EFFECTIVENESS OF AGITATION MANAGEMENT STRATEGY ON BLOOD PRESSURE AND STRESS AMONG PATIENTS WITH HYPERTENSION ADMITTED IN SREE MOOKAMBIKA MEDICAL COLLEGE HOSPITAL, KULASEKHARAM

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

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Internal Examiner

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APPROVED BY DISSERTATION COMMITTEE ON : 23.12.2014

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Bonafide Certificate

This is to certify the dissertation **"Effectiveness Of Agitation Management Strategy on Blood Pressure and Stress Among Patients with Hypertension Admitted in Sree Mookambika Medical College Hospital, Kulasekharam".** This is a bonafied work done by **Divya Krishnan K.P II year Msc(N),** Sree Mookambika College of Nursing, Kulasekharam under the guidance of **Mrs. Adlin Sujitha Msc(N), Associate Professor** in partial fulfillment of the requirement for the degree of master of science in nursing under the Tamilnadu Dr. M.G.R University, Chennai.

Place: Kulasekharam

Date: 10.02.2016

Principal

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Kulasekaram

Declaration

I hereby declare that the present dissertation titled **"Effectiveness Of Agitation Management Strategy on Blood Pressure and Stress Among Patients with Hypertension Admitted in Sree Mookambika Medical College Hospital, Kulasekharam"** is the outcome of the original research work under taken and carried out by me under the guidance of **Mrs. Adlin Sujitha M.Sc(N), Associate Professor,** Sree Mookambika college of Nursing Kulasekaram. I also declare that the material of this has not formed in any way, the basis for the award of any degree or diploma in this university or any universities.

Dlace: Kulasekharam

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INVESTIGATOR

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Abstract

Hypertension, elevated blood pressure, is a noteworthy public health concern worldwide clue to its significant contribution to the global health burden and its role as a prominent risk factor for development of number of disease processes. The negative impact of hypertension on health status is very clear, especially taking into account of disability, decreased quality of life and mortality associated with stroke and cardiovascular disease and organ failure. Non-pharmacological interventions also effective in treating essential hypertension. Agitation management strategy is a non-pharmacologic modalities and its a relaxation technique that reaches the body to respond verbal commands. These commands tell the body to relax and control breathing rate, blood pressure, and body temperature. It is known that regular practice of breathing exercise and pleasant visualization which helps to increase parasympathetic tone, decrease sympathetic activity, improve physical and mental health. This study under taken to assess the effectiveness of agitation management strategy on blood pressure and stress level among patients with Hypertension admitted in Sree Mookambika Medical College Hospital, Kulasekharam. The objective of the study is to determine the effectiveness of agitation management in reducing blood pressure and stress among hypertensive clients. The researcher adopted a quantitative approach with two group pretest post test design. The study subjects were 60 patients with Hypertension admitted in Sree Mookambika Medical College Hospital who were selected by purposive sampling technique. The data were collected from 60 patients, 30 were allotted in the experimental group and 30 in the control group. Pretest was conducted in experimental and control group on the first day using modified Vaughn's tool. Agitation Management Strategy was demonstrated

to the experimental group and asked them to perform 25 minutes twice daily. Post test was conducted to the experiment and control group on 7th day morning after the performance of Agitation management strategy by the experimental group. The collected data were analyzed based on the above mentioned objective using the descriptive and inferential statistics. The 't' value for Comparing mean blood pressure was tabulated and found to be; $t= 9.36$ [$p<0.05$] on the 7th day for systolic blood pressure and $t= 7.21$ [$p<0.05$] 7th day for diastolic blood pressure. The study finding indicate that the Agitation Management Strategy is effective non pharmacologic measure to reduce hypertension.

Key Words: *Agitation Management Strategy, Hypertension, Stress.*

CHAPTER - I

Introduction

"Those who think they have no time for exercise will sooner or later Have to find time for illness."

- Edward Stanley

The theme for Blood Pressure of 2014 is "Know Your Blood Pressure"

Back ground of the study

World Hypertension Day is celebrated every year on 17th May to raise the awareness about the hypertension, its preventive measures and complications. It was first celebrated on 14th May in the year 2005 organized by the World Hypertension League. Worldwide hypertension is a silent risk factor for cardiovascular morbidity and mortality. Hypertension is ranked as the third most important causes of premature death worldwide [World Health Organization 2015].

Hypertension is a invisible killer that rarely causes symptoms but is an important public health challenge because of its high prevalence and concomitant risk of coronary artery disease, heart failure, cerebrovascular diseases and chronic renal failure. The negative impact of hypertension on health status is clear, especially taking into account of disability [60%], decreased quality of life[75%]and mortality associated with stroke[80%]and cardiovascular disease[90%] and organ failure[82%] [Asian Journal of Multidisciplinary studies ISSN;2321-8819].

There are two main types of hypertension, ‘’ Primary’’ hypertension, also known as essential or idiopathic hypertension and ‘’ Secondary’’ hypertension and other four less common type of hypertension include malignant hypertension, isolated systolic hypertension, white coat hypertension, and resistant hypertension[Journal of Education and Practice].

There is no single identifiable cause; it’s pathogenesis is multifactorial can trigger risk such as genetic factors which play an important role in environmental factors such as sedentary life style, stress, high salt intake, smoking, and high alcohol intake. Obesity and ageing also are significant. Secondary hypertension is less common, affects about 5 to10 percent of hypertension cases, results from various conditions and medications [Wikipedia, 2014 and Onusko,2013].

Hypertension is a major contributing factor for cardiovascular diseases. Essential hypertension is the most prevalence type, affecting 90-95% of hypertension patients [Madhur, 2014], with this type of hypertension. There are many risk factors for essential hypertension such as advance in age, especially 25 years and above, sex, family history of hypertension, obesity, smoking, alcohol and high salty diet. Non pharmacologic measures like autogenic meditation, progressive muscle relaxation, acupuncture, guided imaginary, music therapy are used to treat hypertension[WHO Committee-1998].

Treatment for hypertension has been shown to be effective in reducing the incidence of all the complications, particularly stroke. Many medications such as diuretics [Clorpres, Dyazide, Lopressor, etc…] are recommended as the first line treatment for high blood pressure. Calcium channel blockers such as [Amlodipine, Diltiazide, Isradipine, Nifedipine, etc…] Beta blockers are widely used for high blood

pressure, such as Acebutolol, atenlol, metoprolol, etc… All medications have side-effect such as confusion, nausea, dry mouth or increased thirst, irregular heart beat, muscle cramps or pain, numbness or tingling in hands, feet or lips. However these medications are available by prescription only and have side effects, which must be closely monitored. The most complication of hypertension are organ disease occurring in the heart affect 80%, brain[stroke 75%], peripheral vascular diseases45%, kidney[nephrosclerosis68.8%], eyes[retinal damage55%] and also affect the quality of life30% [WEB MED online reference/www.m.webmed.com].

Non-pharmacological interventions also effective in treating essential hypertension, non-pharmacological therapy involves five lifestyle modifications recommended by Joint National Committee for reducing hypertension that is reducing sodium intake, increasing exercise, limiting alcohol consumption, dietary changes, losing weight, and stress reduction [relaxation techniques]. The last one includes careful attention to the process of breathing, to achieve a state of inner calm, detachment and focus[Joint National Committee for hypertension-2010].

Agitation management strategy is one of the non-pharmacological modality. This strategy consist of two interventional package Autogenic meditation and Guided imaginary; which decrease the effect of stress, decrease sympathetic activity, increase parasympathetic tone and improve physical and mental health that by reduce hypertension [Adhana et al., 2013, Kulur et al.,2009].

Autogenic meditation is a technique that reach body to respond verbal commands. These commands tell the body to relax and control breathing rate, blood pressure, and body temperature. The goal of autogenic meditation to achieve deep relaxes action and reduce stress[Journal of Education and Practice ISSN paper-2015].

Mind relaxation exercise decrease blood pressure and stress level, this may be due to a normalization of autonomic cardiovascular rhythms as a result of increased vital modulation and/or decreased sympathetic activity and improved baro reflex sensitivity along with an augmentation of endogenous nitric oxide production. Sympathetic hyperactivity and parasympathetic withdrawal may cause and sustain hypertension. This autonomic imbalance is in turn related to a reduced or reset arterial baroreflex sensitivity and chemoreflex-induced hyperventilation. Slow breathing at 6 breaths per minute increases baroreflex sensitivity and reduces sympathetic activity and chemoreflex activation, suggesting a potentially beneficial effect in hypertension[World Health Organization 2013].

Breathing correctly is not only important for living longer but also to have good mood and keep performing at the best. Making deep breathing a part of our daily life helps in detoxifying and releasing toxins, release tension, relaxes both body and mind, relieves emotional problems and pain, increase muscle strength and strengthen immune system, improves nervous system, strengthen lungs and heart, increase digestion and assimilation of food [Journal of Nursing Times -2011].

Guided Imaginary is the use of relaxation and mental visualization to improve mood and physical well-being. Guided imaginary helps in connection between the mind and physics health has been well document and extensively studied. Positive mental imaginary can promote relaxation and reduce stress, improve mood, control blood pressure, alleviate pain and lower cholesterol [According to Medical dictionary- 2010].

Regupathy Achala, Nanda K. Kannuri et al[2014] conducted a systemic review and meta-analysis of prevalence, awareness and control of hypertension.

Overall prevalence for hypertension in India was 29.8% [95% confidence interval: 26.7-33.0]. Significant difference in hypertension prevalence were noted between rural and urban parts [27.6%{23.2-32.0} and 33.8%{29.7-37.8};p=0.05]. Regional estimates for the prevalence of hypertension were as follows:14.5%[13.3-15.7], 31.7%[30.2-33.3], 18.1%[16.9-19.2], and 21.1%[20.1-22.0] for rural north, east, west and south India; and 28.8%[26.9-30.8], 34.5%[32.6-36.5], 35.8%[35.2-36.5] and 31.8%[30.4-33.1] for urban north, east, west, and south India, respectively. Overall estimates for the prevalence of awareness, treatment and control of blood pressure were 25.3%[21.4-29.3],25.1%[17.0-33.1] and 10.7%[6.5-15.0] for rural Indians and 42.0%[35.2-48.9], 37.6%[24.0-51.2] and 20.2%[11.6-28.7] for urban Indians. Thus they concluded that 33% urban and 25% rural Indians are hypertensive. Of these, 25% rural and 42% urban Indians are aware of their hypertensive status. Only 25% rural and 38% of urban Indians are being treated for hypertension. One-tenth of rural and one- fifth of urban Indian hypertension have their BP under control.

Karien Red, Chia-wen Tsai et al[2010] performed a systemic review to investigate the effectiveness of agitation management strategy to reduce blood pressure in a meta-analysis of individual patient datas, randomized control trails with an active control group. Included were randomized studies of at least one week' duration, with an active experimental and control group. Bias was assessed with the Cochrane risk of bias tool, and analyses were performed with linear mixed models with measuring blood pressure chart. Participants in the control group did not receive any intervention for hypertension. Of 40 participants, 19 were randomly assigned to the interventional group and 21 were assigned to the control group. Interventional package only allowed for experimental group [autogenic meditation and guided imaginary]. After one week' duration significant difference were observed between

experimental and control group. The analysis showed that agitation management strategy has significant reduction of blood pressure [95%confidence interval =-5.04 TO =2.45.1=30.7%].3.75 mmHg in systolic blood pressure and a 3.39-mmHg reduction[95% confidential interval=-4.14 to -2.65,1=67%] in diastolic compared with controls. Meta analysis of subgroups showed a significant in systolic blood pressure in hypertensive[-4.4 mmHg;95%CI-7.37 to -1.42,1=0.0%;p=0.04] but not in normotensive patient. After sensitivity analysis, heterogeneity disappeared and significant diastolic blood pressure reduction[-2.68mmHg,CI-4.93 to o.42,1=0.0%;p=020]was shown in hypertensive patients. Thus they suggested that interventional package are superior to control in reducing blood pressure, especially in hypertensive patients.

Need of the Study

Blood pressure is the pressure exerted on the walls of the arteries during ventricular systole and diastole. It is affected by factors such as cardiac output, distension of the arteries and the volume, velocity of the blood.

In the modern world stress is increasing in personal life, 26.4% of adult in the world and 24,6% in India is suffering from hypertension [Asian Journal of Hypertension- 2016].

According to WHO expert committee and Joint National Committee Report [1996] on Prevention Detection and Evaluation of high pressure recommends non pharmacological treatment as the first measure in control of hypertension. Across the WHO regions, the prevalence of raised blood pressure was highest in Africa, where it was 46% for both sexes combined. Both men and women high rates of raised blood pressure in Africa region, with prevalence rates over 40%. The lowest prevalence of

raised blood pressure was in the WHO Region of the Americans at 35% for both sexes. Men in this region had higher prevalence than women[39% for men and 32% for women]. In all WHO regions, men have slightly higher prevalence of raised blood pressure than women[WHO and Joint National Committee for Hyprtension-1996].

Worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.8% of the total of all deaths. This accounts for 57 million disability adjusted life years [DALYS] or 3.7% of total DALYS. Blood pressure levels have been shown to be positively and continuously related to the risk of stroke and coronary heart disease [Global Health Observatory-2012].

Globally, the overall prevalence of raised blood pressure in adults aged 25 and over was around 40% in 2008. The proportion of the world's population with high blood pressure, or uncontrolled hypertension, fell modestly between 1980 and 2008. However, because of population growth and aging, the uncontrolled hypertension rose from 600 million in 1980 to nearly 1 billion in 2012.

Kotwari at el,[2013] conducted a multi disease community based screening campaign for hypertension at Kakyerere parish in Mbarara district, Uganda. All the data were obtained independently by the investigator with a standardized protocol and data collection form, the results shows that Community participation in the screening campaign for hypertension was 65%, including 1245 women and 1007 men. The prevalence of hypertension was14.6%;awareness of diagnosis[38.1%] and current receipt of treatment[20.6%] were both low. Age- standardized to the WHO world standard population, hypertension prevalence was 19.8%,which is comparable to 21.6% in the US and 18.4% in the UK. Sociodemographic factors associated with hypertension included increasing age, male gender, obesity, diabetes, alcohol

consumption and family history. Prevalence of modifiable factors was high:28.3% women were obese and 24.1% men consumed alcohol. Thus they concluded substantial burden of hypertension in rural areas. Awareness and treatment of hypertension is low in this region. Enchanced community-based education and prevention efforts tailored to addressing modifiable factors are needed.

Overall prevalence for hypertension in India was29.8% [95% confidence interval:26.6-33.0].About 33% urban and 25% rural Indians are hypertensive. In an analysis of worldwide data for global burden of hypertension, 20.6% 0f Indian man and 20.9% of Indian women were suffering from hypertension in 2005.The rates for hypertension in percentage are projected to go up to 22.9 and 23.6 for Indian men and women, respectively by 2025.According to WHO 2008 estimates, the prevalence of raised BP in Indians was 32.5%[33.2% in men and 31,7% women].However, only about 25.6% of treated patients had their BP under control, in a multicenter study from India on awareness, treatment, and adequacy of control of hypertension [Epidemiology of hypertension-2014].

According to the World Health Statistics 2014 report, India has low rates of hypertension compared to world figures. In India, 28.80 per cent men and 24.60 per cent women above 25 years suffer from hypertension. India also fares better than the global average of 29.20 in men and 24.80 in women respectively. Experts here, however, discount the findings, arguing that the country might actually be headed to be among the most worst disease (hypertension) afflicted countries in the near future. An estimate touts the number of blood pressure patients in the country to rise to about 214 million by 2030 up from about 118 million in 2000. Experts say that the incidence of high blood pressure ranges from 20 to 40 percent in urban areas and 12

to 17 percent in rural areas in India. High blood pressure or hypertension kills nearly 1.5 million people every year in South-East Asia. The standalone figure for India is not immediately available. Pointing out the reasons behind high hypertension levels among urban population Dr. Abhi at Fortis says, 'Unhealthy eating habits, stress and environmental factors lead to high blood pressure cases in urban India [WHO-2014].

The situation in India is more alarming. It was reported that of a total of 9.4 million deaths in India in 1990, cardiovascular diseases caused 2.3 million deaths (25%). 1.2 million deaths were due to coronary heart disease and 0.5 million due to stroke. It has been predicted that by 2020 there would be a 111% increase in cardiovascular deaths in India. This increase is much more than 77% for China, 106% for other Asian countries and 15% for economically developed countries [Journal of Nursing times-2015].

The breath is considered the basic force of life in many cultures. In India the Prana " life or literally breathing forth"] of yogic tradition signifies the universal life force as well as the life force as it enlivens the individual being. In Chinese tradition, Qi is the vital energy if life. A component of Qi is called "Natural Air Qi" and is absorbed by the lungs from the air we breathe. The Bible states that "God breathed into Adam's nostrils the breath of life" [Journal of Health and life style- published on Oct 2014].

Each one of us takes about 20 000 breaths a day. Still, the influence of breathing on human health goes largely unnoticed. Only a few people realize that shallow breathing is linked to stress, sub-par mental performance, fatigue and increased risk of heart disease. However, breathe correctly and you will be able to release tension and improve your physical and mental wellness. Overall, 26.5% of the

adult population in 2000 had hypertension (26.6%) of men and 26.1% of women and 29.2% were projected to have this condition by 2025 (29% men and 29.5% women). The number of adults with hypertension in 2025 was predicted to increase by 60% to a total of 1.56 million [World health organization (2000)].

A experimental study was done in Mangalore University by Mala Sharma, MD, William H. Frishman MD et al [2012] to know the effects of agitation management strategy on Heart rate variability (HRV) and blood pressure in hypertensive patients. They searched the Medline and embase databases for studies published between [2008-2011]The study group consisted of 47 moderately hypertensive patients, divided into 3 experimental groups(viz.l6 in Autogenic excersise, 16 in guided imaginary and 15 Guided imaginary+ exercise group)and 31 normal controls. The three groups underwent guided imaginary, exercise, both imaginary and exercise together respectively for 7 days, divided into 3 experimental groups(viz.l6 guided imaginary, 16 in autogenic exercise group and 15 imaginary + exercise group)and 31 normal controls. The three groups underwent guided imaginary, exercise, both imaginary and exercise together respectively for 7 days. Time domin prescribed at 15-20 minutes for three times per a day. Result showed that there is no significant change in Hypertension in autogenic training group at the end of 7th day. Autogenic training and guide imaginary showed a significant reduction of blood pressure and stress [15.41±2.06 at 6 day v/s 17±2.06 at 7^{th} day $P<0.001$). The investigator during her posting period she observed a lot of cases with hypertension, so as a method of planning patients health in their own hand and with a view to identify the efficiency of Agitation Management Strategy in reducing the raising blood pressure levels the investigator selected this study.

