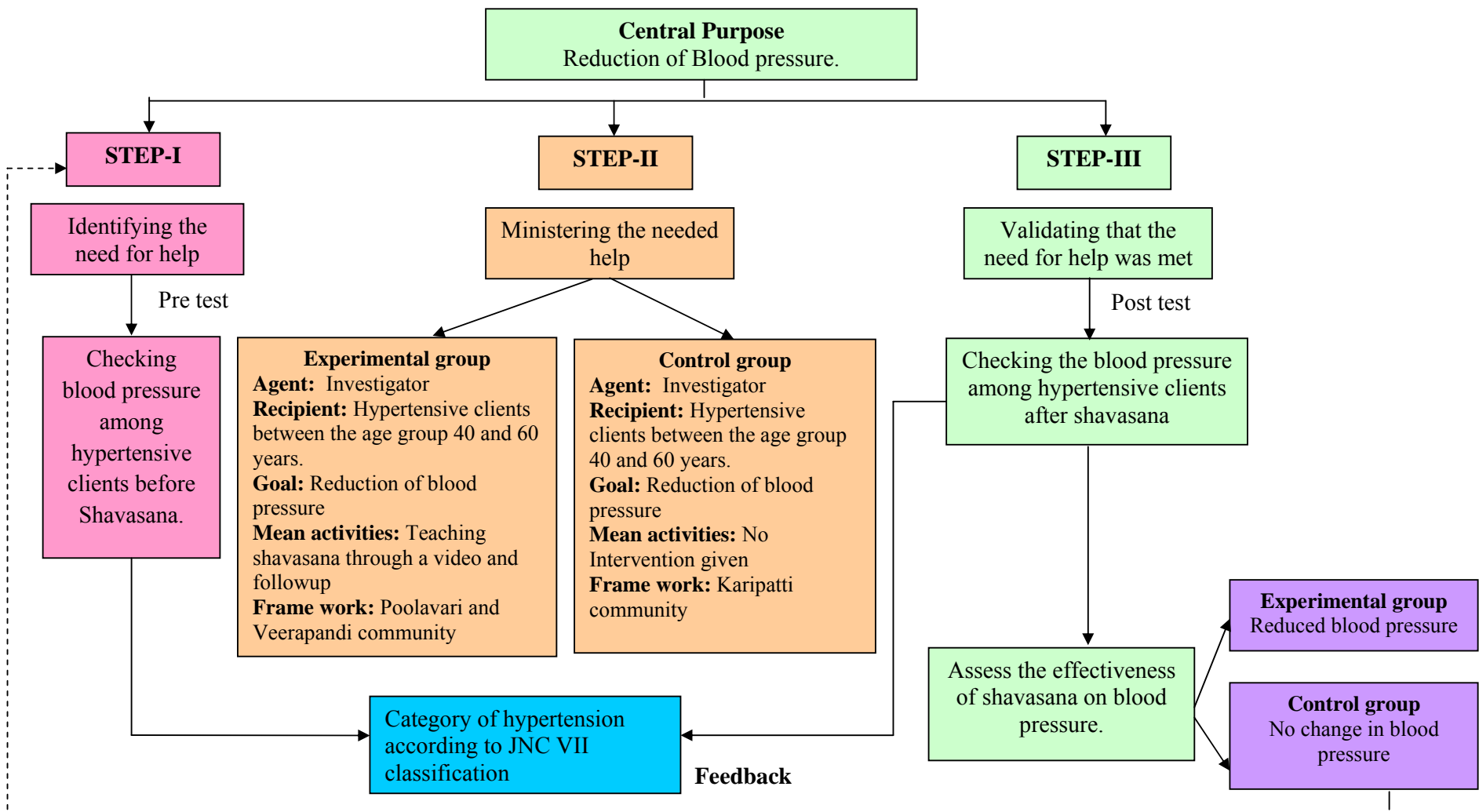


Fig-1.1: Conceptual Frame Work Based on Wiedenbach's Helping Art of Clinical Nursing Theory (1964) .

Summary

This chapter dealt with introduction, need for study, statement of the problem, objectives, operational definitions, assumptions, hypotheses, delimitations, projected outcome and conceptual framework.

CHAPTER - II

REVIEW OF LITERATURE

Review of literature provides background for understanding the significance of new study. It equips the investigator to facilitate with the existing studies providing basis for future investigation and also helps in the development of methodology.

The present study was organized in the following headings.

1. Literature related to Hypertension.
2. Literature related to non-pharmacological interventions for hypertension.
3. Literature related with effectiveness of shavasana on hypertension.

1. Literature related to hypertension.

Anjum Humayun, (2009) conducted a study to investigate the relationship of high blood pressure with body mass index and age. The study was conducted at Peshwar among 1006 adults. The results showed that out of 541 males 340(63%) were hypertensive and 315 out of 465 (68%) females were hypertensive. In the age group I, i.e.,(20-39yrs) 56% adults were hypertensive in which most of them were overweight females, while in group II, i.e., (40-59yrs) 56% subjects and in group III (>60yrs) the incidence of hypertension is 27%. The relation of normal BMI with hypertension is 34% and overweight is 58% while that of obese is 77% indicating a strong relationship of hypertension with BMI.

Antony Ivera, Larven, Madeline, (2008) conducted a study in North Carolina to assess the primary care patients current knowledge about various aspects of blood pressure. They conducted the study among 700 hypertensive patients. 22% did not have the idea whether anything could be done to prevent high blood pressure. 19% believed that taking medicines will cure high blood pressure. 22% had overall lower

hypertension knowledge. They concluded that efforts should be taken to educate the public about life style modification.

Toprak. D. et.al, (2007) conducted a study in Germany to assess hypertensive patients baseline health behaviours, health status, knowledge about their disease, life styles, behavioural modifications, sources of information about their disease, and management of hypertension. The researcher administered questionnaire to 72 hypertensive patients. The patients mean Body Mass Index was $27 \pm 4.0\text{kg/m}^2$, though diet restriction had been advised to most patients. The most common traditional self-treatments found among hypertensive patients were eating egg yogurt with garlic (27.8%) and eating sour foods (25%). From the media a considerable proportion of patients gained their knowledge regarding hypertension. It was concluded that through media, client education and behavioural modification can be achieved and it will help in the treatment and control of hypertension.

According to **Indian Express Bureau (2004)** one in every 10 Indians suffers from high blood pressure. Now-a-day's antihypertensive drugs are available to control high blood pressure. These drugs have their own side effects and are also expensive. Noncompliance to medication is very common among hypertensive patients due to various reasons. Anti-hypertensive medication alone cannot control blood pressure, physiological relaxation is very important for maintaining blood pressure

Gupta. et.al, (2003) conducted a study to determine the recent trends in age specific blood pressure distribution and hypertension prevalence in an urban Indian population. In the first study 2212 samples (1412 men, 797 women) and in the second study 1123 samples (550 men, 573 women) were randomly selected. The blood pressure was measured using World Health Organization guidelines. The age adjusted prevalence of hypertension in the first study was 29.5% (in males) and 33.5% (in

females). In the second study it was 30% in males and 30.0% in females. In the second study as compared to the first study, there was a decrease in age adjusted prevalence of stage I hypertension (men 16.8% vs. 24.9%), (women 15.4% vs. 27.5%) and increase in stage II hypertension (men 11.75% vs. 2.8%), women (18.8% vs. 3.1%).at $p < 0.01$ level. In conclusion the increasing variance in blood pressure distribution in this urban Indian population has resulted in a significant increase in severe forms of hypertension. In India hypertension appears to be increased due to obesity and high levels of physical inactivity.

Kalavathy, et.al, (2000) conducted a study to evaluate the prevalence, awareness, treatment and control of hypertension among elderly individuals residing at Trivandrum. The researcher collected 1203 samples using clustered sampling technique. She reported that the overall prevalence of hypertension was 65%. Among the study subjects 45% were aware of their condition, 40% were on antihypertensives but only 10% achieved the criteria of JNC-VI. She also reported that alcohol can induce hypertension and its incidence is higher in people who consume more than 3 drinks (1.5ounce) per day compared to those who consume less than three drinks per day. The prevalence of alcohol induced hypertension is about 1% in the general population and 7% in men. The incidence rises 13% in men who consume more than 50% drinks per week.

2. Literature related to non-pharmacological interventions for hypertension.

Hema, et.al, (2011) conducted a cross over randomized controlled trial on the effectiveness of non pharmacological interventions for hypertension in Kumdhikuppam. 98 hypertensive clients were randomly allotted into four groups. The first group was assigned as control group. Group II practiced brisk walking for 50-60 minutes daily for 8 weeks. Group III members were subjected to sodium restricted

diet. Group IV practiced yoga for 30-45 minutes daily for 8 weeks. On comparing the pre intervention and post intervention blood pressure values following the study using paired 't' test, the mean systolic blood pressure/diastolic blood pressure value in group II was reduced by $54 \pm 3.4/ 6.1 \pm 2.9$ mm Hg. In group III the systolic blood pressure/diastolic blood pressure value was reduced by $2.6 \pm 1.5/2.0 \pm 1.6$ mm Hg while in group IV there was a reduction by $2.3 \pm 1.2/ 2.4 \pm 1.6$ mm of Hg. In control group the reduction was $0.24 \pm 1.4/0.5 \pm 1.4$ mm of Hg. This shows that physical exercises are more effective in reducing the blood pressure.

Sujatha. B, (2011) conducted a study to assess the effectiveness of yoga (Navachitra yoga) on blood pressure among 100 hypertensive clients in Singaperumalkoil street. The study group consists of 100 subjects who were divided into 50 each in experimental and control group. The blood pressure was monitored before the intervention. The subjects were made to practice yoga for 30-45 minutes per day for at least 5 days a week. The study period was 12 weeks. The study shows that the mean systolic blood pressure was reduced from 144.6 to 133.2 (9.4) mm of Hg in the experimental group. Likewise diastolic blood pressure was reduced from 89.3-85.1(4.2) mm of Hg.

Dahl, (2010) conducted a quasi experimental research study to assess the effectiveness of yoga programme on hypertension. The study was done at Songkla with 54 hypertensive subjects, 27 subjects were placed in the experimental and control group. The experimental group received yoga program three times a week for eight weeks. The results showed that the subjects in the experimental group had significantly decreased systolic blood pressure, diastolic blood pressure, and heart rate from 160.89 ± 10.37 mmHg to 136.04 ± 12.96 mmHg, 9.952 ± 8.33 to 81.01 ± 10.36 mmHg, and 85.57 ± 9.72 to 73.74 ± 7.76 beats per min.

