EFFECT OF PRANAYAMA ON STRESS AMONG HYSTERECTOMY WOMEN AT SELECTED COMMUNITY, KULASEKHARAM, KANYAKUMARI DISTRICT.

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

OCTOBER 2015

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Internal Examiner   **External Examiner**

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APPROVED BY DISSERTATION COMMITTEE ON   11.01 2014

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BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled **"A Study to evaluate the effectiveness of Pranayama on Stress among hysterectomy Women at selected areas in Arumanai panchayat, Kanyakumari district"** is a bonafide research work **done by Sajini R IIyearMSc(N),** Sree Mookambika College of Nursing, Kulasekharam under the guidance of **Mrs. Marysunitha M.Sc. (N), Asst professor** Obstetrics and Gynecological Nursing   in partial fulfillment of the requirements for the Degree of Master of Science in Nursing under Tamilnadu Dr. M.G.R Medical University.

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CERTIFICATE

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DECLARATION

I hereby declare that the present dissertation titled **"A study to evaluate the effectiveness of Pranayama on stress among hysterectomy women at selected areas in Arumanai panchayat, Kanyakumari district"** the outcome of the original research undertaken and carried out by me under the guidance of **Mrs. Marysunitha M.Sc. (N) Asst.Professor** Sree Mookambika College of Nursing, Kulasekharam. I also declare that the material of this has not formed in anyway, the basis for the award of any degree or diploma in this university or any universities.

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INVESTIGATOR

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Abstract

Hysterectomy is one of the commonest gynaecological surgeries removing a "valued object" which could be related to pain both physical and psychological. The major psychosocial problems are mainly belongs to domains of pain, stress, sexuality and psychological wellbeing, Stress is among the most frequently experienced emotional problems after hysterectomy.The main objectives of the study were, To find out the level of stress among hysterectomy women. To assess the effectiveness of pranayama on stress reduction among hysterectomy women. The research design selected for the study was pre experimental one group pretest-posttest design. A purposive sampling techniques was used to obtain a sample of 30 hysterectomy women who satisfied the inclusion criteria pre test stress level was estimated on the first day by using perceived stress scale followed by pranayama was practiced by the samples for 4weeks. Finally post test stress level was estimated using the same scale. Ethical aspect of this study maintained throughout the study. The data were analyzed using descriptive and inferential statistics. The study identified that 3% of the sample had mild stress, 67% of the sample had moderate stress, 23% of the sample had severe stress, and none of the sample had no stress. The study result shows that the pre test mean value is 71.3 and pre test SD is 11.7. The post test mean value is 41 and post test SD is 8.6. The mean difference is 30. The calculated 't' value is 25 is higher than the table value 2.045. Hence there is an reduction in stress level after administration of pranayama among hysterectomy women. The study concluded that pranayama found to be an effective relaxation therapy in reduce stress level among hysterectomy women.

Key words: hysterectomy women, stress, pranayama.

CHAPTER I

Introduction

"When you own your breath, nobody can steal your peace"

-   Krishnamacharya

Hysterectomy is often an "end of the road" decision for women who may be debilitated from months of heavy prolonged bleeding. Hysterectomy is a common surgery done to a large number of women who belong to late reproductive age group. The removal of the uterus is suggested for a number of diseases and conditions. Hysterectomy is the removal of the uterus and, in most cases, the cervix (neck of the uterus). When ovaries and tubes are also removed along with the uterus, the procedure is known as hysterectomy and bilateral salpingo–oopherectomy.

The first planned hysterectomy was performed by surgeon CJM Langenback, of Gottingen, Germany in 1931. The surgical procedure was performed without Anesthesia or homeostatic clamps and patient survived. According to data released in 1990, Hysterectomy is the second most frequent performed surgical procedure in the world. In USA annual incidence of hysterectomy is 5,90,000, while in India annual incidence 2,3,10,263.

Although a Hysterectomy can at times be a life saving procedure but it can impact a woman's health, longevity and sexuality. Some of the potential long term health consequences of a Hysterectomy include great risk of diseases, osteoporosis, increase risk of depression, Sexual dysfunction, intense menopausal symptoms, weakness of pelvic muscles, scar tissue, difficult urination. About 66% women lose

sexual arousal, 54% to lose sexual sensation and 53% to have suicidal thoughts associated with post Hysterectomy depression.

A hysterectomy is a major event in a woman's life. It will result in instant menopause and the woman will experience all the physiological changes of menopause after undergoing hysterectomy. She will no longer menstruate and will not be able to bear children. Other physical discomforts associated with hysterectomy are hot flushes, night sweats, difficulty in sleeping, fatigue and dryness of vagina, among other things. Many women also become irritable and suffer from mood swings as a result of the hormone withdrawal. Younger women often find it difficult to cope with such changes and sometimes go into depression. Hormone replacement therapy is given to avoid all menopausal features, like, hot flushes, vaginal discomfort, osteoporosis, and cardio vascular disease, to patients whose ovaries are also removed

The major psychosocial problems reported in relation to hysterectomy are mainly belong to the domains of pain, sexuality and psychological well being which is necessary to access for negative psychosocial outcome followed by problems such as depression, anxiety, and sexual dysfunction Some authors, especially those of the psychoanalytical school, attribute to the uterus, unique, symbolic importance central to feeling feminine and attractive. They suggest that loss of the uterus may deal a blow to self-esteem, and that at this juncture in their lives many women may suddenly want another child as evidence that they are still fertile. More recent views point out that women do not usually want to start bringing up another baby during their fourth decade, although many may dread the changes heralded by hysterectomy or the menopause. Because they have been little preparation and do not know what to expect. (Rose, L., The Menopause book).

Other long-term adverse effects of hysterectomy have been reported. Some studies, although not all, report that new urinary symptoms such as frequency, urgency, and incontinence occur in 30% of woman after hysterectomy. This maybe the inevitable result of bladder denervation (surgically cutting off the nerve supply to the bladder) during hysterectomy. Also, slow propulsion constipation develops in about a third of women after hysterectomy, even without the presence of rectocele. Frequently, hysterectomy leads to sagging of some internal genital organs such as the anterior vaginal wall (dropped bladder or cystocele) and posterior vaginal wall (rectocele). These conditions may cause symptoms such as difficulties in urination, stress urinary incontinence or constipation, difficulty penetration during intercourse, and vaginal infection. These conditions may be severe enough to require surgical correction.

Need For The Study

Women who undergo hysterectomy face a multitude of physical and psychosocial problems both before and after the hysterectomy. For many women, the uterus is the symbol of femininity, sexuality, fertility and maternity, and the loss of it signifies the loss of womanhood because, giving birth to a child is considered to be the basic function of a woman. After surgical operation, the woman thinks that her husband does not find her attractive anymore and their sexual relationship will be affected. Some women confuse the removal of the uterus with the removal of the vagina, and therefore think that they will completely lose their sexual functions. They adopt a fear of early aging if their ovaries are also removed during the operation.

Dr. Helena Judith P. (2003) reported that it was seen that all women, regardless of the circumstances that lead to the hysterectomy and the type of surgery,

faced varying degrees of physical and psychosocial problems. All of them suffered hot flushes and night sweats. They also gained weight although some were able to control the weight gain through diet and exercise. Other physical distresses reported included insomnia, breathlessness, tiredness, fatigue, muscular ache, joint pain and skin problems like dryness, loss of elasticity, the psychological problems included mood swings, irritability, depression, tendency to cry easily, short-tempered behaviour and lessened self confidence.

Stress affects the body in a variety of ways, stress can reduce enjoyment of an occasion, mood changes and severe health problems. Many books and articles claim that practicing relaxation therapy will provide tremendous benefits including lower level of stress reactivity improved mood and ability to focus, improved self esteem, physical health and mental health. (S. Bhuvaneshwari 2009)

Primary methods used in coping with stress include meditation, yoga, hypnosis, music and massage therapies, biofeedback and progressive relaxation exercises. Relaxation exercises, slows down heart rate, drops blood pressure, decelerates breathing rate, reduces oxygen need, increases blood flow to big muscles, reduces muscular rigidity, stress, fatigue and pain, and provides comfortable sleep. It provides more energy and therefore more productivity in daily activities.

Pranayama is one of the relaxation therapy which reduce stress among hysterectomy women. Prāṇāyāma is a Sanskrit word meaning "extension of the prāṇa or breath" or "extension of the life force". The word is composed of two Sanskrit words: prana, life force, or oted particularly as the breath), and ayāma, to extend or draw out. (Not "restrain, or control" as is often translated from yam instead of ayāma). It is a yogic discipline with origins in ancient India.

Pranayama breathing helps in maintaining the vital energy of life and thus in yogic terms this known as prana. The process of controlling the prana is called pranayama. So pranayama is the science related to invigorating the vital force supplying energy and controlling the mind body complex. It also regulates the flow of pranic energy through out the body. Pranayama is deep rhythmic breathing bringing the breath in desired rhythm by controlling the process of inhalation, retention, and exhalation.

Pranayama focuses on helping women unite the mind, body and spirit to create balance because pranayama has been shown to balance to endocrine system. Studies have found that pranayama can reduce stress, improve mood, boost a sluggish metabolism and slow the heart rate and also the specific pranayama positions deal with particular problems, such as hot flushes, mood swing, vaginal and urinary problems and other pain Pranayama is low impact and can be adapted to meet the abilities of most people. Pranayama practice shows no negative interaction with medications and improve body awareness, a factor in loss of balance

Pranayama helps to improves mental sharpness, daily practice of pranayama improves concentration in the individual and helps them remain calm in adverse conditions as well. Those who feel distracted easily or are not able to concentrate in the work find the difference from the very first week Pranayama is considered a mind body type of complementary and alternative medicine practice. pranayama in particular may be a good choice for stress management. (Macdonell, P 2012).

Stress is among the most frequently experienced emotional problems after hysterectomy. So the researcher stimulated to identify simple, safe, and easy method of relaxation therapy to reduce stress among hysterectomy women. Hence the

investigator felt that it is necessary to evaluate the effectiveness of pranayama on stress among hysterectomy women.

Statement Of The Study

A Study to evaluate the effectiveness of pranayama on Stress among hysterectomy Women at selected areas in Arumanai panchayat, Kanyakumari district.

Objectives

- To assess the level of stress among Hysterectomy Women.

- To evaluate the effectiveness of pranayama on stress among Hysterectomy Women.

- To determine association between the mean pre-test stress and selected socio-demographic variables such as age, occupation, Religion, Education, Individual monthly income, Marital status, Type of family, number of children, Area of living, and Reason for hysterectomy.

Hypothesis

H_1: There is a significant reduction in perceived stress score among Hysterectomy women after practicing of pranayama.

H_2: There is a significant association between the stress and selected demographic variables such as age, occupation, Religion, Education, Individual monthly income, Marital status, Type of family, number of children, Area of living, and Reason for hysterectomy among Hysterectomy women.

Operational Definitions

a)**Effectiveness:** In this study, it refers to reducing the level of stress, as determined by significant reduction in post-test stress score by using modified perceived stress scale.

b) **Pranayama:** Pranayama refers to the regulation of the breath through certain techniques and exercise. In this study pranayama is the selected breathing and relaxation techniques which is used to reduce the stress among hysterectomy women.

c) **Stress:** In this study, stress refers as a physical, mental, or emotional response to events that causes bodily or mental tension

d) **Women:** In this study, it refers to female population between age group of 35-65 years.

e)**Hysterectomy women:** In this study it refers to women whose uterus have been removed either abdominally or vaginally.

Variables

- **Independent variable**: Pranayama

- **Dependent Variable**: Stress

- **Demographic variable**: Age, Occupation, Religion, Education, Individual monthly income, Marital status, Type of family, Number of children, Area of living, Reason for hysterectomy.

Assumption

- Pranayama is an effective complementary theraphy in reducing stress level.

- Pranayama have no side effects when compared with other pharmacological treatment.

Delimitations

1. Study is delimited to the hysterectomy women in selected community area in Kulasekharam.

2. Study is delimited to who are willing to participate in the study.

Criteria For Sample Selection

Samples were selected based on the following inclusion and exclusion criteria.

