

**A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF
INSTRUCTIONAL MODULE (SIM) ON KNOWLEDGE
REGARDING MENOPAUSE AND ITS
IMPACT AMONG WOMEN IN
SELECTED RURAL AREA,
COIMBATORE**



By

Reg. No: 301721106

**A DISSERTATION SUBMITTED TO THE TAMIL NADU
Dr. M. G. R. MEDICAL UNIVERSITY, CHENNAI IN
PARTIAL FULFILLMENT OF REQUIREMENT
FOR THE DEGREE OF MASTER OF
SCIENCE IN NURSING**

OCTOBER 2019

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PLAGIARISM CERTIFICATE

This is to certify that this dissertation work titled “**A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE(SIM) ON KNOWLEDGE REGARDING MENOPAUSE AND ITS IMPACT AMONG WOMEN IN SELECTED RURAL AREA, COIMBATORE.**” of the candidate Mrs.Thenmozhi.S with registration number 301721106 for the award of M.Sc. Nursing in the branch of Obstetrics and Gynaecology Nursing. I personally verified the plagiarism checkerx.com website for the purpose of plagiarism check. I found that the uploaded thesis file contains from Introduction to conclusion pages& results shows 12% of plagiarism in the dissertation.

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*Thanks To
Almighty God, my
Parents , Brothers,
Sisters, Lovable
Husband And
Dear Friends*

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ABSTRACT

ABSTRACT

Statement of the problem: A study was undertaken to evaluate the effectiveness of Self Instructional Module on knowledge regarding menopause and its impact among women in selected rural areas, Coimbatore. **Objectives:** a) To assess the knowledge regarding menopause and its impact among women at selected rural areas. b) To evaluate effectiveness of self instructional module on knowledge regarding menopause and its impact among women. c) To find out the association between level of knowledge scores with demographic variables. **Conceptual framework:** Conceptual framework was based on King's goal Attainment Theory. **Methodology:** A pre experimental one group pre test-post test design was adopted. Structured questionnaire was used to collect data. A total of 40 women were selected using non probability convenience sampling technique. The data obtained were analyzed and interpreted based on the objectives and hypothesis, using descriptive and inferential statistics at 0.05 level of significance. **Results:** Pre test knowledge assessment revealed that 10% of the subjects had inadequate knowledge, 80% had moderate knowledge and 10% had adequate knowledge. The overall mean percentage score was 16% in pre test, which improved to 97% in post test. The effectiveness of self instructional module was tested by inferential statistics using paired 't' test. The difference between pre test and post test knowledge scores of women regarding and its impact was found to be highly significant ($t=22.9$, $P<0.05$) Chi-square analysis was done to find out the association between demographic variables and post test knowledge level. The test value obtained for chi square was greater than the table value for the demographic variables such as religion, occupation, marital status. Hence the value was significant at 0.05 level which inferred significant association of knowledge level with the selected demographic variables. However there was no significant association between age, source of information and educational status as evident by test value being less than the table value at 0.05 level of significance. **Conclusion:** Thus this study revealed that Self Instructional Module on menopause and its impact was found to be effective.

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LIST OF APPREVIATIONS

TAH	total abdominal hysterectomy
TVH	total vaginal hysterectomy
BSO	bilateral salpingo-oophorectomy
BTL/BPS	bilateral tubal ligation/bilateral partial salpingectomy
TL	tubal ligation
PID	pelvic inflammatory disease
RV	retroverted
AV	anteverted
RF	retroflexed
Cx BX	cervical biopsy
ENDO BX	endometrial biopsy
LPD	luteal phase defect
PMS	premenstrual syndrome
ERT	estrogen replacement therapy
STD	sexual transmitted disease

CHAPTER – I

CHAPTER -I

INTRODUCTION

Woman is a precious creature of God. She has many roles in the society to perform being a daughter, sister, wife and a mother. In order to perform these functions effectively her health needs has to be taken care and requires more attention. When women have been tired, family function would be altered. Women are facing lot of problems through their life. One of most common problem they are facing is menopause and hormonal changes during their middle adulthood. Reproductive stage begins from menarche till menopause. **(Malhotra C, et.al 2017)**

Menstruation is an outward proof that a girl is becoming a woman. In women, the fertile period starts at the menarche and ends with the menopause. As a girl matures and enters puberty, the pituitary gland releases hormones that stimulate the ovaries to produce hormones called estrogen and progesterone. These hormones have many effects on a girl's body, including physical maturation, growth, and emotions. About once a month, a tiny egg leaves one of the ovaries that process called ovulation and travels down to the one of the fallopian tubes toward the uterus. In the days before ovulation, the hormone estrogen stimulates the uterus to build up its lining with extra blood and tissue, making the walls of the uterus thick and cushioned. This happens to prepare the uterus for pregnancy. If the egg is fertilized by a sperm cell, it travels to the uterus and attaches to the cushiony wall of the uterus, where it slowly develops into a baby. If the egg are not fertilized with egg women will be getting monthly cycles, when this happens the uterus sheds the extra tissue lining, blood, and unfertilized egg that leave the uterus, going through the vagina on the way out of the body.**(Daniel murrel, MD 2018)**

Menopause is the time in a women's life when menstruation ceases. The normal age range for the occurrence of menopause is between the age of 45 and 55 years these results from the loss of ovarian follicles activity. The follicle structure plays an important role in the production of female hormones estrogen and progesterone, which are vital for fertility and reproduction. As a women ages the hormone production declines progressively, resulting in irregular menstrual cycles and finally cessation of menstruation. **(Sampath Somanna, 2018)**

Common psychological symptoms of menopause are mental stress, depression, sleep disturbances, concentration difficulties, feeling of stress, lowered motor coordination, tension, and loneliness etc. Physiological changes associated with menopause are hot flush, cold sweats, faintness, breast tenderness, anorexia nervosa, edema, swelling, pelvic discomfort, changes in bowel habit and reduced coordination. These changes will gradually increase the risks of various chronic diseases including heart diseases and osteoporosis, but the frequency shows to be higher for the women with an earlier menopause. **(Kevin MC london, 2019)**

Current evidence suggests that during fetal maturation a finite number of ovarian germ cells develop which peaks to about 6 million by gestational week of 20 and then declining via the process of apoptosis (programmed cell death) so that approximately 1million exist in each ovary at birth. The majority of ovarian follicles (oocyte with surrounding granulose cells) undergo a process of degeneration that process that continues throughout life. At puberty approximately 300,000 oocytes remain and only 400-500 follicles will develop fully and ovulate during the woman's reproductive life span. Menopause occurs when the pool of follicles is exhausted. These mechanisms controlling follicle development if there is any dysfunction in the follicular structure lead to early menopause causing follicle depletion. **(Kevin MC london, 2019)**