Madan Mohan, (2010) conducted a study to assess the effectiveness of Chandranadi pranayama on blood pressure among hypertensive patients residing at Pondicherry. 26 patients were selected and were taught to perform this yoga for 5 minutes in sitting position. Heart rate and blood pressure was recorded before and immediately after the practice of the yoga. A significant reduction occurred in systolic pressure from 140 ± 3.26 to 137 ± 3.12 mm of Hg and diastolic blood pressure from 78.68 ± 1.74 to 76.05 ± 1.59 mm of Hg.

Paul. B, (2010) conducted an experimental study in Ahmadabad in order to find out the effectiveness of universal healing programme on Coronary Artery Disease. It was conducted on total of 104 (81 males and 23 females) Coronary Artery Disease patients. They were given healing programme including selected yoga practices like breathing exercise, shavasana and meditation. This was continued twice a week regularly for three months. The statistical analysis of data revealed that all the subjects showed significant difference between the pretest and post value in systolic blood pressure ($t=7.835$) and diastolic blood pressure ($t=11.896$).

Sasikala M.P, (2010) conducted a quasi experimental study on effectiveness of slow breathing exercises among clients with hypertension in Erode. The study consists of 60 subjects, 30 each in experimental and control group. After 3 weeks of intervention it was found that there was a decrease in mean values from 145.67-133.13 and the t value was 19.29 ($p < 0.01$) level of significance .

Vernon. A. Barnes, et.al, (2010) conducted a study in Georgia on the impact of Transcended meditation on cardiovascular function at rest and during acute stress in adolescents with high normal blood pressure. Thirty-five adolescents with resting systolic blood pressure between the 85th and 95th percentile for their age and gender were randomly assigned to either transcendental meditation ($n=17$) or health

education control (n=18). The experimental group received the intervention for 15 minutes daily for 2 months. Primary cardiovascular outcome measures were changes in blood pressure, heart rate, and cardiac output at rest and in response to two laboratory stressors, a simulated car driving stressor and interpersonal social stressor interview. The result showed that there was a decrease in mean values from 145.42-132.22 and the 't' value was 17.23 at (p<0.03) level. The experimental group exhibited greater decrease in resting systolic blood pressure (p<.03) from pre to post intervention.

Alen David Kaya, (2007) conducted a study in Texas to assess the effectiveness of deep tissue massage on hypertension among 263 volunteers with an average age of 48.5. Deep tissue massage was performed with the duration of 45 and 60 minutes. The result showed an average systolic blood pressure reduction of 10.4mm of Hg , diastolic blood pressure reduction of 5-3 mm of Hg and an average heart rate reduction of 10.8 beats/min at p<0.06 level of significance.

Laurie, (2004) conducted an experimental study to assess the effectiveness of slow breathing exercises on hypertension among 17 resistant hypertensive clients. The study was conducted in America. After two months of slow breathing exercises 76% of patients had a positive response towards the slow breathing exercises. Both office blood pressure and home blood pressure declined from baseline with no significant change in heart rate. The office blood pressure reduced by 12.9±11.4/6.9± 6.3 mm of Hg and the home blood pressure reduced by 6.4± 2.6/2.6±5.1 mm of Hg at p<0.01 level.

3. Literature related with effectiveness of shavasana on hypertension

Dayanidy, (2010) conducted a study to assess the effectiveness of shavasana and savitri pranayama on heart rate and blood pressure of hypertensive patients at Pondichery. 19 hypertensive patients were selected and were taught and instructed to lie down in shavasana and perform for 10 minutes. Heart rate and blood pressure were recorded before and immediately after the intervention. There was a significant reduction in systolic blood pressure from 125.67 ± 4.42 to 117 ± 3.89 mm of Hg and diastolic pressure decreased from 72.67 ± 2.74 to 69.17 ± 2.74 mm of Hg.

Beulah, (2009) conducted a quasi experimental study in Coimbatore on the effect of shavasana on blood pressure among hypertensive clients. The study was conducted among 30 hypertensive clients. The intervention was given once daily for 15-20 minutes for a period of 3 weeks. A significant reduction in the mean systolic blood pressure of the experimental group (pre-test mean=150.66) and (post-test mean=132.06) and diastolic blood pressure (pre-test mean=96) and (post-test mean=87.33) after the intervention. The mean pre-test and post-test mean remained the same in the control group.

Datey.K.K, Bhagal.S, (2007) under took a comparative study at Goa to find out the effect of relaxation techniques, biofeedback training and shavasana among patients with hypertension. 27 hypertensive patients were taken for biofeedback training and 86 patients for shavasana. The shavasana group was divided into three groups. Experimental group I consists of 15 patients who were not on any antihypertensive, but they received placebo tablets for one month before teaching them shavasana. Experimental group II consists of clients who were on anti-hypertensive for 2 years and blood pressure was adequately controlled in them. Experimental group III consists of clients who were not on antihypertensive drugs and

had uncontrolled blood pressure. The intervention was given for 12 weeks. A fall of blood pressure was noted in all the three groups. In group 1 the average mean blood pressure came down from 134 to 107 mm. Hg. In group II the fall in blood pressure was from 102 to 100 mm. Hg but the drug requirement was reduced to 32% of the original in 27 clients (60%). In group 3 the average blood pressure dropped from 120 to 110 mm. Hg and the drug requirement was reduced to 29% of the original in 10 clients (38%).

Mahajan, Sharma, Geethanjali, (2006) conducted a study in Delhi among 60 young adults to assess the effectiveness of shavasana on cold pressor test (CPT) induced stress. Stress was experimentally induced by cold presser test and the effect was observed by recording blood pressure, pulse rate, respiratory rate, and rate pressure product. The study was divided into three setups. In the first set up all the parameters were recorded in supine position after CPT. In the second setup CPT was done after performing shavasana for 10 minutes and for the third set up effects of CPT was observed after samples had undergone shavasana training for 10 minutes daily for 4 weeks. All the parameters progressively significantly decreased after performing shavasana for 10 minutes and after its practice for 4 weeks. There was a significant reduction in heart rate from 79.5 ± 3.02 to 76 ± 3.64 beats per minute and highly significant reduction in systolic pressure from 132 ± 5.64 to 123 ± 3.45 mm of Hg at $p < 0.05$ level. The study suggests that a person practicing shavasana can successfully reduce the physiological effect of stress.

Taru Mehta, (2006) reported that shavasana is the most basic and effective treatment of high blood pressure and the heart related diseases. Many patients get cured from major diseases using this technique on a regular basis within around 3-4 months. This yoga can be performed 2-3 times a day, may be in the early evening, or

just prior to sleeping. Severe blood pressure patients can be treated very efficiently with this yoga along with some selected pranayama technique like anulom-vilom. The positive noticeable improvements can be identified just within 45 days of regularly practicing this pranayama.

Anandha Balayogi, (2005) conducted a study to assess the effectiveness of direction of head in shavasana on heart rate and blood pressure. In this study 43 normal healthy school children were selected and their recordings were taken after 5 minutes of supine rest. The subjects were randomly made to lie with their heads towards north, east, south, and west for different days. Heart rate and blood pressure were recorded after 5 minutes of supine rest. The results showed that the heart rate was lowest in north and the highest in south. Systolic pressure was lowest in the north and significantly higher in the west with a difference of 3-5 mm of Hg.

Zeena, et.al, (2002) conducted a study in Bangalore to determine the cardiovascular effects of performing shavasana with Pranava pranayama which involves making akara, ukara, makara, and omkara nada. 19 hypertensive clients attending the out-patient department of ZIPMER were chosen for this study. Their heart rate and blood pressure were monitored with non-invasive monitor before and immediately after the intervention. The subjects were made to practice the yoga for 15 minutes daily. There was a highly significant ($p < 0.001$) reduction in systolic pressure from 135.94 ± 3.51 to 126.21 ± 2.88 mmHg, pulse pressure from 57.26 ± 3.02 to 50.15 ± 2.35 mmHg. Diastolic pressure reduced significantly ($p < 0.01$) from 78.68 ± 1.74 to 76.05 ± 1.59 mmHg. There was statistically significant reduction in HR from 78.05 ± 2.91 to 76.78 ± 2.89 .

Anandha Balayogi, (2001) reported the effectiveness of shavasana on cold pressor induced stress in one of the studies done at JIPMER. This study was planned to determine if the performance of Shavasana after training of short duration could modulate physiological response to stress induced by cold pressor test and the possible mechanisms involved. Ten normal adults were taught Shavasana and practiced the same for a total duration of seven days. RR interval variation (RRIV), deep breathing difference (DBD) as well as heart rate, systolic pressure, diastolic pressure and rate-pressure-product changes in response to cold pressor test were measured before and after performance of Shavasana. There was a significant reduction of systolic blood pressure from 112.4 ± 2.23 to 110 ± 2.05 mm of Hg and reduction of diastolic blood pressure from 90.6 ± 1.36 to 80.4 ± 1.25 mm of Hg. Significant blunting of cold pressor-induced increase in heart rate, blood pressure and rate-pressure-product by Shavasana was seen during and even five minutes after cold pressor test suggesting that Shavasana reduces load on the heart by blunting the sympathetic response. It is concluded that Shavasana can enhance one's ability to withstand stress induced by cold pressor test and this ability can be achieved even with seven days of Shavasana training.

Anandha Balayogi, (2001) reported the effectiveness of shavasana on heart rate variability in one of the studies done at JIPMER among twenty six children, aged 16 years. Their blood pressure, heart rate, Electrocardiogram and Heart rate variability were recorded in supine position based on certain standards. The subjects were then given Shavasana training and practiced the same for a period of six weeks. Blood pressure, heart rate and Heart rate variability were recorded under similar conditions after the training period. Shavasana training produced a significant decrease in heart rate and systolic pressure, diastolic pressure, mean pressure and rate-pressure-product.

The statistical analysis revealed that there was a significant reduction of heart rate from 79.3 ± 2.45 to 75.2 ± 1.84 beats per minute. There was a significant reduction of systolic blood pressure from 111.2 ± 2.21 to 109 ± 2.05 mm of Hg and diastolic blood pressure from 70.6 ± 1.36 to 69.5 ± 1.06 mm of Hg.