Inclusion criteria

- Women who had undergone Hysterectomy

- Between 35 to 60 years of age group.

- Who are willing to participate in the study

- Who can able to understand Tamil.

Exclusion criteria

- A women who are taking treatment in hospital

- Sick at the time of data collection.

- A women who are having abdominal pain.

- Hysterectomy women those who are attended the yoga or relaxation classes earlier

Ethical consideration

The proposed study was conducted after getting approval from the college research and ethical clearance committee. The permission to conduct the study was obtained from the chairman and director Sree mookambika institute of medical science of the and Arumanai Panchayath president. Assurance of confidentiality was given to the subjects and oral consent was taken.

Conceptual framework

Bettyneumann's (1989)model focuses on the person as a complete system the subpart of which are interrelated physiological, psychological, socio-cultural, spiritual and developmental factors. In this model the person maintains balance and harmony between internal and external environment by adjusting to stress and defending against tension producing stimulus. The primary goal of nursing is to assist in the attainment and maintenance of client system stability. Nursing intervention include activities to strengthen flexible line of defense, to strengthen resistance to stress and thus restore psychological equilibrium.

"Pranayama in this study strengthens the flexible line of defense and resistance"

As a result of interrelated physiological' psychological, socio cultural, spiritual and developmental factors in the hysterectomy women may cause stress and that may leads to anxiety which may cause disequilibrium to the hysterectomy women. To reducing the stress the researcher will provide a four weeks intervention package of Pranayama will strengthen line of resistance, normal line of defense and flexible line of defense. Pranayama will helps to strengthen the changes in attitude, physical function, emotional stability and relaxation of mind thus restore the psychological equilibrium.

Reconstitution of equilibrium

Action
- Change in attitude
- Change in physical function
- Change in emotional stability
- Relaxation of mind

Stress is reduced

Flexible line of defense

Normal lines of defence

Line of Resistance

PRANAYAMA

Hysterectomy Women

STRESSORS

Intra Personal Factors
- Age, occupation, religion, education.

Interpersonal factors
- Type of family
- Number of children
- Marital status

Extra Personal factors:
- Individual monthly Income
- Area of living
- Reason for hysterectomy

Figure **: 1 Conceptual Frame Work Based On Betty Neumann's System Model (1989)**

CHAPTER II

Review Of Literature

Review of literature is an essential part of any research study. It familiarizes the investigator with previous investigation related to ones field of interest and the various methods and procedures, which can be pursued. It also provides an opportunity to locate related information of interest. Thus it offers general guidelines for the execution of the research studies. A survey of literature thus becomes the vital part in any research of endeavor. It helps to lay the foundation for a study and also plays a role.

Review of literature is very essential for every investigator to update the information about the literature his or her own problem already done by others. Review of literature is considered as the most important pre-requisite to actual planning and conduct of the study.

(Sharma A.K 1990)

A literature review involves the systematic identification, location, critical analysis and written description that contain information on research problem. The fact that a literature is a standard requirements may observe the purpose and importance of the task.

In the study the review of literature is divided into following headings

     i)   Studies related to prevalence of hysterectomy
     ii) Studies related to prevalence of stress among hysterectomy women
     iii) Studies related to effect of pranayama on stress

iv) Studies related to effect of pranayama in reducing stress level among hysterectomy women

i) Studies Related To Prevalence Of Hysterectomy

A Starker et.al (2013) conducted a study on prevalence of hysterectomy in women 18-79 years old. The study result shows that over all, 17.5 (n=689)of the women interviewed stated that they underwent a hysterectomy. As this proportion increases with advancing age, the highest prevalence of 39.4% is to be found in the 70-79 year old- age group. Most women (48.5%) had a hysterectomy between the ages of 40 and 49 years, with an average age of 43.9 and a range from 24-74 years of age.

Ajay. S.Mahal et.al (2011) conducted a study on the prevalence of hysterectomy from 2010.The study result shows that 9.8% of rural women and 5.3% of urban women had hysterectomy, Approximately one third of all hysterectomies were in women younger than 35 years of age.

Amarjeet Singh et al (2010) Conducted a study to estimate the rate of hysterectomy in the adult women and to describe the profile of women who have undergone hysterectomy. A sample size of 864 was selected purposively in three villages. A semi–structured interview schedule was administer. Every house was included in the study. Married women aged above 35yrs were register by social worker.The study shows that the main indication for hysterectomy was excessive menstrual bleeding (74%) uterine prolapse (10) and fibroid (3). Duration of symptoms was one year or more in 59(84%) cases. In half the cases hysterectomy was done in private hospitals. Hospital stay was for 8-15 days in 73% cases. Abdominal hysterectomy was done in 84% cases. The majority of cases 61.4% total

relief was obtained after the operation. Some of the women reported that medical problems after hysterectomy viz. backache (62.9%), vaginal discharge (4.3%), weakness (15.7%), pain (15.7%), weight gain (4.3%), gas (10%), incontinence (11.4%), and difficulty in sitting/walking (7.1%). In conclusion the rate of hysterectomies was lower in India than western countries. Mixed reaction to hysterectomies was reported. Majority reported relief of symptoms after hysterectomy.

Ayman T. Sayed et al (2009) was conducted a retrospective study over 9 yrs Period to patients who underwent emergency peripartum hysterectomy. Emergency peripartum hysterectomy was defined as one performed for hemorrhage unresponsive to other treatment less than 24 hours after delivery. There were 34 emergency peripartum hysterectomies out of 117,095 deliveries for a rate of 0.29 per 1,000. of the 16 cases that were delivered by cesarean section,7 had a previous cesarean section and 18 cases were delivered vaginally, including two using vacuum extraction. Total hysterectomy was performed in 24 patients and sub total hysterectomy in 10 patients. The indications for hysterectomy were uterine rupture (n=12), placenta accreta (n=10), uterine atony (n=7) and hemorrhage (n=5). There were two maternal deaths., six stillbirths and two early neonatal deaths. In conclusion the study identifies that surgical deliveries, uterine rupture placenta accreta and uterine atony as risk factors for emergency peripartum hysterectomy.

Dr.Del.Juncojr et al (2008) conducted a study on prevalence of hysterectomy in India, In India In 660 women die due to complications from hysterectomy surgery annually, 58% of all women who had the surgery are unable to return to previous work activities and 43% are unable to return to work at all. Hormone imbalance and

diminished hormone levels cause 75% of women post-hysterectomy to lose sexual desire, 66% to lose sexual arousal, 54% to lose sexual sensation and 53% suicidal thoughts associated with post hysterectomy depression. About 50% women has chance of suffering ovarian failure within 5 years of surgery if ovaries are left in surgery. Nearly 50% of women experienced menopause-like symptoms such as hot flashes, mood swings and dry vagina post hysterectomy, necessitating hormone replacement therapy.

Rubina Bashir, et al (2007) was conduct a study on assess indication, complication, and mortality associated with hysterectomy. The study result shows that the major indications for hysterectomies were dysfunctional uterine bleeding (38%), fibroid uterus (27%), prolapse (22%), endometriosis (6%), pelvic mass (4%) and others (3%). They also found that the frequency of complication in fibroid uterus was higher (1.2%) than that for dysfunctional uterine bleeding (1.0%)

Paivi Harkki et al (2008) conduct a study on prevalence of hysterectomy in India and the result shows that 33.3% of Hysterectomy performed in the age group of 20-25 yrs, 22.2% in the age group of 25–30 yrs, 38.8% in the age group of 30-35 yrs, and 5.5% in the age group of 35-40yrs. About 10% of Hysterectomies are performed to treat cancer of the cervix, ovaries and uterus.

Aitschet et al (2006) conduct a study on prevalence of hysterectomy. The study result shows that there are two ways that Hysterectomies can be performed. The choice of method depends on the type of Hysterectomy, the doctor's experience and the reason for the Hysterectomy. Approximately 70-80% of hytsterectomy have been performed abdominally but only 30% in Austria). The abdominal incision is

more painful than with vaginal Hysterectomy and the recovery period is longer. Vaginal Hysterectomy can also be performed using a laparoscopic technique.

ii) Studies Related To Prevalence Of Stress Among Hysterectomy Women

Priya P. et al (2014) conducted a study to assess the extent of anxiety, fears, depression related to hysterectomy. 102 women undergoing a hysterectomy for reasons other than cancer were interviewed pre operatively. All of them filled out the Spielberger's State and Traits Anxiety Scale (STAI). Women who had high anxiety scores were more likely to be depressed, both before and after the operation. The result shows that depression occurred more often in women who had emergency hysterectomies and in women who had expressed some fear of possible change after the operation.[19]

Wang et al(2014) conducted a study of Integrated interventions for improving negative emotions and stress reactions of young women receiving total hysterectomy. Forty patients undergoing total hysterectomy were randomly divided into psychological intervention (PI) group and control group (n=20 per group). Patients in PI received peri-operative psychological intervention (supportive psychotherapy, health education, individual depth psychotherapy, family and society supportive care, education on anesthesia and surgery etc.); Interventions were not used in control group. Hamilton Anxiety Scale and Hamilton Depression Rating Scale were used to evaluate patients in two groups on admission (T1) and before surgery (T2; after interventions in PI group). Serum levels of cortisol and IL-6 were detected at T1, T2 and the second day after surgery (T3). Results showed that 1) Patients had obvious anxiety and depression symptoms before and after total hysterectomy. For patients in PI group, the Hamilton Anxiety Scale (HAMA) score decreased from 14.4±5.9 to

9.1±4.2 and the Hamilton Depressing Scale (HAMD) score from 17.8±3.5 to 9.4±6.8 after interventions; 2) In PI group, the serum cortisol was 13.4±3.9 μg/dl at T2 and 14.2±4.8 μg/dl at T3 which were significantly lower than that at T1 (16.6±4.0 μg/dl) and that in the control group at T2 (13.4±3.9/15.5±4.3 μg/dl, t=2.10, P<0.05). Thus, preoperative integrated intervention based on psychological health education can improve peri-operative negative emotions and psychological stress in young patients undergoing hysterectomy.

Vandyk A. D et. Al (2013) conducted a prospective study was to determine the changes in negative mood states of women undergoing surgical hysterectomy in relation to cognitive pre disposition and familial support. Levels of anxiety and depression were documented by questionnaire response from a sample of 89 women who were to undergo surgical hysterectomy 3 weeks later. 54% (n=48) of the sample reported anxiety and 26% (n=23) reported depression at clinical levels during the pre operative period. Regression analysis indicated that post operative outcomes with respect to negative effect could be predicted from pre operative mood status was found to be related to an intrapersonal dimensions of ' dispositional resilience' and to " family cohensiveness".

Manjunatha Aithala et. al (2012) conducted a study to assess the extent of anxiety, fears, depression related to hysterectomy. 102 women undergoing a hysterectomy for reasons other than cancer were interviewed pre operatively. All of them filled out the Spielberger's State and Traits Anxiety Scale (STAI). Women who had high anxiety scores were more likely to be depressed, both before and after the operation .The result shows that depression occurred more often in women who had

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Gibson c.j et.al (2011) conducted a study on Negative attitudes and affect do not predict elective hysterectomy: a prospective analysis from the Study of Women's Health across the Nation. The study result shows that. Vasomotor symptoms (hazard ratio [HR], 1.44; 95% CI, 1.03-2.01; P = 0.03) and positive attitudes toward aging and menopause (HR, 1.74; 95% CI, 1.04-2.93) at baseline predicted hysterectomy over the 8-year period, controlling for menstrual bleeding problems, site, race/ethnicity, follicle-stimulating hormone, age, education, body mass index, and self-rated health. Menstrual bleeding problems at baseline were the strongest predictor of hysterectomy (HR, 4.30; 95% CI, 2.05-9.05).