Problem Statement

A study to assess the effectiveness of agitation management strategy on blood pressure and stress among patients with Hypertension admitted in Sree Mookambika Medical College Hospital, Kulasekharam.

Objectives:

- To assess the level of stress and Blood Pressure among hypertensive clients admitted in Sree Mookambika Medical College Hospital, both Experiment Group and control group.
- To assess level of stress and blood pressure among hypertensive clients in Experimental group after Agitation Management strategy.
- To assess the level of stress and blood pressure among patients without agitation management strategy in the control group.
- To determine the effectiveness of agitation management in reducing blood pressure and stress among hypertensive clients.
- To find out association between hypertensive clients and their selected demographic variables such as age, sex, education, occupation, habits, diet pattern, family history, body mass index and duration of illness.

Hypotheses

- There will be a significant reduction in the level of stress and blood pressure among hypertensive clients in the experimental group than in the control group.

- There will be a significant association between blood pressure and stress with the selected demographic variables such as Age, Sex, Occupation, etc

Operation definitions

Effectiveness

In this study, effectiveness refers to the extent to which Agitation management strategy has brought about the desired effect in the reduction of stress level and blood pressure among clients with hypertension as measured by Vaughn blood pressure chart and verbal stress assessment questionnaire.

Hypertension

In this study, hypertension refers to the clients who are clinically diagnosed as having hypertension > 140/100 mmHg in the age group of 25-70 years.

Stress

Stress is an experience a person is exposed to, through a stimulus or stressor.

Agitation Management Strategies

It is a relaxation technique developed by German psychiatrist. Johannes Heinric schultzs. It consist of two interventional package that is Autogenic exercise and Guided imaginary.

Autogenic Exercise

Autogenic exercise is a non- pharmacological intervention that refers to an approach to training the mind, similar to the way that fitness is an approach to training the body.

Autogenic exercise is practiced for10 minutes in the morning and evening while sitting comfortably with the eyes closed which includes the following sequences,

I. Close the eyes, than allow the mind and body to relax about 2 minutes.

II. Breath slowly and deeply, and feel the mind relaxing 3 minutes.

III. Continue repeat breathing for 5 minutes.

Guided Imagery

Its a relaxation and mental visualization technique to improve mood and physical well-being. Guided Imagery Technique is two-part process. The first component involves developing a state of deep relaxation through breathing exercise. The second component of the exercise is imagery or visualization itself.

Assumptions

In this study represents;

- Autogenic training may help in reducing blood pressure of hypertensive patients.
- Stress is also the perception of a stressor.

- ❖ Autogenic training may have no harmful and can be easily performed in regular practice.

Delimitations:

This study is delimited to,

- Hypertensive clients between the age 25 to 70 years attending Sree Mookambika Medical College Hospital, Kulesheharam.
- Sample size is 60

Ethical Considerations:

The study will be conducted after the approval of research and ethical clearance committee of Sree Mookambika Medical College Hospital. Oral consent was obtained from each sample before the intervention. Assurance was given to the sample and privacy was maintained.

Conceptual Frame Work

The conceptual frame work is a global ideal concepts in relation to relation to specific discipline [i.e] it is a visual diagram by which the researcher explains the specific area of interest. It is the over all purpose to make research findings meaningful and generalisable.

The conceptual frame work of this study is based upon Betty Neumann's [1980] system model which focuses person is a complete system the sub part of which are inter related physiology, psychological, socio cultural, spiritual and developments factors are inter related. In this model, the person maintains of client system stability. Nursing Intervention include activities to strengthen flexible line of defense and blood pressure level is maintained.

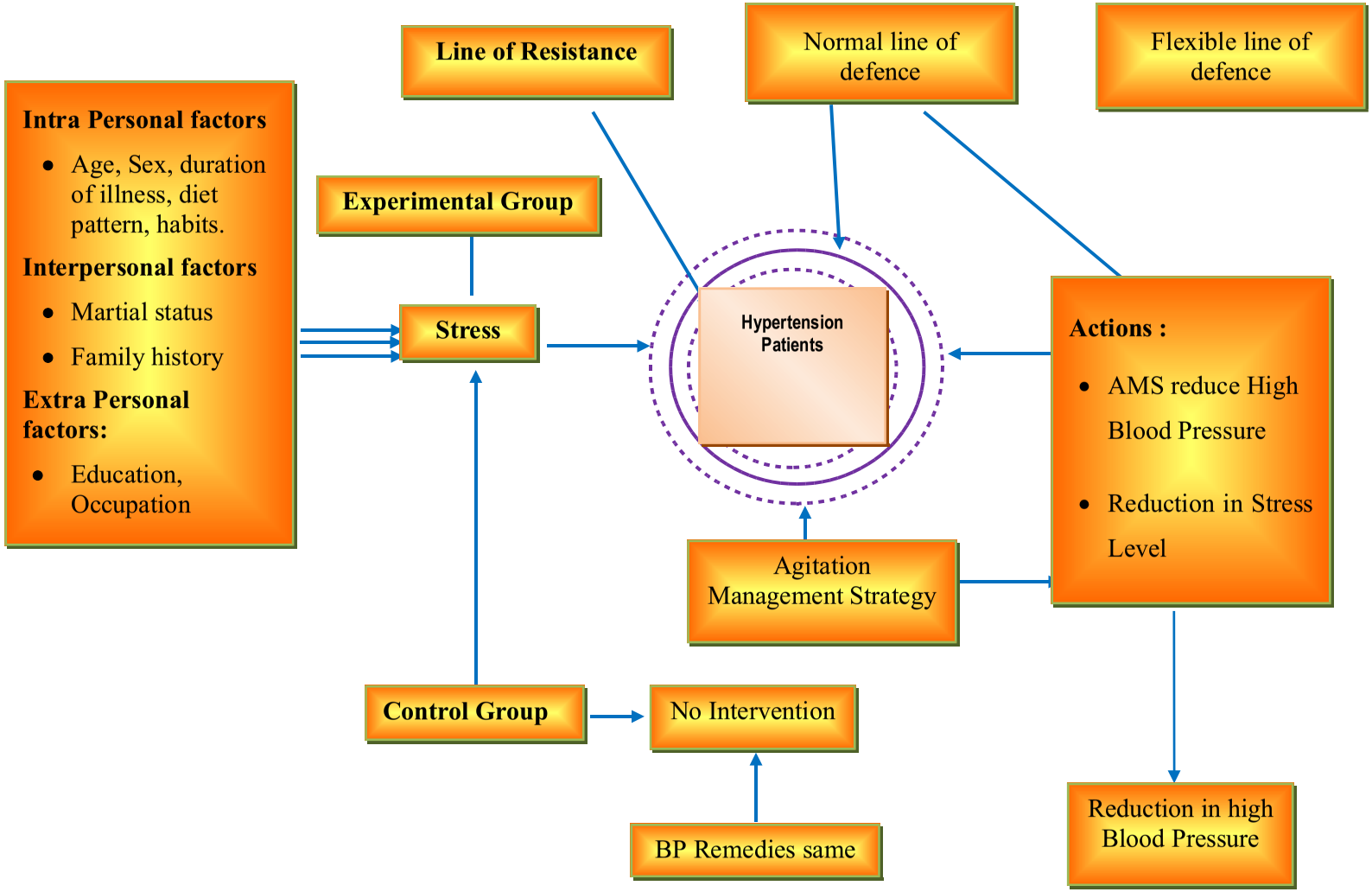

Figure 1 : **Modified Conceptual Frame work**

CHAPTER - II

Review of literature

Review of Literature is the key step in research process. The review of literature is defined as a broad, comprehensive in depth, systemic and critical review of scholarly publications, unpublished scholarly print materials and personal communications.

The main purpose of the literature reviews is to convey the readers about the work already done and the knowledge and ideas that have been already established on a particular topic of research.

Research literature was reviewed and organized under the following heading.

1. Studies related to incidence and prevalence of hypertension.
2. Studies related to non pharmacological management in reduction of hypertension.
3. Studies related to effect of agitation management strategy in hypertension.

1. Studies related to incidence and prevalence of hypertension

Regupathy Achala, Nanda K. Kannuri et al[2014] conducted a systemic review and meta-analysis of prevalence, awareness and control of hypertension. Overall prevalence for hypertension in India was 29.8% [95% confidence interval: 26.7-33.0]. Significant difference in hypertension prevalence were noted between rural and urban parts [27.6%{23.2-32.0} and 33.8%{29.7-37.8};p=0.05]. Regional

estimates for the prevalence of hypertension were as follows:14.5%[13.3-15.7], 31.7%[30.2-33.3], 18.1%[16.9-19.2], and 21.1%[20.1-22.0] for rural north, east, west and south India; and 28.8%[26.9-30.8], 34.5%[32.6-36.5], 35.8%[35.2-36.5] and 31.8%[30.4-33.1] for urban north, east, west, and south India, respectively. Overall estimates for the prevalence of awareness, treatment and control of blood pressure were 25.3%[21.4-29.3],25.1%[17.0-33.1] and 10.7%[6.5-15.0] for rural Indians and 42.0%[35.2-48.9], 37.6%[24.0-51.2] and 20.2%[11.6-28.7] for urban Indians. Thus they concluded about 33% urban and 25% rural Indians are hypertensive. Of these, 25% rural and 42% urban Indians are aware of their hypertensive status. Only 25% rural and 38% of urban Indians are being treated for hypertension. One-tenth of rural and one- fifth of urban Indian hypertension have their BP under control.

Sharda Sidhu, Jaspreet Kaur et al[2014] conducted a study to review the prevalence of hypertension in various urban and rural population of India.88 cross-sectional studies which defined hypertension as an average blood pressure more than 140/90mmHg have been reviewed with sample size varied from 200-1,67,331 subjects. It is apparent from the literature that there are no nationwide studies to determine the prevalence of hypertension but small sporadic studies from different regions of India provided data which has shown wide variation in the prevalence of hypertension. The present review has highlighted high prevalence of hypertension in India. An increasing trend in the prevalence of hypertension overtime was observed within different regions of India and in both sexes. The prevalence of hypertension is higher in rural population is steadily increasing and approaching to the trends as in urban populations. The proportion of hypertensive subjects in urban and rural populations in some regions was about 50% which is a challenge to the Indian health system. Therefore, accurate estimates of prevalence of hypertension are necessary

which can help in shaping the preventive programmes and management strategies for the hypertension in both urban and rural populations.

Kotwari at el,[2013] conducted a multi disease community based screening campaign for hypertension at Kakyerere parish in Mbarara district, Uganda. All the data were obtained independently by the investigator with a standardized protocol and data collection form, the results shows that Community participation in the screening campaign for hypertension was 65%, including 1245 women and 1007 men. The prevalence of hypertension was14.6%;awareness of diagnosis[38.1%] and current receipt of treatment[20.6%] were both low. Age- standardized to the WHO world standard population, hypertension prevalence was 19.8%,which is comparable to 21.6% in the US and 18.4% in the UK. Sociodemographic factors associated with hypertension included increasing age, male gender, obesity, diabetes, alcohol consumption and family history. Prevalence of modifiable factors was high:28.3% women were obese and 24.1% men consumed alcohol. Thus they concluded that substantial burden of hypertension is seen in rural areas. Awareness and treatment of hypertension is low in this region. Enhanced community-based education and prevention efforts should be tailored to address modifiable factors.

RAO, R. Chythras et al[2012] conducted a cross sectional community based study on high blood pressure prevalence among 1,239 samples, age above 30 years to estimate the prevalence and the socio demographic correlation with hypertension. The data was collected by personal interviews followed by anthropometric and blood pressure measurements. The result shows that the prevalence of hypertension was43.3% males 51.6 as compared to females 38.9%. Advancing age, male, gender, current diabetic study, central obesity and family history of hypertension were

identified as a significant correlation for hypertension. Thus they concluded that the screening strategies should be implemented at an earlier age and which can help to take preventive measures on the earlier stage.

Paula Ford P, Martin JK at al[2012] conducted a systemic review on global burden of hypertension. All data were obtained independently by two investigators with a standardized protocol and data collection form, the results shows that over all, 29.1% of the adult population in 2010 had hypertension and 35.2% were projected to have hypertension by 2025. The number of adults with hypertension in 2025 was predicted to increase by about 60% to a total of 1.56 billion. Thus they concluded that hypertension is an important public health challenge world wide prevention, detection, treatment, and control of this condition should receive high priority.

2. Studies related to non pharmacological management in reduction of hypertension.

Dr. H M Patel, Dr. R G Kathrotia et al[2014] conducted a study to assess the effectiveness of progressive muscular relaxation technique in re-establishing normalcy in systolic and diastolic blood pressure in young hypertensive subjects in Baroda. 84 hypertensive individuals were randomly divided in group Ia and group Ib of which 24 subjects in group Ia and 26 subjects in group Ib completed the study. Group Ib subjects were instructed to practice relaxation technique as per pre-recorded cassette twice daily for three months. Age and sex matched 23 normotensive subjects served as controls (group II). Systolic and diastolic blood pressure was measured in sitting and lying down position before and after 3 months of practice. Results show a significantly higher systolic (143.1 vs 121 mmHg) and diastolic (92.13 vs 76.35 mmHg) blood pressure in hypertensive group compared to control in basal condition.

After 3 months of relaxation practice systolic (137.87 vs 142.93 mmHg) blood pressure was significantly lower in experimental group Ib while diastolic blood pressure shows no significant change with relaxation practice. Compared to control the blood pressure was still higher in experimental group Ib after relaxation practice. Thus they concluded the progressive muscle relaxation technique by decreasing sympathetic tone probably reduces systolic blood pressure.

Kabitz HJ, Bremer HC et al [2014] conducted a study to assess the impact of exercise and respiratory training on respiratory muscle strength and 6- min walking distance [6MWD] in pulmonary hypertension patients. Patients with invasively confirmed PAH underwent 3 weeks of in-hospital exercise and respiratory training, which was continued at home for another 12 weeks. Medication remained constant during the study period. Blinded observers assessed efficacy parameters at baseline[1] and after3[11] and 15[111]. Respiratory muscle function was assessed by twitch mouth pressure[TwPmo] during nonvolitional supramaximal magnetic phrenic nerve stimulation. Thus they results shows that seven hypertensive patients[4 women, mean pulmonary artery pressure45±11 mmHg, median WHO functional class 3.1±0.4, idiopathic/associated PAH n=5/2] were included. The training program was feasible and well tolerated by all patients with excellent compliance. Thus the concluded exercise and respiratory training as an adjunct to medical therapy may be effective in patients with PAH to improve respiratory muscle strength and exercise capacity.

Landman GW, van Hateren KJ et al[2014] conducted a study to assess the efficacy of device-guided breathing [DGB] in a meta-analysis of individual patient data from blinded, randomized controlled trails with an active control control group. DGB is recommended by the American Heart Association for its blood pressure-

lowering effects. Study selection included were randomized studies of at least 4 weeks' duration, with a single or double blind design and an active control group. Bias was assessed with the Cochrane risk of bias tool, and analysis were performed with linear mixed models. The results shows from15 selected abstracts, 5 studies were not provided. The effect of DGB on office hypertension blood pressure compared with music therapy or a sham device was 2.2mmHg[95% Cl,-2.7 to 7.0] in favor of the control group; DGB did not significantly lower office diastolic blood pressure[0.2mmHg{95%Cl,-2.8 to 3.1]} in favor of DGB]. Thus they concluded all trials included in the analysis had a short follow-up period; therefore, no recommendations could be made regarding hypertension treatment. Treatment with DGB did not significantly lower office blood pressure compared with a sham procedure or music therapy.

Park JK, Hong S et al [2014] conducted a study aimed to evaluate the effect of qigong on prehypertension and mild hypertension and to calculate a sample size for a subsequent randomized, clinical trail[RCT]. Participants were randomized to a qigong group or an untreated control group. The qigong group attended gigong classess 3×/ week and performed qigong at home at least 2×/week. Participants in the control group did not receive any intervention. Outcome measures for this study were[1] changes in blood pressure [BP]; [2] quality of life[QOL] using 2 surveys: the Medical Outcomes Study[MOS] 36-item short form[SF-36] and the measure yourself medical outcome profile 2[MYMOP2] and hormone levels. Thus they concluded the qigong group showed a significantly difference between the 2 groups[p=.0064]. The qigong group showed a significantly greater improved in the physical component score of the SF-36 compared with the control group[p=.0373]. Regarding changes in hormone levels, there was no significant difference between the qigong and the control group.

Dr. Labiba Abd El-kader Mohammed, Dr. Naglaa Fawzy Hanafy et al[2013] conducted a study to assess the effect of slow deep breathing exercise on blood pressure and heart rate among hypertension. A convenient sample of 120 adult patients. Most of them was males, their age ranged from 51-60 years and married. There is no significant differences were found in socio-demographic variables in relation to systolic and diastolic blood pressure as well as heart rate before and after intervention. High statistical significant difference were found in systolic and diastolic blood pressure as well as heart rate before and after intervention. Thus they concluded practicing slow deep breathing exercise decreased the systolic and diastolic blood pressure as well as heart rate of patients with essential hypertension.

Xiong X, Wang P et al[2015] conducted a systemic review was evaluate the efficacy and safety of qigong hypertension. Randomized controlled trails of qigong as either monotherapy or adjunctive therapy with antihypertensive drugs versus no qigong intervention, or antihypertensive drugs for hypertension were identified. The risk of bias was generally high. Compared with no intervention, qigong significantly reduced systolic blood pressure mean difference =-17.40 mmHg, 95% confidence interval[Cl]-21.06 to -13.99. p=0.08, but no significant difference between the effects of qigong and exercise on DBP[WMD=0.67mmHg, 95% Cl-1.39 to 2.73, p=0.52] was identified. Compared with antihypertensive drugs, qigong produced a clinically meaningful but not statistically significant reduction in SBP[WMD=-7.91mmHg, 95% Cl-16.81 to-1.00, p=0.08]. Thus they conclude the meta-analysis suggests that qigong is an effective therapy for hypertension.