Bera, et.al, (2001) conducted a study in Bengal to compare the effectiveness of shavasana versus sitting posture on recovery from induced physiological stress. The study was conducted among 21 males and 6 females. The subjects were allowed to take rest in one of the above postures immediately after completing a scheduled treadmill running. The recovery was assessed in terms of heart rate and blood pressure. Heart rate and blood pressure was measured before and after every two minutes after the treadmill running until they returned to the initial level. There was a significant reduction of systolic blood pressure from 128.34 ± 2.29 to 120.2 ± 2.12 and diastolic blood pressure from 89.06 ± 4.53 to 80.34 ± 4.03 in subjects after shavasana at $p < 0.001$. The results revealed that the effect of stress was reversed in significantly shorter time in shavasana when compared to other posture.

Summary

This chapter dealt with literature related to Hypertension, non-pharmacological interventions for hypertension and effectiveness of shavasana on hypertension.

CHAPTER - III
METHODOLOGY

The methodology of research indicates the general pattern of organizing the procedure for the gathering valid and reliable data for the purpose of investigation.

(Polit, D.F, and Hungler, 2003)

The present study aims to evaluate the effectiveness of shavasana on blood pressure among hypertensive clients at selected community, Salem.

Research Approach:

Quantitative evaluative research approach was adopted for this study.

Research Design:

Quasi experimental design involves the manipulation of an independent variable that is an intervention. Quasi experimental design lack randomization to treatment groups. **(Polit, D.F., and Beck, 2004)**

Quasi experimental design, in which pre and post-test design was used in this study.

E	O₁	X	O₂
C	O₁		O₂

E: Experimental group

C: Control group

X: Intervention -Video assisted teaching on shavasana

O₁: Pre- test on blood pressure with sphygmomanometer

O₂: Post-test on blood pressure with sphygmomanometer

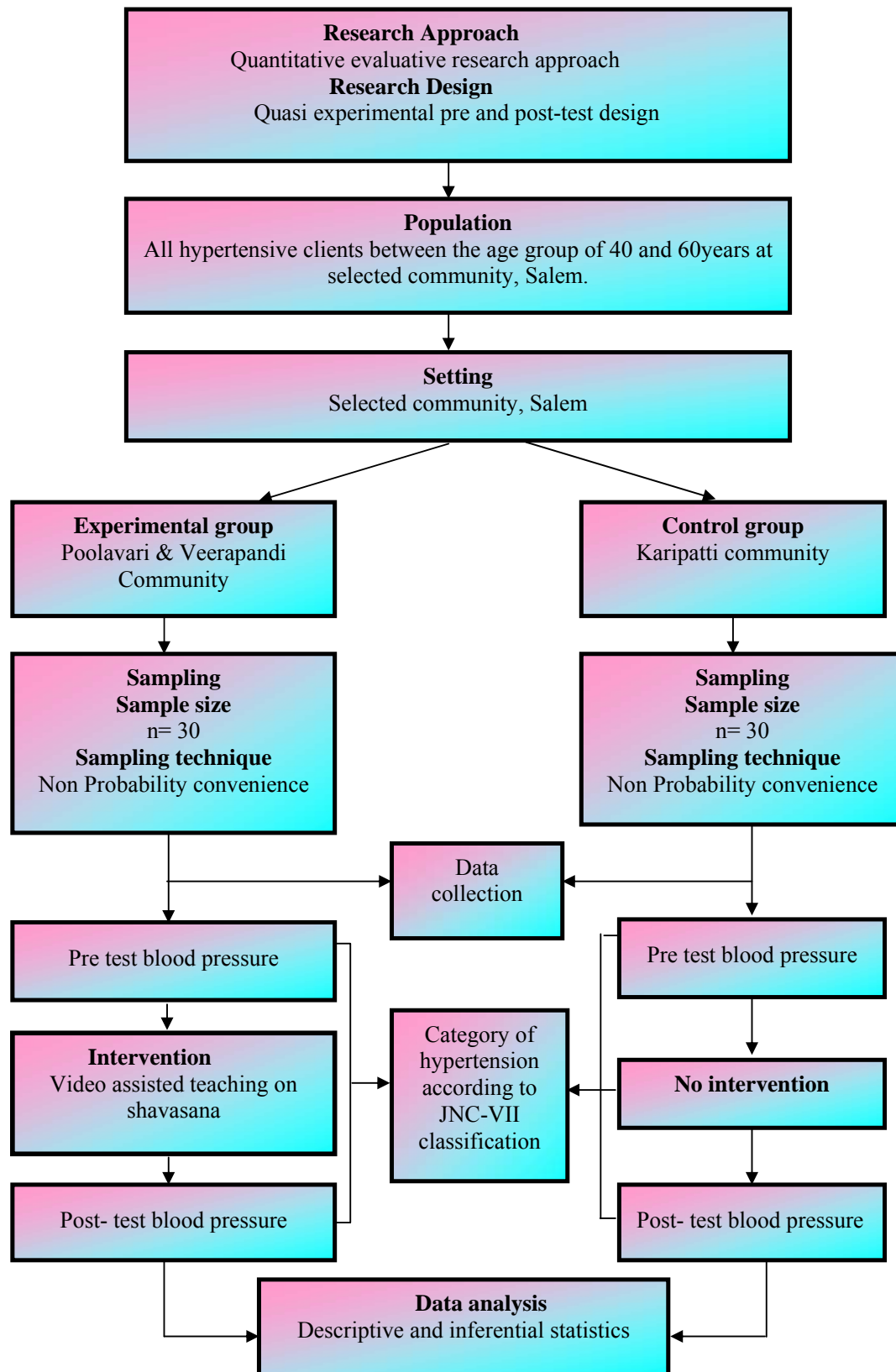


Figure -3.1: Schematic Representation of Research Methodology

Population:

The population for this study comprised of all hypertensive clients between the age group of 40 and 60 years residing at selected community, Salem.

Description of Settings:

Setting is the general location and condition in which data collection takes place for the study (**Polit, D.F., and Hungler, 2003**). The study was conducted at selected community, Salem. The samples for the experimental group were selected from Poolavari and Veerapandi community and the samples for the control group were selected from Karipatti which is 2kms and 15 kms away respectively from Sri Gokulam College of Nursing. These areas were selected based on availability of samples and feasibility in terms of cooperation extended by the community.

Sampling:

Sampling refers to the process of selecting the portion of population to represent the entire population. (**Polit, D.F. and Hungler, 2003**)

Sample:

The samples in this study comprise of all hypertensive clients between the age group of 40 and 60 years from Poolavari, Veerapandi and Karipatti community, Salem, who met the inclusion criteria.

Sample size:

The sample size consists of 60 hypertensive clients. Among them 30 were in experimental group and 30 were in control group.

Sampling technique:

Non Probability convenience sampling technique was adopted for the study.

Criteria for Sample Selection:

Inclusion criteria:

Hypertensive clients those who are,

1. between the age group of 40 and 60 years
2. in the stage 1 and 2 category of hypertension as per JNC-VII classification.
3. on allopathic anti hypertensives.
4. available during the period of data collection.
5. willing to participate in the study.
6. able to understand and speak Tamil.

Exclusion criteria:

Hypertensive clients those who are,

1. able to practice any other form of yoga.
2. contraindicated from performing yoga.(eg arthritis)
3. suffering from co-morbid disease like diabetes mellitus, bronchial asthma etc.

Variables:

Independent variable: Video assisted teaching on shavasana.

Dependent variable: Blood pressure.

Description of the Tool:

With the investigator's personal and professional experiences and after extensive literature review and discussion with experts the tool was developed for data collection.

It consists of following sections,

Section-A:

This section consists of background variables such as age, sex, education status, occupation, type of work, annual income, diet, medication, lifestyle and body mass index.

Scoring procedure:

No score was allotted for this section. The data was used only for descriptive analysis.

Section-B:

A Sphygmomanometer was used to measure the pre and post test blood pressure and the samples were classified based on the JNC-VII classification , 2003. (Joint National Commission).

Table-3.1 Scoring procedure of blood pressure according to Joint National Commission VII.

Category of hypertension	Systolic (mmHg)	Diastolic (mmHg)	Score
Normal blood pressure	<120	< 80	0
Pre hypertension	120 – 139	80 -89	1
Stage 1 hypertension	140 – 159	90 – 99	2
Stage 2 hypertension	≥160	≥100	3

Validity and Reliability of the Tool:**Validity:**

Validity is that quality of a data gathering instrument or procedure that enables it to measure what it is supposed to measure. (John. W. Best and James V. Kahn, 2002)

Validity of the tool was obtained on the basis of opinion of Medical and Nursing Experts (Two Medical Experts, Two Community Health Nursing, Two Medical Surgical Nursing Experts and One Yoga Expert). The tool was found adequate and was translated into Tamil.

Reliability:

Reliability is a degree to which measures are free from errors so that they give same results when repeat measurements are made under constant. (**Ram Ahuja, 2002**)

Reliability of the tool was checked by inter-rater reliability method and the reliability coefficient was $r = 1$, which showed that the tool was reliable.

Pilot Study:

The pilot study was conducted from 27.06.2011 to 03.07.2011 in Uthamasolapuram and Neikarapatti, Salem. It was conducted after the tool presentation and approved by college of nursing faculty and dissertation committee. Validity and reliability of the tool was tested during this time. A survey was done and samples were selected for pilot study through Non Probability convenience sampling technique. The experimental group was selected from Uthamasolapuram and control group from Neikarapatti, Salem. After getting verbal consent, the samples were categorized according to the JNC-VII classification based on their blood pressure readings. Pre test was done on 27.06.2011 for both the groups. The experimental group was taught shavasana through video assisted teaching from the the day of pre test and they practiced it for 15-20 minutes in the presence of the investigator for 5 days. Post test was done on 3.7.2011 for both the groups. The tool was administered and checked for its feasibility, language and appropriateness. The samples chosen

were similar in characteristics to those of the population under study. The tool was reliable and the study was found feasible and practicable for further proceedings.

Method of Data Collection:

Ethical consideration:

Written permission was obtained from the Panchayat presidents at selected community, Salem. Informed verbal consent was taken from the hypertensive clients, who were willing to participate in the study.

Period of data collection:

Data was collected over a period of 4 weeks from 13.07.2011 to 07.08.2011.

Data collection procedure:

The investigator got the list of hypertensive clients who were on treatment from the Primary Health Centers. The samples were chosen from Poolavari and Veerapandi community as the experimental group and from Karipatti community as the control group. The samples were categorized according to the JNC-VII classification based on their blood pressure readings. The pretest was done from 13-7-2011 to 16-7-2011 for both the groups.