Dr. Helena Judith P et. Al (2010) study was conducted to evaluate the risk of major depressive disorder and the psychological impact of recent hysterectomy. The sample consisted of 68 women who underwent hysterectomy for non-malignant

conditions. Depression, anxiety, body image, sexual functioning, family support, life stress and subjective gynaecological symptoms were assessed 2 weeks before surgery and at 1 month and 4 month after surgery .This showed that previous emotional problem and proper body image, sexual functioning and higher stress are risk factors for post hysterectomy major depressive disorder.

Impson E.et al (2009)conducted a study on stressful life events, psychological appraisal and coping styles on hysterectomy women.150 samples are selected for the study with mean age of 50-74 years. This study result shows that (68%) were in living with social support study styles suggests coping styles most common implemented were also the one's predicted by psychological appraisal of the stressful events.

Chang Y.(2008) conducted a study on risk factors for major depressive disorder and the psychological impact of hysterectomy: a prospective investigation.60 samples were selected for the study. The study result shows that depression, anxiety, body image, sexual functioning, family support, life stress, and subjective gynecological symptoms were assessed 2 weeks before surgery and at 1 month and 4 months after surgery. Depression, anxiety, body image, and subjective gynecological symptoms improved after surgery; however, sexual functioning worsened after surgery. Previous emotional problems and poorer body image, sexual functioning, and higher stress 1 month after surgery are risk factors for post-hysterectomy major depressive disorder.[21]

ii) Studies Related To Effect Of Pranayama On Stress

Vinod Shende1 et al (2013) conducted a study to assess the effect of pranayama on blood glucose level in medical students 60 samples were selected for the study. The result shows that Both fasting as well as post meal blood glucose levels

were significantly reduced (p value <0.05) in subjects after practicing pranayama for 8 weeks, whereas in control group subjects changes were statistically non significant. The study concluded that Observations of the present study suggest that short term interventions like pranayama helps in reducing blood glucose level

Shaju, shomia; j., umarani.et al (2013) conducted a study to assess the effectiveness of pranayama and stress reduction 70 samples were selected for the study. The study result shows that there was a statistically significant difference in the post test stress score of experimental group. As the calculated 't' value (t=17.016) was greater than the table value (t68=1.668) at 0.05 level of significance, there was a significant reduction in the level of stress in the experimental group after the practice of pranayama. But there was no significant reduction in the level of stress in the control**g**roup.The study concluded that findings from this research support the current literature base suggesting that practice of pranayama is a relaxation technique to reduce stress.

Dr.Prabhnoor Kaur et .al (2014) conducted a study to evaluate the effectiveness of yoga 26 women and 7 men is participated in this study , a stress management programme was conducted based on cognitive behavioral therapy compard with a kundalini yoga programme over a period of four months. The study demonstrated that there is significant improvements in psychological i.e. self rated stress ,stress behaviour, anger exhaustion and quality of life and physiological i.e. blood pressure, heart rate, urinary catecholamines and salivary cortisol. The result indicate that the both cognitive behaviors therapy and yoga are promising stress management technique.[11]

Katherine M. Newton, PhD et.al (2013) was conducted a study in 24 self-referred female subjects who perceived themselves as emotionally distressed. Subjects were offered 3 months two-weekly 90- minutes Iyenger Hatha yoga programmes. The study demonstrated pronounced and significant improvements in perceived stress ($p < 0.02$), vigour ($p < 0.02$), fatigue ($p > 0.02$) and depression p(0.01), and those subjects suffering from headache or back pain reported marked pain relief. Further investigation of yoga with respond to prevention and treatment of stress-related disease and of underlying mechanism is warranted.

Lia. W, Goldsmith et.al(2013)conducted a study on the effect of yoga on anxiety and stress. Thirty five samples were selected for the study. The study result shows that 71.4%,decrease in stress for the samples, and the anxiety reduced by 65%, when yoga is implemented. The study concluded that yoga is beneficial for reducing stress and anxiety.

Narasimhal. L et.al (2012), conducted a study on effect of yoga practices on positive and negative emotions in healthy adults. In this study 450 participants were taught integrated yoga module. Assessment was carried on the first and last day of the camp, using a modified version of positive effect negative effect scale. The study result shows that there was an increase in positive effect by 13% and negative effect reduced by 47% .The study concluded that it is a feasible and safe to conduct a week long yoga camp can reduce the negative effect and increase positive effect.

Sathyapriya. M et.al (2011), conducted a study on effect of integrated yoga on stress and heart rate variability in pregnant women. The 122 healthy women between the 18th and 20th week of pregnancy were randomized to practice yoga one hour daily. The study was evaluated by repeated measures analysis of variance. The study results

shows that perceived stress decreased by 31.5% in yoga group and stress increased by 6.6% in control group. The study concluded that yoga reduces perceived stress and improve adaptive autonomic response to stress in healthy pregnant women.

Smith. C, et. Al (2011), conducted a randomized comparative trial of yoga and relaxation to reduce stress and anxiety. One hundred and thirty one subjects with mild to moderate level of stress were recruited through randomized sampling technique. Ten weekly 1 hour sessions of relaxation or hatha yoga intervention was given. The study result shows that yoga was found to be effective as relaxation in reducing stress, anxiety, and improving health status. The study concluded that yoga appears to provide a comparable improvement in stress, anxiety, and health status compared to relaxation.

Ramkumar gupta,et.al (2010) conducted a quasi experimental study to determine the effectiveness of yoga on reduction of stress level among student nurses (30 in study group and 30 in control group) in selected nursing institution of Pune, India. Findings related to effectiveness of yoga show that the mean post test stress level of the experimental group was lower than the mean post test stress level of control group.

Carolin smith, et. al (2009)conducted a randomized comparative trial of yoga to reduce stress, anxiety, and improve the quality of life, 131 samples were selected for the study. The result shows that yoga reduces stress by 39%and relaxation theraphy reduces by 20% The study concluded that yoga appears to provide a comparable improvement in reduction of stress, anxiety, and health status.

Ellen Serber et.al (2008) A study suggested that a variety of yogic postures is used to manage stress. In this study, the recovery from induced physiological stress in

shavasana and other postures was compared among 21 males and 6 female participants in the age group of 21-30 years. They were allowed to take rest in one of the above postures immediately after completing scheduled treadmail training. The recovery was assessed in terms of in heart rate and blood pressure. It was measured before and every two minutes after the treadmill running till they returned to the initial level. The result revealed that the effects of stress was reversed in significantly ($p<0.01$) shorter time in shavasana, as compared to resting posture in chair and supine position. [13]

Vijayalakshmi,P et. al (2008) conducted a study on modulation of stress induced by isometric handgrip test in hypertensive patients following yogic relaxation training conducted on Jawaharlal institution Pondichery.60 samples were selected for the study. The study results shows that yoga training optimize the sympathetic response to stressful stimuli like isometric handgrip test and reflex mechanism in hypertensive patients.

Revati C. Deshpande et .al(2007) conducted study to evaluate the effectiveness of yoga and relaxation to reduce stress and anxiety among 131 subjects with mild to moderate levels of stress over a period of ten weeks. The study demonstrated that ten week intervention of one hour session of relaxation or hatha yoga reduces stress , anxiety, blood pressure and improves quality of life. Yoga appears to provide a comparable improvement stress, anxiety and health status compared to relaxation.

iv)Studies Related To Effect Of Pranayama In Reducing Stress Level Among Hysterectomy Women

Janet takefman et al.(2015)conducted a study on using Hatha yoga for stress reduction among hysterectomy women 49 samples were selected for the study . the results shows that anxiety, depression, stress and specific quality of life showed improvement over time in association with participation in a six week programme in women undergone hysterectomy.

Chi Jung hee (2013) conducted a study on effects of yoga on stress and sleep disturbances on women undergone hysterectomy. 60 samples were selected for the study. The study results shows that the degree of psychological stress was not significantly different between two groups (t=-1.96, p = .054). Yet, there were significant differences between two groups for degree of physiological stress (t=-3.20, p= .002), the score of sleep status (t=2.47, p= .016), the score of sleep satisfaction (t=2.43, p= .018). The study concluded that yoga was effective in decreasing the level of physiological stress, and also allowed the participants to have a better sleep. Therefore, yoga could be effective in improving the quality of life of these women after hysterectomy

Chattha Ritu .et. al(2012) conducted a study on treating the hysterectomy symptoms in Indian women with an integrated approach to yoga therapy. 120 samples were selected for the study. The result shows that of the three factors of the Greene Climacteric Scale, the Mann-Whitney test showed a significant difference between groups ($P < 0.05$) in the vasomotor symptoms, a marginally significant difference ($P = 0.06$) in psychological factors but not in the somatic component. Effect sizes were higher in the yoga group for all factors. There was a significantly greater degree

of decrease in Perceived Stress Scale scores ($P < 0.001$, independent samples t test) in the yoga group compared with controls (between-group analysis) with a higher effect size in the yoga group (1.10) than the control (0.27). On the Eysenck's Personality Inventory, the decrease in neuroticism was greater ($P < 0.05$) in the yoga group (effect size = 0.43) than the control group (effect size = 0.21) with no change in extroversion in either the yoga or control group. The study concluded that Eight weeks of an integrated approach to yoga therapy decreases symptoms, perceived stress, in hysterectomy women better than physical exercise.

R.Chattha. R. et. al (2009) conducted a study on effect of yoga on stress among hysterectomy women. 180 samples were selected for the study The results shows that The Wilcoxon test showed significant ($P < 0.001$) reduction in hot flushes, night sweats and sleep disturbance in yoga group, with a trend of significant difference between groups at $P = 0.06$ on Mann–Whitney test in night sweats. There was no change within or between groups in the control group. The SLCT score and the PGIMS showed significant improvement in eight of ten subtests in the yoga group and six of ten subtests in the control group. The yoga group performed significantly better ($P < 0.001$) with higher effect sizes in SLCT and seven tests of PGIMS compared with the control group The study concluded that. Integrated approach of yoga therapy can improve hot flushes and night sweats. It also can improve cognitive functions such as remote memory, mental balance, attention and concentration, delayed and immediate recall, verbal retention and recognition tests.

Mary R. Taylor et. al (2009) conducted a study on Hatha yoga treatment for reducing stress on hysterectomy women. 12 samples were selected for the study. The study result shows that Eleven women completed the study and attended a mean of

7.45 (S.D. 1.63) classes. Significant pre- to post-treatment improvements were found for severity of questionnaire-rated total stress symptoms, and sleep efficiency, disturbances, and quality. The study concluded that The yoga treatment and study procedures were feasible for midlife women. Improvement in symptom perceptions and well being warrant further study of yoga for hysterectomy women, with a larger number of women and including a control group.

Javanbakht M,et al(2008) conducted a study on the effect of yoga on stress among hysterectomy women 60 samples selected for the study. The study result shows that yoga can be considered as a complementary therapy or an alternative method for medical therapy in the treatment of stress of hysterectomy women.

Elavsky.s et al.(2008)conducted a study on exercise and self esteem in hysterectomy women a randomized controlled trial involving walking and yoga.164 samples were selected for the study. The study result shows that walking and yoga intervention helps to enhance global or physical condition, strength and body attractiveness.

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CHAPTER III

Methodology

This chapter deals with the description and various steps adapted to collect and organize data for the presents study. The study was intended to assess the effectiveness of Pranayama reducing stress among women undergone hysterectomy.

The research methodology includes research approach, research design, setting, population, samplings, selection criteria, development of tool, description of tool, the procedure for data collection and plan for data analyses.

Research Approach

Research process is an orderly way of dealing with the research problem, where variables are generally studied in numerical form. Research approach used in this study was quantitative evaluative research approach.

Research Design

Research design used in this study was pre - experimental one group pre-test and post-test Design.

The research design is diagrammatically represented as below.

$$O_1 \quad X \quad O_2$$

O_1- pretest to assess the severity of stress among hysterectomy women.

X- Intervention (administration of Pranayama)

0_2 - post test to assess the effectiveness of Pranayama among hysterectomy women.