Kamath MV, Chen MH, et al[2012] conducted a systemic review and meta analysis on effectiveness of yoga for reducing blood pressure in adults with

hypertension and also to assess the modifying influence of type and length of yoga intervention and type of comparison group. Two authors were screened for controlled studies and independently assessed risk of bias tool 17 studies over included. The result shows that yoga had a modest but significant effect on systolic blood pressure[-4.17p= 0.002] and diastolic blood pressure[-3.62, p=0.0001]. Thus they concluded that yoga can be preliminary recommended as an effective intervention for reducing blood pressure.

3. Studies related to effect of agitation management strategy reduction of hypertension.

Nenne Kleefstra, F R Beyer et.al[2015] conducted a meta analysis to investigate Guided-device slow breathing exercise decreasing resting blood pressure. This study investigate the effect of daily practice of guided- device slow breathing exercise. Seventeen trails were included. The analysis showed that guided-device slow breathing exercise caused 3.75 mmHg reduction[95% confidence interval CI= -5.04 to -2.45.1=30.7%;p above0.001] in systolic blood pressure and a 3.39 mmHg reduction[95% CI=-4.14 to-2.65,1=67%;p above 0.001] in diastolic compared with controls. Meta analysis of subgroups showed a significant in systolic blood pressure in hypertensive [-4.4mmHg;95% CI,-7.37 TO -1.42,I=0.0%p=0.04] but normotensive patients no significant reduction in diastolic blood pressure was seen, After sensitivity analysis, heterogenicity disappeared and significant diastolic blood pressure reduction[-2.68mm Hg,CI,-4.93 to-0.0%; p=0.20] was shown in hypertensive patients. Thus they suggest that guided device breathing exercise are superior to controls in reduction of blood pressure, especially hypertensive patients. 4. Melvyn Rubenfire, MD, FAHA; Gbenga Ogedegbe et al[2013] conducted a study to determine the

alternative approaches [Agitation Management strategy] randomized control trails that they have investigated the effects of device guided breathing exercise on blood pressure. The aim of the study to assess the effect, tolerability and acceptability of device guided breathing exercise. The double blind parallel randomized placebo controlled trail involving 50 patients routine clinical records in general practice documented. The active treatment group received interventional package daily for 12 weeks. The primary outcome measures were systolic and diastolic blood pressure similarly to current with first line medications in patients with hypertension. Thus they suggest that guided visualization and breathing exercise is superior placebo in lowering the blood pressure similarly to current with first line medications in patient with hypertension.

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Surya Prakash Bhatt, TK Luqman -Arafath,[2012] conducted a analysis on the effect of agitation management package on blood pressure. The systemic review randomized controlled trails of slow breathing exercise and guided imaginary on blood pressure to placebo, and other antihypertensive agents. The one randomized controlled trails of agitation management strategy at least 4 weeks duration. The results shows that eight trails were identified [all using the same agitation management strategy] with data from 415 subjects included in the analysis. The seven trails compared the effect of agitation management with that of placebo showed a significant reduction systolic and diastolic blood pressure[95% cl,-2.7 to 7.0]. Thus the result suggests that these agitation package effectively reduce the blood pressure among the patients with hypertension.

A experimental study was done in Mangalore University by Mala Sharma, MD, William H. Frishman MD et al[2012] to know the effects of agitation management strategy on Heart rate variability (HRV) and blood pressure in hypertensive patients. They searched the Medline and embase databases for studies published between 2008-2011]The study group consisted of 47 moderately hypertensive patients, divided into 3 experimental groups(viz.l6 in Autogenic excersise, 16 in guided imaginary and 15 Guided imaginary+ exercise group)and 31 normal controls. The three groups underwent guided imaginary, exercise, both imaginary and exercise together respectively for 7 days, divided into 3 experimental groups(viz.l6 guided imaginary, 16 in autogenic exercise group and 15 imaginary + exercise group)and 31 normal controls. The three groups underwent guided imaginary, exercise, both imaginary and exercise together respectively for 7 days. Time domin prescribed at 15-20 minutes for three times per a day. Result showed that there is no significant change in Hypertension in autogenic training group at the end

of 7th day. Autogenic training and guide imaginary showed a significant reduction of blood pressure and stress[15.41±2.06 at 6 day v/s 17±2.06 at 7^{th} day P<0.001).

Joshi SR, Saboo B, Vadivale M et al[2011]conducted a meta analysis to determine the impact of slow breathing exercise and guided imaginary on cardiovascular events and mortality patients with hypertension. A systemic search for trails was conducted in the Cochrane, Midline, EMBASE, Agricola and Cinahlnup to NOV 2010. Randomized, placebo-controlled trails of slow breathing exercise and guided imaginary versus placebo for the treatment of hypertension were included the two reviews independently extracted data assessed trail quality using the risk of bias tool. The identified two randomized controlled trails for inclusion. One trail included 47 hypertensive patients and showed that interventional package significantly reduce mean systolic blood pressure by 12mmHg[95% CI 0.56 to 23.44 mmHg,p=0.004] and mean disystolic blood pressure by 9 mmHg [95% CI 12.49 to 15.51 mmHg, p=0.007] versus placebo. The authors state that slow breathing exercise and guided imaginary was free from side effects and that no serious side effects were reported. The second trail meta analysed as they did not reported the number of people randomized to each treatment group. They reported that slow breathing exercise and guided imaginary 15 to 20 minutes twice daily, produce a mean reduction of systolic blood pressure by 10-25mmHg and mean diastolic blood pressure by 8-15mmHg versus placebo. Thus they concluded the interventional package reducing the risk of mortality and cardiovascular morbidity in patients diagnosed with hypertension.

Karien Red, Chia-wen Tsai et al[2010] performed a systemic review to investigate the effectiveness of agitation management strategy to reduce blood pressure in a meta-analysis of individual patient datas, randomized control trails with

an active control group. Bias was assessed with the Cochrane risk of bias tool, and analyses were performed with linear mixed models with measuring blood pressure chart. Participants in the control group did not receive any intervention for hypertension. Of 40 participants, 19 were randomly assigned to the interventional group and 21 were assigned to the control group. Interventional package only allowed for experimental group [autogenic meditation and guided imaginary]. After one week' duration significant difference were observed between experimental and control group. The analysis showed that agitation management strategy has significant reduction of blood pressure [95%confidence interval =-5.04 TO =2.45.1=30.7%].3.75 mmHg in systolic blood pressure and a 3.39-mmHg reduction[95% confidential interval=-4.14 to -2.65,1=67%] in diastolic compared with controls. Meta analysis of subgroups showed a significant in systolic blood pressure in hypertensive[-4.4 mmHg;95%CI-7.37 to -1.42,1=0.0%;p=0.04] but not in normotensive patient. After sensitivity analysis, heterogeneity disappeared and significant diastolic blood pressure reduction[-2.68mmHg,CI-4.93 to o.42,1=0.0%;p=020]was shown in hypertensive patients. Thus they suggested that interventional package are superior to control in reducing blood pressure, especially in hypertensive patients.

CHAPTER - III

Research Methodology

Research Methodology is the way to solve the research problem. Methodology occupies a key position as far as research documentation as concerned. It may be understood as a science of studying how research is done. It involves the systematic procedure by which the researcher starts from the initial identification of the problem to its final conclusion.

Research Approach:

This study meant to assess the effectiveness of autogenic training in reducing blood pressure and stress level among hypertensive clients. The research approach used for the study was quantitative approach.

Research Design

The researcher adopted a quantitative approach with two group pretest post test design.

Quasi Experimental : Non-equivalent control group pre-test and post-test design.

E O_1 X O_2

C O_1 -- O_2

E = Experimental group

C = Control Group

O_1 = Pre-test

O2 = Post –test

Study Setting

The study was conducted in Sree Mookambika Medical College Hospital, Kulasekharam. This is a 550 bedded hospital having average hypertensive in- patients 150 , 200 new cases and 240 old cases are reported per month.

Variables

Variables of the present study

- Independent variable: Agitation management strategy.
- Dependent variables: Blood pressure and stress level.

Population

Target Population

Target population of the study is hypertensive patients admitted in Sree Mookamboka Medical College Hospital, Kulashekaram.

Accessible population

The accessible population selected for this study is hypertension patients among age group of 25 to 75 years in Sree Mookambika Medical College Hospital Kulaseharam.

Sample size

Sample size is 60 patients with hypertension who satisfied the criteria for sample selection. Out of 60 patients 30 were allotted for experimental group. 30 were allotted for control group.

Sampling Technique

Purposive sampling technique was adopted for my study. The sample is selected based on the inclusion and exclusion criteria.

Inclusion criteria

- Patients who are clinically diagnosed as hypertensive.
- Patients in the age group of 25-70 years.

Exclusion criteria

- Patient who are bedridden
- Hypertensive patients who is mentally ill.
- Hypertensive patients who have fracture, spinal cord injury and stroke.
- Seizure patients
- Patients admitted in Intensive care unit.

Data Collection Tool

Data collection tool used for this study was demographic variables, blood pressure chart and stress assessment questionnaire.

Demographic Variables

- Blood pressure chart
- Stress indicator questionnaire

Description of the tool

The data collection tool consists of two parts. It consist of section A and section B

Section A

Demographic variables such as age, sex, education, occupation, marital status, habits, diet, hereditary, body mass index, duration of illness

Section B

Blood pressure chart by using Vaughn's blood pressure scale

Stress assessment by using stress assessment scale.

The blood pressure chart adopted for this study is made by Vaughn data analyze. The blood pressure chart consist of two separate scale for measuring the blood pressure.

1. Systolic blood pressure ranging from 50 to 220 mmHg.

2. Diastolic blood pressure ranging from 10 to 140 mmHg.

The blood pressure chart is used to make the reading of blood pressure of the patient on day 1 and 7^{th} day.

Content Validity and Reliability

Content validity of tool was established from six experts,5 experts from the field of medical surgical nursing and one expert from medical field. The necessary

suggestions and modifications were incorporated in the final preparation of the tool Inter- rater reliability was done for both tools. r=0.88

Data Collection Procedure

Data collection period was one month, the study was conducted in Sree Mookambika Medical College Hospital, Kulasehekharam. 60 samples, were taken for the study. 30 clients in Experimental group and 30 clients in Control group. Before starting the study , the investigator obtained permission from hospital authorities for conducting the study.

The subject were explained about the study and oral consent was taken. After pre test, a small introduction about agitation management strategy and its role in reduction of blood pressure was given to the experimental group. The investigator demonstrated autogenic meditation[slow breathing exercise] and guided imaginary [5-8 sets of pleasant images for visualization], guided them to practice 15- 20 minutes two times a day. Post test was conducted after the 7^{th} day. Day 7^{th} blood pressure was checked for both experimental and control group for analysis.

Plan for data analysis

The data analysis was done by using inferential and descriptive statistics. Descriptive statistical methods like percentage, mean and standard deviation were used, Inferential statistical method like paired ‘t’ test was used to find out the effectiveness of agitation management strategy on reduction of blood pressure and chi-square test was used to find out the association between variables.

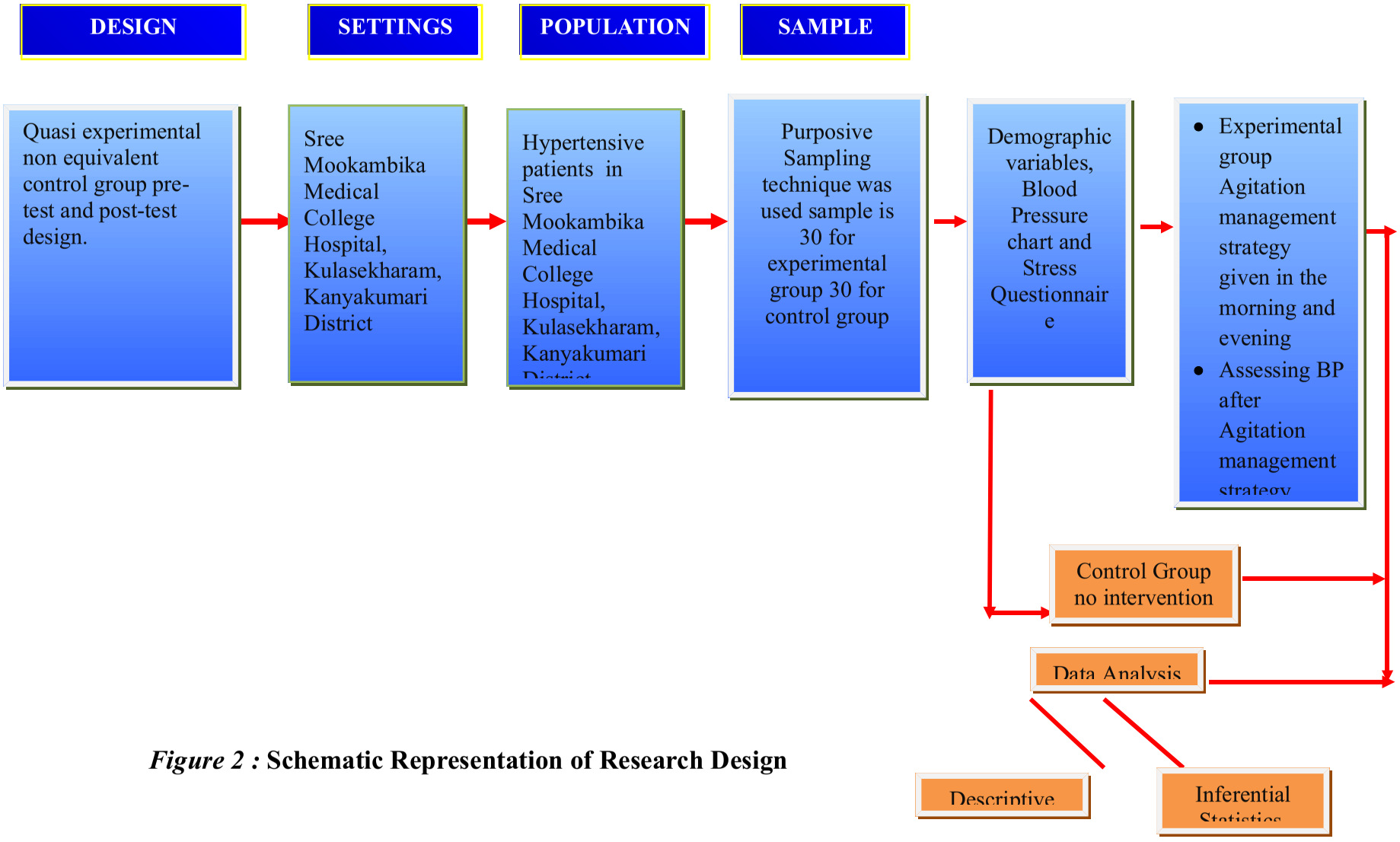


Figure 2 : **Schematic Representation of Research Design**

CHAPTER - IV

Data analysis

This chapter deals with the analysis and interpretation of data collected in accordance with the objectives stated for the study. The data collected were analyzed by using descriptive and inferential statistics. The test score was analyzed by statistical mean and standard deviation, the significance difference of mean scores were interpreted by paired ‘t‘ test.

The difference in experimental and control group was assessed by ‘t’ test. The association between demographic variables and hypertension was studied by chi-square test.

Objectives of the study

- To assess the level of stress and Blood Pressure among hypertensive clients admitted in Sree Mookambika Medical College Hospital, both Experiment Group and control group.
- To assess level of stress and blood pressure among hypertensive clients in Experimental group after Agitation Management strategy.
- To assess the level of stress and blood pressure among patients without agitation management strategy in the control group.
- To determine the effectiveness of agitation management in reducing blood pressure and stress among hypertensive clients.

- To find out association between hypertensive clients and their selected demographic variables such as age, sex, education, occupation, habits, diet pattern, body mass index, family history, duration of illness.

Section A

This section displays the demographic variables of the subjects selected by the investigator.

Section B

This section deals with both;

- Effect of Agitation Management in reducing blood pressure in the experimental and control group.
- Comparison of mean stress in the experimental group with control group.
- Comparison of mean blood pressure in the experimental group with control group.

Section C

This section deals with association between hypertension and the selected variables.

Section A

This section displays the demographic variables of the subjects selected by the investigator.

Table 1

Distribution of Subjects According to Demographic Variables N= 60

Sl. No	Demographic variables	Experimental Group		Control Group	
		f	%	f	%
1.	Age in years				
	(a) 25-35 years	4	13.33	3	10.00
	(b) 36-45 years	6	20.00	8	26.67
	(c) 46-55 years	12	40.00	9	30.00
	(d) 56-70 years	8	26.67	10	33.33
2.	Sex				
	(a) Male	17	56.67	16	53.33
	(b) Female	13	43.33	14	46.67
3.	Education				
	(a) Illiterate	1	3.3	3	10
	(b) Primary	4	13.3	6	20
	(c) Secondary	21	70	16	53.3
	(d) Graduate	4	13.3	5	16.6
4.	Occupation				
	(a) Sedentary worker	18	60.00	17	56.6
	(b) Non Sedentary worker	12	40.00	13	43.33

Table One Continued ……..

Sl. No	Demographic variables	Experimental Group		Control Group	
		f	%	f	%
5	Marital status				
	(a) Married	22	73.33	22	73.4
	(b) Unmarried	0	0.00	0	0.00
	(c) Divorce	3	10.00	4	13.33
	(d) Widow	5	16.67	4	13.33
6.	Habits				
	(a) Smoking	7	23.33	6	20.00
	(b) Alcoholism	6	20.00	7	23.33
	(c) Both A and B	5	16.67	4	13.33
	(d) Nil	12	40.00	13	43.34
7.	Diet pattern				
	(a) Vegetarian	10	33.3	12	40
	(b) Non- vegetarian	20	66.7	18	60
8.	Family History				
	(a) Present	17	57	16	53
	(b) Absent	13	48.2	14	47
9.	Body Mass Index				
	(a) Below Normal	10	33.3	8	26.7
	(b) Normal	0	0	2	6.6
	(c) Above normal	20	66.7	20	66.6
10.	Duration of illness				
	a) 1-3 years	8	26.67	7	23.33
	b) 4-6 years	4	13.33	6	20.00
	c) 7-10 years	7	23.33	8	26.67
	d) 10 and above	11	36.67	9	30.00

Table no 1 shows that majority of the sample subject were males [56.7%], In respect of age 40% of the subjects between 46-55 years. Among the total subjects, 50-70% were literate, most of the subjects ie, 60% sedentary workers,93-96% subjects

were married. 23.3% of the subjects had a habit of alcoholism and 13.3% of the subjects had a habit of smoking and alcoholism. While considering duration of illness 36.6% are 10 and above years.