The experimental group was taught shavasana through video assisted teaching from the day of pretest. Shavasana is a relaxation posture intended to rejuvenate body, mind and spirit. It is an asana in which the clients are made to lie down flat on the back with both the hands stretched freely on either side of the body, with the open palms facing towards the sky. It consists of three techniques namely Instant relaxation technique, Quick relaxation technique, and Deep relaxation technique. They practiced shavasana daily for 15-20 minutes in the presence of the investigator for 21 days.

Post test was done from 3.8.2011 to 6.8.2011 for both the groups and was compared.

Plan for Data Analysis:

The data will be analyzed by using both descriptive and inferential statistics. The data related to background variables and blood pressure among hypertensive clients will be analyzed by using descriptive statistics (frequency, percentage, mean, standard deviation and mean difference). Inferential statistics like independent 't' test will be used to determine the effectiveness of shavasana on blood pressure and chi-square test will be used to analyze the association between the pretest category of hypertension and their selected background variables.

Summary:

This chapter consists of research approach, research design, population, description of the setting, sampling, variables, description of the tool, validity and reliability, pilot study, method of data collection, and plan for data analysis.

CHAPTER - IV

DATA ANALYSIS PRESENTATION

This chapter presents the quantitative results of the study attempted to evaluate the effectiveness of Shavasana on Blood pressure among hypertensive clients at selected community, Salem. This chapter presents the details of the data analyzed and the findings were under the following sections.

Section-A:

Distribution of samples according to their selected background variables in experimental and control group.

Section-B:

- a) Distribution of samples according to their pretest category of hypertension in experimental and control group.

Section-C:

- a) Distribution of samples according to their post test category of hypertension in experimental and control group
- b) Comparison between the pretest and post test scores on category of hypertension among hypertensive clients in experimental and control group.
- c) Comparison between the pretest and post test scores on blood pressure among hypertensive clients in experimental and control group.

Section-D: Hypothesis testing

- a) Effectiveness of Shavasana on blood pressure among hypertensive clients in experimental and control group.
- b) Association between the pretest category of hypertension among hypertensive clients and their selected background variables in experimental and control group.

Section -A

Distribution of Samples According to their Selected Background variables in Experimental and Control group

Table – 4.1:

Frequency and percentage distribution of samples according to their demographic variables in experimental and control group

n=60

S. No	Demographic variables	Experimental group (n = 30)		Control group (n = 30)	
		f	%	f	%
1.	Age				
	a. 40-50 years	8	26.7	6	20
	b. 50-60years	22	73.3	24	80
2.	Sex				
	a. Male	10	33.3	16	53.3
	b. Female	20	66.7	14	46.7
3.	Marital status				
	a. Married	25	83.4	26	86.7
	b. Widow/widower	4	13.3	3	10
	c. Separated	1	3.3	1	3.3
4.	Educational status				
	a. No formal education	5	16.7	7	23.4
	b. Primary school	18	60	15	50
	c. High school	6	20	7	23.3
	d. Higher secondary	-	-	1	3.3
	e. Diploma	1	3.3	-	-
5.	Body mass index				
	a. 18-24.9 Normal	16	53.3	21	70
	b. 25-29.9 overweight	14	46.7	9	30

The above table shows that in experimental group 22 (73.3%) are between the age group of 50-60 years, 20(66.7%) are females, 25(83.4%) are married, 18(60%) have primary education and 16(53.35%) have normal body mass index.

In control group 24(80%) are between the age group of 50-60 years, 16 (53.3%) are males, 26(86.7%) are married, 15(50%) have primary school education and 21(70%) have normal body mass index.

Table-4.2:

Frequency and percentage distribution of samples according to their socio-economic variables in experimental and control group.

n=60

S. No	Socio-economic variables	Experimental group (n = 30)		Control group (n = 30)	
		f	%	f	%
1.	Occupation				
	a. Unemployed	9	30	2	6.7
	b. Self employer	15	50	22	73.3
	c. Private employee	6	20	6	20
2.	Type of work				
	a. Sedentary work	9	30	4	13.3
	b. Moderate work	18	60	19	63.4
	c. Heavy work	3	10	7	23.3
3.	Family monthly income				
	a. Rs.3001-Rs5000	20	66.7	18	60
	c. Rs5001-Rs7000	10	33.3	12	40

The above table shows that in experimental group, 15(50%) are self employers, 18(60%) are moderate workers, and 20(66.7%) have income between Rs.3001- Rs.5000. In the control group 22 (73.3%) are self employers, 19(63.4%) are moderate workers, and 18 (60%) have family income between Rs.3001- Rs.5000.

Table -4.3:

Frequency and percentage distribution of samples according to their illness related variables in experimental and control group.

n=60

S. No	Illness related variables	Experimental group (n = 30)		Control group (n = 30)	
		F	%	f	%
1.	Family history of hypertension				
	a. 1 ^o relatives	3	10	6	20
	b. 2 ^o relatives	2	6.7	4	13.3
	c. Both 1 ^o and 2 ^o relatives	-	-	2	6.7
	D. None	25	83.3	18	60
2.	Duration of hypertension				
	a. Less than 1 year	4	13.3	2	6.7
	b. 1-5 years	21	70	25	83.3
	c. 6-10 years	5	16.7	2	6.7
	d. Above 10 years	-	-	1	3.3
3.	Classification of drug				
	a. Beta blockers	8	26.7	13	43.4
	b. Calcium channel blockers	12	40	8	26.6
	c. Both Beta blockers and calcium channel blockers	10	33.3	9	30

The above table shows that in the experimental group 23(83.3%) did not have family history of hypertension, 21(70%) have hypertension for the past 1-5 years, and 12(40%) of them are on calcium channel blockers.

In the control group 18(60%) did not have family history of hypertension, 25(83.3%) have hypertension for the past 1-5 years, and 13(43.4%) of them are on beta blockers.

Table-4.4:

Frequency and percentage distribution of samples according to their personal variables in experimental and control group.

n=60

S. No	Personal variables	Experimental group (n = 30)		Control group (n = 30)	
		F	%	f	%
1.	Dietary pattern				
	a. Vegetarian	5	16.7	7	23.3
	b. Non-vegetarian	25	83.3	23	76.7
2.	Habits				
	a. Alcohol	1	3.3	4	13.4
	b. Smoking	2	6.7	4	13.3
	c. Any other	4	13.3	4	13.3
	d. more than one habit	3	10	3	10
	e. None	20	66.7	15	50

The above table shows that in the experimental group 25(83.3%) are non-vegetarians and 20(66.7%) have no habits. In control group 23(76.7%) are non-vegetarians and 15(50%) have no habits.

Section- B

Distribution of Samples According to their pretest category of hypertension in Experimental and Control Group

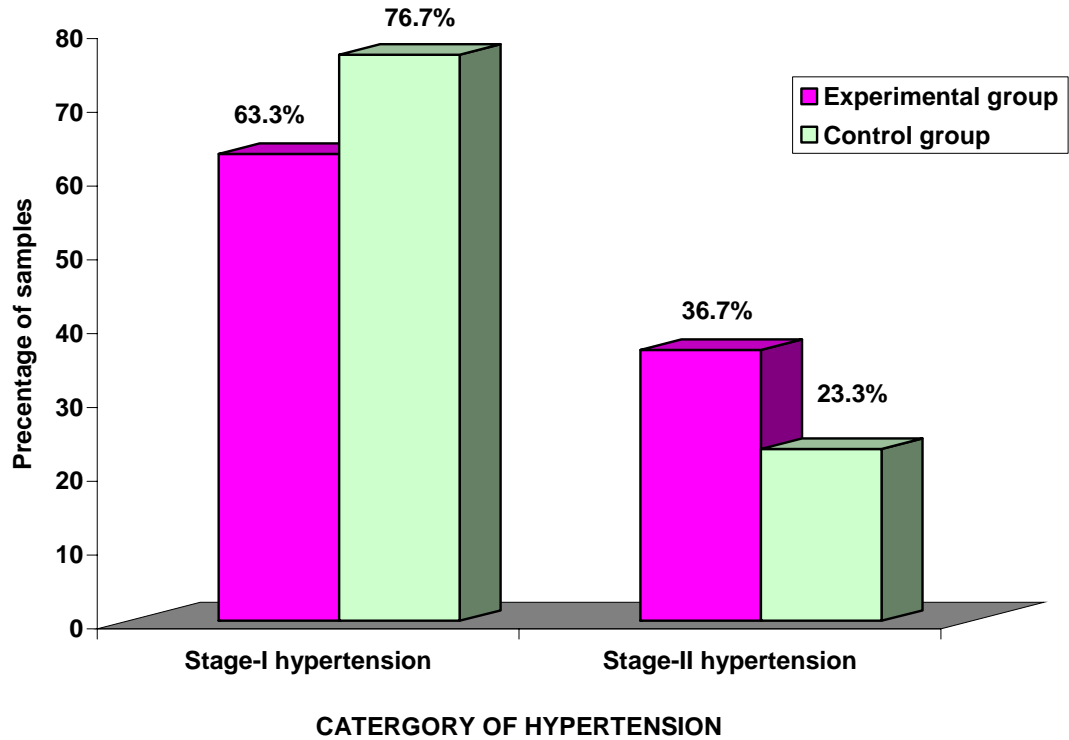


Figure- 4.1: Percentage distribution of samples according to their pretest category of hypertension in experimental and control group

The above figure shows in pretest, in experimental group 19 (63.3%) of them belongs to stage I hypertension, 11 (36.7%) belongs to stage II hypertension. In the control group 23 (76.7%) belongs to stage I hypertension and 7 (23.3%) belongs to stage II hypertension.