Setting Of The Study

The study was conducted in Marappadi and Thiruvarambu (Arumanai Panchayat), Kanyakumari District. This rural area is situated 3.5 km away from Sree Mookambika college of Nursing. The population of Marappadi rural area is around 6000.In this the population of women is around 2200 and the hysterectomy women is around 168, among that 20 hysterectomy women were selected as samples for the study . The population of Thiruvarambu rural area is around 2000. In this population of women is around 1200 and the hysterectomy women is around 58, among that 10 hysterectomy women were selected as a sample for the study.

Variables

- **Independent variable**: Pranayama

- **Dependent Variable**: Stress

- **Demographic variable**: Age, Occupation, Religion, Education, Individual monthly income, Marital status, Type of family, Number of children, Area of living, Reason for hysterectomy.

Population

The target population: All Hysterectomy women in selected community

Accessible population: Hysterectomy women who satisfied in inclusion criteria

Sample

Method of sample selection

Sample size: The sample size consists of 30 samples of hysterectomy women.

Sampling technique: Samples were selected based on purposive sampling technique.

Criteria For Sample Selection

Samples were selected based on the following inclusion and exclusion criteria.

Inclusion criteria

- Women who had undergone Hysterectomy

- Between 35 to 60 years of age group.

- Who are willing to participate in the study

- Who can able to understand Tamil.

Exclusion criteria

- A women who are taking treatment in hospital

- Sick at the time of data collection.

- A women who are having abdominal pain.

- Hysterectomy women those who are attended the yoga or relaxation classes earlier

Data collection tool

The data collection tool used for the study were–

1.Demographic Variables

2. Modified Perceived stress scale

Description of the tool

The tool consists of two parts.

Section A – Demographic Variables

This section deals with demographic variables such as age , occupation, religion, education, Individual monthly income, marital status, type of family, number of children, area of living, reason for hysterectomy.

Section B – Modified Perceived stress scale

This scale is used to estimate the stress level among hysterectomy women. The perceived stress scale consists of 25 negative statement. The score ranges from 0-4 for each question based on the severity of the stress.

Samples that score more than 25 on perceived stress score were selected for the study.

Scores are done as follows

No stress- 0- 25
Mild stress-26-55
Moderate stress-56-80
Severe stress-81-100

Testing of the tool
Validity

Content validity of tool was established on the basis of the opinion of five experts. One obstetrician and four obstetrics and gynecology nursing personnel. The necessary suggestion and modification was in corporate in the final preparation of tool.

Reliability

The reliability of the tool was identified by test-retest method using spearman rank correlation formula. The r-value is 1.00. Hence, the tool was reliable.

Pilot study

In order to find out the feasibility and practicability of the study, a pilot study was conducted in Thiruvarambu village in Kulasekaram Kanyakumari district with 3 samples. The pilot study was conducted for a period of 1 week. Three patients who fulfilled the selection criteria were selected and the purpose of study was explained to the subjects and ensured the confidentiality of their response.

The pilot study helped in testing the reliability, feasibility and practicability of the tool and the designed methodology. The tool was assessed among the study population was found clear. In the experimental group pre-test was done by using perceived stress scale then pranayama given for15 minutes for seven days. After seven days post-test was done with the same tool.

Since the adequacy of the tool was established through the pilot study, the final study was conducted without any change in the tool or technique.
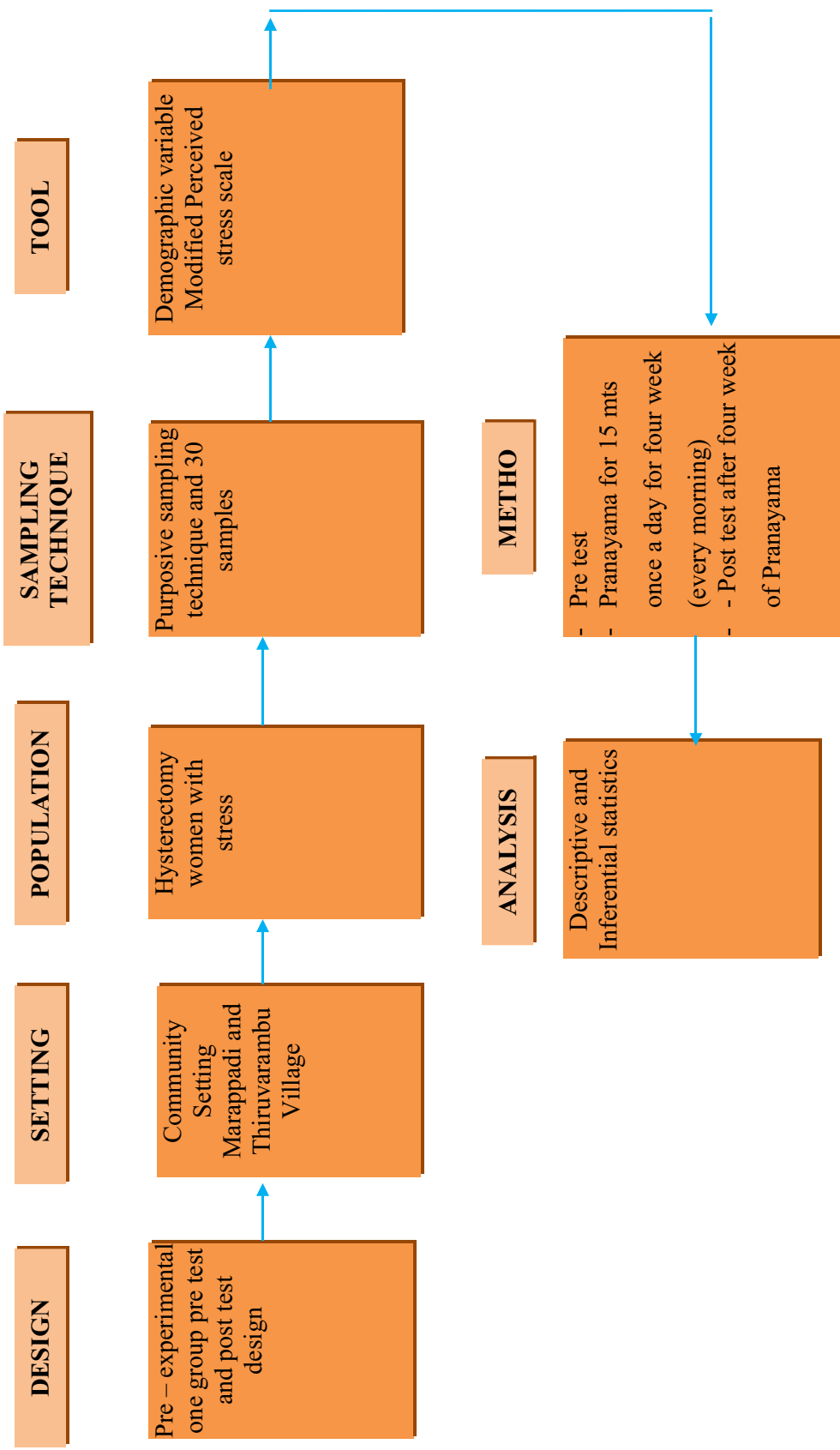
Data collection Procedure

Final study was carried out from 4.05.2014 to 4.06.2015 consecutively for 30 days. Formal permission for data collection was obtained from the authorities for conducting the study. The study was conducted in Marappadi and Thiruvarambu village. The samples were selected based on inclusion criteria. Informed verbal consent was obtained from the samples and confidentiality was assured. The samples were identified by using survey method. The investigator introduced herself and the purpose of the study was explained to the samples. Twenty samples were selected from Marappadi village and ten samples were selected from Thiruvarambu village by purposive sampling technique The hysterectomy women were interviewed on basic through home unit by using modified perceived stress scale .The duration of structured interview schedule was about 20-25 minutes. After the pre test pranayama, was taught to the hysterectomy women.. Procedure was demonstrated by the researcher and the sample was re demonstrated the pranayama. Sample were performed pranayama daily 15 minutes morning for four weeks under the supervision of researcher. After 4weeks post- test was conducted to the experimental group to determine the effectiveness of pranayama.

Data Analysis Plan

The data were organized, tabulated, summarized and planned to be analyzed by using descriptive and inferential statistics.

The effectiveness of pranayama on stress among hysterectomy women was planned to be analyzed by using "t" test.

The association between variables was planned to be analyzed by using chi-square test.

DESIGN

Pre – experimental one group pre test and post test design

SETTING

Community Setting Marappadi and Thiruvarambu Village

POPULATION

Hysterectomy women with stress

SAMPLING TECHNIQUE

Purposive sampling technique and 30 samples

TOOL

Demographic variable Modified Perceived stress scale

METHO

- Pre test
- Pranayama for 15 mts once a day for four week (every morning)
- Post test after four week of Pranayama

ANALYSIS

Descriptive and Inferential statistics

CHAPTER IV

Data Analysis And Interpretation

This chapter deals with the description of statistical analysis and interpretation of data. Analysis and interpretation of data is the most important phase of the research process, which involves the computation of certain measures along with searching for patterns of relationship that exists among data group. Here collected data are analyzed and interpreted are in accordance with study objectives. Analysis and interpretation of data includes compilation, editing, coding, classification and presentation of data.

The purpose of analyzing the data collected in a study is to describe the data in meaningful terms as the data collected does not answer the research questions test research hypothesis. The data used is to be systematically analyzed so that trends and patterns of relationship can be detected.

The study subjects were analyzed in terms of percentages, mean and standard deviation. The statistics were interpreted by the test of significance namely "paired t" and chi-square test.

The collected data was organized, tabulated, summarized and analyzed based on the objectives and hypothesis by using descriptive and inferential statistical methods.

Presentation of Data

The data analyzed are presented under the following section

Section A - This section deals with the distribution of the study subjects based on their demographic Variables.

Section B- This section deals with level of stress among hysterectomy women.

Section C – This section deals with the effectiveness of pranayama on stress among hysterectomy women.

Section D- This section deals with the comparison of pre test stress and post test stress scores among hysterectomy women.

Section E - This section deals with the association between the demographic variable and level of stress.

Section : A – Demographic Variables

This section deals with the distribution of the study subjects based on their demographic Variables such as age, occupational status, religion, educational status, marital status, type of family, individual monthly income, number of children, area of living, and reason for hysterectomy..

Table 1

Frequency and Percentage Distribution of Demographic variable (N=30)

Sl.No.	Demographic Variables	Frequency (f)	Percentage (%)
1.	Age of the sample		
	a)31-40 years		
	b)41-50years	9	30
	c)51-60years		
		8	27
		13	43
2	Occupational status		
	a) Housewife		
	b) Hard worker	18	60
	c) Sedentary worker		
		4	13
		8	27
3	Religion		
	a) Christian		
	b) Hindu	14	47
	c) Muslim		
		12	40
		4	13
4	Education		
	a) Illiterate		
	b) School education	8	27
	c) Collegiate education		
		18	60
		4	13
5	Individual monthly income		
	a) Below Rs 1000		
	b) Rs 1001-3000	9	30
	c) Above Rs 3001		
		16	53
		5	17
6	Marital status		
	a) Single		

	b) Married	3	10
	c) Widow		
		24	80
		3	10
7	Type of family		
	a) Nuclear		
	b) Joint	13	43
	c) Extended		
		15	50
		2	7
8	Number of children		
	a) Nullipara		
	b) One child	2	7
	c) Two children		
	d) More than two	4	13
		15	50
		9	30
9	Area of living		
	a) Urban		
	b) Rural	12	40
		18	60
10	Reason for hysterectomy		
	a) Dysfunctional uterine bleeding		
	b) Fibroid uterus	17	57
	c) Any other		
		7	23
		6	20

Note-Table 1 shows that out of 30 samples 30% of the samples were in the age group between 31-40 years and 27% of the samples were in the age group between 41-50years 43% were in the age group of 51-60 years. In relation to occupational status 60%were in house wife,13% were in hard worker, 27% were in sedentary worker. In religion it reveals that 40% belongs to Hindu ,47 % of the samples belongs to Christian religion 13% of the samples belongs to Muslim religion. Regarding educational status 27% were in illiterate,60% belongs to school education,13% belongs to collegiate education. About individual monthly income 30% were in below Rs 1000, 53% were in Rs 1001-3000, 17%were in above Rs 3001.Regarding the marital status 10%belongs to single,80% belongs to married, 10%were in widow. In relation to type of family 43% were in Nuclear family,50%were in joint family, 7% were in extended family. In the number of children 3% were in nullipara,13% were in one child,53%were in two children,30% were in more than two children. About the living area 40% were in urban, 60% were in rural. In relation to reason for hysterectomy 57%were in dysfunctional uterine bleeding, 23% were in fibroid uterus, 20%were in any other.