Indian women are now attaining menopause as early at the age of 30 years. Studies shows that more than 1 in 20 women are going through an early menopause. If a woman experiences menopause before the age of 45 years she is considered to have an early menopause compared with women who go through natural menopause. Early menopause can be spontaneous or induced, if it is induced it can be due to medical interventions such as chemotherapy or surgical interventions such as bilateral oophorectomy, hysterectomy, ovarian failure etc. **(Carissa Stephens, 2017)**

Women who underwent menopause spend a greater portion of their lives without the protective benefits of their estrogen. Women who enter menopause can have same symptoms as similar to regular menopausal women, This includes hot flashes, emotional change, insomnia, mood changes, vaginal dryness, and decreased sex drive. For women with menopause, these symptoms are quite severe. The most

important tests used to diagnose menopause are physical examination, ultrasonography and blood test that measures follicle stimulating hormone (FSH) the levels rise above 40 mIU/mL, it indicates entry of menopause.(**Lurie Jm et al , 2019**)

The menopausal treatments include lifestyles changes, alternative natural approaches and pharmaceutical options. Out of the three approaches, lifestyle changes carry the least risk. The second approach is alternative medicine that recommends the use of certain herbs to alleviate symptoms. Natural and alternative remedies have been widely recognized to relieve menopause symptoms. Although this approach is very effective, in some extreme cases, women might need to go for third approach that is pharmaceutical options for that hormone replacement therapy is the most popular one.(**Denise F. Polit & Cheryl Tatano Beck, 2010**)

NEED FOR THE STUDY

According to National Institute of Health in the year 2017, Over the next decade, the statistical representation showed approximately 40 million women will experience menopause that will lead to an increased incidences of morbidity and mortality. But the risks of cardiovascular disease and osteoporosis tend to be higher for women with earlier menopause. A community-based cohort study reported that 95 % mortality was associated with nonsurgical menopause that occurring before 40 years of age compared with menopause at the age of 50 years or older. However, women attaining menopause an age of 40–49 years were contributing 35 % higher risk of mortality.

According to National Health Care & Quality Report 2016, Menopause is shocking news for younger women that will lead to the end of reproductive life even in teenage women. The women who experienced estrogen deficiency that may occur due to autoimmune disorders, genetic disease, infections or inflammatory conditions, smoking, enzyme deficiencies, or metabolic disorder, elevated gonadotropin level these will lead to be an increased risk for early menopause. Fallopian tube ligation can also causes early menopause and also family history as a predictor of early menopause. Infections such as the mumps and tuberculosis can infect the ovaries that will also lead to menopause. The women who undergone early menopause about 10 to 30 % were affected with autoimmune disease

such as hypothyroidism, Crohn's disease, systemic lupus erythematosus or rheumatoid arthritis will also contribute double risk of menopause.

Laxmininarayana. K (2014) conducted a study in South India, to find out prevalence of menopause symptoms and quality of life after menopause in women. This study was carried out to establish the age at onset of menopause and the prevalence of menopause and menopausal symptoms in South Indian women. Three hundred and fifty-two postmenopausal women attending the outpatient clinics of obstetrics and gynaecology department of Dr TMA Hospital, a tertiary care Hospital in South India, were included in the study. The Menopause-Specific Quality of Life (MENQOL) questionnaire was used in the study. Data were presented as percentages for qualitative variable. The mean age at menopause was 48.7 years. Most frequent menopausal symptoms were aching in muscle and joints, feeling tired, poor memory, lower backache and difficulty in sleeping. The vasomotor and sexual domains were less frequently complained when compared to physical and psychological domains. The age at onset of menopause in India is 48.7 years which is four years more than the mean menopause age for Indian women. This could be attributed to better socioeconomic and health-care facility in this region.

Paremalatha. PB (2016) conducted a study in Tamil Nadu, to evaluate the age of menopause and menopausal symptoms among woman in a rural area. The mean age of attaining menopause was 45(+ or -) 3years, 85 % women were symptomatic with at least one symptoms. Majority of women had psychosomatic symptoms following by vasomotor symptoms, 64% women were indifferent and 12.2% women add negative attitude toward menopause. Many of the women affected with menopausal symptoms by lack of awareness, economic factors, socio cultural factors, and inaccessibility to health services can negativity affect the attitude of women towards menopause.

Ganitha G, Iyanar kannan (2013) conducted a study in India, to stated that women who had undergone menopause got an increased risk of osteoporosis, because their body are not producing sufficient level of estrogen .When estrogen level drops that lead to an increased risk of heart attack and stroke. The same estrogen deficiency can lead to reduced bone mineral density in the alveolar bone so there will be an increased risk of gum disease in most of early menopausal women, Cataract can also

be a risk of early menopause. Early menopause universally causes infertility. Depression can also occur during early menopausal stage as a result of fluctuating hormones in a women's body.

Puniamoorthy. N (2012) conducted a study in Tamil Nadu, to find out the combined outcome of cardiovascular diseases like heart disease and stroke among 2,500 women, who had experienced menopause naturally and surgically, they correlates it with population-based sample of 6,500 women, Majority of samples reported they had experienced menopause at an younger age of 46 years. On a baseline examination, showed that higher proportions of women with early menopause were smokers and diabetes. The study shows that among the 2,500 women, 693 reported menopause occurred before 46 years of age. The women who had attained early menopause were twice the risk of getting cardiovascular disease like - a heart attack, cardiac arrest, angina, probable angina.

Santina. T (2013) conducted a descriptive study was in the Bangalore-based Institute for Social and Economic Change (ISEC) to highlight the alarming of new phenomenon of early or premature menopause among Indian women. The data collected for the study was based on National Family Health Survey among 100,000 women between the age of 15-50 years, across 26 states. The Indian women not concern about their menopausal health, the percentage was highest in Andhra Pradesh of 32 %, Bihar 22% and Karnataka 20% respectively when it is compared it to other states. Overall the percentage of women hit by early menopause is marginally lower in urban areas about 16% as against rural area (19%).

In view with above mentioned report, the investigator realized that the rural women has inadequate knowledge regarding menopause and the risk associated with it. Thus the researcher felt the necessity of providing information regarding early menopause to rural area women through a self-instructional module and evaluate the effectiveness of self-instructional module regarding menopause its impact on health.

David A.R, et.al, (2011) stated that menopause can result in earlier onset of dementia, if the parents have Smoking habit that could lead to early menopausal daughter. An experimental study was conducted in India to investigate the psychological well-being of women who had experienced menopause before the age

of 40 years, they used structured questionnaire for data collection among 64 women. Participants reported high levels of depression and perceived stress, and low levels of self-esteem and life satisfaction among early menopausal women compared to the general population. A higher number of illiterate women experience early menopause, than educated women it occur due to low socio economic status, poor nutrition and lack of self esteem.