Section-C

a) Distribution of Samples According to their post-test category of hypertension in Experimental and Control Group

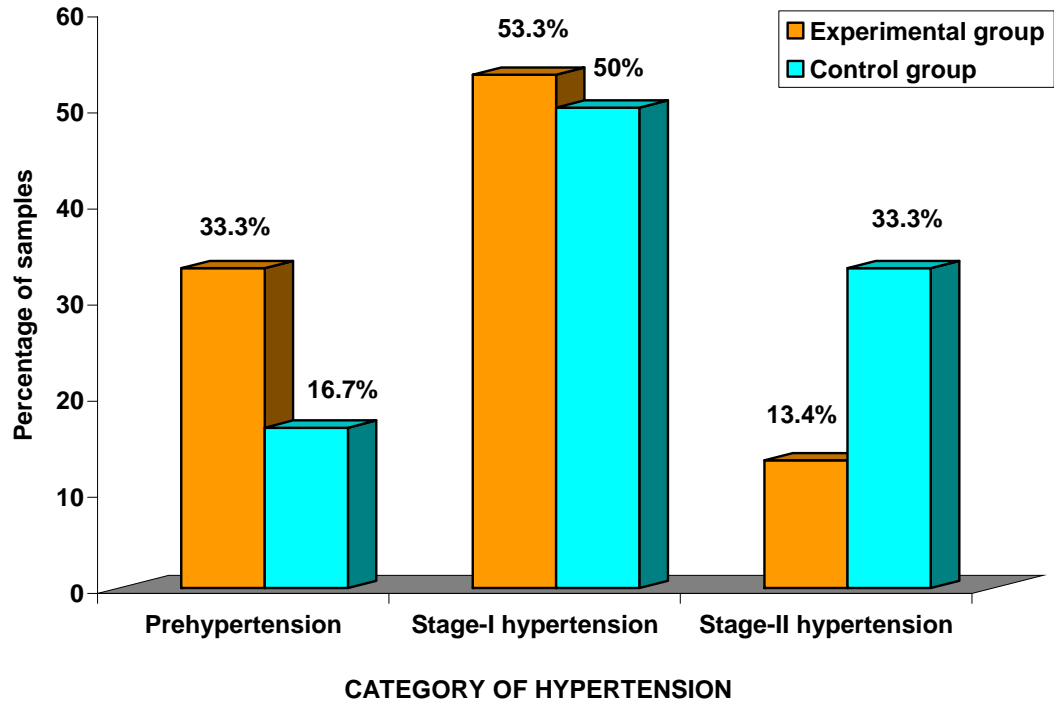


Figure- 4.2: Percentage distribution of samples according to their post test category of hypertension in experimental and control group

The above figure shows in post test, in experimental group 16 (53.3%) of them belongs to stage I hypertension, 4(13.4%) belongs to stage II hypertension, 10(33.3%) belongs to prehypertension. In the control group 15(50%) belongs to stage I hypertension, 10(23.3%) belongs to stage II hypertension and 5(16.7%) belongs to prehypertension.

b) Comparison between the pre test and post test scores on the category of hypertension among hypertensive clients in experimental and control group.

Table-4.5:

Frequency and percentage distribution of samples according to pre and post test scores on category of hypertension in experimental and control group.

S.No	Category of Hypertension	Experimental Group				Control Group			
		Pretest		Post test		Pretest		Post test	
		F	%	F	%	f	%	f	%
1	Pre hypertension	-	-	10	33.3	-	-	5	16.7
2	Stage I hypertension	19	63.3	16	53.3	23	76.7	15	50
3	Stage II hypertension	11	36.7	4	13.4	7	23.3	10	33.3

The above table shows that in pretest, in experimental group, 19(63.3%) are in stage I hypertension, 11 (36.7 %) are in stage II hypertension. In the control group 23(76.7 %) are in stage I hypertension and 7(23.3%) are in stage II hypertension.

In post test, in experimental group 10(33.3%) are in pre hypertension, 16 (53.3%) are in stage I hypertension, and 4 (13.4%) are in stage II hypertension. In the control group 5(16.7%) are in pre hypertension, 15(50%) are in stage I hypertension and 10 (33.3%) are in stage II hypertension. None of the samples are in normal blood pressure in experimental and control group.

c) Comparison between the pretest and post test scores on blood pressure among hypertensive clients in experimental and control group.

Table -4.6:

Mean, standard deviation and mean difference on blood pressure among hypertensive clients in experimental and control group.

n=60

S. No	Group	Pretest		Post test		Mean Difference
		Mean	SD	Mean	SD	
1	Experimental group	2.37	.49	1.80	0.66	.57
2	Control group	2.23	0.43	2.17	0.70	.06

The above table shows that, in experimental group, the pre test mean score on blood pressure is 2.37 ± 0.49 , and the post test mean score is 1.80 ± 0.66 , with a difference of 0.57. In control group, the pretest mean score is 2.23 ± 0.43 and the post test mean score is 2.17 ± 0.7 , with a difference of 0.06. The mean difference in experimental group shows that shavasana has reduced blood pressure among hypertensive clients in experimental group.

Section – D

Hypotheses testing

a) Effectiveness of Shavasana on Blood pressure among hypertensive clients in experimental and control group.

Table-4.7:

Mean, SD and 't' value according to post test scores on category of hypertension among hypertensive clients in experimental and control group.

n=60

S. No	Group	Post-test		df	't' value	Table value
		Mean	SD			
1	Experimental group	1.80	.66	58	4.92	2.0
2	Control group	2.17	0.70			

The above table shows that in experimental group, the post test mean score of blood pressure is $1.80 \pm .66$ and in control group, the post test mean score is 2.17 ± 0.70 . The 't' value is 4.92 which shows that shavasana is effective in reducing the blood pressure of hypertensive clients in experimental group. Therefore Hypothesis H_1 is retained at $p < 0.05$ level.

b) Association between the pretest category of hypertension among hypertensive clients and their Selected Background variables in Experimental and Control Group

Table-4.8:

Chi-square test on the pretest category of hypertension among Hypertensive clients and their selected demographic variables in experimental and control group

n=60

S. No	Demographic Variables	Experimental Group			Control Group		
		Df	χ^2	Table Value	Df	χ^2	Table Value
1.	Age	1	6.316*	3.84	1	2.283	3.84
2.	Sex	1	1.148	3.84	1	0.053	3.84
3.	Marital status	2	3.344	5.99	2	4.200	5.99
4.	Educational status	3	2.823	7.81	3	0.825	7.81
5.	Body mass index	1	0.433	3.84	1	0.09	3.84

*significant at $p < 0.05$ level

The above table reveals that in experimental group there is a significant association between the pretest category of hypertension and their selected demographic variables like age. In control group there is no significant association between the pretest category of hypertension and their selected demographic variables. Hence hypothesis H_2 is rejected for both in experimental and control group except for the demographic variables like age in the experimental group at $p > 0.05$ level.

Table-4.9:

Chi-square test on the pretest category of hypertension among Hypertensive clients and their selected socio-economic variables in experimental and control group.

n=60

S. No	Socio-economic Variables	Experimental Group			Control Group		
		Df	χ^2	Table Value	Df	χ^2	Table Value
1	Occupation	2	0.335	5.99	2	0.949	5.99
	Type of work	2	5.837	5.99	2	2.260	5.99
3	Family monthly income	1	0.287	3.84	1	0.497	3.84

The above table reveals that in experimental and control group there is no significant association between the pretest category of hypertension and their socioeconomic variables. Hence hypothesis H₂ is rejected at p>0.05 level.

Table-4.10:

Chi-square test on the pretest category of hypertension among Hypertensive clients and their selected illness related variables in experimental and control group.

n=60

S. No	Illness related Variables	Experimental Group			Control Group		
		Df	χ^2	Table Value	Df	χ^2	Table Value
1.	Family history of hypertension	2	2.01	5.99	3	2.360	7.81
2.	Duration of hypertension	2	11.54*	5.99	3	1.714	7.81
3.	Classification of drug	2	7.50*	5.99	2	1.028	5.99

***significant at p<0.05 level**

The above table reveals that in experimental group there is a significant association between the pretest category of hypertension and their selected illness related variables like duration of hypertension and classification of drugs. In control group there is no significant association between the pretest category of hypertension and their selected illness related variables. Hence Hypothesis H₂ is rejected for both in experimental and control group except for the variables like duration of hypertension and classification of drugs in experimental group at p. 0.05 level.

Table-4.11:

Chi-square test on the pretest category of hypertension among Hypertensive clients and their selected personal variables in experimental and control group.

n=60

S. No	Personal Variables	Experimental Group			Control Group		
		df	χ^2	Table Value	Df	χ^2	Table Value
1.	Dietary pattern	1	0.029	3.84	1	0.418	3.84
2.	Habits	4	1.077	9.48	4	7.640	9.48

The above table reveals that in experimental and control group there is no significant association between the pretest category of hypertension and their personal variables. Hence hypothesis H_2 is rejected at $p>0.05$ level.

Summary

This chapter deals with data analysis and interpretation in the form of statistical values based on the objectives. Here frequency and percentage are used to distribute the hypertensive clients according to their background variables and category of hypertension in experimental and control group. The independent 't' test is used to evaluate the effectiveness of shavasana on blood pressure. The chi-square test is used to associate the pretest category of hypertension with their selected background variables.

CHAPTER –V

DISCUSSION

This chapter discusses the findings of the study derived from the descriptive and inferential statistics. This study was conducted to assess the effectiveness of Shavasana on blood pressure among hypertensive clients at selected community, Salem.

Description of the Background variables

- The researcher found that in experimental group 22(73.35%) were between the age group of 50-60years while in control group, 24(80%) were between the age group of 50-60 years. This study was supported by **Sher shah (2005)**. He conducted the study to assess the relation of hypertension with age in male and female population of Peshawar. He found that 56% of hypertensive clients belong to the age group 50- 60 years.
- In experimental group 20(66.7%) were females while in control group, 16(53.35%) were males. This study was supported by the study done by **Mion., etal (2004)**. In this study the researcher found that the overall prevalence of hypertension was higher (32%) in men than in women (22%). But when the age and sex specific prevalence of hypertension was compared it was seen that in each age group prevalence of hypertension was lower in females than males except in more than 50 years of age group where it was higher in females.
- Majority of the samples in experimental 25(83.4%) and in control group 26(86.7%) were married. This was supported by **Burman(2001)** in his study conducted at Jaipur to assess the prevalence of hypertension. He found out that 78.9% of hypertensive clients were married.

- In experimental group, 18(60%) had primary school education while in control group, 15(50%) had primary school education. This study was supported by **Kripa (2010)**. The researcher conducted this study to assess prevalence of lifestyle related risk factors and their association with hypertension in the rural population of Rajasthan. He found that prevalence of hypertension in those with primary school education was 26.5% compared to 19.2% in those with high school education and 11.6% in those with professional education.
- Majority of samples in 16(53.3%) in experimental group and 21(70%) in control group had normal body mass index.
- In experimental group, 15(50%) were self employers while in control group, 22(73.3%) were self employers.
- In experimental group, 18(60%) were moderate workers while in control group, 19(63.4%) were moderate workers.
- In experimental group, 20(66.7%) had family income between Rs.3001-5000 and 18(60%) had family income between Rs.3001-5000.
- In experimental group, 25(83.3%) were not having family history of hypertension while in control group, 18(60%) were not having family history of hypertension.
- In experimental group, 21(70%) had hypertension for the past 1-5 years while in control group 25(83.3%) had hypertension for the past 1-5years.
- In experimental group, 12(40%) were on calcium channel blockers while in control group, 13(43.4%) were on beta blockers. **Chobanion(2009)** reported that in addition to thiazide diuretics, JNC VII guidelines recommend Angiotensin converting enzyme inhibitors, angiotensin receptor blockers, beta blockers, and calcium channel blockers as first-line therapy for hypertension

- In experimental group, 25(83.3%) were non vegetarians while in control group 23(76.7%) were non vegetarians. This was supported by **Ramdev(2006)**, in one of his studies to assess the association between diet and hypertension at villages at Gujarat. He found that 85.6% of hypertensive clients were non vegetarians.
- In experimental group, 20(66.7%) had no habits while in control group, 15(50%) had no habits.