The above findings are presented as figures from Fig 3 to Fig 12

1. Distribution of Sample According to the Age of Hysterectomy Women is represented as Bar diagram in Figure 3.

2. Distribution of Sample According to the Occupational status Of Hysterectomy Women is represented as Bar diagram in Figure 4.

3. Distribution of Sample According to The Religion Of Hysterectomy Women is represented as Bar diagram in Figure 5.

4. Distribution of Sample According to the Educational Status Hysterectomy Women is represented as Bar diagram in Figure 6.

5. Distribution of Sample According to the Individual Monthly Income Of Hysterectomy Women is represented as Bar diagram in Figure 7.

6. Distribution of Sample According to the Marital Status Of Hysterectomy Women is represented as Bar diagram in Figure 8.

7. Distribution of Sample According to the Type of family of hysterectomy Women is represented as Bar Diagram in Figure 9

8. Distribution of Sample According to the Number Of Children is represented as Bar diagram in Figure 10.

9. Distribution of Sample According to the Area of living is represented as Bar diagram in Figure 11.

10. Distribution of Sample According to the Reason For Hysterectomy is represented as   Bar diagram in figure 12
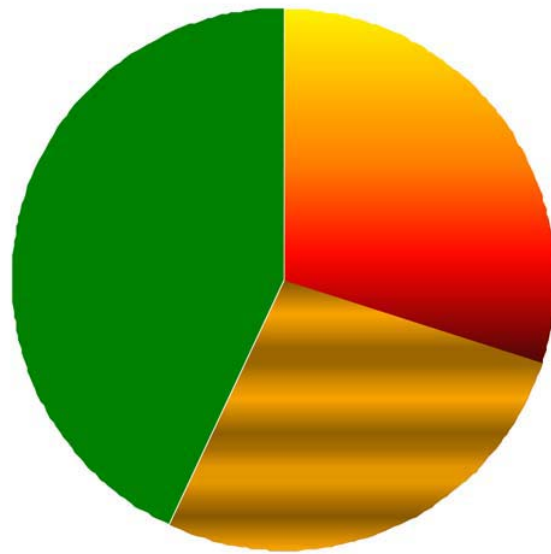
Age of the sample

Figure 3 **Distribution Of Sample According To Age**
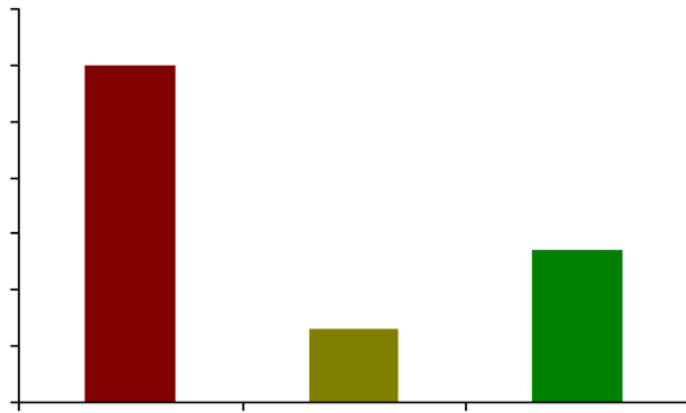
Figure 4 **Distribution Of Samples According To Occupation Status**
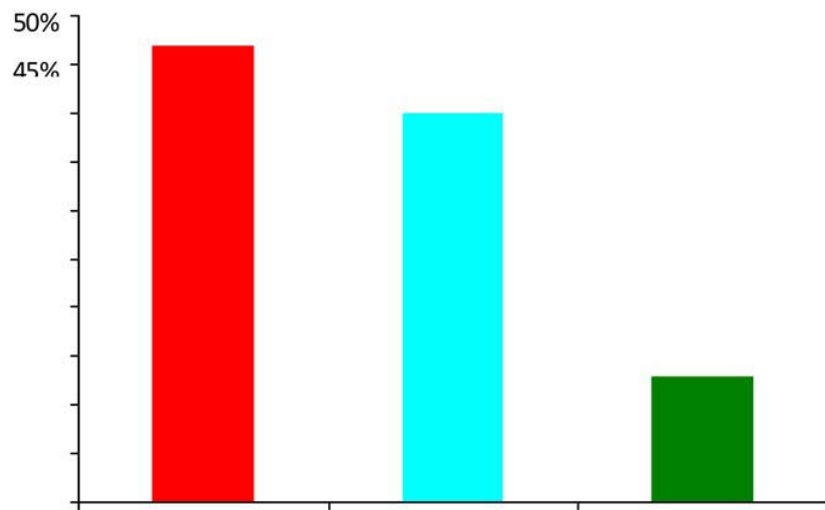
Figure 5 **Distribution Of Sample According To Religion**
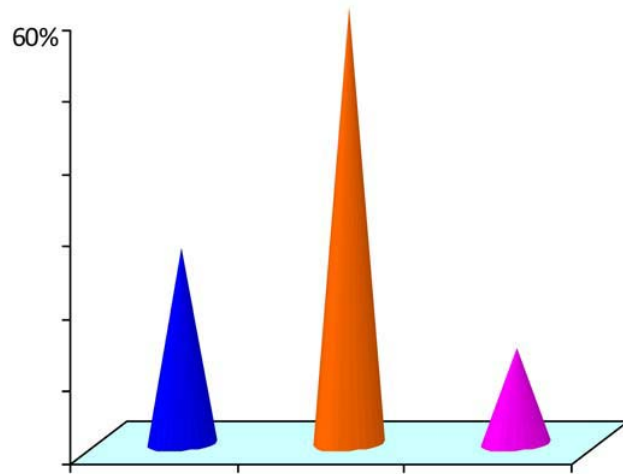
Figure 6 **Distribution Of Sample According To Education**
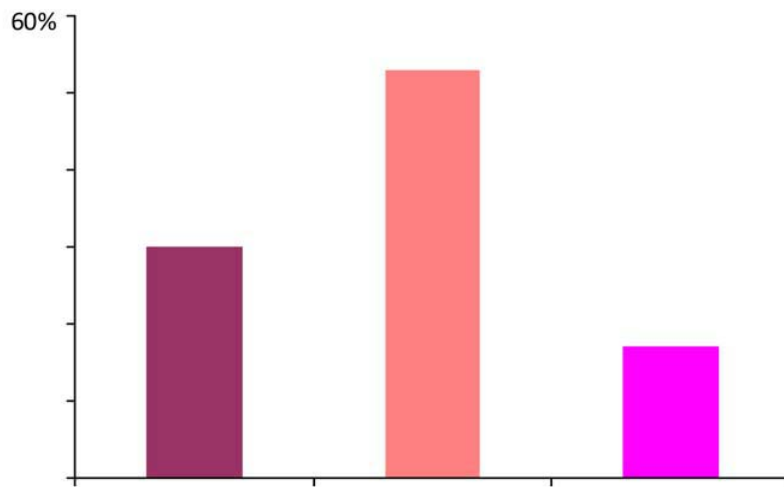
Figure 7 **Distribution Of Sample According To Individual Monthly Income**

Marital Status of the sample
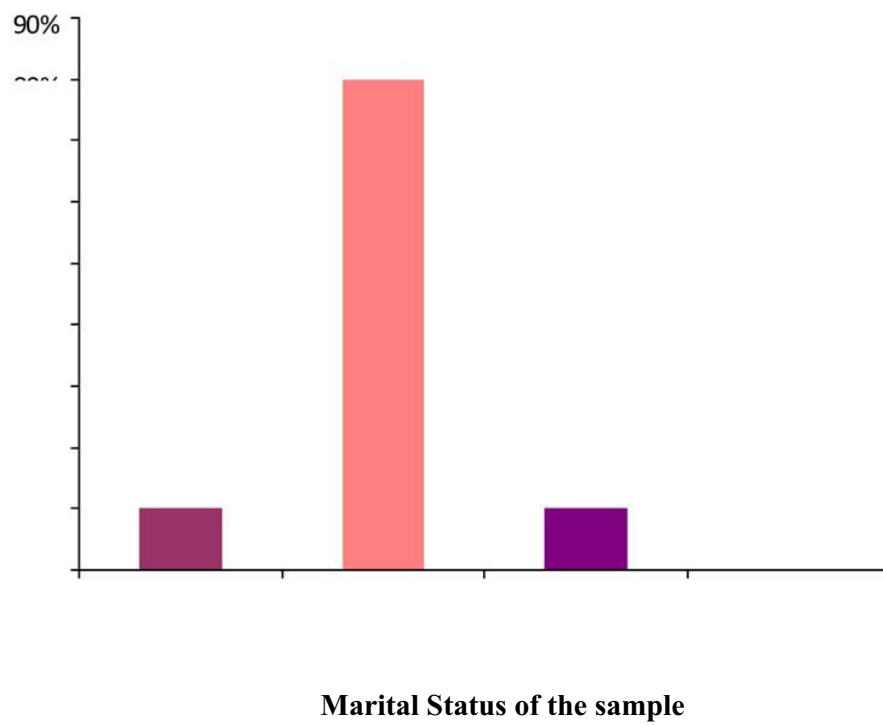
Figure 8 **Distribution Of Sample According To Marital Status**
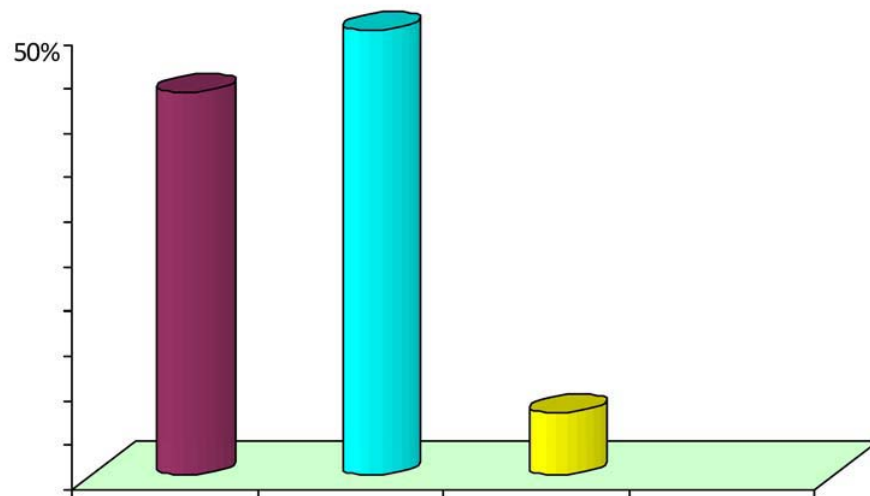
Figure 9 **Distribution Of Sample According To The Type Of Family**
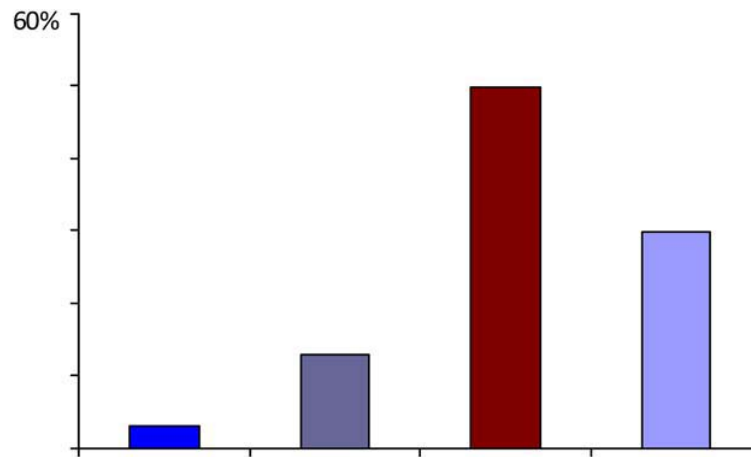
Figure 10 **Distribution Of Sample According To The Number Of Children**
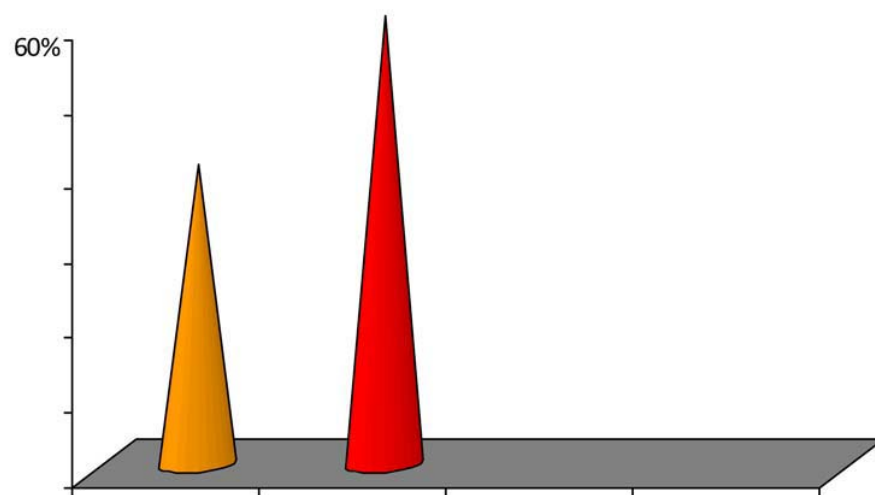
Figure 11 **Distribution Of Sample According To The Area Of Living**
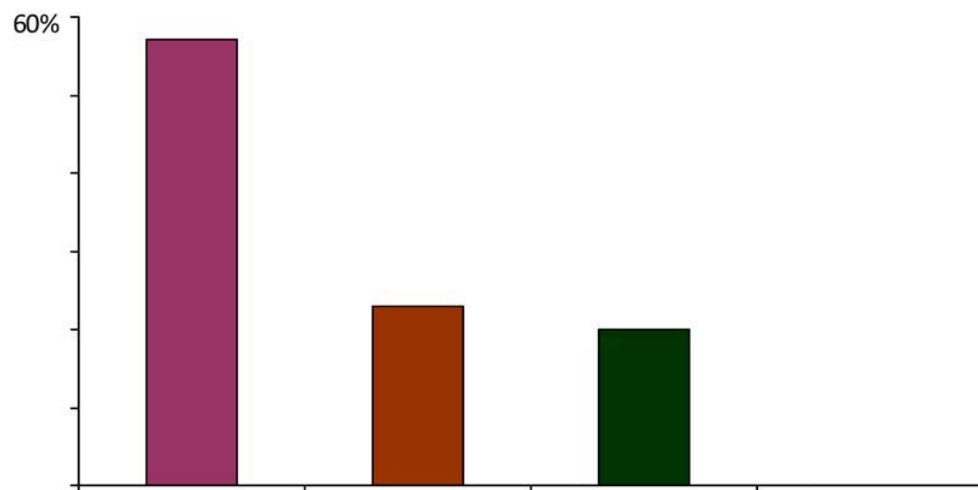
Figure 12 **Distribution Of Sample According To The Reason For Hysterectomy**