Sumathi Senthivel (2014) noticed that every year, approximately 276,000 women are diagnosed with breast cancer and 25% of women are diagnosed prior to early age of natural menopause and may face challenge for early menopause. A cohort analysis were formed among the 2,509 Indian women, about 693 reported menopause occur before age 46 and a higher proportion of women with early menopause had undergone surgical menopause. In the India approximately 600,000 hysterectomies are performed very year that will lead to the doubles the risk of early menopause. An article stated that on long term side effect of chemotherapy regimens are also associated with increased incidence of long term amenorrhea of about 40% that damages the ovaries and result in stoppage of menstruation. A cross sectional study was conducted in University of Hong Kong to find out the association between smoking and early menopause among 43,155 participants and the results suggested that smoking is also a factor that increases the risk of early menopause for about 35% to 49%.

Statement of the problem:

A study to evaluate the effectiveness of Self Instructional Module(SIM) on knowledge regarding menopause and its impact among women in selected rural area, Coimbatore.

Objectives:

1. To assess the level of knowledge regarding menopause and its impact among women at selected rural areas.
2. To evaluate effectiveness of self instructional module on menopause and its impact among women at selected rural areas.

3. To find out association between level of knowledge scores with selected demographic variables.

Hypotheses:

H₁ : There will be a significant difference between the pre-test and post – test knowledge scores.

H₂ : There will be a significant Association between level of knowledge with selected demographic variables.

Operational definition:

- a) **Evaluate:** It refers to systematic determination of merit, worth and significance of subjects response to self instructional module.
- b) **Effectiveness:** It refers to the extent to which the self instructional module has achieved the desired effect in improving the knowledge of women as evidenced from change in knowledge scores.
- c) **Self instructional module:** It refers to systematically organized instructional aid designed for women regarding menopause, its impact and treatment.
- d) **Knowledge:** It refers to responses on menopause and its impact among women.
- e) **Menopause:** It refers to cessation of menstruation that occurs before 45 years of age. There are many menopause, health consequences associated with early menopause, preventive and its treatment measures.
- f) **Women:** Females between the age group of 30-45 years.
- g) **Rural area:** Group of People living in developing area.

Assumption:

1. Women may have inadequate knowledge regarding menopause and its impact.
2. Self instructional module may improve the knowledge of women regarding menopause and its impact.

CHAPTER – II

CHAPTER-II

REVIEW OF LITERATURE

Review of literature lays foundation for a study and can also influence for new research ideas. A literature review plays a role at the end of the study, when researcher is trying to make sure of their findings (**Polit, 2009**).

Review of literature was done for the present study which is presented in the following heading

1. Literature related to menopause.
2. Literature related to impact of menopause.
3. Literature related to prevention and management of menopause.
4. Literature related to knowledge regarding menopause and its impact.
5. Literature related to effectiveness of self instructional module

1. Literature related to menopause

Malhotra C, et.al,(2017) conducted a Case control study to identify family history as a predictor of menopause. A population-based survey was done among 10,606 women. The study participant were between the age group of 40 and 50years, there was 344 women were in experimental group and 344 subjects was in control group . Subjects were interviewed about their medical and family history. Logistic regression analysis was used as a tool for data collection. The results showed that Overall 129 cases (37.5%) of the menopause cases were reported with family history of early menopause and in the control group 31 cases (9.0%) were reported with family history of menopause. The study concluded that participants in the experimental group was reported higher rate in the family history of menopause. So there was a significant association between family history and menopause.

Bauld & Brown, (2018) The research also highlights how the impact of a menopausal woman's emotional state and overall attitude towards menopause affects her ability to cope with the symptoms of this condition. Emotional intelligence (EI)

also plays a key role in how women handle the stressors associated with menopause. This is especially true for women who experience premature menopause. Emotional intelligence is referred to as the ability to use proactive coping strategies to experience self-efficacy and inner peace. Higher levels of emotional intelligence allow women to experience improved mental health, decreased depression levels, and an improved overall sense of well-being . If the women engaged in supportive social interactions with their family or friends, this resulted in decreased stress, anxiety and depression, an improved EI, and a more positive attitude. The multiple regression analysis of this study also revealed that all the variables associated with menopause such as high stress, anxiety, depression, decreased social support and a negative attitude resulted in decreased overall physical health.

Cinthyia F. et.al, (2015) conducted a qualitative study to develop a substantive theory regarding responses of women to chemotherapy-induced menopause within the context of breast cancer. Qualitative inquiry of Grounded Theory methodology was used as a tool for data collection. The purposive sampling technique was used for data collection among 27 women with early stage breast cancer who received adjuvant chemotherapy. The majority of women were married, well educated, and employed with a mean age of 41 years. Amenorrhea was reported by 24 women. Women participated in interviews ranging from 45 minutes to 2 hours and other data sources, such as informal discussions with oncology care providers enquired about menopausal health, midlife women's health that helped to increase the interpretation of the data. The results shows that 70% of women were identified with psychological problem through interviews.

From the above literature concluded that there are many factors that could lead to early menopause such as family history smoking down syndrome, chromosomal factors, chromosomal, chemotherapy.

Suresh K. Kumbhar (2015) conducted a cross sectional study to determine the importance of X chromosome in the etiology of Premature Ovarian Failure (POF) or early menopause in the Department of Neuroscience Technology in 2011. The standard cytogenetic analysis was used as a tool for data collection. The study participants were 269 women affected with premature ovarian failure the cytogenetic analysis was done among women to examine the chromosomal defect so 27

chromosomal abnormalities were identified including X chromosome, autosomal structural and numerical abnormalities and it is compared with a sample size 46 women in the general population the XX karyotype was performed by using X alpha-satellite probe in order to identify X chromosome mosaicism rate. Aneuploidy rate in the patient group was significantly higher than the general population group. The study showed presence of X chromosome in the etiology of premature ovarian failure was 40% that resulting in low level of sex chromosome mosaicism that will lead to premature onset of menopause.

Agarwal A K, et.al, (2017) a case control and meta analytical study was done to determine the idiopathic and genetic factors associated with premature and early menopause. Cytogenetic and pedigree analysis was used as a tool for data collection among 36 women the study participants were between the age group of 40 and 45 years. The result showed that 30% of women with early menopause who had idiopathic cause and 50% had a family history of early menopause or premature ovarian failure. Pedigree analysis revealed that a dominant pattern of inheritance of early menopause was through maternal or paternal relatives. So there was significant association with early menopause and genetic factors.