The first objective was to assess the level of blood pressure among hypertensive clients in experimental and control group.

During pre test, in experimental group, 19 (63.3%) of them belonged to stage I hypertension, 11 (36.7%) belonged to stage II hypertension. In the control group 23(76.7%) belonged to stage I hypertension and 7(23.3%) belonged to stage II hypertension.

During post test, in experimental group 16 (53.3%) of them belonged to stage I hypertension, 4(13.4%) belonged to stage II hypertension, 10(33.3%) belonged to prehypertension. In the control group 15(50%) belonged to stage I hypertension, 10(23.3%) belonged to stage II hypertension and 5(16.7%) belonged to prehypertension. None of the samples were in normal blood pressure in experimental and control group.

The second objective was to evaluate the effectiveness of Shavasana on blood pressure among hypertensive clients in experimental group.

In experimental group, the post test mean score of blood pressure was $1.80 \pm .66$ and in control group, the posttest mean score was 2.17 ± 0.70 . The 't' value was 4.92 shows that shavasana was effective in reducing the blood pressure of

hypertensive clients in experimental group. Therefore Hypothesis H₁ was retained at p<0.05 level.

This study was supported by **Beulah, (2009)** conducted a study in Coimbatore on the effect of shavasana on blood pressure among hypertensive clients. The study was conducted among 30 hypertensive clients. The intervention was given once daily for 15-20 minutes for a period of 3 weeks. A significant reduction in the mean systolic blood pressure of the experimental group (pre-test mean=150.66) and (post-test mean=132.06) and diastolic blood pressure (pre-test mean=96) and (post-test mean=87.33) after the intervention. The mean pre-test and post-test mean remained the same in the control group.

The third objective was to find out the association between pretest category of hypertension among hypertensive clients and their selected background variables in experimental and control group.

In experimental group there was a significant association between the pretest category of hypertension and their selected background variables like age, duration of hypertension and classification of drugs. In control group there was no significant association between the pretest category of hypertension and their selected background variables. Hence hypothesis H₂ was rejected for both experimental and control group except for the variables age, duration of hypertension and classification of drugs in the experimental group at p>0.05 level.

This study was opposed by **Pankaj(2005)**. He conducted a study to assess the effectiveness of shavasana on hypertension. In his study he found out a significant association between hypertension and background variables like age, sex, diet, family history, habits, etc.

Summary

The discussion was made in this chapter based the objectives of the study and its relation with similar studies conducted by other investigators. All the three objectives have been obtained. The first formulated hypothesis was retained and second hypothesis was rejected in this study.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

In this chapter, summary, conclusion, implications to nursing practice and recommendations for further study are presented.

Summary

The purpose of this study was to assess the effectiveness of Shavasana on blood pressure among hypertensive clients at selected community, Salem. Quasi experimental pre and post-test design was chosen for this study. The conceptual frame work selected was based on Wiedenbach's Helping Art Model for Clinical Practices. The tool used in this study consisted of two sections.

Section - A

This section consisted of background variables such as age, sex, education status, occupation, type of work, annual income, diet, medication, and lifestyle and body mass index.

Section - B

A Sphygmomanometer was used to measure the blood pressure (pre and post test) and the samples were classified based on the JNC-VII classification, 2003.

The data were analysed using descriptive and inferential statistics. To test the hypotheses, independent 't' test and chi-square were used. The 0.05 level of significance was used to test the hypotheses.

- The researcher found that in experimental group 22(73.35%) were between the age group of 50-60years while in control group, 24(80%) were between the age group of 50-60 years.
- In experimental group 20(66.7%) were females while in control group, 16(53.35%) were males.

- In experimental group 25(83.4%) were married while in control group 26(86.7%) were married.
- In experimental group, 18(60%) had primary school education while in control group, 15(50%) had primary school education.
- In experimental group 16(53.3%) had normal body mass index while in control group 21(70%) had normal body mass index.
- In experimental group, 15(50%) were self employers while in control group, 22(73.3%) were self employers.
- In experimental group, 18(60%) were moderate workers while in control group, 19(63.4%) were moderate workers.
- In experimental group, 20(66.7%) had family income between Rs.3001-5000 and 18(60%) had family income between Rs.3001-5000.
- In experimental group, 25(83.3%) did not have family history of hypertension while in control group, 18(60%) did not have family history of hypertension.
- In experimental group, 21(70%) had hypertension for the past 1-5 years while in control group 25(83.3%) had hypertension for the past 1-5years.
- In experimental group, 12(40%) were on calcium channel blockers while in control group, 13(43.4%) were on beta blockers.
- In experimental group, 25(83.3%) were nonvegetarians while in control group 23(76.7%) were non vegetarians.
- In experimental group, 20(66.7%) had no habits while in control group, 15(50%) had no habits.
- In experimental group, 19 (63.3%) of them belonged to stage I hypertension, 11 (36.7%) belonged to stage II hypertension. In the control group 23(76.7%)

belonged to stage I hypertension and 7(23.3%) belonged to stage II hypertension.

- In experimental group 16 (53.3%) of them belonged to stage I hypertension, 4(13.4%) belongs to stage II hypertension, 10(33.3%) belongs to prehypertension. In the control group 15(50%) belonged to stage I hypertension, 10(23.3%) belonged to stage II hypertension and 5(16.7%) belonged to prehypertension. None of the samples were in normal blood pressure in experimental and control group.
- In experimental group, the post test mean score of blood pressure was 1.80 ± 0.66 and in control group, the post test mean score was 2.17 ± 0.70 . The 't' value was 4.92 shows that shavasana was effective in reducing the blood pressure of hypertensive clients in experimental group. Therefore Hypothesis H_1 was retained at $p < 0.05$ level.
- In experimental group there was a significant association between the pretest category of hypertension and their selected background variables like age, duration of hypertension and classification of drugs. In control group there was no significant association between the pretest category of hypertension and their selected background variables. Hence hypothesis H_2 was rejected for both experimental and control group except for the variables age, duration of hypertension and classification of drugs in the experimental group at $p > 0.05$ level.

Conclusion

This study was done to assess the effectiveness of shavasana on blood pressure among hypertensive clients at selected community, Salem. The result of this study showed that shavasana was effective in reducing blood pressure among hypertensive

clients. In experimental group there was a significant association between the pretest category of hypertension and their selected background variables like age, duration of hypertension and classification of drugs. In control group there was no significant association found between the pretest category of hypertension and their selected background variables.

Nursing Implications

The findings of this study have the following implications in various areas on nursing service, nursing education, nursing administration; and nursing research.

Nursing services

- It emphasizes more on self care rather than allowing patients and their families to become dependent on health care personnel.
- There is a need for integration of the indigenous systems of medicine into the general health care services.
- In-service education can be provided to the peripheral level health workers and staff nurses to train them on the alternative therapies available.
- All the hypertensive clients with stage I and II hypertension can be taught about the advantages of shavasana in the management of high blood pressure.

Nursing education

- Nurse educators should provide adequate training to the students regarding shavasana.
- Provide exposure to various alternatives complementary therapies and encourage the students to participate in the specialization and expand their carrier.

- Periodic conferences, seminars and symposium can be arranged regarding alternative and complementary therapies to update nursing professional about its importance.
- The nursing curriculum needs to update the nursing students to make them be aware of all the recent researches present in the field and implement them.

Nursing administration

- The nurse administrator coordinates her work along with the staffs, to encourage them to do selected alternative nursing measures like shavasana in the management of hypertension.
- Nursing administrator should organize In-service education program to the staffs regarding the management of hypertension and its complications.

Nursing research

- Nurse investigator should be motivated to conduct more studies about alternative therapies for managing hypertension.
- Disseminate the findings through conferences, seminar, publications in professional, national & international journals.
- More researches can be done to establish the effectiveness of shavasana on blood pressure.
- The nursing students should be motivated to conduct similar project works in different settings to improve their knowledge.

Recommendations

- The study can be replicated with a larger group.
- A similar study can be conducted in a hospital set up.
- A similar study can be undertaken by allotting more time on data collection.
- A similar study can be done in urban community.

- A comparative study can be done to determine the effectiveness of shavasana and other types of yoga on blood pressure among hypertensive clients.
- A comparative study can be done between rural and urban community.

SUMMARY

This chapter dealt with summary, conclusion, implications for nursing, and recommendations.

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ANNEXURE – A

LETTER SEEKING PERMISSION TO CONDUCT RESEARCH STUDY

From

Ms.Bindya Viswambharan,
Final Year, M.Sc., (N)
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To

The Principal,
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

Respected Sir/Madam,

Sub: Permission to conduct research study - request- reg.

I, **Ms.Bindya Viswambharan**, II Year M.Sc., (Nursing) student of Sri Gokulam College of Nursing, is to conduct a research project which is to be submitted to the Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfilment for the award of M.Sc. (Nursing) Degree.

Topic: “A Study to Assess the Effectiveness of Shavasana on Blood Pressure among Hypertensive Clients at Selected Community, Salem”.

I request you to kindly do the needful.

Thanking you.

Date : 13.07.2011

Place : Salem

Yours sincerely,

(Ms.Bindya Viswambharan)

ANNEXURE – B

LETTER GRANTING PERMISSION TO CONDUCT RESEARCH STUDY

To

The Panchayat President,
Karipatti,
Salem.

Respected Sir/Madam,

Sub:Permission to conduct research Project -Reg.

This is to introduce **Ms. Bindya Viswambharan**, a Final year M.Sc (Nursing) student of Sri Gokulam College of Nursing. She is to conduct a research project which is to be submitted to the Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfilment of University requirement for the award of M.Sc (Nursing) Degree.

Topic: A Study to Assess the Effectiveness of Shavasana on Blood Pressure among Hypertensive clients at Selected Community, Salem

Kindly permit to conduct a research project in Karipatti community, Salem from 13.07.2011 to 7.8.2011 .I assure that the collected data would be kept confidential and used only for the study purpose.