Section: B – assess the level of stress among hysterectomy women

This section deals with the level of stress among hysterectomy women in Marappadi and thiruvarambu village .

Table 2

Level of stress among hysterectomy women (N =30)

Category	No Stress		Mild stress		Moderate stress		Severe Stress	
	f	%	f	%	f	%	f	%
Level of stress	**0**	**0**	3	10	20	67	7	23

Note-The above table shows that 3% of the sample had mild stress, 67% of the sample had moderate stress, 23% of the sample had severe stress and none of the sample had no stress.

The above findings are presented as Bar diagram in figure13.
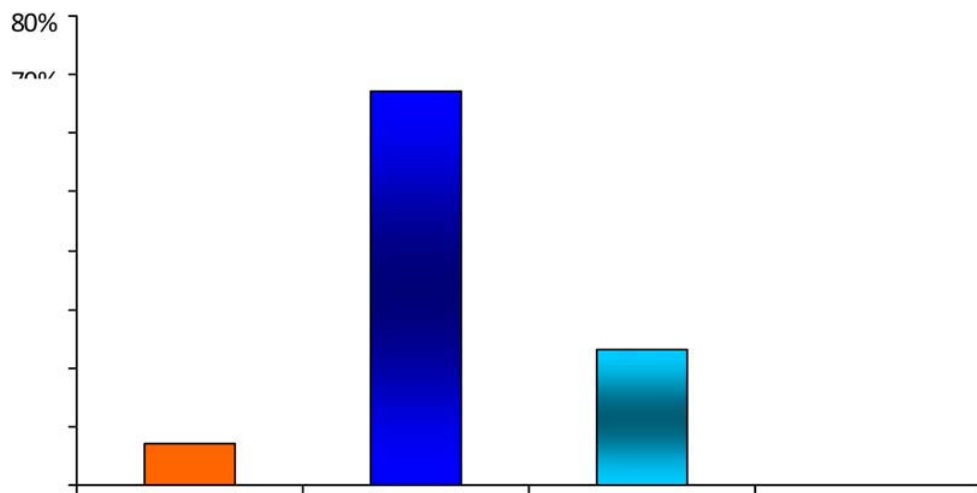
Figure 13 **Level Of Stress Among Hysterectomy Women**

Section : C – Comparison of pre test and post test stress level

This section deals with the Comparison of pre test and post test stress level

Table3

Comparison of pre test and post test stress level

Stress Level	Pre test		Post test	
	f	%	f	%
No stress	0	0	6	20
Mild stress	3	10	20	67
Moderate stress	20	67	4	13
Severe stress	7	23	0	0

Note – The above table shows the comparison of pre test stress and post test stress score.

The above findings are presented as bar diagram 14.
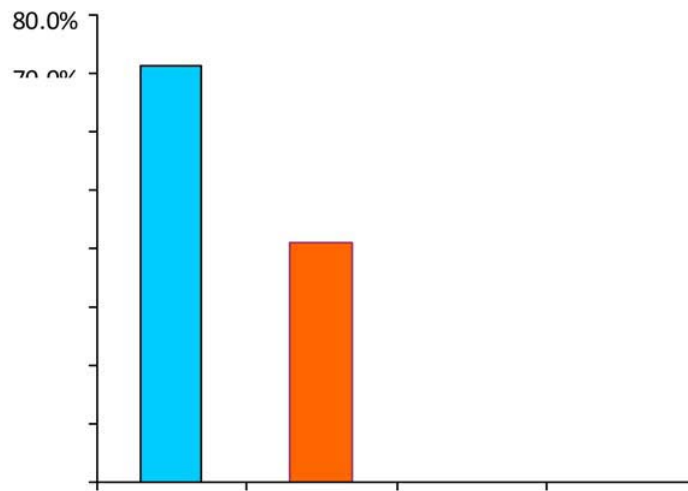
Figure 14 **Comparison Between Pre Test and Post Test Stress On Hysterectomy**

Women

Section D : Effectiveness of Pranayama on stress among hysterectomy women

This section deals with the effect of pranayama on stress among hysterectomy women

Table 4

Effect of pranayama on stress among hysterectomy women(N = 30)

Category	N	Pre test		Post test		Mean difference MD	't' value	df	Table value
		Mean	SD	Mean	SD				
Stress Level	30	71.3	11.7	41	8.9	30	25*	29	2.045

* Significance at P<0.05

Note-The above table shows that the pre test mean value is 71.3 and pre test SD is 11.7. The post test mean value is 41 and post test SD is 8.6. The mean difference is 30. The calculated 't' value is 25 is higher than the table value 2.045. Hence there is an reduction in stress level after administration of pranayama among hysterectomy women.

The above findings are presented as Fig 15.
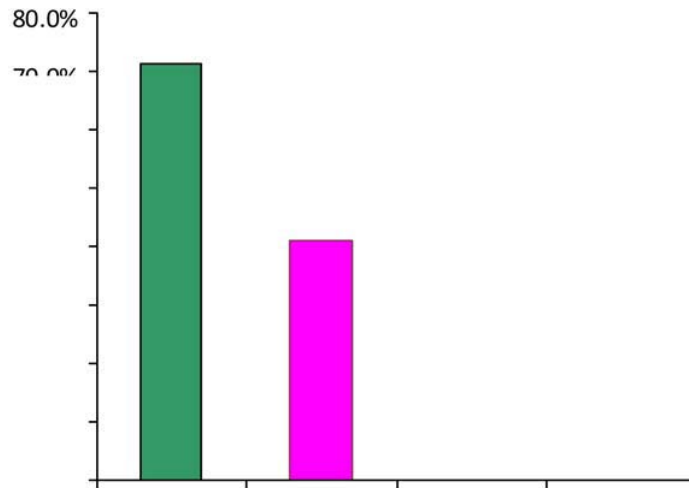
Figure 15 **Effectiveness of pranayam on stress among hysterectomy women**

Section : E – Association Between Demographic Variables with the Stress Level.

This section deals with the distribution of the study subjects based on their demographic Variables such as age, occupational status, religion, educational status, educational status ,marital status, type of family, individual monthly income, number of children, area of living, and reason for hysterectomy.

Table 5

Association Between Demographic Variables with the stress Level of Selected Subjects (N=30)

Sl. No.	Demographic variable	Mild stress		Moderate stress		Severe Stress	
		f	%	f	%	f	%
1	Age of the sample a) 31-40 years b) 41-50years c) 51-60years	0	0	4	13	5	17
		1	3	6	20	1	3
		2	7	10	33	1	3
	x^2=12.2, df-2, P<0.05						
2	Occupational status a) Housewife b) Hardworker c) Sedentary worker	2	7	13	43	3	10
		0	0	3	10	1	3
		1	3	4	13	3	10
	x^2=5, df-2, P>0.05						

7	Type of family						
	a) Nuclear	0	0	8	27	5	17
	b) Joint	2	7	11	37	2	7
	c) Extended	1	3	1	3	0	0

x^2=5.2, df-2, P>0.05

8	Number of children						
	a) Nullipara	0	0	2	7	0	0
	b) One child	1	3	1	3	2	7
	c) Two children	1	3	11	37	3	10
	d) More than two	1	3	6	20	2	7

x^2=3, df-3, P>0.05

9	Area of living						
	a) Urban	0	0	9	30	3	10
	b) Rural	3	10	11	37	4	13

x^2=0.6, df-1, P>0.05

10	Reason for hysterectomy						
	a) Dysfunctional uterine bleeding	3	10	10	33	4	13
	b)Fibroid uterus	0	0	5	17	2	7
	c)Any other	0	0	5	17	1	3

x^2=1.15, df-2, P>0.05

* Significance at P<0.05

Note-The above table shows that the level of stress is associated with Age, education and individual monthly income at 0.05 level of significance and there was

no association with demographic variable such as occupation, Religion, Marital status, Type of family, Number of children, Area of living, Reason for hysterectomy.

CHAPTER V

Results And Discussion

This chapter gives a brief account of the presents study including result and discussion compared with some of the relevant studies done in different settings.

The present study was under taken to assess the effectiveness of pranayama on stress among women undergone hysterectomy at Marappadi and Thiruvarambu village. Pre experimental one group pre and post design for the study. The level of stress was assessed by perceived stress scale. The result and discussion of the study are based on the findings obtained from the statistical analysis.

Objective Of The Study

- To assess the level of stress among hysterectomy women.

- To evaluate the effectiveness of pranayama on stress among hysterectomy Women

- To determine association between stress and selected socio- demographic variables such as age, occupation, religion, education, individual monthly income, marital status, Type of family, number of children, area of living, reason for hysterectomy.

Distribution of Selected Characteristics of Study Subjects

The demographic variables of samples were the age, occupation, religion, education, individual monthly income, marital status, Type of family, number of children, area of living reason for hysterectomy.