The above findings are presented as figure:

- Distribution Of Sample According To The Age Is Represented As Bar Diagram Fig. 3
- Distribution Of Sample According To Sex Is Represented As Bar Diagram Fig. 4
- Distribution Of Sample According To Education Is Represented As Bar Diagram Fig. 5
- Distribution Of Sample According To Occupation Is Represented As Bar Diagram Fig.6
- Distribution Of Sample According To Marital Status Is Represented As Bar Diagram Fig. 7
    - Distribution Of Sample According To Habits Is Represented As Bar Diagram Fig. 8
- Distribution Of Sample According To Diet Pattern Is Represented As Bar Diagram Fig. 9
- Distribution Of Sample According To Family History Is Represented As Bar Diagram Fig. 10

- Distribution Of Sample According To Body Mass Index Is Represented As Bar Diagram Fig. 11

- Distribution Of Sample According To During Of Illness Is Reported As Bar Diagram Fig. 12

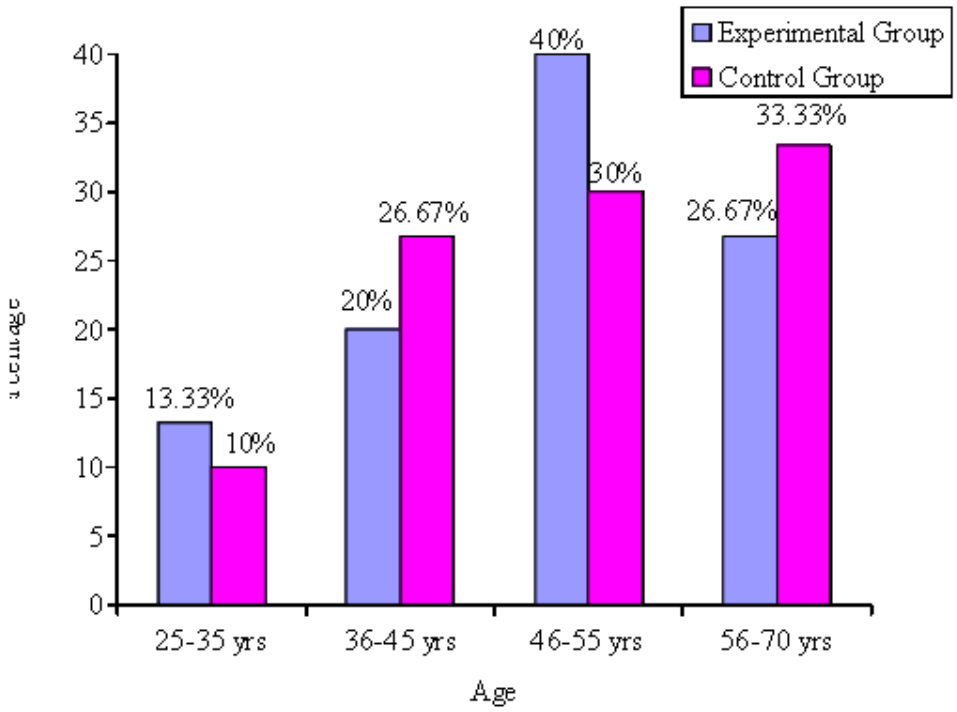


Figure 3: **Distribution of Demographic variables According to Age**

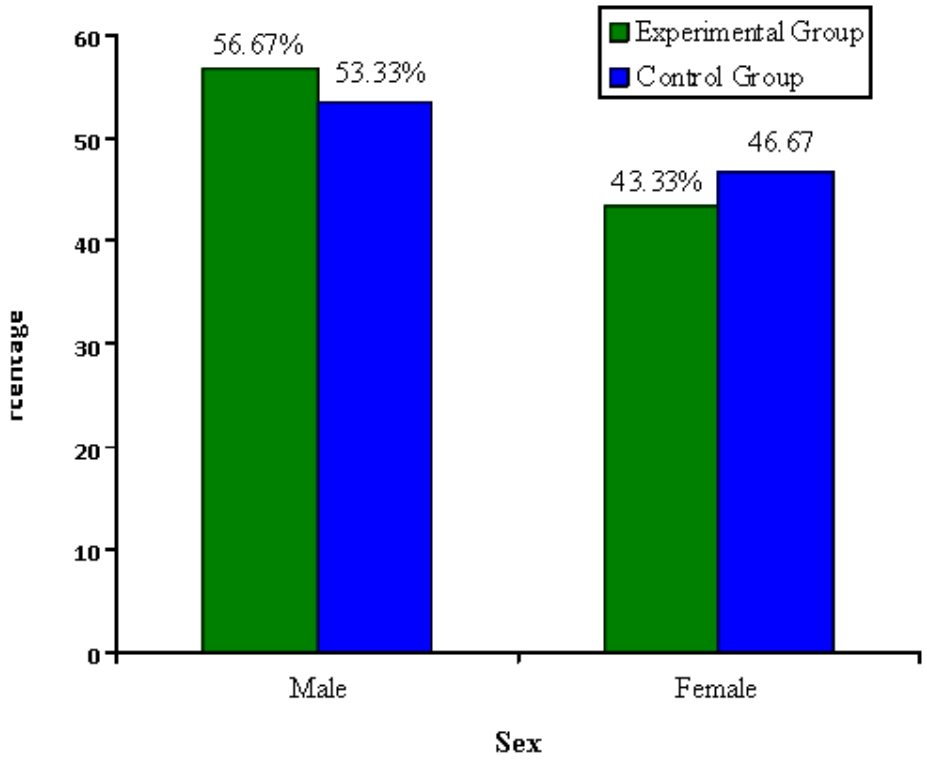


***Figure 4*: Distribution of Demographic Variables According to Sex**

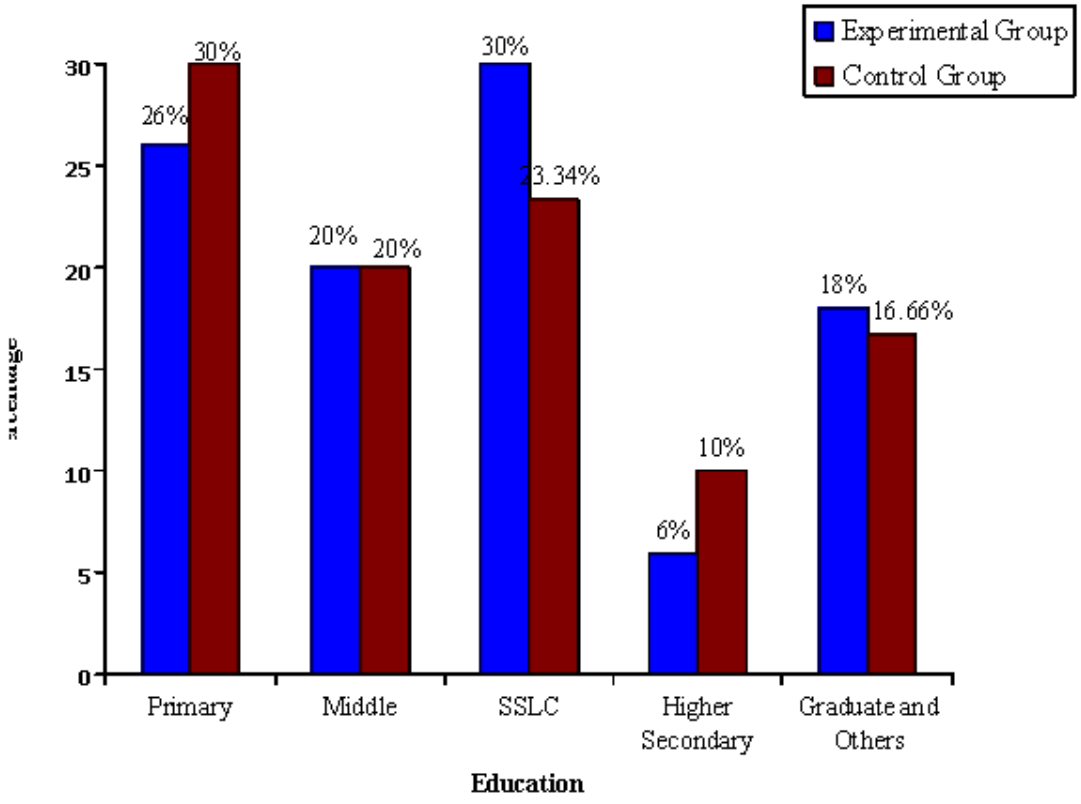


***Figure 5*: Distribution of Demographic Variables According to education**

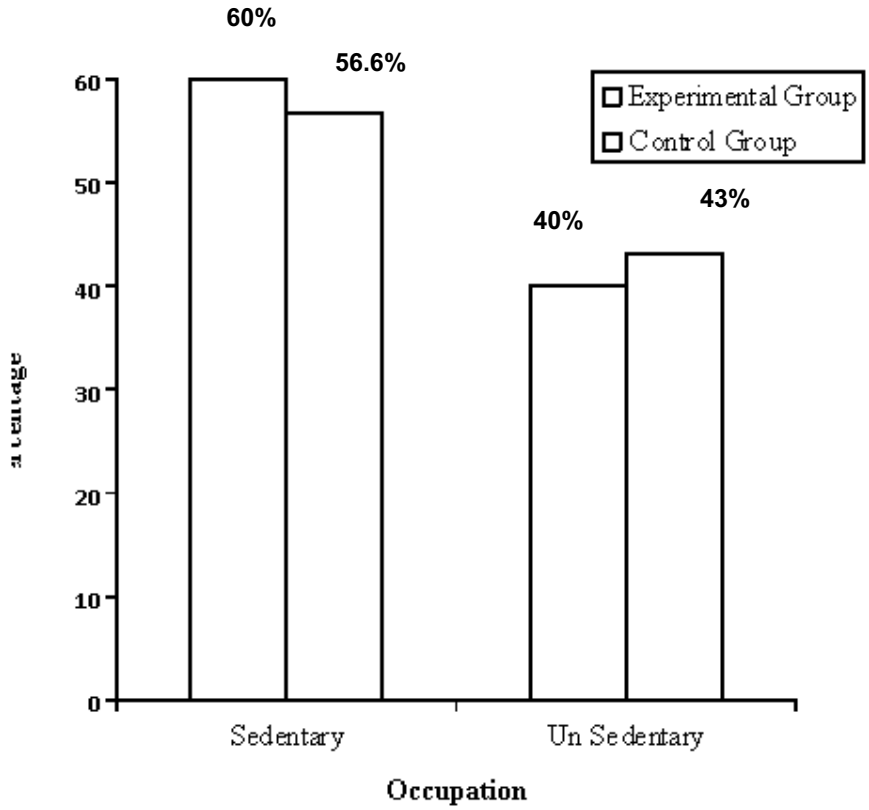


Figure 6 **:Distribution of Demographic Variables According to Occupation**

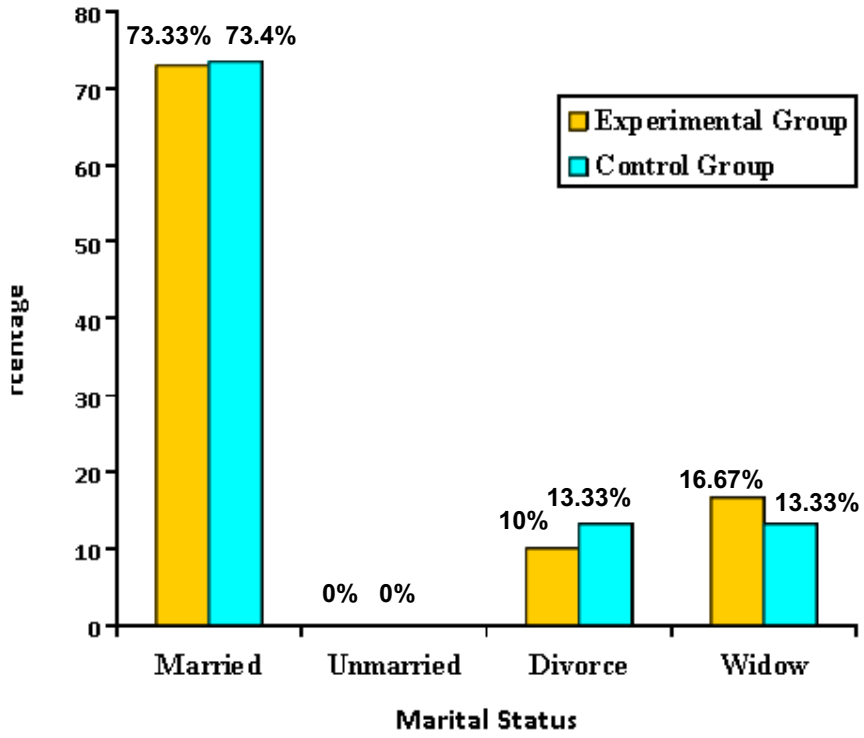


***Figure 7*: Distribution of Demographic Variables According to Marital status.**

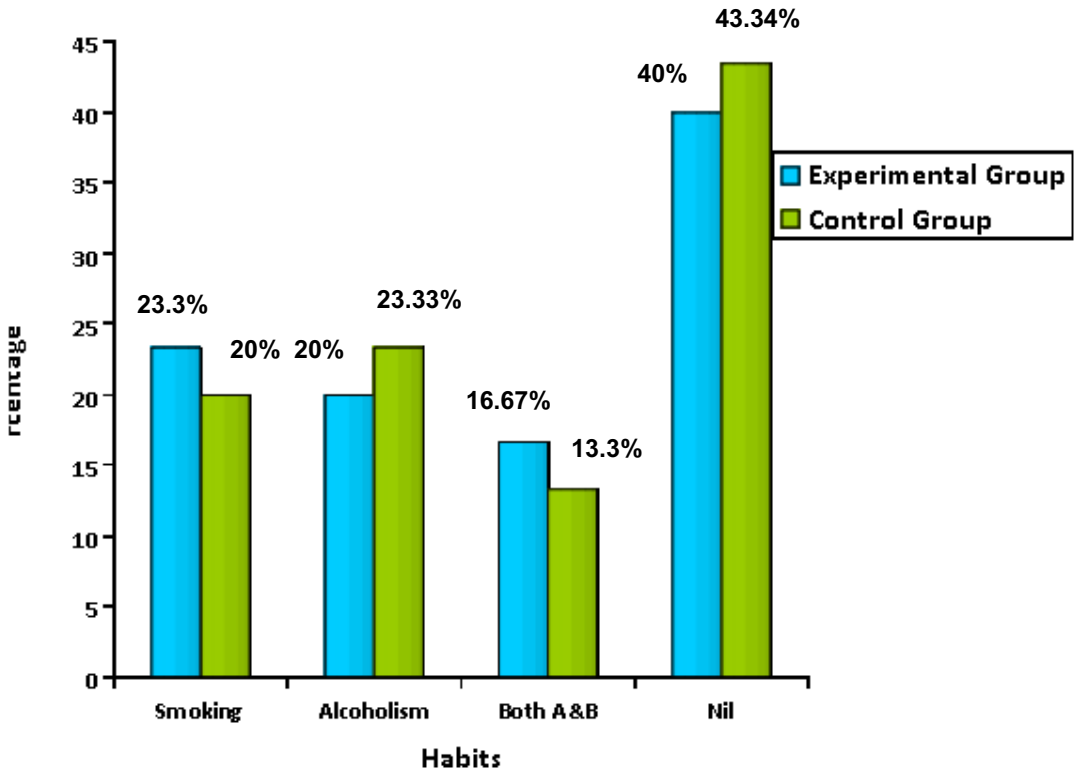


Figure 8 **: Distribution of Demographic Variables According to habits**

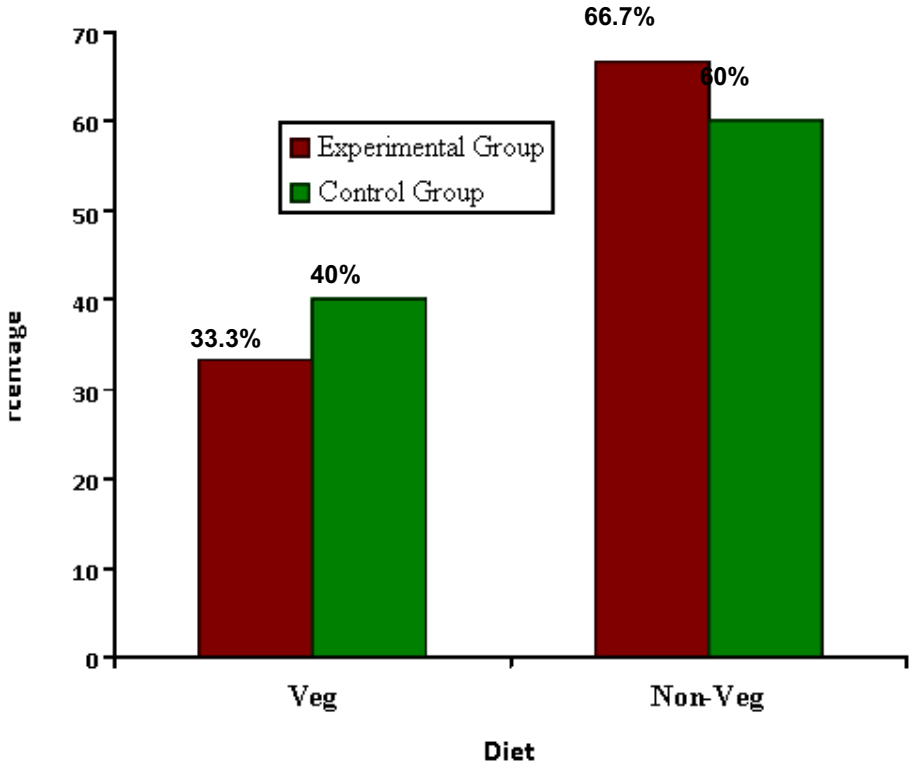

66.7%
60%
40%
33.3%
70
60
50
40
30
20
10
0
Experimental Group
Control Group
rcentage
Veg
Non-Veg
Diet