Thanking you

க.ப.சு.
தலைவர்,
காரிப்பட்டி பஞ்சாயத்

Date: 12.7.2011

Place: Salem

Yours Sincerely,

(DR. A. JAYASUDHA)
PRINCIPAL
Sri Gokulam College of Nursing
SALEM – 636 010.

ANNEXURE – C
LETTER REQUESTING OPINION AND SUGGESTIONS OF EXPERTS FOR
CONTENT VALIDITY OF THE RESEARCH TOOL

From

Ms.Bindya Viswambharan,
Final Year M.Sc., (N)
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To,

(Through proper channel)

Respected Sir/ Madam,

Sub: Requesting opinion and suggestions of experts for establishing content validity of the tool.

I, **Ms.Bindya Viswambharam**, I Year M.Sc., (Nursing) student of Sri Gokulam College of Nursing, Salem, have selected the below mentioned Statement of the Problem for the research study to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai as partial fulfilment for the award of Master of science in Nursing.

Topic: “A Study to Assess The Effectiveness of Shavasana on Blood Pressure among Hypertensive Clients at Selected Community, Salem”.

I request you to kindly validate the tool developed for the study and give your expert opinion and suggestion for necessary modifications.

Thanking you

Yours sincerely,

Place : Salem

Date :

(Ms.Bindya Viswambharam.)

Enclosed:

1. Certificate of validation
2. Criteria checklist of evaluation of tool
3. Tool for collection of data
4. Procedure

ANNEXURE – D

TOOL

SECTION – A: BACKGROUND VARIABLES

Instructions:

The interviewer will ask question listed below and place a tick mark (✓) against the correct response given by respondent.

Demographic variables:

1. Age (in years)

a) 40 – 50 ()

b) 50 – 60 ()

2. Sex

a) Male ()

b) Female ()

3. Marital Status

a) Married ()

b) Unmarried ()

c) Widow / Widower ()

d) Separated ()

e) Divorced ()

4. Educational status

a) No formal education ()

b) Primary school ()

c) High school ()

d) Higher secondary ()

e) Diploma ()

f) Graduate ()

g) Post graduate ()

5. BMI of the client

- a) < 18 - Underweight ()
- b) 18-24.9 - Normal ()
- c) 25 – 29.9 - Overweight ()
- d) 30 – 34.9 - Obese grade I ()
- e) 35 – 39.9 - Grade II ()
- f) >40 - Grade III ()

Socio-economic variables :

6. Occupation

- a) Unemployed ()
- b) Self employee ()
- c) Private employee ()
- d) Government employee ()
- e) Retired ()

7. Type of work

- a) Sedentary work ()
- b) Moderate work ()
- c) Heavy work ()

8 . Family monthly income (in rupees)

- a) Below `3000 ()
- b) `3001 – `5000 ()
- c) `5001 – `7000 ()
- d) Above `7000 ()

Illness related variables:

9. Family history of hypertension

- a) 1^o relatives ()
- b) 2^o relatives ()
- c) Both 1^o & 2^o relatives ()
- d) Nil ()

10. Duration of hypertension

- a) Less than 1 year ()
- b) 1-5 years ()
- c) 6 – 10 years ()
- d) Above 10 ()

11. Classification of drug

- a) Adrenergic inhibitor ()
- b) Calcium channel blocker ()
- c) Both Adrenergic inhibitor and Calcium channel blocker ()

Personal variables:

12. Dietary pattern

- a) Vegetarian ()
- b) Non vegetarian ()

13. Habits

- a) Alcohol ()
- b) Smoking ()
- c) Any other ()
- d) More than one habit ()
- e) Nil ()

PROCEDURE FOR CHECKING BLOOD PRESSURE

Blood pressure:

Blood pressure is the force exerted on the walls of an artery created by the pulsing blood under pressure from the heart.

Equipment:

Article	Purpose
Sphygmomanometer	To check the blood pressure
Stethoscope	To auscultate the korotkoff sound

Procedure:

PROCEDURE	RATIONALE
<ul style="list-style-type: none"> • Explain the procedure to the patient. • Place patient in sitting position, and instruct patient to keep feet flat on floor without legs crossed. • Expose extremity (arm) fully by removing constricting clothing. • Palpate brachial artery. Apply bladder of cuff above the artery. Position cuff 2.5cm above site of pulsation wrap cuff evenly and snugly around extremity. • Palpate artery distal to the cuff with fingertips of non dominant hand. While inflating cuff note point at which pulse disappears and continue to inflate cuff to a pressure 30mmhg above that point. Note the pressure reading. Slowly deflate the cuff, and note the point 	<ul style="list-style-type: none"> • To get co-operation and to gain confidence. • Leg crossing falsely increases systolic and diastolic blood pressure. • Ensures proper cuff application. • Inflating bladder directly over artery ensures proper pressure is applied during inflation. Loose fitting cuff causes false high readings. 5. Palpation determines maximal inflation point for accurate reading .Completely deflated cuff prevents venous congestion and false high reading.

<p>when pulse reappears. Deflate cuff fully and wait for 30 seconds.</p> <ul style="list-style-type: none"> • Place the stethoscope earpieces in ears, and be sure sounds are clear, not muffled. • Relocate brachial artery, and place bell or diaphragm of stethoscope over it .do not allow chest piece to touch the cuff or clothing. • Close valve of pressure bulb clockwise until tight. • Quickly inflate cuff to 30mmHg above patients estimated systolic pressure. • Slowly release pressure bulb valve, and there are no extraneous sounds. • Note point on manometer when the first clear sound heard. The sound will slowly increase in intensity. • Continue to deflate cuff gradually, noting point at which sound disappears in adults. • Record the blood pressure measurements in pre test and post test. 	<ul style="list-style-type: none"> • Ensures each ear piece follows angle of ear canal to facilitate hearing. • Proper placement ensures the best sound reception. • Prevents air leak during inflation. • Rapid inflation ensures accurate measurement of systolic pressure. • Too rapid or slow a decline in pressure release causes inaccurate readings. Noise interferes. • First korotkoff sound reflects systolic blood pressure. • Indication of diastolic pressure.
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PROCEDURE OF SHAVASANA

Shavasana

Savasana is a pose of total relaxation intended to rejuvenate total body mind and spirit.

Procedure

Lie flat on the floor comfortably. There are three steps in shavasana. They are

- Quick relaxation technique
- Instant relaxation technique
- Deep relaxation technique.

Quick relaxation technique

Inhale slowly. When you inhale your abdomen should rise and while exhaling your abdomen should fall. Continue this for 10 times.

Instant relaxation technique

Concentrate on your toes. Fold the toe fingers. Gradually tighten the muscles of toe, calf muscles, thigh abdomen, chest, shoulders and hands. Tighten your fist. Clench the teeth and tighten the face muscles. Maintain in this position for 5 seconds. Then suddenly relax the whole body. This increases the blood circulation. Take few breaths in between and repeat this exercise for 5 times.

Deep relaxation technique

Take a deep breath and concentrate on your abdomen. Relax the muscles of the abdomen. Chant 'Aah.' this is called akkara. Then gradually sent your concentration towards your chest and take a deep breath. Relax the whole body and chant 'U' or called as ukkara. Feel the vibration inside. Then concentrate on the head region and chant 'Om' otherwise called as Omkara. Build your feeling that your problems are solved. Remain in this position. Then slowly turn to one side and rise up.

CHECKLIST ON PRACTICE OF SHAVASANA

Sample details

S:no	date	Quick relaxation technique	Instant relaxation technique	Deep relaxation technique	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

Signature of supervisor

பாகம் - அ

அடிப்படை விவரங்களை அறியும் நேர்காணல் படிவம்

குறிப்பு:

ஆராய்ச்சியாளர் பின்வரும் அனைத்து தகவல்களையும் பங்கேற்பவர்களிடமிருந்து சேகரித்து (✓) என்ற குறியை மிகவும் பொருத்தமானவைகளுக்கு எதிரேயுள்ள கட்டத்தில் இடுவார்.

அடிப்படை விவரங்கள்

1. வயது (வருடங்களில்)

அ) 40 முதல் 50 வரை ()

ஆ) 50 முதல் 60 வரை ()

2. பாலினம்

அ) ஆண் ()

ஆ) பெண் ()

3. திருமணத்தகுதி

அ) திருமணமானவர் ()

ஆ) திருமணமாகாதவர் ()

இ) கணவர் / மனைவி இழந்தவர் ()

ஈ) தனி வாழ்க்கை வாழ்பவர் ()

உ) விவாகரத்து பெற்றவர் ()

4. கல்வித்தகுதி

அ) கல்வியறிவு இல்லாதவர் ()

ஆ) ஆரம்ப கல்வி ()

இ) உயர்நிலைக்கல்வி ()

ஈ) மேல்நிலைக்கல்வி ()

உ) பட்டயப்படிப்பு ()

ஊ) இளநிலை பட்டதாரி ()

எ) முதுகலை பட்டதாரி ()

5. நோயாளியின் வளர்சிதை மாற்றத்தின் அளவு

- அ) < 18 - வளர்ச்சி குறைந்த ()
- ஆ) 18 - 24.9 - சராசரியான ()
- இ) 25 - 29.9 - வளர்ச்சி மிக்க ()
- ஈ) 30 - 34.9 - உடல் பருமன் தகுதி- I ()
- உ) 35 - 39.9 - தகுதி -II ()
- ஊ) >40 - தகுதி -III ()

சமூக வருமான காரணிகள்

6. வேலை

- அ) வேலையில்லாதவர் ()
- ஆ) சுயவேலை ()
- இ) தனியார் வேலை ()
- ஈ) அரசினர் வேலை ()
- உ) ஓய்வு பெற்றவர் ()

7. வேலையின் தன்மை

- அ) குறைந்த வேலைப்பளு ()
- ஆ) மிதமான வேலைப்பளு ()
- இ) அதிக வேலைப்பளு ()

8. குடும்ப வருமானம் (ரூபாய்களில்)

- அ) ரூ.3000க்கு கீழ் ()
- ஆ) ரூ.3001 - 5000 வரை ()
- இ) ரூ.5001 - 7000 வரை ()
- ஈ) ரூ.7000க்கு மேல் ()

நோய் தொடர்பான காரணிகள்

9. குடும்பத்தில் யாரேனும் உயர் இரத்த அழுத்தத்தால் பாதிக்கப்பட்டுள்ளனரா?