The study findings reveal that 30% of the samples were in the age group between 31-40 years and 27% of the samples were in the age group between 41-50years 43% were in the age group of 51-60 years. The percentage distribution based on religion reveals that 40% of the samples belongs to Hindu religion,47 % of the samples belongs to Christian religion 13% of the samples belongs to Muslim religion. Among the sample 27% of the subjects had illiterate,60% belongs to school education,13% belongs to collegiate education. The percentage distribution based on the marital status 10%belongs to single, 80% belongs to married, 10%were in widow. Among the sample 57%belongs to dysfunctional uterine bleeding, 23% belongs to fibroid uterus, 20%were in any other.

The study findings of the 50 sample were discussed based on the objectives of the study.

The first objective of the study was to assess the level of stress among hysterectomy women. This study reveals that out of 30 sample(10%) of the sample had mild stress, (67%) of the sample had moderate stress,(23%) of the sample had severe stress. The study findings were congruent with the study of Priya (2014) The result shows that stress, depression occurred more often in women who had emergency hysterectomies and in women who had expressed some fear of possible change after the operation.

Dr. Helena Judith P et. Al (2003) study was conducted to evaluate the risk of major depressive disorder and the psychological impact of recent hysterectomy .This

showed that previous emotional problem and proper body image, sexual functioning and higher stress are risk factors for post hysterectomy major depressive disorder.

The second objective of the study was to evaluate the effectiveness of pranayama on stress among hysterectomy women.

The pretest mean value is 71.3and the post test mean value is41. The mean difference is 2.045 and the 't' value is 25. Hence there was a significant reduction of stress among women undergone hysterectomy. The study findings were congruent with the study of Chi hung hee the study concluded that Yoga was effective in decreasing the level of physiological stress, and also allowed the participants to have a better sleep.

Chattha Ritu .et. al(2008)'s study findings revealed that on treating the hysterectomy there was a significantly greater degree of decrease in Perceived Stress Scale scores ($P < 0.001$, independent samples t test) in the yoga group compared with controls (between-group analysis) with a higher effect size in the yoga group (1.10) than the control (0.27).

The third objective of the study was to find out the association between the mean pre test stress and selected demographic variables such as age, occupation, religion, education, individual income, marital status, Type of family, Number of children, Area of living and Reason for hysterectomy .

This study findings reveal that there is a significant association between Age individual income, education and stress.

CHAPTER VI

Summary, Conclusion, Implications, Limitations And Recommendations

This chapter gives a brief account of the presents study along with the summary of the findings, conclusions, limitations of the study, implications, recommendations and of the study.

Summary

In this contest the presents study attempt to evaluate the effectiveness of Pranayama on Stress among hysterectomy Women at selected areas in Arumanai Panchayath, Kanyakumari district.

The present study approach was quantitative approach. The research design was pre experimental one group pre test post test design..

The study was conducted in Marapadi village at Kulasekaram in kanyakumari district. The findings of the study revealed that the study was feasible and practicable.

The researcher adopted a quantitative evaluative approach with one group pre and post test design. The study was done on Marappadi village at Kulasekharam. There are totally 68 hysterectomy women, Pretest stress level was estimated by using the perceived stress scale. 30 were selected by purposive sampling technique for this study. Pranayama was taught to the experimental group for four weeks .After four weeks post test was conducted among the sample by using same scale. The collected data were analyzed based on descriptive an inferential statistics.

Objectives

- To assess the level of stress among Hysterectomy women.

- To evaluate the effectiveness of pranayama on stress among Hysterectomy women.

- To determine   association between the mean pre-test stress and selected socio-demographic variables such as age, occupation, religion, education, individual monthly income, marital status, Type of family, number of children, area of living, reason for hysterectomy.

Hypothesis

H_1: There   is a significant reduction in post test stress score among Hysterectomy women after practicing pranayama.

H_2: There is a significant association between the stress and selected demographic variables such as age, occupation, religion, education, individual monthly income, marital status, Type of family, number of children, area of living, reason for hysterectomy among Hysterectomy women

Major Findings

The study identified that 10% of the sample had mild stress, 67% of the had moderate stress and 23% of the sample had severe stress, it was found that there was a significant reduction in the level of stress of samples after giving the pranayama therapy.

Chi-square test was used to find out the association between the demographic variable and dependent variable. It was found that, there is an association between the Age, Individual monthly income and the level of stress.

Conclusion

The conclusion drawn from the findings of the study are as follows:

1. Pranayama are found to be an effective alternative therapy in reducing stress level.

2. Pranayama are found to have no side effects when compared with other pharmacological treatment.

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

4. The findings of the study enlighten the fact that pranayama can be used as a cost effective intervention in reducing stress level.

Nursing Implication

The findings of the study reveal the implication on nursing practice, nursing education, nursing research and nursing administration.

Nursing Administration

1. The result of the study encourages the nurse administrator to conduct In service education programs on various types of non-pharmacological treatment to reduce stress level.

2. This helps the nurse administrator to develop and provide an effective non-pharmacological measures for reducing stress level.

3. Nurse administrators can create awareness among nurses that pranayama is a very good cost-effective nursing intervention to reduce stress level among hysterectomy women.

Nursing Education

1. This study can motivate student nurse to explore new strategies for effective reduction of stress level among hysterectomy women.

2. This research report can be kept in library for reference of nursing personnel and other health care professionals.

3. The nurse educator can take independent decision based on principles of health care.

4. Nurse educator can train and encourage the student nurses to implement Pranayama therapy as a non-pharmacological management to reduce stress.

Nursing practice

1. Pranayama is a safe and better modality which bring a higher level of satisfaction for hysterectomy women.

2. This intervention could bring benefits to hysterectomy women who are on pharmacological therapy and not on the same.

3. It also brings a long term effect and higher level of reduction of stress level, thus the samples feels better and can avoid complication.

Nursing Research

The nursing implication of the study lies in the scope for expanding the quality of nursing service. In this area of evidence based practice, publication of these studies will take nursing to a new horizon.

1. Nurse researcher can do various studies related to effectiveness of pranayama on stress among hysterectomy women.
2. A comparative study can be done to determine the effectiveness of pranayama with other intervention.
3. Similar study can be conducted on a large sample so it could be generalized.

Limitation

1. The sample size of hysterectomy women was 30 and hence generalization is not possible.

2. The data collection period was only 1 month.

3. 3.Extraneous variables are controlled to some extent only.

Recommendations

1. The study may be replicated with randomization in selection of a large sample.

2. Nurse researcher can do studies related to other type of alternative therapies on reducing stress on hysterectomy women.

3. A study can be conducted by including more number of variables and at different geographic locations.

4. The study can be conducted to compare the degree of stress among hysterectomy women living in urban and rural areas.

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

To

Date : ....

Lr. No.   **11.01.2014**

Ms. Sajini. R

I Yr. M.Sc (N),

Sree Mookambika College of Nursing,

Kulasekharam.

Ref : Research Topic: A Study to evaluate the effectiveness of pranayama on stress among hysterectomy women at selected areas in Arumanai panchayat, Kanyakumari District.

Sub : Approval of the above reference study and its related documents

Dear Sajini. R.

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 and its meeting held on 11.01.2014

The Following ethical committee Members were present at the meeting held on 11.01.2014

NAME	PROFESSION	POSITION IN THE COMMITTEE
Prof. Mrs. Shanthi Letha	Nursing	Chair Person
Dr. Kani Raj Peter	Medical	Basic Medical Scientist
Dr. T.C. Suguna	Nursing	Clinicians
Adv. Mohanan	Legal	Legal Expert
Prof. Mrs. Ajitha Rethnam	Nursing	Member Secretary
Dr. Preetha P.Nair	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 : 11.01.2014

Place : Kulasekharam.

APPENDICES : B

SREE MOOKAMBIKA COLLEGE OF NURSING

PADANILAM WELFARE TRUST, V.P.M.HOSPITAL COMPLEX, PADANILAM,
KULASEKHARAM, K.K.DIST., TAMIL NADU, PIN : 629 161.
Phone : 04651 - 280745, 280742, 278250
(Approved by Govt. of The Tamil Nadu & Recognised by Indian Nursing Council, New Delhi)

Date :

Lr. No. :
Date:

To

Madam/Sir

Sub: M.Sc Nursing Programme – dissertation – Validation of study tool request

- reg:

Ms/Mrs...a bonafide II Year M.Sc Nursing student of Sree Mookambika College of Nursing is approaching you to obtain validation her study tool pertaining to her dissertation in   practical fulfillment of the requirement for the degree of Master of Science in Nursing. The selected topics is

In this regard I request you to kindly extent possible technical guidance and support for successful completion of dissertation.

I enclosed here with a check list for your evaluation.

Thanking You

Yours Sincerely,

PRINCIPAL
PRINCIPAL
Sree Mookambika College of Nursing
Kulasekharam-629 161

APPENDICES : C

CERTIFICATE

This is to Certify that **Ms.Sajini** II year MSc Nursing Student of Sree Mookambika College of Nursing has done her data collection regarding the **effectiveness of Yoga on Stress among hysterectomy woman in selected community** on Kulashekaram

Signature

APPENDICES : D

Yoga Training Certificate

Dr. M.JERIN SUBHA,B.N.Y.S;M.Sc.,(Psy)   Plot No.26,

(Reg No.306)   Holy Cross Nagar,

Asst.Professor   Nagercoil,

Dept.of Physiology   9489013941

Sree Ramakrishna Medical College of   E-mail:jerinjenix@yahoo.com

Naturopathy and Yogic Sciences,

Kulasekharam.

Date : 30/7/14

     This is to certify that Ms. Sajini.R, II year M Sc(N) student of Sree Mookambika College of Nursing, Kulasekharam ,Kanyakumari District , had undergone one month training programme on Yoga [To evaluate the effectiveness of Yoga among women undergone hysterectomy] for the duration of one month from 01-07-2014 to 30-07-2014. During this period she was sincere and hard working .I wish her all the success in her carrier.

Joytha
30/7/14

Dr. M. JERIN SUBHA B.N.Y.S.
Reg. No.: 306,
PLOT No.-26, HOLYCROSS NAGAR,
NAGERCOIL-4, K.K.(Dst) T.N.

APPENDICES : E

LIST OF EXPERTS FOR TOOL VALIDATION

1. **Dr. Rema.V.Nair M.D**., **D.G.O**
    Director,
    Sree Mookambika Institute of Medical Science,
    Kulasekharam .

2. **Prof. Dr.Mrs.T.C.Suguna M.Sc. (N), MA (socio) Ph.D**
    HOD, Obstetrics and Gynecological Nursing
    Sree Mookambika College of Nursing,
    Kulasekharam.

3. **Prof. Mrs. Kumutha M.Sc. (N),**
    Vice-Principal,
    C.S.I. Eliza Caldwell College Of Nursing
    Idayangudi.

4. **Mrs. Tarsis Henita. H. J. M.Sc. (N),**
    Associate Professor,
    C.S.I. College Of Nursing,
    Karakonam, Trivandrum.

5. **Mrs. Arzta Sophia M.Sc. (N)**
    Reader,
    Christian college of Nursing,
    Neyyoor.

APPENDICES : F

EVALUATION TOOL CHECK LIST

Name of the expert   :

Designation   :

College   :

Respected Madam / Sir,

    Kindly go through the content and place the right (√) marks against the check list in the following columns ranking from relevant to non-relevant. Where ever there is a need for modification, kindly give your opinion in the remarks column.