Figure 9: **Distribution of Demographic Variables According to Diet pattern**

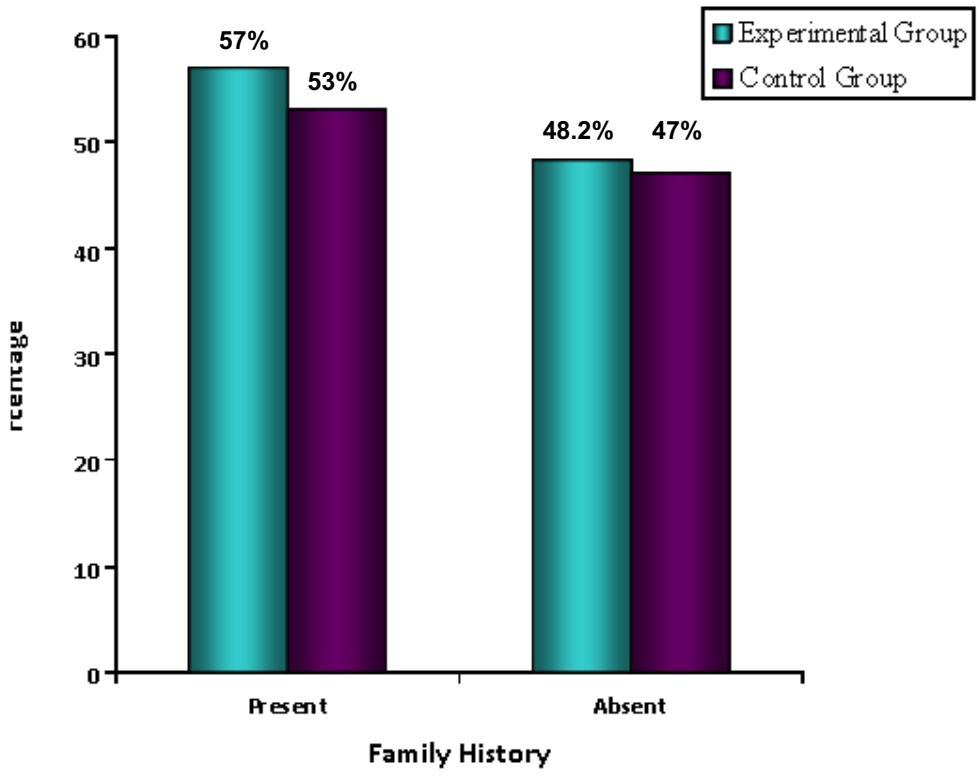


Figure 10 **: Distribution of Demographic Variables According to Family History**

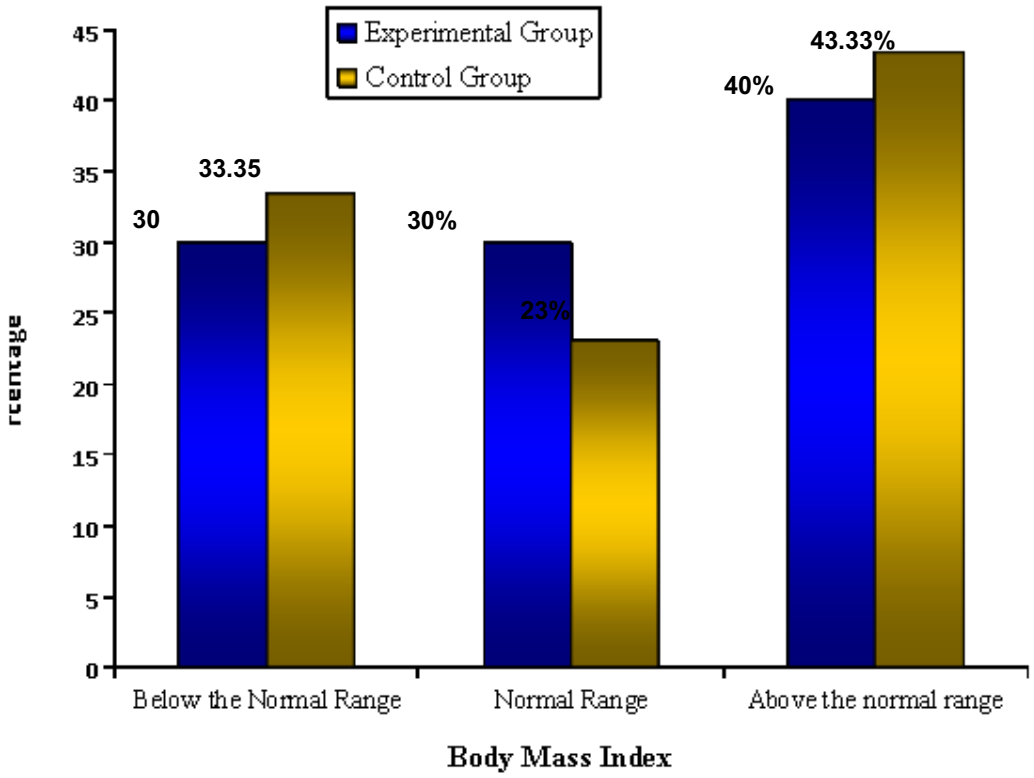


Figure 11: **Distribution of Demographic Variables According to Body Mass Index**

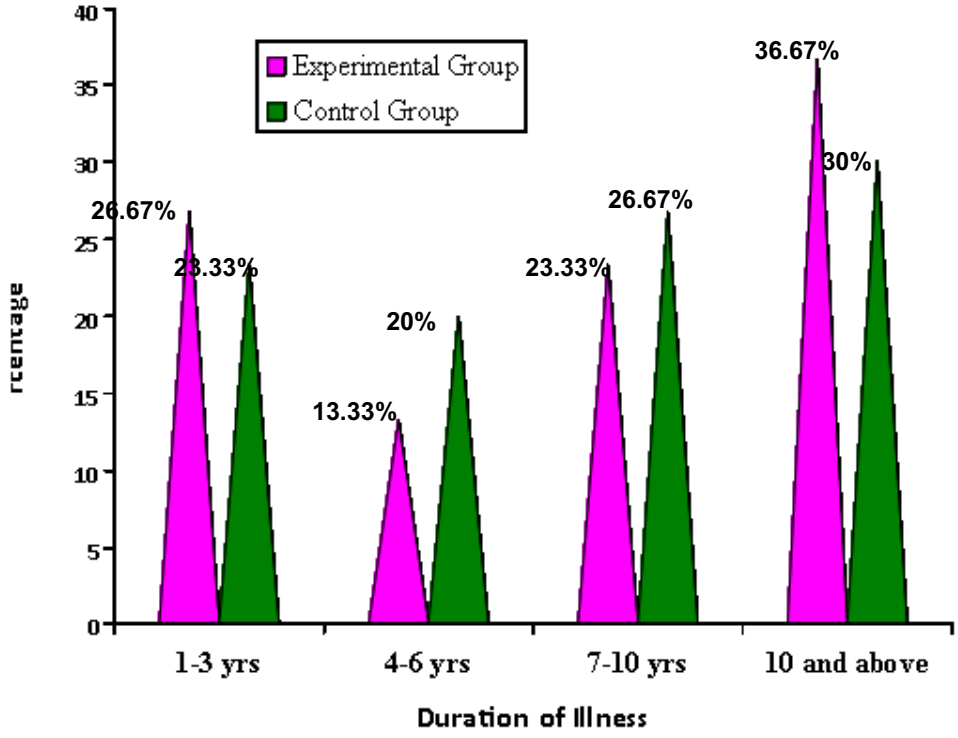


Figure 12: **Distribution of Demographic Variables According to Duration of illness.**

SECTION B :

This section deals with the effectiveness of Agitation Management Strategy reducing blood pressure in the experimental and control group and also stress reduction in the experimental and control group.

Table 2

Pre test level of Blood pressure in Systolic and Diastolic both group.

Blood Pressure score	Experimental Group				Control group			
	Systolic		Diastolic		Systolic		Diastolic	
	f	%	F	%	f	%	f	%
Mild	6	20.00	7	23.33	7	23.33	6	20.00
Moderate	18	60.00	15	50.00	16	53.34	17	56.67
Severe	6	20.00	8	26.67	7	26.33	7	23.33
Very Severe	0	0.00	0	0.00	0	0.00	0	0.00
Total	30	100	30	100	30	100	30	100

In the pre-test majority of the sample subject that is 18(60%)had moderate systolic blood pressure, 6 (20%) had severe systolic blood pressure, another 6(20%) had mild systolic blood pressure and 15(50%) had moderate diastolic blood pressure, 8(26.67%) had severe diastolic blood pressure. 7(23.33%) had mild diastolic blood pressure in the experimental group.

In the pre-test majority of the sample subject that is16(53.34%) had moderate systolic blood pressure, 7(23.33%)had severe systolic blood pressure, another 7 (23.33%) had mild systolic blood pressure and 17(56.67%) had moderate diastolic blood pressure, 7(23.33%) had severe diastolic blood pressure another 6(20%) had mild diastolic blood pressure in the control group.

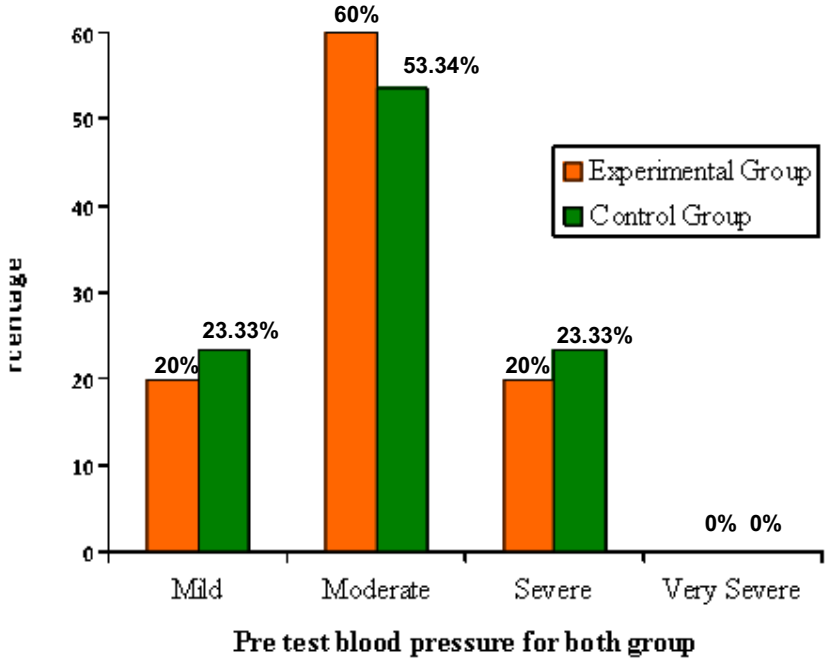
Table 3

Post test level of Blood pressure in Systolic and Diastolic both group

Blood Pressure score	Experimental Group				Control group			
	Systolic		Diastolic		Systolic		Diastolic	
	f	%	F	%	f	%	f	%
Normal	24	80.00	25	83.33	12	40	12	40.00
Mild	6	20.00	5	16.67	16	53.33	15	50.00
Moderate	0	0.00	0	0.00	2	6.67	3	10.00
Severe	0	0.00	0	0.00	0	0.00	0	0.00
Very Severe	0	0.00	0	0.00	0	0.00	0	0.00
Total	30	100	30	100	30	100	30	100

In the post test majority of the sample subject that is 24(80%) had normal systolic blood pressure, 6(20%) had mild systolic blood pressure and 25(83.33) had normal diastolic blood pressure, 5(16.67) had mild diastolic blood pressure in the experimental group.

In the control group shows 16(53.33%) had mild systolic blood pressure, 12(40%) had normal systolic blood pressure, 2(6.67%) had moderate systolic blood pressure and 15(50%) had mild diastolic blood pressure, 12(40%) had normal diastolic blood pressure and 2(6.67%) had moderate diastolic blood pressure.



Pre test blood pressure for both group

Figure 13: **Pre-test Level of Systolic Blood Pressure in Both Group.**

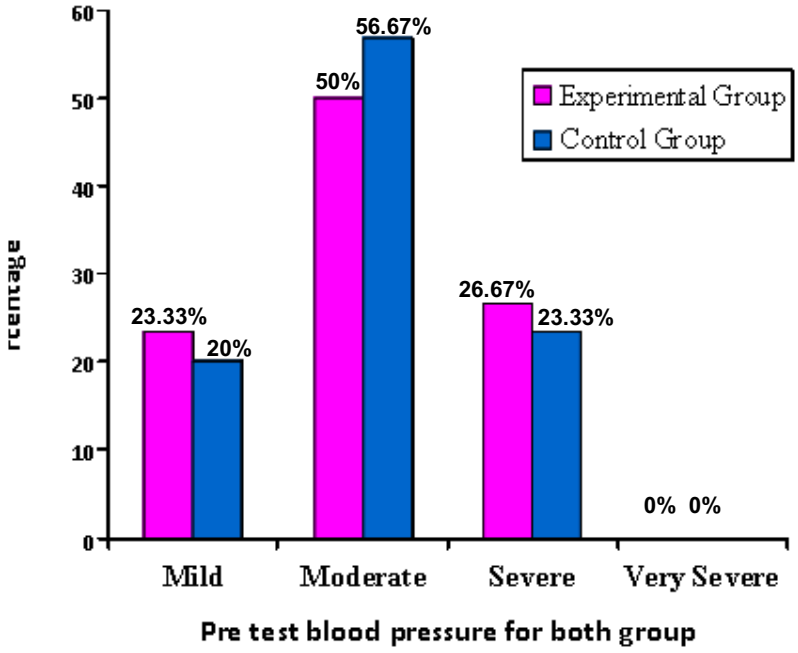


Figure14: **Pre Test Level Of Diastolic Blood Pressure In Both Group**

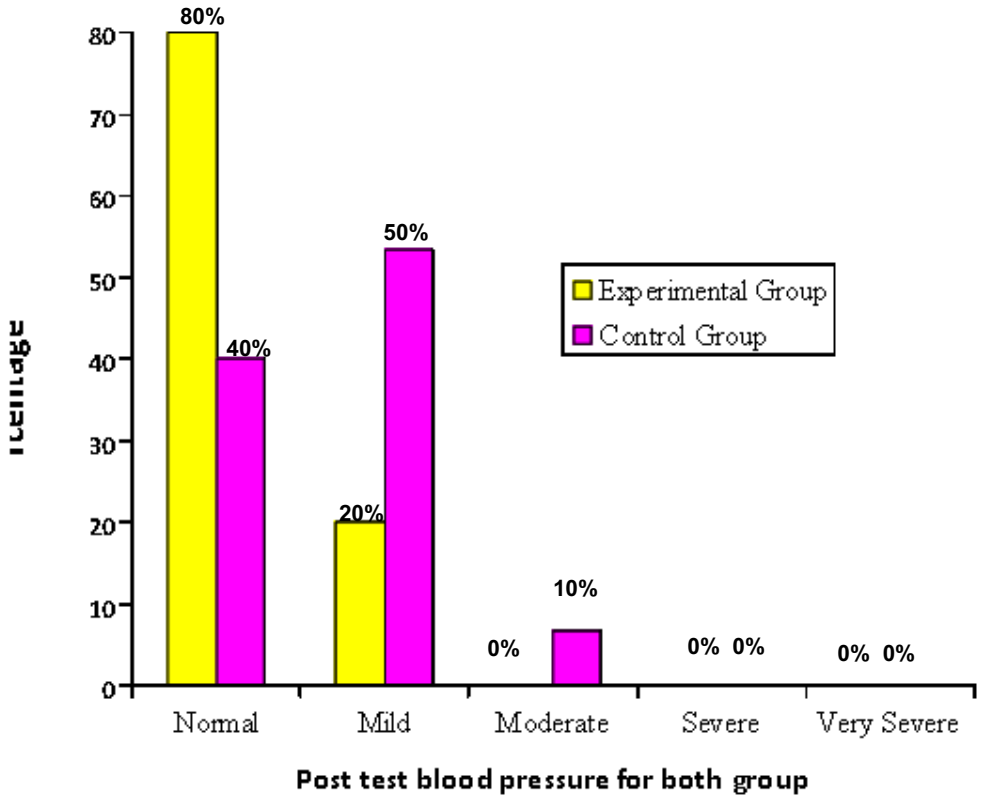


Figure15: **Post Test Of Systolic Blood Pressure In Both Group**

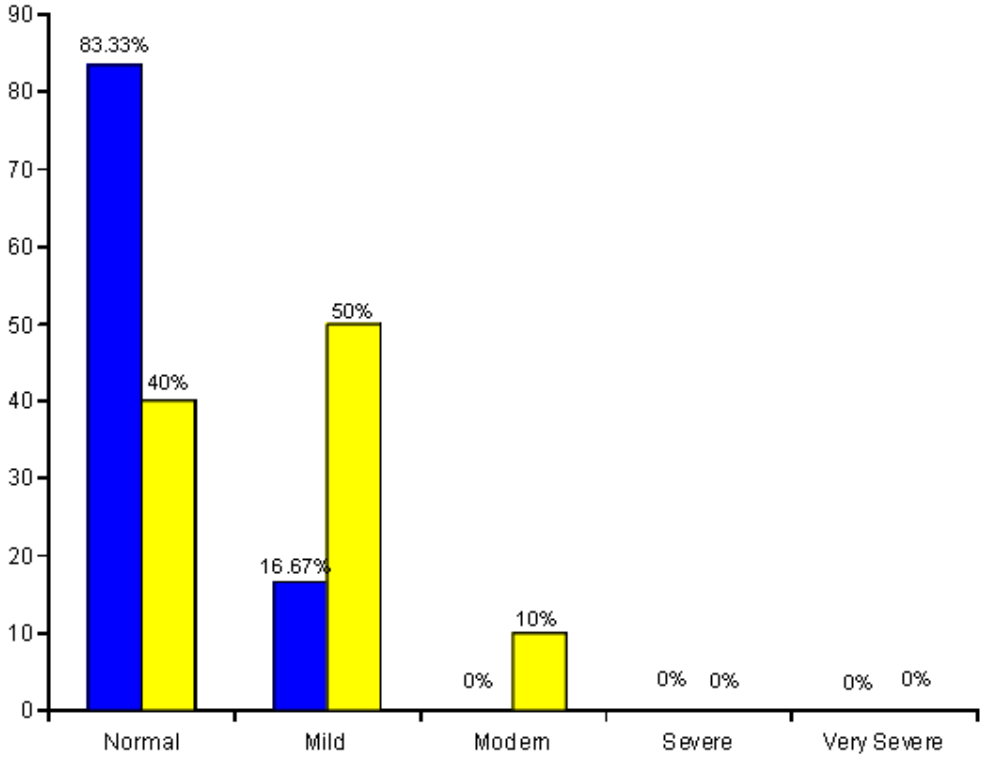


***Figure 16*: Post Test Of Diastolic Blood Pressure In Both Group**

Table 4

Pre test level of stress among the patients with hypertension in both group.