French. L (2017) conducted a case control study to evaluate the relationship between certain reproductive and lifestyle factors associated with menopause among 2510 women, Self-administered questionnaire was used as a tool for data collection. The results indicated that study participants of 30%, 5%, 5%, 20% and 40% with early menopause reported short menstrual periods, low use of oral contraceptives, low parity , lack of breast feeding, low body mass index (BMI),low schooling were respectively . The study shows that both reproductive and lifestyle factors were significant elements in the occurrence of early menopause.

Davis A R, et.al, (2016) conducted a comparative study to determine the etiology of Down's syndrome with early menopause at NYS Institute for Basic Research in Developmental Disabilities in 2000. Adaptive Behavior Scale was used as a tool for data collection among 157 women with Down's syndrome (DS) the data was compared with 187 women having intellectual disability the study participants were between the age group of 40 -50 years. The result showed that 60 % women with

Down's syndrome experienced menopause in their earlier age twice as high in women with other intellectual disability.

Glazer et al., (2017) In this study revealed that many women in the menopausal life stage highlight symptoms associated with menopause as being a major issue leading to health problems, strained relationships and conflict with members in the community . The issue is so prevalent that a study of menopausal women revealed 77% of women in menopause were using alternative therapies to treat the symptoms associated with this phase of life. Also, the largest percentage of these women (43%) used these therapies to specifically assist with managing the physical and psychological stressors associated with menopause.

Latte PM, et.al, (2015) conducted a cross sectional study to find out the association between menopause active, current and passive smoking among 2123 postmenopausal women. A logistic regression analyses was used as a tool for the data collection the base line examination were done among women to examine their lifestyle practices . The result showed that 20% of the women were passive smokers and 40% were active smokers. The study indicated that if women had stopped smoking for 10 years before menopause then there was 40% decrease in the risk for menopause. The total exposure to smoking was positively related to menopause at highest so there is an association with life style practices and menopause. The data suggested that cessation of smoking at earlier age can prevent early menopause.

2. Literature related to impact of menopause

Mary John (2017) done a population based study was done in Nether land to find out the association between early menopause and open-angle glaucoma, among 3,078 women. The study participants were stratified into three categories according to their age at menopause <45 years, 45–49 years, and \geq 50 years. Diagnosis of open-angle glaucoma was based on the presence of a glaucomatous visual field defect and glaucomatous optic neuropathy were used as tool for data collection .The results revealed that Open-angle glaucoma was diagnosed among 78 women with early age of natural menopause and 15 women with surgically induced menopause. The women who had underwent menopause before reaching the age of 45 had a higher risk of

open-angle glaucoma. The study showed that early menopause is associated with a higher risk of open-angle glaucoma.

Francoise (2017) conducted a population based study to investigate whether early menopause predispose post-myocardial infarction (MI) and angina in the department of Medicine in USA in 2017 among 493 post menopausal women, the study participant were between the age of 30-50 years, the multivariable analysis was used for data collection women with early age at menopause were more often smokers. The study showed indicated that 72.4% of early menopausal women reported with angina pectoris than in women with natural menopause of 32.45 % . The results showed that women with early menopause had twice the risk of angina pectoris compared to women with an age at menopause of 50 years or older.

Latto P M, et.al, (2015) conducted a cross sectional study to investigate the level of estrogen associated with early menopausal symptoms among 165 Filipina American women. The study participants were between the age group of 35-50 years the data was collected by survey method. The results reveal that estrogen related menopause symptoms was reported as vaginal dryness, hot flushes, day sweats, night sweats and distress were 39.4%,37.6%,27.9%,24.3%,17% respectively. The study found that the women who underwent early menopause reported moderate and severe menopausal symptoms.

Cynthia F. et.al, (2016) conducted an quasi experimental study to investigate whether early onset of menopause carries an increased risk of osteoporosis. Questionnaire method was used for data collection, In experimental group with a sample size of 18 women who had undergone early menopause and were as in the control group 18 women who undergone natural menopause. The bone mineral density (BMD) of the second vertebrae L2-4 of experimental group compared with the control group. The serum levels of calcium, phosphorus, calcitonin, parathyroid hormone, luteinizing hormone (LH), follicle-stimulating hormone (FSH), estradiol (E2), and alkaline phosphates activity were measured. The results showed that mean BMD was significantly lower in the experimental group than in the control group with normal menopause women.

Jima Mathew (2017) a population-based prospective study was done to examine the relationship between early menopause, cerebral infarction and stroke among Japanese women in 2010. The study participants were 4,790 postmenopausal women aged between 36 to 80 year, questionnaire method was used for data collection, health check was done to every accessible population. The study indicated that the hazard ratio of cerebral infarction before age of 40 years , between 40 - 44years , between 45- 49years was 6%,3%,1% respectively, and the hazard ratio of stroke for women who undergone early menopause was before 45 years, between 40-44 years, between 45-49years was 5% 3% 1% respectively. The study showed that women who undergone menopause before age 40 years are at risk for getting cerebral infarction and stroke.

Agarwal A K, et.al, (2015) a qualitative study was done to assess the frequency and intensity of early menopausal symptoms and the associated risk factors in 2015 at Guaguaquil, among 300 Healthy middle aged Ecuadorian women aged below 40 years were selected for the study, Menopause Rating Scale questionnaire were used for data collection. The results showed that most of the participant 77%, 74.6%,69.6%,65.5%,45.6% were reported muscle and joint problems, depressive mood ,sexual problems hot flushes and sleeping disorders respectively. The study concluded that the intensity and frequency of early menopausal symptoms and its risk factors are more in women who had undergone early menopause.

Bauld & Brown, (2018) The research also highlights how the impact of a menopausal woman's emotional state and overall attitude towards menopause affects her ability to cope with the symptoms of this condition. Emotional intelligence (EI) also plays a key role in how women handle the stressors associated with menopause. This is especially true for women who experience premature menopause. Emotional intelligence is referred to as the ability to use proactive coping strategies to experience self-efficacy and inner peace. Higher levels of emotional intelligence allow women to experience improved mental health, decreased depression levels, and an improved overall sense of well-being . If the women engaged in supportive social interactions with their family or friends, this resulted in decreased stress, anxiety and depression, an improved EI, and a more positive attitude. The multiple regression analysis of this study also revealed that all the variables associated with menopause such as high

stress, anxiety, depression, decreased social support and a negative attitude resulted in decreased overall physical health.