SECTION : A

DEMOGRAPHIC VARIABLES

ITEM NO.	RELEVANT	NEEDS MODIFICATION	NOT RELEVANT	REMARKS

SECTION : B

Modified perceived Stress Scale

ITEM NO.	RELEVANT	NEEDS MODIFICATION	NOT RELEVANT	REMARKS

APPENDICES : G

DESCRIPTION OF THE TOOL

Section : A

Demographic Variable

Note : (Kindly mark the correct answer for the following question)

1. Age in year

   (a) 31 – 40 years   (b) 41 – 50 years   (c) 51 – 60 years

2. Occupational status :

   (a) Housewife   (b) Hardworker   (c) Sedentary work

3. Religion

   (a) Hindu   (b) Christian   (c) Muslim

4. Education

   (a) Illiterate   (b) School Education   (c) Collegiate Education

5. Individual Income

   (a) Below Rs. 1000   (b) Rs. 1001 – Rs. 3000   (c) above 3001

6. Marital Status

   (a) Single   (b) Married   (c) Widow

7. Type of Family

   (a) Nuclear   (b) Joint   (c) Extended

8. Number of children

   (a) Nullipara   (b) 1 child   c) 2 children   (d) More than 2 child

9. Area of Residence

   (a) Urban   (b) Rural

10. Reason for Hysterectomy

    (a) Dysfunctional uterine Bleeding   (b) Fibroid uterus   (c) Any other

Section : B

Modified perceived stress scale for Hysterectomy women

Note : Kindly mark the correct answer for the following question :

Sl. No.	List of Problems event situation	Rating				
		0	1	2	3	4
1.	Lack of emotional support at home					
2.	Lack of attention from closed one					
3.	Feeling of loneliness even in a crowd					
4.	Low self esteem					
5.	Crying spell					
6.	Mood swing					
7.	Headache during morning time					
8.	Feeling not satisfied with life in general					
9.	Sleep being disturbed					
10.	Feeling like helpless or Hopeless					
11.	Difficulty in concentrating					
12.	Some un important thoughts that bother					
13.	Feeling of tightness in the muscles and joints					
14.	Suffer from short term memory loss					
15.	Changes in sexual desire					
16.	More irritable than usual					
17.	Unable to enjoy with family get together as before					
18.	Heart palpitation or a sensation of butterflies in the chest or stomach					
19.	Constantly under strain					

20.	Complaints of frequency of micturation					
21.	Feeling of nigh sweats and hot flushes					
22.	Presently coring over the possible misfortune					
23.	Recently gaining of weight					
24.	New Physiological changes occur after hysterectomy					
25.	Lack of confidence					

Scoring :

No Stress	:	0 – 25
Mild Stress	:	26 – 55
Moderate Stress	:	56 – 80
Severe stress	:	81 – 100

úLs® Rôs

TÏ§ : 1 (ùTôÕ úLs®Ls)

Ï±l× (¸úZ ùLôÓdLlThÓs[úLs®dÏ N¬Vô] T§ûX úRoÜ ùNnVÜm)

1. YVÕ

   (a) 31 - 40 YVÕ   (b) 41 - 50 YVÕ   (c) 51 - 60 YVÕ

2. ùRô¯p

   (a) ÅhÓ úYûX   (b) á úYûXVô[o   (c) AÛYXL úYûXVô[o

3. URm

   (a) CkÕ   (b) ¡±vRYo   (c) ØvÄm

4. Lp® RÏ§

   (a) Ts° T¥l×   (b) ThPlT¥l×

5. R² STo UôR YÚUô]m

   (a) 1000 ì   (b) 1001 - 300 ì   (c) 3001-m ARtÏ úUÛm

6. §ÚUQm

   (a) §ÚUQm BL®pûX   (b) §ÚUQm B]Yo
   (c) LQYû] CZkRYo

7. ÏÓmT YûL

   (a) R²d ÏÓmTm   (b) áhÓdÏÓmTm

8. ÏZkûRL°u Gi¦dûL

   (a) ÏZkûRLs CpûX (b) Juß (c) CWiÓ (d) êuß ARtÏ úUÛm

9. Y£dÏm CPm

   (a) SLWm   (b) ¡WôUm

10. LolTlûT GÓjRRtLô] LôWQm

    (a) CWjRlúTôdÏ   (b) LolTlûT Lh¥   (c) úYß LôWQeLs

U] AÝjRm ùRôPoTô] úLs®Ls

Y. Gi	A±Ï±Ls, LôWQeLs	0	1	2	3	4
1.	Åh¥p Es[EQoÜléoYUô] ER®«uûU					
2.	YôrdûLjÕûQ ApXÕ Au×dÏ¬VYoL°u Ïû\Yô] TWôU¬l×					
3.	UdLs áhPj§Ûm R²ûU Gu\ EQoÜ					
4.	RôrÜ U]lTôuûU					
5.	AÝm êg£					
6.	Uôßm U]m					
7.	LôûXúSWj§p HtTÓm RûXY					
8.	YôrdûL«p ùTôÕYô] §Úl§Vt\ EQoÜ					
9.	çdLm RûPTÓRp					
10.	ER®Vt\ ApXÕ Sm©dûLVt\ EQoÜ					
11.	LY]m ùNÛjR CVXôûU					
12.	LYûX HtTÓjÕ¡u\ £X Ød¡VUt\ £kRû]Ls					
13.	RûNÙm êhÓ GÛm×LÞm YlTÕ úTôu\ EQof£					
14.	Ïß¡V LôX U\§«]ôp HtTÓmETôVm					
15.	EPÛ\Ü BûN«p Es[Uôt\m					
16.	YZdLjûR®P G°§p úLôTmùLôsÞRp					
17.	ÏÓmT ûYTYeL°p ØuúTôX DÓTP CVXôûU					
18.	CRVjÕ¥l× ApXÕ ùSgÑ Tϧ«Ûm, Y«tßlTϧ«Ûm YiQjÕléf£ CÚlTûR úTôu\ EQoÜ					
19.	ùRôPof£Vô] £WUeLs					
20.	A¥dL¥ £ß¿o L¯lTÕ					
21.	CWÜ úSW ®VoûY Utßm A§L ùYlTm úTôu\					

	EQoÜ					
22.	YÚeLôXj§p ¨LZ Yônl×s[ÕoA§oxPjûR ¨û]jÕ ClúTôúR YÚkRÕp					
23.	NÁTj§p A§LUô] GûP áÓRp					
24.	LolTlûTûV ALt±V ©u HtTÓm ×§V EPpÃ§Vô] Uôt\m					
25.	Sm©dûL«uûU					

×s°Ls :

ªLdÏû\kR U] AÝjRm   :   0-25

Ïû\kR U] AÝjRm :   26 - 55

A§LUô] U] AÝjRm   :   56 - 80

ªL A§LUô] U] AÝjRm   :   81 - 100

APPENDICES : H

INTERVENTION PACKAGE

PRANAYAMA

Definition:

Pranayama refers to the regulation of the breath through certain techniques and exercise.

Pranayama time:

Pranayama is a technique to fill mind and body with fresh air and energy. So morning is the right time for it. After bath, we feel fresh. So it adds to the benefits of pranayama.

Preparation for pranayama

- ❖ Proper explanation given to the mother
- ❖ Bowel and bladder should be empty
- ❖ Wear comfortable loose fitting clothes
- ❖ Provide calm well ventilated room
- ❖ Pranayma can be practiced inside or outside of the home, but place is clean
- ❖ Provide comfortable seated position.

Steps:

- ❖ Sit in comfortable position with eyes closed spine erect and relaxed body

- ❖ With your right hand, feel for the end of the septum (soft part of the nose)as this.

- ❖ Place your right thump lightly against the septum on the right side of your nose to close right nostril.

- ❖ Inhale gently through the left nostril. Then close the left nostril with the right ring finger of the right hand lift the thump and exhale through the nostril.
- ❖ It is not necessary to apply pressure to the nose, a light touch is all that is required.
- ❖ Keep the left nostril closed, inhale through the right nostril with the thump and exhale through left nostril. Always start and end the exercise by inhalation and exhalation through left nostril. The rhythm is always left-right, right-left. This comprises one round.

- ❖ Do 12 rounds of alternate nostril breathing and then relax for a while with your eyes closed to allow your body to resume its natural rhythm.

Uses

- ❖ Reduces stress
- ❖ Cleanses and tones that entire nervous system
- ❖ Enhance feeling of calm down the mind
- ❖ It makes practitioner feel more energetic because of improved

oxygenation.

Checklist to assess whether the hysterectomy women doing the steps in pranayama correctly

SL NO	STEPS	YES	NO
1	Emptied the bowel and bladder		
2	Worn comfortable lose fitting clothes		
3	Calm and well ventilated room		
4	Sit in a comfortable position with eyes closed spine erect and relaxed body		
5	With your right hand, feel for the end of the septum (soft part of the nose)as this.		
6	Place your right thump lightly against the septum on the right side of your nose to close right nostril.		
7	Inhale gently through the left nostril. Then close the left nostril with the right ring finger of the right hand lift the thump and exhale through the nostril.		
8	It is not necessary to apply pressure to the nose, a light touch is all that is required.		
9	Keep the left nostril closed, inhale through the right nostril with the thump and exhale through left nostril. Always start and end the exercise by inhalation and exhalation through left nostril. The rhythm is always left-right, right-left. This comprises one round.		
10	Do 12 rounds of alternate nostril breathing and then relax for a while with your eyes closed to allow your body to resume its natural rhythm.		
11	Relax the body		
12	Repeat the process 15 min once a day		

êfÑl T«t£

RVôo ¨ûXLs :

1. RônUôoLÞdÏ úTô§V ®[dLm RÚRp.
2. êfÑlT«t£dÏ ØuTôL UXdÏPp Utßm £ß¿ûW ùY°úVt\Üm.
3. TÚj§ èp ùNnR EPm©tÏ A[Yô] BûPLû[A¦Rp
4. Lôtú\ôhPUô] AûU§Vô] Aû\Lû[TVuTÓjÕRp
5. ùN[L¬VUô] ¨ûXûV LûP©¥jÕRp

T¥ ¨ûXs

➢ LiLû[ê¥VT¥úV ØÕùLÛmûT ¨ªoj§ EPûX R[oj§ YN§Vô] ¨ûX«p EhLôWÜm.

➢ EeLs YXÕ ûLVôp êd¡u CûPf ÑYo TÏ§«u Ö²ûV EQoL.

➢ YXÕ LhûP ®WûX êdÏ CûPfÑY¬u YXÕ TdLj§p AÝjRUôL ûYjÕ EeLs êd¡u YXÕ TdLjûR êPÜm.

- êfûN êd¡u CPÕ Õû[Y¯VôL ùUÕYôL Es YôeLÜm, ©u]o CPÕ êdûL EeLs úUô§W ®WXôp AûPjÕ ®hÓ YXÕ ûL ®WXôp ê¥ YXÕ êdÏ Y¯VôL êfÑ ùY°®PÜm.

- CRtLôL êdûL AÝjR úYi¥V AY£VªûX. úXNôL ùRôhPôp UhÓm úTôÕUô]Õ.

- ©u]o CPÕ êdûL ê¥ YXÕ êdÏ Y¯úV êfûN Es YôeLÜm. ©u]o LhûP ®W]ôp YXÕ êdûL ê¥ CPÕ êdÏ Y¯VôL êfûN ùY°®PÜm, CkRl T«t£«u BWmTj§Üm Ø¥®Üm êfÑ EsYôeÏRûXÜm, ùY° ®Ó¡\ûRÜm GlúTôÕm CPÕ êdÏ Y¯VôL ùNnVÜm. Cru Rô]m GlúTôÕm CPÕ-YXÕ, YXÕ - CPÕ BÏm. CÕ JÚ Ñtû\ Es[Pd¡Ùs[Õ.

- CqYôß Sô£jÕYôôWjûR Uôt± Uôt± 12 ÑtßLs ùNnVÜm. ©u]o LiLû[ê¥VT¥úV EPmûT R[oj§ AûR CVtûLVô] Rô[j§p CVeLf ùNnVÜm.

TVuLs :

- U] AÝjRjûR Ïû\d¡\Õ.
- SWm× UiPXm ØÝYûRÜm ÑjRlTÓj§ CVeLf ùNNn¡\Õ.
- U] AûU§Ùs[EQoûY úUmTÓjÕ¡\Õ.

➢ CÕ Bd³ú]t\jûR FdÏ®lTRôp T«t£Vô[ûW Bt\p ªdLYWôL Uôtß¡\Õ.