Level of Stress	Experimental Group		Control group	
	f	%	f	%
No Stress	0	0.00	0	0.00
Mild	0	0.00	0	0.00
Moderate	0	0.00	0	0.00
Severe	30	100.00	30	100.00
Very Severe	0	0.00	0	0.00
Total	30	100	30	100

In the pre-test all the sample subject had severe stress (100%) and no one had mild, moderate, and very severe stress in the experimental group and the control group.

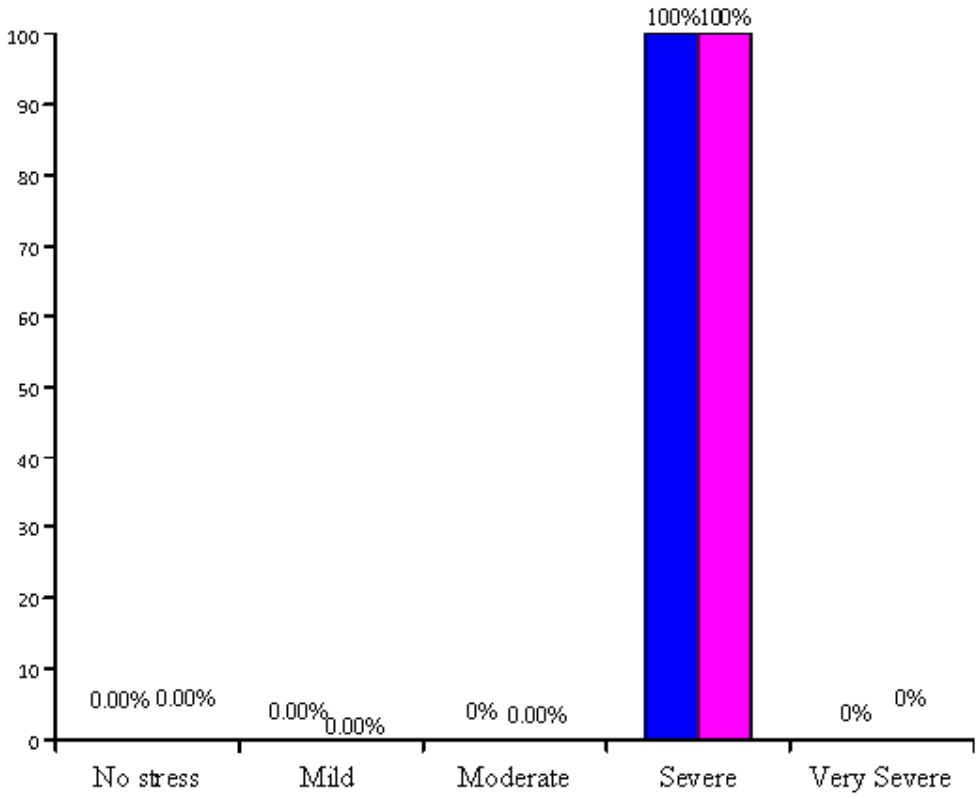


Figure 17: **Pre-test Level Of Stress Among The Patients With Hypertension In Both Group.**

Table 5

Post test level of stress among the patients with hypertension in both group.

Level of Stress	Experimental Group		Control group	
	f	%	f	%
No Stress	0	0.00	0	0.00
Mild	24	80.00	0	0.00
Moderate	6	20.00	6	20.00
Severe	0	0.00	24	0.00
Very Severe	0	0.00	0	0.00
Total	30	100	30	100

In the post test majority of the sample subject had mild stress 24(80%) and 6(20%) had moderate stress and no one had mild, severe and very severe in the experimental group. In the control group shows 24(80%) had severe stress and 6(20%) had moderate stress.

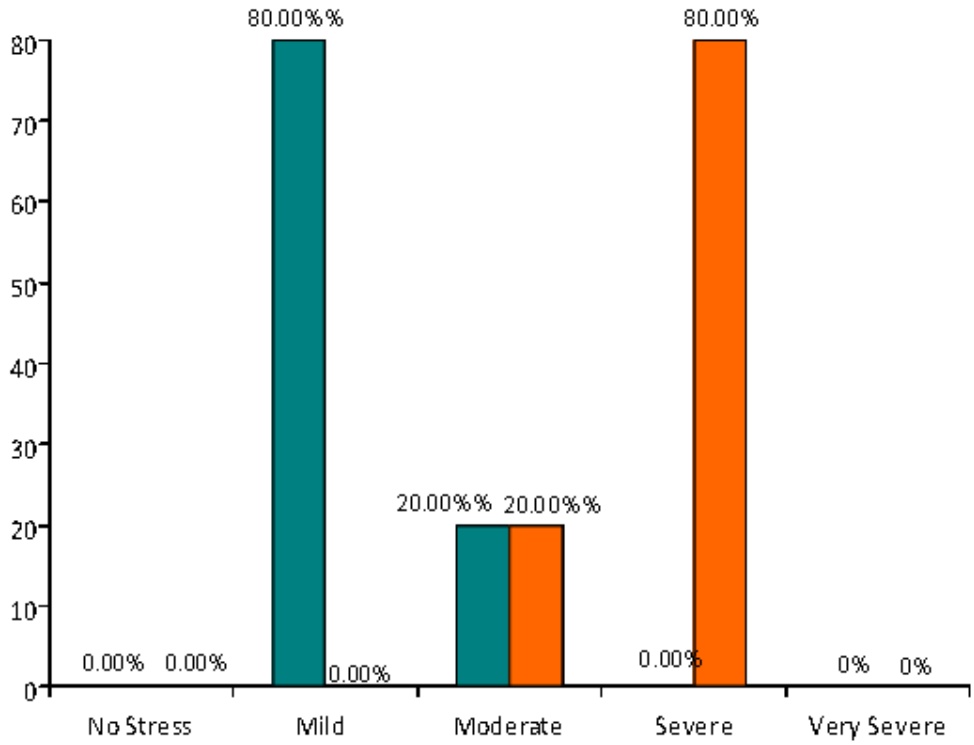


***Figure 18*: Post Test Level Of Stress Among The Patients With Hypertension In Both Group.**

Table 6

Effectiveness of Agitation Management Strategy reducing systolic blood pressure in experimental and control group.

Groups	Pre test		Post test				
	Mean	SD	Mean	SD	't'	df	t value
Experimental group	173.33	14.52	137.33	8.92	13.92	29	2
Control group	170.83	13.26	162.16	11.11	6.50	29	2

The above table 6 shows the effectiveness of Agitation Management Strategy is reducing the systolic blood pressure in experimental group and control group. The mean reduction in the experimental group was statistically highly significant [t=13.92] at $p<0.005$. Similarly the mean reduction in control group was also statistically significant [t=6.50] at $p<0.005$.

Above findings are presented as figure 17. Effectiveness of Agitation Management Strategy reducing systolic blood pressure in experimental and control group presented as bar diagram.

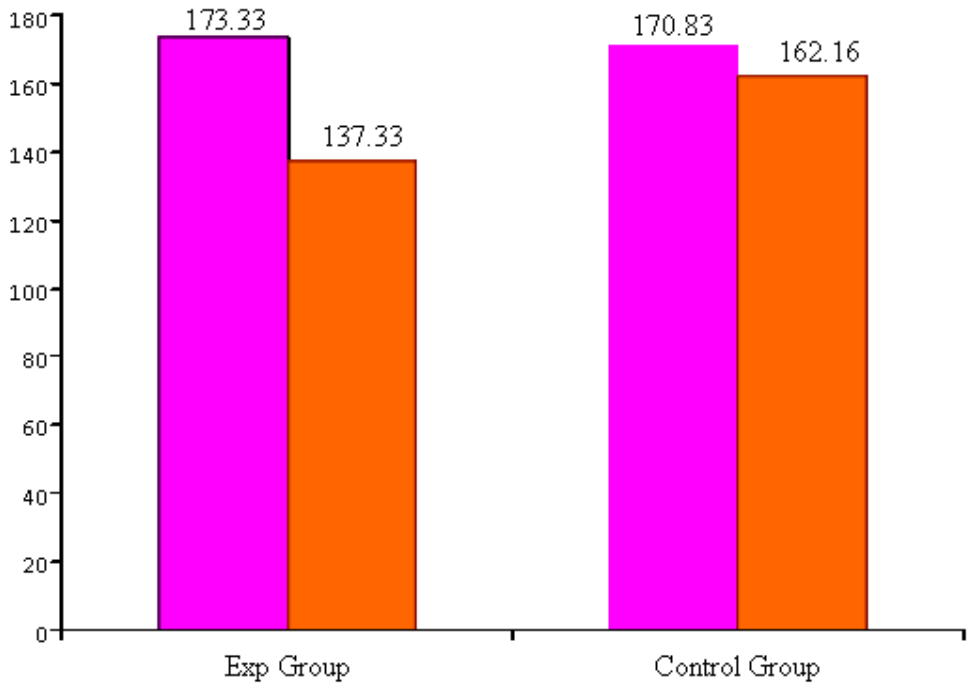


Figure 19: **Effectiveness of Agitation Management Strategy reducing systolic blood pressure in experimental and control group .**

Table 7

Effectiveness of Agitation Management Strategy reducing Diastolic blood pressure in experimental and control group.

Groups	Pre test		Post test				
	Mean	SD	Mean	SD	't'	Df	t value
Experimental group	106.33	12.95	85.66	6.78	9.63	29	2
Control group	104.42	10.21	98.27	10.71	4.89	29	2

The above table 7 shows the effectiveness of Agitation Management Strategy is reducing the diastolic blood pressure in experimental group and control group. The mean reduction in the experimental group was statistically highly significant [t=9.63] at $p<0.005$. Similarly the mean reduction in control group was also statistically significant[t=4.89] at $p<0.005$.

Above findings are presented as figure 20. Effectiveness of Agitation Management Strategy reducing diastolic blood pressure in experimental and control group presented as bar diagram.

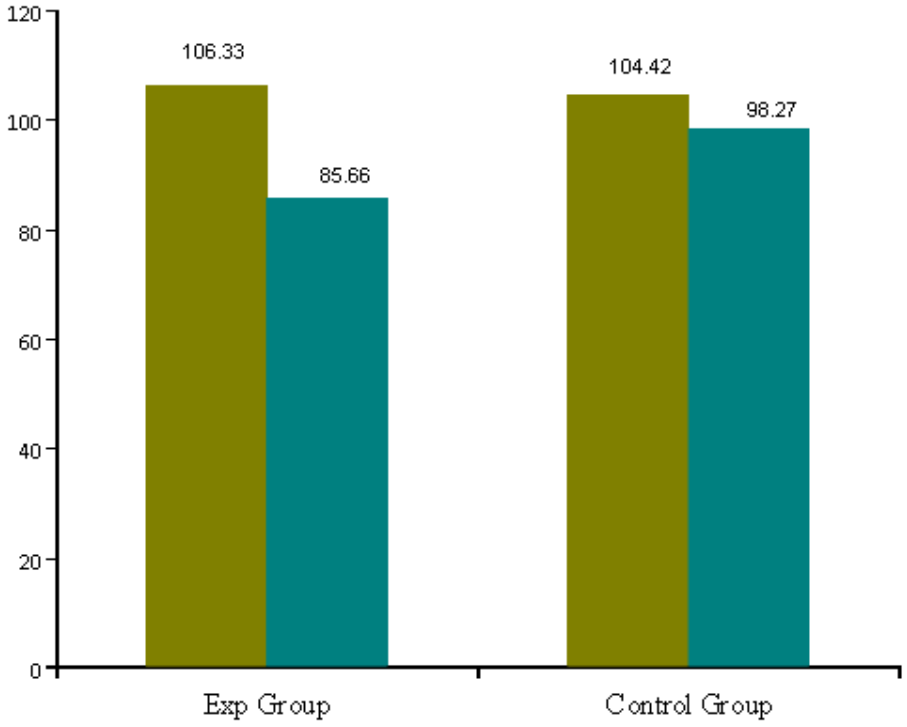


Figure 20 : **Effectiveness of Agitation Management Strategy reducing diastolic blood pressure in the experimental and control group.**

Table 8

Comparison of mean systolic blood pressure in the experimental group and control group.

Groups	Mean	SD	't'	df	Level of significance
Experimental group	137.33	8.97	9.36	59	$p<0.05$
Control Group	162.16	11.11			

Significance at $p<0.05$

The table 8 explains that the difference was statistically significant [t=9.36]. This shows that the experimental group had significantly greater reduction in systolic blood pressure levels compared to the control group. So the research hypothesis [H1] being supported.

Above findings are presented as figure 21. The mean reduction in Systolic blood pressure in the experimental with control group presented as bar diagram.

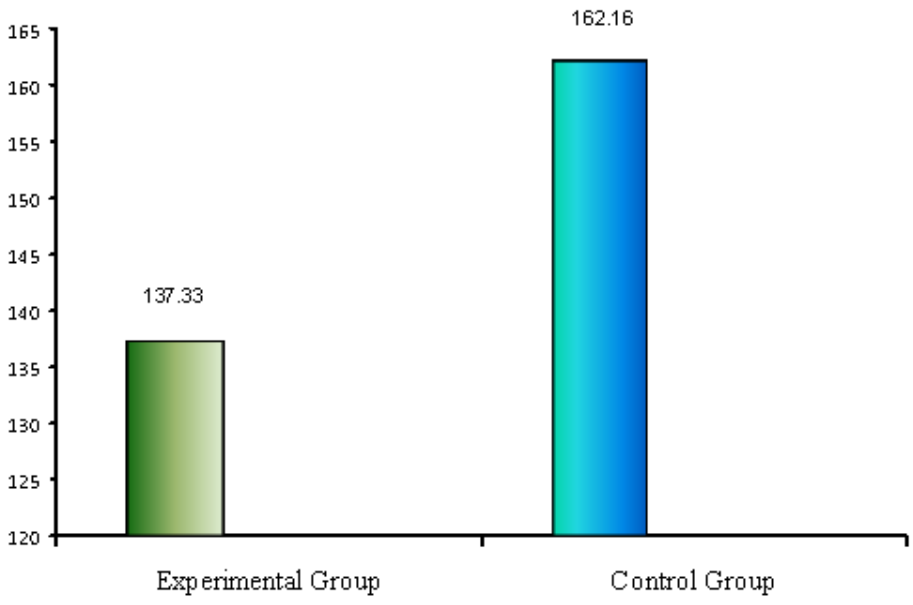


Figure 21: **The mean reduction in Systolic blood pressure in the experimental with control group.**

Table 9

Comparison of mean diastolic blood pressure in the experimental group and control group.

Groups	Mean	SD	't'	df	level of significance
Experimental group	85.66	6.78	7.21	59	$p<0.05$
Control Group	98.27	6.58			

Significance at $p<0.05$

The table 9 explains that the difference was statistically significant [t=7.21]. This shows that the experimental group had significantly greater reduction in diastolic blood pressure levels compared to the control group. So the research hypothesis [H1] being supported.

Above findings are presented as figure 21. The mean reduction in Diastolic blood pressure in the experimental with control group presented as bar diagram.