Jackson, C (2016) conducted an experimental study to evaluate the sexual dysfunction among women among 58 women who underwent early menopause was in the experimental group and in the control group 58 women with normal ovarian function. Sexual function was evaluated in two groups, Female Sexual Function Index was used to collect data .Result showed that the mean and standard deviation of the women with premature ovarian failure in the experimental group was 39.4 ± 6.5 and in control groups 39.0 ± 6.8 . Mean \pm SD of women with Female Sexual Function Index score was 24.0 ± 6.0 in the experimental group and 27.3 ± 4.8 in the control groups, the prevalence of sexual dysfunction in premature ovarian failure group was 62% compared with control group of with 38%.So women with premature ovarian failure having increased sexual dysfunction. The study concluded that sexual dysfunction are seen more in women with early menopause than in normal women.

Saha, R (2015) conducted a descriptive study to examine the association of age at natural menopause with ischemic stroke risk in Framingham Heart Study with a sample size of 1430 women, Cox proportional hazards models were used as a tool for data collection and also to examine the association between age at natural menopause and ischemic stroke risk. The study participants were categorized into three group that is below 42,42to 50 and above 55years, the result showed that there were 234 ischemic stroke identified among women. Women with menopause at age below 42 years ,42 to 50,above 50 years hazard ratio were (9.9; 95% CI :2.4 to 7.6) ,(0.50; 95% CI: 0.29 to 0.89), (0.31; 95% CI: 0.13 to 0.76) respectively. The study indicated that women between the age group of 42 to 50 and above 50 years were lower stroke risk compared the women with before 42 years of menopause. The study also revealed that natural menopause before the age 42 years was associated with increased ischemic stroke risk.

From the above review of literature concluded that early menopause contribute to many health problems like heart disease, stroke, glaucoma, cerebral infraction, angina, osteoporosis etc.

3. Literature related to prevention and management of menopause

Rima Gupta (2016) conducted an experimental study to investigate whether yoga would help women in the reduction of physical and cognitive symptoms of menopause. The study participants were 120 menopausal women in an age group of 40-50 years, they had done yoga practice or simple stretching and strengthening exercise for eight weeks in the yoga group. Women in the yoga group were listened to lectures on how to manage stress and other yoga related topics while those in the control group of 120 women heard lectures on diet, exercise, the physiology of menopause and stress. The results showed that after eight weeks women in the yoga group showed a significant reduction in hot flush, night sweats and sleep disturbances. Both groups showed improvements in a test of attention and concentration although improvement in the yoga group was significantly greater.

Price (2017) One of the key themes of the research studies reviewed was related to the various aspects of women's health and well-being. Women in their midlife phase of life were at a greater risk for profound health, social, and emotional changes such as depression, sadness, and anxiety. Related studies also indicated the importance of providing these women with more intervention options, such as incorporating health promoting activity programs and opportunities for improved wellness.

Newton (2015) The studies also focused on the preventative measures and treatment of stressors for women going through menopause. The women's stressors were successfully treated with nutritional or herb supplements, massage therapy, and chiropractic sessions. Almost 66% of the women surveyed preferred natural therapies over medicines.

Farag, Bardwell, Nelesen, Dimsdale, & Mills (2014) Other studies explored the physiological effects of menopause, age, and stress on the post-menopausal women's key operating systems and overall wellbeing. The research concluded there was a negative impact caused by stress on the autonomic nervous system. The increased production of free radicals

Sefjal, Doshi, & Agarwal, (2017) In this study suggested that the use of preventative alternative therapies did reduce the occurrence and intensity of vasomotor negative responses in many cases.

Abbaspour (2017) conducted an experimental study to evaluate the effect of yoga on post menopausal women and also to assess its impact on general health, menopausal symptoms and osteoporosis. This clinical study was performed at the Fertility Research Centre and Max Health care Centre, New Delhi. A total of 150 patients participated in the study they are categorized into Group A, Group B and Group C, In Group A 50 women was there who has not received any treatment only calcium supplements. In Group B 50 women was taken hormone replacement therapy. And in Group C 50 women performing yoga under proper supervision, some of them were taking calcium supplements. The outcome were measured by a questionnaire, blood tests and bone densitometry studies. The results showed that the bone mineral density was significantly higher in women in Group C than in Group A and Group B. Other menopausal symptoms also were significantly lesser in women who practiced yoga regularly.

Donati et al., (2016) found Hormone therapy has been effective to provide significant relief from annoying hormonal symptoms, and thus results in improved sleep patterns. Hormonal changes that were not treated with estrogen or progesterone hormone therapy resulted in turbulent mood swings and disturbed sleep. This is important because a lack of sleep contributes to other significant health risks factors affecting women as they progress through menopause. The additional health risks menopausal women experience is associated with sleep deprivation, resulting in decreased overall function of the vasomotor system. The reduced efficiency of the vasomotor system contributes to mood disorders, anxiety, and depression onati. A study also supports the findings that fluctuating hormonal levels adversely impact a woman's sleeping patterns, resulting in decreased overall well-being.

Ameratunga, (2015) conducted a quasi experimental study to assess the knowledge level of women regarding effective in decreased menopausal symptoms. Behavioral therapy and cognitive behavioral therapy have also proven to be effective in decreasing menopausal symptoms. These two therapies increase sleeping intervals by changing the sleep practices. This occurs through implementing new procedures

for treatment such as introducing relaxed and quiet environments prior to sleeping and decreasing or omitting the intake of alcohol and caffeine before bedtime. Antidepressants and melatonin also yield positive results along with the circadian rhythm training. Both substances improve the sleeping patterns of menopausal women.

The above literature says that by adopting life styles modifications, alternative and complementary therapies can prevent and manage early menopause.

4. Literature related to knowledge regarding menopause and its impact

Metheny. W.P (2018) conducted a descriptive study to assess the knowledge level of women regarding the gender-specific health risks associated with smoking. The study participants were 388 female employees ,Structured questionnaire was used as a tool for data collection. The results showed that 99%,96%,and 91% of the women were aware that smoking causes respiratory disease , lung cancer, heart disease , and pregnancy complications respectively. Only Few women were aware that smoking causing infertility, osteoporosis, early menopause, spontaneous abortion, ectopic pregnancy and cervical cancer were 22%, 30%,17%,39%,27% respectively. The result showed that even female health care professionals does not have greater knowledge of risk conditions. Further public health measures were necessary to be taken to improve the knowledge of women on smoking risks that helps to reduce the smoking-related illnesses in women.

Kapoor (2016) to find out the impact of menopause on health-related quality of life: results from the STRIDE longitudinal study. Seven hundred thirty-two women aged 40-65, regardless of health condition or menopausal status, were enrolled from single general internal medicine practice. Women completed annual questionnaires including HRQoL, and menopausal status and symptoms. Findings are comparable adjusted for menopausal symptom frequency and bother. Over a 5-year follow-up period, we found a negative impact of menopause on some domains of HRQoL, regardless of menopausal symptoms. Clinicians should be aware of this relationship and work to improve HRQoL, rather than expect it to improve spontaneously when menopausal symptoms resolve.