- அ) முதல் தலைமுறை ()
ஆ) இரண்டாம் தலைமுறை ()
இ) முதல் மற்றும் இரண்டாம் தலைமுறை ()
ஈ) எதுவுமில்லை ()

10. நீங்கள் எவ்வளவு காலமாக உயர் இரத்த அழுத்தத்தால் பாதிக்கப்பட்டுள்ளீர்கள்?

- அ) 1 வருடத்திற்கு குறைவாக ()
ஆ) 1 முதல் 5 வருடங்கள் ()
இ) 6 முதல் 10 வருடங்கள் ()
ஈ) 10 வருடத்திற்கு மேல் ()

11. நீங்கள் எடுத்துக் கொள்ளும் மருந்தின் வகை

- அ) அடரினர்ஜிக் இன்ஹிபிடார்ல் ()
ஆ) கால்சியம் சேனல் பிளாக்கர்ல் ()
இ) அடரினர்ஜிக் இன்ஹிபிடார்ல் மற்றும்
கால்சியம் சேனல் பிளாக்கர்ல் ()

சுயகாரணிகள்

12. உணவுப் பழக்கம்

- அ) சைவம் ()
ஆ) அசைவம் ()

13. பழக்க வழக்கங்கள்

- அ) குடிப்பழக்கம் ()
ஆ) புகைப்பிடித்தல் ()
இ) வேறு ஏதேனும் ()
ஈ) ஒன்றிக்கும் மேற்பட்ட பழக்கங்கள் ()
உ) எதுவுமில்லை ()

சவாசனம் செய்முறை

சவாசனம்

உடலை தளர்த்தும் முறை:

முதலில் முழு உடலையும் தளர்த்தி ஓய்வுப்படுத்திக் கொள்ளவேண்டும். இருகால்களையும் சேர்த்து வைக்கவும். பின், படிப்படியாக குதிகால் மற்றும் விரல்களையும் சேர்த்து வைக்கவும். அதைப் போன்று கை, உள்ளங்கைகளை சேர்த்து வைக்கவும். முகத்தை சிரித்தவாறு வைத்துக் கொள்ளவும். மெதுவாக கவனத்தை கட்டைவிரலின் நுனிப்பகுதிக்கு கொண்டு வரவும். கால் விரல்களை விரிக்கவும், பின் கணுக்கால், கெண்டைக்கால், தொடைப்பகுதியை இறுக்கவும். அதே போன்று பின்புலத்தை அழுத்தவும். கைவிரல்களை மூடி வைத்து கைகளை இறுக்கமாக்கவும். மூச்சை வெளிவிடும்பொழுது வயிற்றை உள்நோக்கி உள்ளிழுக்கவும். உள்ளிழுக்கும்பொழுது மார்புப்பகுதி விரிவடையவேண்டும். பின்பு தோள்பட்டை, கழுத்து, முகத்தினை இறுக்கமாக்கவும். மெதுவாக உடல் முழுவதையும் தளர்த்துங்கள். கால் கைகளை உடலைவிட்டு விலக்கி வையுங்கள். உள்ளங்கையை மேல்நோக்கியவாறு வைக்கவும்.

விரைவாக உடலை தளர்த்தும் முறை:

உங்கள் கவனம் முழுவதும் வயிற்றுப் பகுதிக்கு கொண்டு வரவும். உங்கள் சவாசமும், வயிற்றுப் பகுதி அசைவும் ஒரே மாதிரியாக இருக்கவேண்டும். அதாவது மூச்சை உள்ளிழுக்கும் போது, வயிற்றுப் பகுதி விரிவடையும், வெளிவரும் போது சுருங்கும் (5 முறை செய்யவும்).

உணர்ந்து சுவாசிக்கும் முறை:

சவாசத்தை உள்ளிழுக்கும்போது வயிற்றுப்பகுதி விரிவடைந்து, உடலுக்கு சக்தியை கொடுக்கிறது. சவாசத்தை வெளிவிடும்போது, மனஅழுத்தம், அடக்கி வைத்த கோபம், மனஸ்தாபம், போன்றவற்றை வெளிவிடுவதை போன்று உணர்வீர்கள் இதனை போன்று 5 முறை செய்யவும்.

ஆழமாக உடலை தளர்த்தும் முறை:

உங்கள் கவனத்தை காலின் கட்டை விரலுக்கு கொண்டு வந்து, மெதுவாக அசைத்து, தளர்வதை போல் உணருங்கள். படிப்படியாக இடுப்பின் கீழ்பகுதிகளான கணுக்கால், ஆடுதசை, கெண்டைக்கால், தொடைப்பகுதி, பின்புறத்தை தளர்த்துங்கள். உடலின் கீழ்பகுதியை தளர்த்தியபின், “ஆ” என்று குரலெழுப்பி, உடலின் கீழ்பகுதியின் அதிர்வை ஏற்படுவதை உணருங்கள்.

மெதுவாக உங்கள் கவனத்தை வயிற்றுப் பகுதிக்கு கொண்டு வந்து, அசைவுகளை உணருங்கள் பின் வயிற்று, மார்ப பகுதியை தளர்த்துங்கள் படிப்படியாக முதுகுப்பகுதி, தோள்பட்டை பகுதி போன்றவற்றை தளர்த்துங்கள். உங்கள் கை விரல்களையும், உள்ளங்கை தளர்த்துங்கள், மெதுவாக உங்கள் கவனத்தை கழுத்து பகுதிக்கு கொண்டு வந்து, வலது மற்றும் இடதுப்புறமாக மெதுவாக திருப்புகள். கழுத்துப்பகுதியை தளர்த்துங்கள். உடலின் மேல் பகுதியை முழுமையாக தளர்த்தியபின், “ஊ” என்று சொல்லுங்கள்.

உங்கள் கவனத்தை முகத்திற்கு கொண்டு வந்து, முகத்தின் தசை மற்றும் எலும்புகளை தளர்த்துங்கள் பின்பு உங்கள் கவனத்தை சுவாசத்திற்கு கொண்டு வரவும். சுவாசிக்கும் போது குளிர்ந்த காற்று உள்ளிழுக்கப்படுவதையும், வெளிவிடும் பொழுது சூடான காற்று வெளிப்படுவதையும் உணர்வீர்கள். முகம் முழுவதையும் தளர்த்திய பின் “ம்” என்று சொல்லுங்கள். சொல்லும்போது அதிர்வுகள் உண்டாவதை உணர்வீர்கள்.

இப்பொழுது, உங்கள் உடல் முழுவதையும் தளர்த்தி “ஓம்” என்று சொல்லும்பொழுது எதிரொலி உண்டாவதை உணர்வீர்கள். பின்பு, உங்கள் உடல் முழுவதையும் அசைக்கவும், உடல் லேசாகவும், சக்தி வாய்ந்ததாகவும், சுறுசுறுப்பாகவும், இருப்பதை உணர்வீர்கள். கால்களை மெதுவாக ஒன்றாக்கி, கைகளை உடலுடன் ஒட்டி, மெதுவாக திருப்பி எழுந்திருங்கள்.

ANNEXURE - E

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by **Ms.BINDYA VISWAMBHARAM**, First year M.Sc. Nursing student of Sri Gokulam College of Nursing, Salem (affiliated to The Tamil Nadu Dr. M.G.R. Medical University) is validated and can proceed with this tool and content for the main study entitled “**A Study To Assess the Effectiveness of Shavasana on Blood Pressure among Hypertensive Clients at Selected Community, Salem**”.

Signature with Date

ANNEXURE - F
LIST OF EXPERTS FOR CONTENT VALIDITY

- 1. Dr. G.Prakash, M.D.,**
Consultant community medicine
Sri Gokulam Hospital,
Salem.

- 2. Dr. K. Selvakumari, M.D.,**
Consultant Physician,
Sri Gokulam Hospital,
Salem.

- 3. Dr.A.M.Sudhakar**
Medical consultant,
Govt.primary health centre
Namakkal

- 4. Mrs. N. Anitha, M.Sc.(N),**
Professor,
Medical Surgical Nursing,
Sri Gokulam College of Nursing,
Salem.

- 5. Mrs. B. Sumathi, M.Sc.(N),**
Associate Professor,
Medical Surgical Nursing,
Sri Gokulam college of nursing,
Salem.

- 6. Mrs. J.Kamini Charles, M.Sc.(N), Ph.D.,**
Associate Professor, Head of the dept,
Community Health Nursing,
Sri Gokulam College of Nursing,
Salem.

- 7. Mrs.Malathy, M.Sc.(N),**
Associate Professor,
Community Health Nursing,
Vinayaka Mission Annapoorna College of Nursing,

- 8. Mrs.Akila, M.sc.(N),**
Associate Professor,
Community health nursing,
Vivekananda college of nursing.

ANNEXURE – G

CERTIFICATE OF TRAINING

AISHWARYAM NATURE CURE HOSPITAL
& YOGA CENTRE

(Aishwaryam Health & Educational Trust)

5/148-A, State Bank officer's Colony, Salem - 636 004. Mobile : 98657 12057
Tel : 0427 - 2331133, E-mail : aishwaryamhospital@gmail.com

Dr. A.M. Sudhakar, B.N.Y.S.,

Dr. Sujatha Sudhakar, B.N.Y.S.,

Date : 26/06/2011

CERTIFICATE OF TRAINING

TO WHOMSOEVER IT MAY CONCERN

I hereby certify that Miss. Bindya Viswambharan, MSc (N) Final Year Student, Sri Gokulam College Of Nursing, Salem, has undergone training on Shavasana and she is eligible to perform shavasana for Hypertensive patients.

Signature:


26/06/2011
PROPRIETOR

Seal: Aishwaryam Nature. Cure Hospital
State Bank Officer's Colony
SALEM - 636 004.

"Nature Cure Detoxify the Body
Yoga Detoxify the Mind"

ANNEXURE - H

CERTIFICATE OF EDITING

Certified that the dissertation paper titled “**A Study To Assess The Effectiveness Of Shavasana On Blood Pressure Among Hypertensive Clients at Selected Community, Salem**” by **Ms.Bindya Viswambharan**, has been checked for accuracy and correctness of English language usage, and that the language used in presenting the paper is lucid, unambiguous, free of grammatical / spelling errors and apt for the purpose.

Date :

Signature:



Name and designation:

**E.SELVARAJ, M.A., B.Ed.,
P.G. Asst in English**

**SRI VIDHYA MANDIR HR. SEC. SCHOOL
PETHAMPATTI, ATTAYAMPATTI - 637 501.**

ANNEXURE - I

PHOTOS



INVESTIGATOR COLLECTING BACKGROUND DATA



CLIENT PRACTICING SHAVASANA