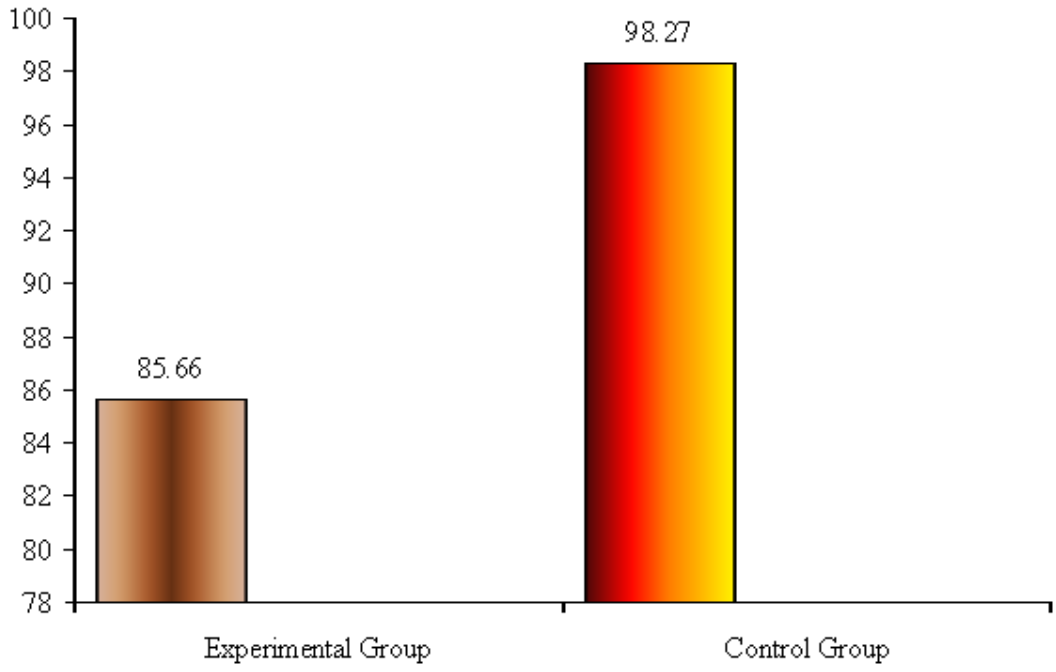


Figure 22: **The mean reduction in Diastolic blood pressure in the experimental with control group.**

Table 10

Comparison of pre test post test stress score among patients with hypertension in both groups

Groups	Pre test		Post test			
Significance	Mean	SD	Mean	SD	't'	Df
Experimental group	175.93	11.27	95.56	5.76	37.8	29
Control Group	173.76	11.55	167.16	11.51	7.11	29

The above table 10 explains that the difference was statistically significant [t=37.8] in the experimental group. The experimental group had significantly greater reduction than control group. Above findings are presented as figure 23. Comparison of pre test post test stress score among patients with hypertension in both groups

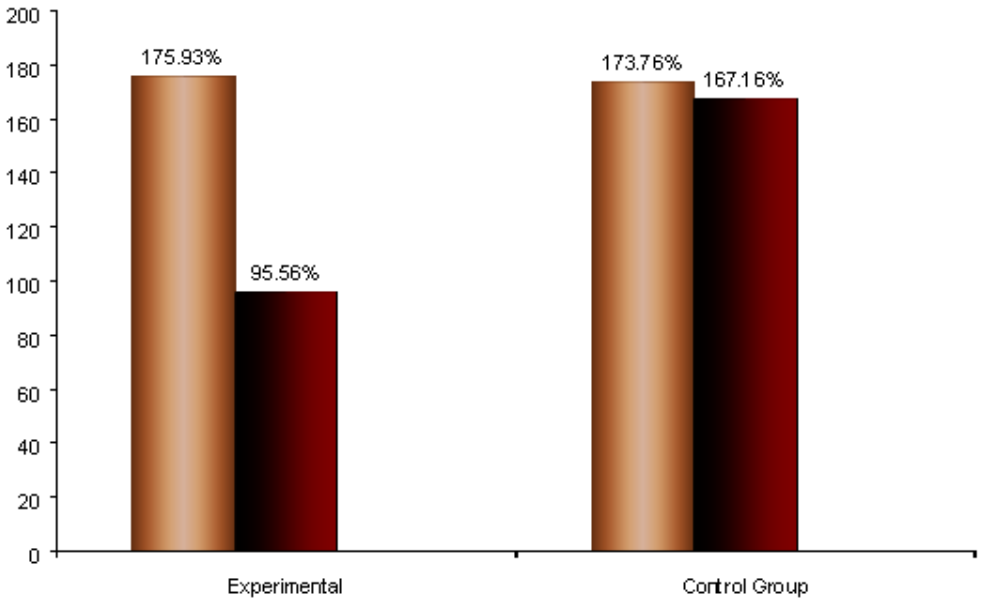


Figure 23: **Comparison of pre test post test stress score among patients with hypertension in both groups**

Section C

This section deals with association between blood pressure and the demographic variables such as age, sex, education, occupation, habits, diet pattern, marital status, family history, body mass index, duration of illness.

Table 11

Association between the Hypertension and selected demographic variables.

Demographic variables	Experimental Group	Control Group	χ^2	df	Table value
Age in years					
a. 25-35 years	4	3			
b. 36-45 years	6	8	0.62	3	7.82
c. 46-55 years	12	9			
d. 56-70 years	8	10			
Sex					
a. Male	17	16	0.59	1	3.84
b. Female	13	14			
Education					
a. Primary	8	9			
b. Middle	6	6			
c. SSLC	9	7	15.6	3	7.82
d. Higher Secondary	2	3			
e. Graduate and others	5	5			

Occupation					
a. Sedentary worker	18	17	0.023	1	3.84
b. Non Sedentary worker	12	13			
Marital status					
a. Married	22	22			
b. Unmarried	0	0	2.77	3	7.82
c. Divorce	3	4			
d. Widow	5	4			
Habits					
a. Smoking	7	6			
b. Alcoholism	6	7	0.814	3	7.82
c. Both A and B	5	4			
d. Nil	12	13			
Diet pattern					
a. Vegetarian	10	12	14.40	1	3.84
b. Non- vegetarian	20	18			
Family History					
a. Present	17	16	2.60	1	3.84
b. Absent	13	14			
Body Mass Index					
a. Below Normal	9	10	1.76	2	5.99
b. Normal	9	7			
c. Above normal	12	13			
Duration of illness			18.51	3	5.99
a. 1-3 years	8	7			

b. 4-6 years	4	6
c. 7-10 years	7	8
d. 10 and above	11	9

The above table shows 11 describes the association between the hypertension with selected demographic variables. The result shows that three is an association between the hypertension, education, diet pattern and duration of illness.

CHAPTER - V

Discussion

The numerical analysis is provided with meaning in this chapter. The study findings are discussed with reference to the objectives of the study. The result and discussion of the study is based on the findings obtained by statistical analysis. The major findings of the study are as follows

Characteristics of the sample

Table 1 shows the distribution of subjects according to demographic variables.

Majority of the sample subject were males [56.7%], In respect of age 40% of the subjects between 46-55 years. Among the total subjects, 50-70% were literate, most of the subjects ie, 60% sedentary workers,93-96% subjects were married. 23.3% of the subjects had a habit of alcoholism and 13.3% of the subjects had a habit of smoking and alcoholism. While considering duration of illness 36.6% are 10 and above years.

The demographic variables of experimental and control group were matched in Age, sex, Education, Occupation, Habits, Diet pattern, Body Mass Index, Duration of illness.

The first objective of the study is to assess the level of stress and Blood Pressure among hypertensive clients in Experimental group and control group

The blood pressure was assessed in subjects with hypertension on day1[pretest], and day 7. The pre test and post test results of both groups were

compared and found that both the groups had a reduction in systolic blood pressure from pretest to post test as 173.33±14.52[SD]to 137.33±8.97[SD] in the experimental group. The systolic blood pressure among control group reducer from 170.83±13.26[SD] to 162.16±11.11[SD].

The diastolic blood pressure in the experimental group reduced from 106.33±12.95[SD] to 85.66±6.78 and in control group reduced from 104.42±10.21[SD] to 98.27±10.71[SD].

The second objective of the study to assess the level of stress among hypertensive clients in Experimental group and control group.

The level of stress was assessed in subjects with hypertension on day 1[pre test], and day 7. The pre test and post test results of both groups were compared and found that both the groups had a reduction in stress level from pretest to post test as 175.93±11.27 to 95.56±5.76 in the experimental group and 173.76±11.55 to 167.16±11.51 in the control group.

The third objective of the study is assess the effectiveness of Agitation Management Strategy in reducing blood pressure among hypertensive patients in experimental and control group.

Comparison of mean blood pressure of the both groups were compared and found that reduction of blood pressure of experiment group was significantly greater than control group. The reduction in systolic blood pressure with the difference of mean score[$t= 9.36$ $df = 59$, $p<0.05$] on the day 7. The reduction of diastolic blood pressure with the difference of mean score[$t=7.21$ $df= 59$, $p<0.05$] on the day 7. Thus

the research hypothesisH1 is accepted. Agitation Management Strategy was found to be very effective in reducing blood pressure among patients with hypertension.

Kichort A, et. Al[2010] conducted a study on effect of Agitation management strategy[AMS] reducing hypertension. Samples were selected randomized control trails and the age group 20- 70 years. AMS technique was practice in subjects with high blood pressure. Meta analysis was used for this study. The results shows AMS reducing high blood pressure in experimental group.

The study finding is congruent with study conducted by Karien Red, Chiawen Tsai et al [2010] performed a systemic review to investigate the effectiveness of agitation management strategy to reduce blood pressure in a meta-analysis of individual patient datas, randomized control trails with an active control group. Included were randomized studies of at least one week' duration, with an active experimental and control group. Bias was assessed with the Cochrane risk of bias tool, and analyses were performed with linear mixed models with measuring blood pressure chart. Participants in the control group did not receive any intervention for hypertension. Of 40 participants, 19 were randomly assigned to the interventional group and 21 were assigned to the control group. Interventional package only allowed for experimental group [autogenic meditation and guided imaginary]. After one week' duration significant difference were observed between experimental and control group. The analysis showed that agitation management strategy has significant reduction of blood pressure [95%confidence interval =-5.04 TO =2.45.1=30.7%].3.75 mmHg in systolic blood pressure and a 3.39-mmHg reduction[95% confidential interval=-4.14 to -2.65,1=67%] in diastolic compared with controls. Meta analysis of subgroups showed a significant in systolic blood pressure in hypertensive[-4.4

mmHg;95%CI-7.37 to -1.42,1=0.0%;p=0.04] but not in normotensive patient. After sensitivity analysis, heterogeneity disappeared and significant diastolic blood pressure reduction[-2.68mmHg,CI-4.93 to o.42,1=0.0%;p=020]was shown in hypertensive patients. Thus they suggested that interventional package are superior to control in reducing blood pressure, especially in hypertensive patients.

To find out the association between blood pressure and the selected demographic variables like age, sex, education, occupation, habits, diet pattern, marital status, body mass index, duration of illness.

There was association between the hypertension and other selected demographic variables education, diet pattern, and duration of illness. Thus the research hypothesis (H_2) is accepted.

CHAPTER - VI

Summary, Conclusion, Nursing Implication, Limitation And Recommendation

Summary of the study

The study was undertaken to assess the effectiveness of agitation management strategy on blood pressure and stress among hypertensive patients in the Sree Mookambika Medical College Hospital, at Kulasekharam.

Objectives of the study

- To assess the level of stress and Blood Pressure among hypertensive clients admitted in Sree Mookambika Medical College Hospital, both Experiment Group and control group.
- To assess level of stress and blood pressure among hypertensive clients in Experimental group after Agitation Management strategy.
- To assess the level of stress and blood pressure among patients without agitation management strategy in the control group.
- To determine the effectiveness of agitation management in reducing blood pressure and stress among hypertensive clients.
- To find out the association between blood pressure and the selected demographic variable like age, sex, education, occupation, habits, diet pattern, marital status, body mass index, duration of illness

Hypothesis

- There is a significant reduction in the level of stress and blood pressure among hypertensive clients in the experimental group than in the control group.

- There is a significant association between blood pressure and stress with the selected demographic variables such as Age, Sex, Occupation, etc

The researcher adopted a quasi experimental research design with non equivalent control group pretest post test design. The study was done among 60 clients admitted in Sree Mookambika Medical College Hospital, at Kulashekaram. In this study, independent variable is agitation management strategy and dependent variable is hypertension and stress. The subjects were selected by purposive sampling technique 30 were allotted in Experimental group and 30 in Control group.

The tool used for the study was adopted from Modified Vaughn's blood pressure chart and stress verbal questionnaire. Agitation management strategy was given to the experimental group and no intervention was given to control group. Post test was conducted to the experimental and control group. The collected data were analyzed based on descriptive and inferential statistics according to the above mentioned objectives.

The study identifies that the level of hypertension was reduced in the experimental group than the control group. It was found that there was a significantly high reduction in the level of hypertension of experimental group after interventional strategy than in the control group. The 't' value for Comparing mean blood pressure

was tabulated and found to be; t= 9.36 [p<0.05] on the 7th day for systolic blood pressure and t= 7.21[p<0.05] 7th day for diastolic blood pressure.

Conclusion

The conclusion drawn from the findings of the study are follows;

1. Agitation management strategy found to be an effective nursing intervention in reducing hypertension among adult patients.

2. There is no side effects of agitation management strategy when comparing with other pharmacological treatment.

3. Patients satisfaction is very much higher in this intervention.

4. The finding of the study enlighten the fact that agitation management strategy can be used as a cost effective nursing intervention in reducing the hypertension among the hypertensive patients.

Nursing Implications

Hypertension to be controlled by medication. But there is always a risk of developing hypertension, when medications are stopped or even with the continuation of medications. The drugs which are used for hypertension also have many side effects. This emphasizes the need of a nursing intervention which has no side effects.

Agitation management strategy reduces the hypertension, prevent or delay the incidence of hypertension , enhance antihypertensive drug efficiency and decreases cardiovascular risk as evidence by several studies. Present study proves the effect of agitation management strategy in reducing hypertension. Therefore the finding of the

study has considerable implications on nursing administration, nursing education, nursing practice, nursing research.

Implications to nursing Administration

1. Nurse administrator can be prepare the protocol for agitation management strategy in reducing the hypertension.

2. The nurse administrator should encourage the health care members to actively participate in conducting health programmes regarding life style modifications in hypertension.

3. The nurse administrator can help in getting funds from higher authorities for conducting seminars, workshop, and conference regarding the importance of agitation management strategy in hypertension.

4. The nurse administrator can act as a change agent in utilizing the research findings.

5. Nurse administrator should promote the acceptance of changes.

Implications to nursing practice

The study findings can assist nurse in making more informed decisions and in taking actions that have a solid research based rationale.

1. Agitation management is a safe and better modality which has no side effects.

2. It is one of the cost effective nursing intervention that can add benefits to patients who are on pharmacological therapy.

3. Research can fruitfully be used by nurse in planning care by integrating nursing intervention [agitation management strategy] that are especially beneficial for patients with hypertension in any setting.

Implications to Nursing Research

The nurse research implications of the study lies in the scope for expending the quality of nursing service. In this area the evidence based practice publication of these studies will take nursing to a new horizon.

1. Nurse researcher can do various studies related to other beneficial effects of agitation management strategy on hypertension clients in reducing blood pressure.

2. A comprehensive study can be done to determine the effectiveness of agitation management strategy with other alternative therapies.

3. Similar study can be conducted on a large sample. So it could be generalized.

Limitation

1.The sample size of patients for the experimental and related control group was only 30 and hence generalization not possible.

2. The data collection period was only one month

3. The study is limited only to the samples in Sree Mookambika Medical College Hospital, Kulashekaram.

Recommendations

1. The study may be replicated with randomization in selection of a large sample.
2. Nurse researcher can do studies related to agitation management strategy on reducing hypertension
3. Nurse researcher can do studies comparing the immediate and long term effects of agitation management in reducing hypertension.
4. Studies can be done to determine the other therapeutic benefits of Agitation Management Strategy among patients with hypertension.
5. A study can be conducted by including more number of variables.
6. Nurse researcher can do studies related to effect of agitation management strategy to improve quality care.

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APPENDICES A

SREE MOOKAMBIKA COLLEGE OF NURSING

(Approved by the Government of Tamil Nadu & Recognised by Indian Nursing Council, New Delhi, Tamil Nadu state Nurses & Midwives Council, Chennai.)
Affiliated to The Tamil Nadu Dr. M.G.R. Medical University, Chennai.

PADANILAM WELFARE TRUST, V.P.M.HOSPITAL COMPLEX, PADANILAM, KULASEKHARAM, K.K.DIST., TAMIL NADU, PIN : 629 161.
Phone : 04651 - 280743, 280866, 280742, 280745

ETHICAL COMMITTEE CLEARANCE

Date : 23-12-2014

Lr. No.

To

Ms. Divya Krishnan. K.P.

I YR .M.Sc (N),

Sree Mookambika College of Nursing,

Kulasekharam.

Ref: Research Topic: A Study to assess the effectiveness of agitation Management strategy on blood pressure and stress level among patients with Hypertension admitted in Sree Mookambika Medical College Hospital, Kulasekharam.

Sub: Approval of the above reference study .

Dear Divya Krishnan. K.P.

Ethics committee of Sree Mookambika College of Nursing, Kulasekharam reviewed and discussed the study proposal documents submitted by you related to the conduct of the above referenced study in the meeting held on 23-12-2014.

The following ethical committee Members were present at the meeting held on 23-12-2014.

NAME	PROFESSION	POSITION IN THE COMMITTEE
Prof. Mrs. Santhi Letha	Nursing	Chair Person
Dr. Kani Raj Peter	Medical	Basic Medical Scientist
Dr. T.C. Suguna	Nursing	Clinician
Adv. Mohanan	Legal	Legal Expert
Prof. Mrs.Ajitha Retnam	Nursing	Member secretary
Dr.P. Selva Raj	Management	Philosopher
Mr. Natarajan	Social	Medical Social Worker
Mrs. Latha	Lay Person	Community Person

After due ethical and scientific consideration, the ethics committee has approved the above presentation submitted by you.

Regards,

Mrs. Santhi Letha PhD (N)

Ethics Committee Chairperson,

Sree Mookambika College of Nursing,

V.P.M. Complex, Padanilam, Kulasekharam.

Date : 23-12-2014

Place :Kulasekharam

APPENDICES : B

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool developed by Miss. Divya Krishnan K.P, IInd year M.Sc., (N) student of Sree Mookambika College of Nursing, Kulasekharam (Affiliated to Dr. M.G.R. Medical university, Chennai) is validated by the undersigned can proceed with this tool and conduct the main study for dissertation entitled **"A study to assess the effectiveness of agitation management strategies in reduction of stress level and blood pressure among patients with hypertension attending Sree Mookambika Institute of Medical Science, Kulasekharam".**

Place : Kulasekharam,

Date : 8/10/2015

Signature

Dr. J. Kaniraj Peter.MD.
Prof. & HOD. Dept. of Medicine
Reg. No. : 29326
Sree Mookambika Institute of Medical Sciences
Kulasekharam, K.K. Dist.

Name

Designation :

Address :

APPENDICES : C

Yoga Training Certificate

Vazhga Vaiyagam

Vazhga Valamudan

THE WORLD COMMUNITY SERVICE CENTRE

26, Second Seaward Street, Valmiki Nagar, Thiruvanmiyur,
Chennai - 600 041.
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Ph : 044 - 24571153 E-Mail : chennai.wcsc@vethathiri.edu.in

Affiliated Trust Address :

TEMPLE OF CONSCIOUSNESS

Marthandam

KAYAKALPA COURSE CERTIFICATE

This is to certify that

Thiru / Tmt / Selvan / Selvi. Divya krishnan . K.P.

has successfully participated in the

KAYAKALPA COURSE

held at வாழ்க வையகம் வாழ்க வளமுடன் குலசேகரம் மனவளக்கலை மன்றம்

on 23-12-2014 வெள்ளிலிக்கோடு போன் : 275294

Be Blessed by the Divine Power

For President
The World Community Service Centre

APPENDICES : D

LIST OF EXPERTS FOR TOOL VALIDATION

1. **Dr. Mrs. Sharmila Jansi Rani M.sc (N)., Ph.D**
   Professor,
   Christian College of Nursing,
   Neyyoor.