Br. J. Gen Pract (2016) conducted a quasi experimental study to assess the knowledge level of women regarding signs and complications of early age of natural menopause and also to investigate the effect of health education training program on quality of life of women with early menopause. Structured questionnaire method was used as a tool for data collection. The health education program were designed based on the pretest data and the post test data. Results showed that, the mean and standard deviation of participant knowledge scores before education was 13.7 % (2.4) and after education was 35 % (2.92). The overall knowledge score were improved after the education ($t=4.39$, $P<0.000$).The study showed that the knowledge level of women about signs and complications of early age of natural menopause were less than the level expected. So the study suggested that women should receive special education programs regarding early menopause to increase their knowledge, through lectures, radio, TV programs, magazine, newspaper before the menopausal stage occurs.

These studies emphasized that the knowledge of women on early menopause was very less. So the educational information can helps them to increase their knowledge.

5. Literature related to the effectiveness of self instructional module

Sucking. J (2018) conducted a study to evaluate the effectiveness of self instructional module on knowledge regarding menopausal changes and coping among pre-menopausal women in Gujarat. The study participant were 50 pre-menopausal women aged between 40-45 years. The tool used for the data collection was structured questionnaire. Results indicated that there was a significant difference between the pre-test and post test knowledge score regarding menopausal changes and its coping as z value was 6.17 and p value 0.000 where $p<0.05$,it showed that the self instructional module was effective in enhancing the knowledge of pre menopausal women regarding menopausal changes and coping.

Morse (2016) conducted a study to evaluate the effectiveness of Self Instructional Module on knowledge regarding menopausal changes and it's coping among pre menopausal women in Italy. The research approach for the study was one group pre-test post-test design. The sample size was 50 pre menopausal women between the age group of 40-45 years. The sampling technique used for the study was

convenience sampling. The study revealed that the effectiveness of the Self Instructional Module on menopausal changes and its coping on the pretest and post-test data analysis revealed that the mean post-test score was higher than the mean pre-test score. The result showed that there was evident increase in the knowledge scores in all the areas included in the study after administration of Self instructional module.

The above literature shows that self instructional module helps to increase the knowledge of women it is the found to more effective for giving information. So the researcher feels the need to conduct study on self instructional module.

CONCEPTUAL FRAMEWORK

A conceptual framework is a theoretical approach to study the problem that are scientifically based on theories and which emphasize the selection, arrangement and classification of the concept.

According to Evelyn Adam (1992), a conceptual model is an abstraction, a way of looking at something, an invention of the mind. A conceptual model for a discipline is a very broad perspective, a global way of looking at a discipline. It is a precursor of a theory. The conceptual model specifies the discipline's focus of inquiry, identifies those phenomena of particular interest to nursing, and provides a broad perspective for nursing research, practice and education.

Conceptual model is a set of highly abstract related constructs that broadly explains phenomenon of interest, express assumption and reflects a philosophical stance. The conceptual framework plays several interrelated roles in the progress of science. Their overall purpose is to make scientific findings meaningful and generalization them. This facilitates communication and provides for systematic approach to nursing research, education, administration and practice.

The conceptual framework for the present study was based on the concept of "King's Goal Attainment Theory" by **Imogene King's** (1971) it is to evaluating the effectiveness of Self Instructional Module on menopause and its impact among women. According to Imogene King, "If nurses are to assume the role and responsibilities expected of them, the discovery of knowledge, the system as a whole and all activities can be resolved into aggression of circuits such as interaction, perception, and transaction."

The main concepts of Imogene King's are:

- **Perception**
- **Judgment**
- **Action**
- **Reaction**
- **Interaction**
- **Transaction**
- **Feed back**

❖ **Perception:**

It refers to person's perception of reality. It is universal, yet highly subjective and unique to each person.

In this study the nurse investigator assumes women may have some knowledge regarding menopause and its impact. The women expressed their desire to gain knowledge on menopause.

❖ **Judgement:**

It is the ability to form valuable opinions and make good decisions.

In this study each individual (nurse investigator and women) makes a judgment. Here, the nurse investigator makes a judgment that Self instructional module will improve the knowledge of women. The women make a judgment that utilization of Self Instructional Module (SIM) to improve their knowledge regarding menopause and its impact.

❖ **Action:**

It refers to the process of doing something in order to achieve a desirable purpose.

In this study the nurse investigator develops structured knowledge questionnaire to assess the knowledge, develops and administers self instructional module to improve the knowledge of women regarding menopause and its impact. The women expressed their readiness to gain knowledge on menopause and its impact.

❖ **Reaction:**

It refers to an action taken in response to something.

In this study reaction includes assessment of knowledge by using structured knowledge questionnaire (pre-test). Here, the nurse investigator finds out the existing knowledge of women regarding menopause and its impact.

❖ **Interaction:**

It is a process of perception and communication between person and environment and between person and person represented by verbal and non-verbal behaviors that are goal directed.

In this study, the investigator interacts with the women and given the Self Instructional Module .

❖ **Transaction:**

It refers to the interaction between a person and the environment for the purpose of goal attainment.

In this study, the nurse investigator reassesses the knowledge of women regarding menopause and its impact by giving post test analyzing the effectiveness of Self Instructional Module (SIM).

❖ **Feedback:**

A feedback is the response towards inadequate knowledge gain after the administration of an intervention programme.

In the present study feedback is not included.