2. **Mrs. Daisy. J., MSc (N)**
   Principal,
   NIMS College of Nursing,
   Neyyattinkara. Trivandrum.

3. **Mrs. J. M. Jerlin Priya MSc (N)**
   Principal,
   Annammal College of Nursing. Kuzhithurai.

4. **Mrs. Rajam. U. MSc (N)**
   Associate Professor,
   CSI College of Nursing,
   Karakonam, Trivandrum.

5. **Mrs. R. Mercy Russelin Prabha. MSc (N)**
   Associate Professor,
   NIMS College of Nursing,
   Neyyattinkara. Trivandrum.

6. **Mrs. Moona.J. Cicil.MSc.(N)**
   Associate Professor,
   Christian College of Nursing, Neyyor.

7. **Dr. J. Kaniraj Peter. MD,**
   Professor and HOD, Dept.of Medicine,
   Sree Mookambika Medical College Hospital,
   Kulasekharam, K.K Dist.

APPENDICES : E

DESCRIPTION OF THE TOOL

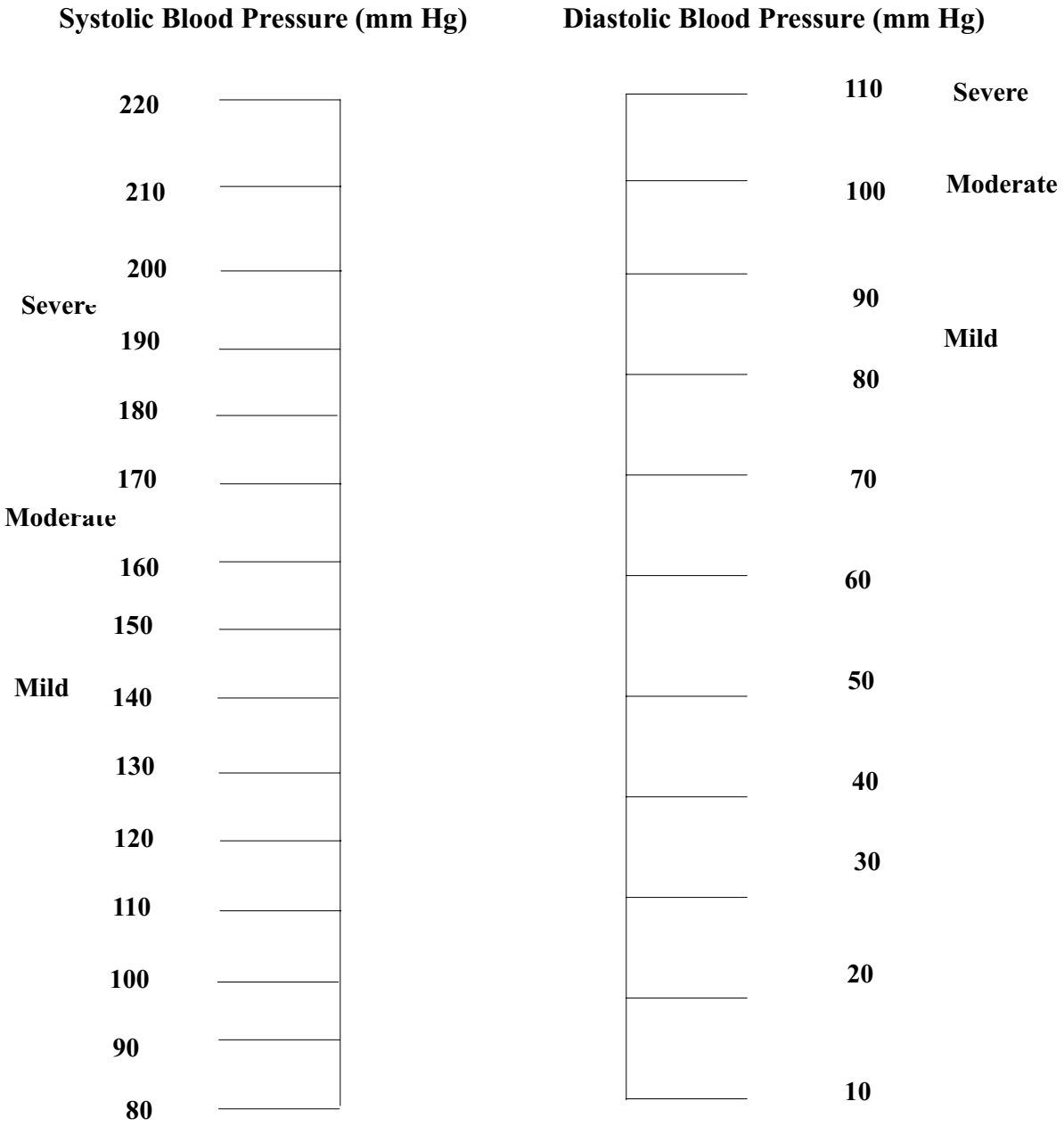
Section : A

Demographic Variable

1. Age in years
    (a) 25-35 years
    (b) 36-45 years
    (c) 46-55 years
    (d) 56-79 years
2. Sex
    (a) Male
    (b) Female
3. Education
    (a) Illiterate
    (b) Primary
    (c) Secondary
    (d) Graduate
4. Occupation
    (a) Sedentary worker
    (b) Non Sedentary worker
5. Marital status
    (a) Married
    (b) Unmarried
    (c) Divorce
    (d) Widow
6. Habits
    (a) Smoking
    (b) Alcoholism
    (c) Both A and B
    (d) Nil
7. Diet pattern
    (a) Vegetarian
    (b) Non- vegetarian
8. Family History
    (a) Present
    (b) Absent
9. Body Mass Index
    (a) Below Normal
    (b) Normal
    (c) Above normal
10. Duration of illness
    a) 1-3 years
    b) 4-6 years
    c) 7-10 years
    d) 10 and above

Section : B

BLOOD PRESSURE CHART



This consists of two separate scales for measuring systolic Blood Pressure ranging from 80 to 220 mmg Hg and diastolic blood pressure ranging from 10 to 140mm Hg (adopted from vaughn's Blood Pressure chart)

Section : C

STRESS INDICATORS QUESTIONNAIRE

PHYSIAL INDICATORS	Almost always	Most of the time	Some of the time	Almost never	Never
	5	4	3	2	1
My body feels tense all over and have a nervous sweat or sweaty palms.					
I have a hard time feeling really relaxed.					
I have severe or chronic lower back pain					
I get severe or chronic headaches.					
I get tension or muscle spasms in my face, jaw, neck or shoulders					
I get tension or muscle spasms in my face, jaw, neck or shoulders					
My stomach quivers or feels upset.					
I get skin rashes or itching					
My ulcer bothers me					
I feel short of breath after mild exercise like climbing up four flights of stairs.					
I get sharp chest pains when I'm physically active and lack of physical active and lack of physical energy.					

SLEEP INDICATORS:	Almost always	Most of the time	Some of the time	Almost never	Never
	5	4	3	2	1
I have trouble falling asleep.					
I take pills to get to sleep.					
I have nightmares or repeated bad dreams.					
I wake up at least once in the middle of the night for no apparent reason.					
No matter how much sleep I get, I awake feeling tired.					
No matter how much sleep i get, i awake feeling tired.					
I'm a restless sleeper.					
I grind my teeth in my sleep.					
I have a tendency to fall asleep during the day.					
I'm unable to return to sleep easily, if i awaken during the night.					
My sleep is disturbed after a stressful experience in the day.					

Behavioural Indicators:	Almost always	Most of the time	Some of the time	Almost never	Never
	5	4	3	2	1
I stutter or get tongue tied when I talk to other people.					
I try to work while I'm eating lunch.					

I go to work even when I feel sick.					
I drink alcohol or use drugs to relax.					
I have problems with my sex life.					
At least once during the week I will make bets for money.					
After dinner I spend more time alone or watching TV than I do talking with my family or friends.					
I arrive at work late.					
At least once during the week I have a shouting match with a co-worker or supervisor					
I tend to stumble when walking, or have more accidents than other people.					

Emotional Indicators:	Almost always	Most of the time	Some of the time	Almost never	Never
	5	4	3	2	1
I have found the best way to deal with hassles and problems					
I feel very angry inside					
I feel anxious or frightened about problems I can't really describe.					
I worry a lot.					
It is hard for me to relax at home.					
It's best if I don't tell even my closest					

friend how I'm really feeling					
I find it hard to talk when I get excited.					
My emotions change unpredictably and without any apparent reason					
I really don't feel good about myself and i feel very tried and disinterested.					
I feel extremely sensitive and irritable.					
When I have an important personal problem I can't solve myself, I do not seek professional help					

Personal Habits	Almost always	Most of the time	Some of the time	Almost never	Never
	5	4	3	2	1
I spend less than three hours a week working on a hobby of mine.					
I spend less than one hour a week writing personal letters, writing in a diary or writing creatively.					
I spend less than 30 minutes a week talking casually with my neighbours.					
I lack time to read the daily newspaper					
I watch television for entertainment more than one hour a day.					
I spend less than 30 minutes a day working toward a life goal or ambition of mine					
My day to day living is not really affected by my religious beliefs or my philosophy of life					
When I feel stressed, it is difficult for me to plan time and activities to constructively release my stress.					

I don't really plan my meals for balanced nutrition.					
Because of my busy schedule I miss at least two meals during the week.					

SCORE:

No stress	:	10-50
Mild stress	:	51-100
Moderate stress	:	101-150
Severe stress	:	151-200
Very severe stress	:	201-250

TÏ§ : 1

Y. Gi	EPp A±Ï±Ls	JÚ úTôÕm 1	Gl úTôRôYÕ 2	Ïû\kR úSWm 3	A§L úSWm 4	Gl úTôÕm 5
1.	EPp ØÝYÕm JÚ TRt\m HtThÓ ®VoûYÙm HtTÓ¡\Õ.					
2.	Sôu JÚ úTôÕm AûU§Vô] U] ¨ûX«p CpûX.					
3.	G]dÏ L¥]Uô] ØÕÏ Y EiÓ					
4.	G]dÏ L¥]Uô] RûXY EiÓ					
5.	G]dÏ ØLm, LÝjÕ, úRôs TÏ§ B¡V CPeL°p RûN ©¥l× HtTÓm.					
6.	G]dÏ Y«tß Y EiÓ.					
7.	Gu úRôp A¬l×m HtTÓm.					
8.	Y«tßl×i EiÓ					
9.	£u] EPtT«t£ ùNnRôÛm êfÑj §Q\p YÚ¡\Õ.					
10.	VRôYÕ úYûX ùNnÙm úTôÕ G]dÏ ùSgÑ Y YÚ¡\Õ.					

	çdL A±Ï±Ls					
1.	çeL Ø¥V®pûX					
2.	Uôj§ûWLs GÓjRôp Rôu çeL Ø¥Ùm.					
3.	çdLj§p ùRôPof£VôL ùLhPd L]ÜLs YÚm					
4.	LôWQúU CpXôUp çdLj§u úTôÕ Ø¯lúTu					
5.	GqY[Ü úSWm çe¡]ôÛm ®¯dÏm úTôÕ úNôokÕRôu CÚdÏm.					
6.	çe¡]ôÛm çe¡V Uô§¬«pûX.					
7.	çe¡]ôÛm çe¡V Uô§¬«pûX.					
8.	çeÏm úTôÕ Tp L¥dÏm TZdLm EiÓ.					
9.	JÚ RPûY çdLj§u úTôÕ ®¯jRôp ©\Ï çeL Ø¥VôÕ.					
10.	©WfNû] VôRôYÕ Es[Sôs çeL Ø¥VôÕ.					

	SPjûR A±Ï±Ls					
1.	©\¬Pm úTÑm úTôÕ SôdÏ RÓUôßm					
2.	Uj§V EQ®u úTôÕm Sôu úYûX ùNnV ØVt£dÏm					
3.	EPp Ø¥VôUp CÚkRôÛm Sôu úYûX ùNnÙm					
4.	G]dÏ Ï¥TZdLm EiÓ					
5.	EPp E\®u úTôÕ G]dÏ ©WfNû] EiÓ					
6.	YôWj§p JÚ RPûY VôYÕ Sôu TQj§tLôL ãRôÓm					
7.	NôlTôh¥u ©\Ï Sôu ¥.® TôodÏm TZdÏm EiÓ					
8.	Sôu Gu ÏÓmTj§p Es[Y¬PØm, SiToL°PØm úTÑúYu.					
9.	Gu úUXô[¬PúUô, NL T¦Vô[¬PúUô NiûP«p HtTÓm.					
10.	©\ûW ®P G]dÏ A§L ®TjÕdLs YkÕ úNÚm.					

	EQof£ A±Ï±Ls :					
1.	©WfNû]L°ÚkÕ Á[G]dÏ Y¯ ùR¬Ùm					
2.	©WfNû]ûVl Tt± úTÑYúRô, £k§lTúRô R®t¡ú\u.					
3.	G]dÏ ùNôpX Ø¥VôR ©WfNû]ûVl Tt± G]dÏ GlúTôÕm TVm Rôu					
4.	Sôu GlúTôÕm LYûXTÓúYu.					
5.	Åh¥ÚdÏm úTôÕ AûU§VôL ùR¬VôÕ					
6.	Gu SiT²Pm áP U]m ®hÓ úTÑY§pûX					
7.	A§of£ AûPÙm úTôÕm úLôTlTÓm úTôÕm G]dÏ úTfÑ YWôÕ.					
8.	G]dÏ §¼ùWuß úLôTm YÚm					
9.	LôWQm GÕm CpXôUp Sôu EQof£ YNlTÓúYu.					
10.	G]dÏ Guû]úV ©¥dLôÕ					

	úToNQp A±Ï±Ls					
1.	YôWj§p êuß U¦dÏm Ïû\Yô] úSWm ùTôÝÕ úTôd¡p HtTÓm.					
2.	YôWj§p JÚ U¦ úSWj§tÏm Ïû\Yô] úSWm L¥Rm GÝÕYRtÏm, PV¬ GÝÕYRtÏm GÓjÕd ùLôsúYu.					
3.	TdLjÕ ÅhÓLôW¬Pm YôWj§p 30 ¨ªPj§tÏ Ïû\Yô] úSWm úTÑúYu.					
4.	G]dÏ §]N¬ Tj§¬ûL Yô£dL úSWm ¡ûPdLôÕ.					
5.	JÚ Sôs JÚ U¦dÏ úUp ùTôÝÕ úTôd¡tLôL ¥.®. TôolúTu.					
6.	Sôu Ï±l©hP úYLjûR ®P A§L úYLj§p ûTl JhÓúYu					
7.	Sôu Gu Xh£VVm AûPV JÚ Sôs 30 ¨ªPj§tÏ Ïû\Yô] úSWm TôÓTÓúYu.					
8.	Ød¡VUô] ©Wf£û]ûV NUô°dL Ø¥VôÕ.					
9.	GuàûPV §]N¬ TZdL YZdLeLs GuàûPV YôrdûLûV Tô§lT§pûX.					
10.	G]dÏ GlúTôÕ U] AÝjRm HtTÓúUô AlùTôÝÕ GuàûPV LôX AhPYûQ«u T¥ Gu]ôp SPdL Ø¥V®pûX.					

APPENDICES : F

Name of the expert :

Designation :

College :

Respected Madam / Sir,

Kindly go through the demographic variables, Blood pressure chart and Stress Indicator Questionnaire, please give your valuable suggestions regarding accuracy, relevancy, and appropriateness of the content. If there is any suggestions or comments, please mention in the remarks column.

CHECK LIST FOR VALIDATING THE TOOL

S.No	ITEMS		Remarks
	Accepted	Not Accepted	
Part-1 Demographic Variables.			
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Questionnaire No.	ITEMS		Remarks
	Accepted	Not Accepted	
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APPENDICES : G

INTERVENTION PACKAGE

Agitation Management Strategies

It is a relaxation technique developed by German psychiatrist. Johannes Heinric schultzs. It consist of two interventional package that is Autogenic exercise and Guided imaginary.

Section A: Autogenic exercise

Section B: Guided imaginary

Selection of Place:

- Well ventilated
- Calm and pleasant place
- A clean, quiet room

Time for practise:

- Any time
- Best time is early morning or late night.
- Maintain regular time for practice daily.

Physical preparation:

- Body should be comfortable, relaxed and clean

- Wash face, hands and feet to feel fresh
- Dress should be comfortable

PROCEDURE

Before and after Agitation Management strategy Blood pressure should be checked.

Section A:

Autogenic exercise is a non- pharmacological intervention that refers to an approach to training the mind, similar to the way that fitness is an approach to training the body.

Autogenic exercise is practiced for10 minutes in the morning and evening while sitting comfortably with the eyes closed which includes the following sequences,

I. Close the eyes, than allow the mind and body to relax about 2 minutes.
II. Breath slowly and deeply, and feel the mind relaxing 3 minutes.

III. Continue repeat breathing for 5 minutes.

Section B: Guided imagery

Its a mental visualization technique to improve mood and physical well-being. Guided Imagery Technique is two-part process. The first component involves developing a state of deep relaxation through breathing exercise. The second component of the exercise is imagery or visualization itself, for 15 minutes. Which includes the following sequences,

- Get into a comfortable and relaxed state.
- Calm the mind. It is possible to relax physically and still have mind running at warp speed.
- Focus on your breathing. Take long, slow, deep breaths. Relax more and more in each breath. By concentrating your breathing, you can control your mind's tendency.
- Attain a meditative state of mind and body. Allow yourself to sink deeper and deeper into a more calming and peaceful place.
- Attained this wonderful state of complete relaxation, simply project images of what you accomplish on the screen of your mind.