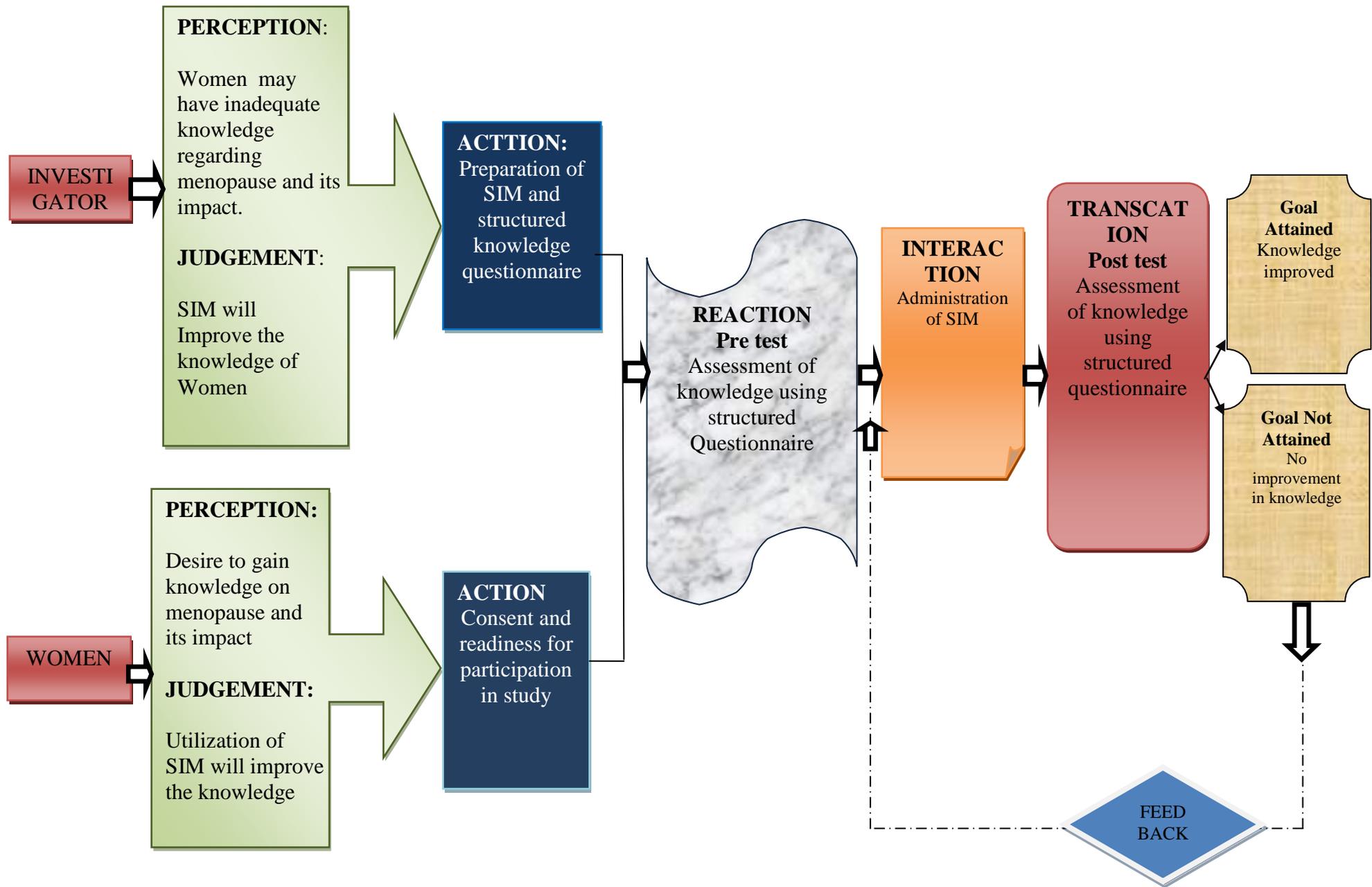


FIG.1 CONCEPTUAL FRAMEWORK BASED ON IMOGENE M KING'S GOAL ATTAINMENT THEORY

CHAPTER – III

CHAPTER-III

RESEARCH METHODOLOGY

Research methodology refers to the techniques used to structure a study and to gather and analyze information in systematic manner.

This chapter comprises of research approach, research design, variables under study, setting of the study, population, sample, sampling technique, criteria of sample selection, data collection instruments, reliability and validity, pilot study, procedure for data collection.

The study aimed to assess the effectiveness of self instructional module on menopause and its impact among women in selected rural area, Coimbatore.

Research Approach:

A research approach involves the description of the plan to investigate the phenomena under study, it help to decide about the presence or absence as well as manipulation and control over variables. The research approach depend on the several factors but primarily on the nature of the phenomena under study.

Research Design:

The research design used for this study was pre experimental one group pre-test post-test design.

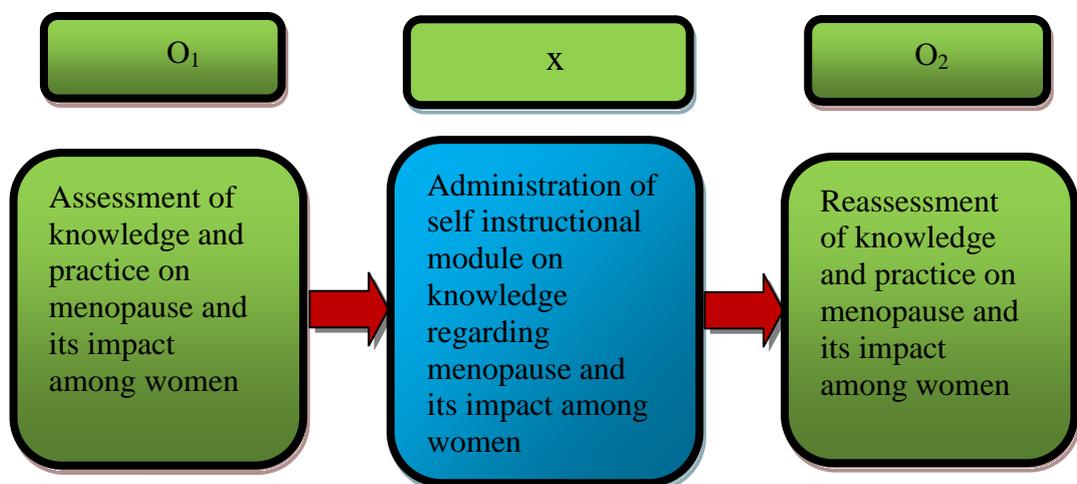


Fig 2: Schematic representation of research design.

Key:

O₁ : Pre test

X : Intervention

O₂ : Post test

Setting of the study:

Research setting refers to the area where the study is conducted. It is the physical location and condition in which data collection takes place in a study.

The present study was conducted at Kurumbapalayam, which is situated 2 km distance from the PPG College of Nursing.

Population:

The term population is the entire aggregate of the cases that meet a designed set of criteria.

The target population of the study was women in rural village, and the accessible population was women from Kurumbapalayam Village, Coimbatore.

Sample size:

The present study comprises of 40 women.

Sampling Technique:

Sampling refers to the process of selecting the portion of population to represent the entire population

The present study samples were selected by Purposive Sampling Technique.

Criteria for Sample Selection:

Inclusive criteria:

Women who were:

- Available at the time of data collection.
- able to read and speak Tamil or English.
- Women in the age group of 45-55 years.
- Who attained menopause.
- Willing to participate in this study.

Exclusive criteria:

Women who were

- having vision problems.
- Having any systematic illness.
- Who underwent hysterectomy.

Description of tool

The tool consists of structured knowledge questionnaire it is divided into two parts they are as follows:

Part 1: Demographic variables of women:

This questionnaire is related to selected personal variables it has 7 items, such as age, religion, educational status, occupation, marital status, family history of early menopause, sources of information.

Part II: Knowledge questionnaire:

Consists of 31 multiple choice questions which were further divided under 3 sections:

Section A: Consists of 6 items related to anatomy and physiology of uterus.

Section B : Consists of 4 items related to general information on menopause

Section C: Consists of 21 items related to factors, impact and treatment of menopause.

Testing of the Tool

Content Validity:

The tool was given to five experts of Obstetrics and Gynaecology in Nursing. All suggestions and comments given by them were duly considered and corrections were made after discussion with the research guide.

Reliability of the Tool:

Reliability is defined as the extent to which the instrument yields the same results in repeated measures. It is concerned with the consistency, accuracy, precision, stability, equivalence and homogeneity.

After validation the tool was subjected to reliability test. The structured knowledge questionnaire was administered to 4 women. The reliability of the tool was established using split half method. The reliability of the whole test was then established by Spearman- Brown Prophecy formula. The tool was found to be highly reliable($r=0.98$).

Pilot study:

Pilot study was conducted to make sure that the tool was capable of eliciting response from the respondents. Pilot study was conducted at Kurumbapalayam Village among 4 samples in a manner in which the final study would be done. The pilot study revealed that the present study was feasible to conduct the study.

Data Collection Procedure:

The study was conducted for six weeks from 2.2.2019 to 2.3.2019 among 40 women's at Kurumbapalayam Village, Coimbatore. Prior to data collection, permission was obtained from the medical officer. Oral and Written consent was taken from the women in order to obtain maximum cooperation. On the first day of procedure, samples were selected as per inclusion criteria by Purposive Sampling Technique. After maintaining initial rapport, purpose of the study was explained and a

written informed consent was obtained from the study subject. Pre test was conducted by using structured knowledge questionnaire contains 31 items followed by Self Instructional Module for four consecutive days. After 4 days of intervention, post test was conducted on 5th day morning by using the same questionnaire to evaluate the effectiveness of Self Instructional Module. This procedure was repeated up to 6 weeks until the fulfillment of required samples.

Plan for Data Analysis:

The data collected from women were grouped and analyzed with the help of descriptive and inferential statistic.

The plan of analysis was as follows:

Descriptive statistics

- Frequency and percentage distribution to analyse demographic data of women and their level of knowledge.

Inferential statistics:

- Paired“t test to find out the effectiveness of SIM.
- Chi-square test to find association between post test knowledge scores and demographic variables.
- The analysis is presented in the form of tables and figures.

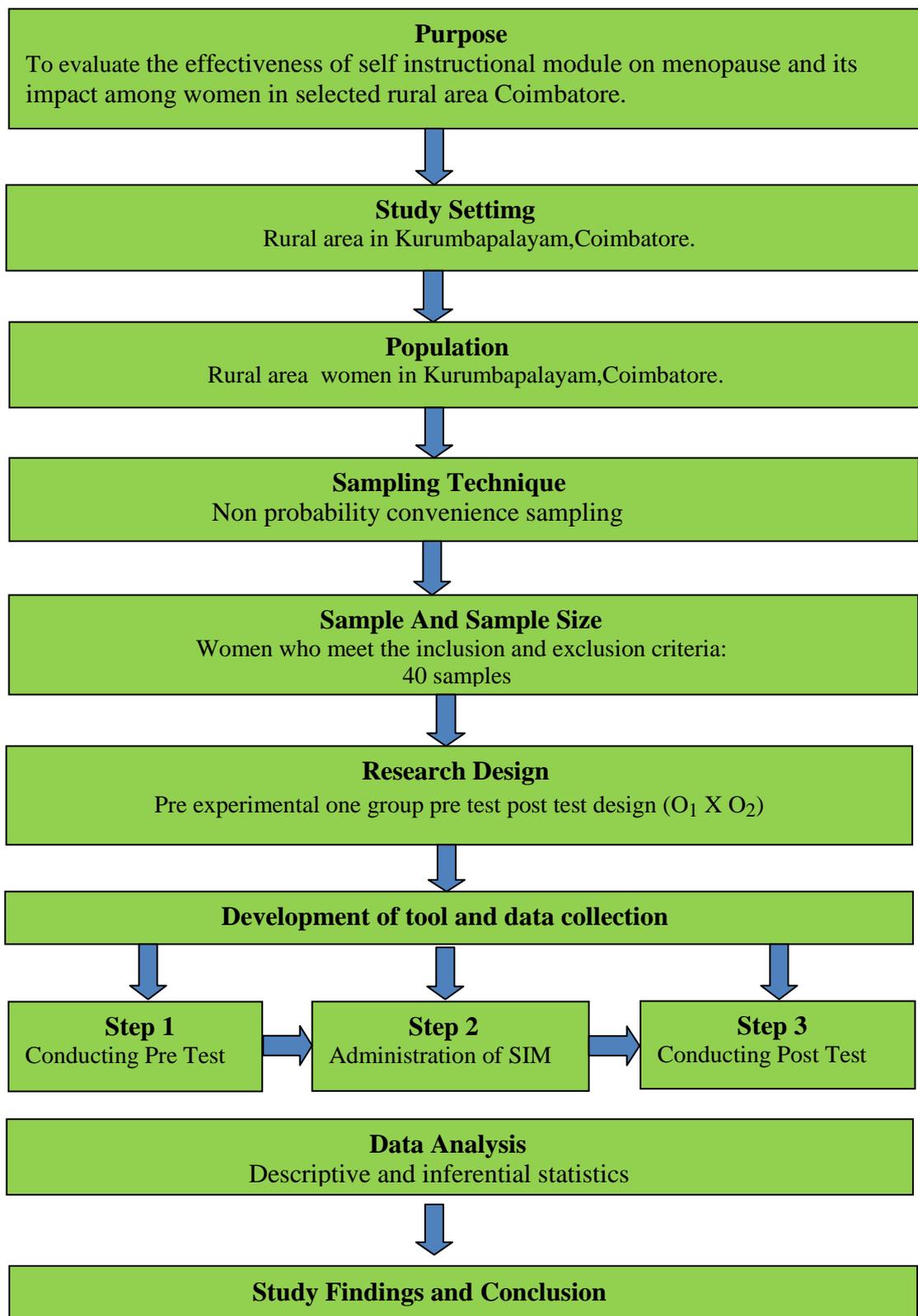


Fig 3: SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

CHAPTER – IV

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the data analysis and interpretation of data. The data was collected from 40 women's from Kurumbapalayam Village, Coimbatore to evaluate the effectiveness of Self Instructional Module on knowledge regarding menopause and its impact among women. The data was collected on the basis of objectives and hypotheses formulated for the study.

Presentation of Data:

The collected data was entered into a master sheet for tabulation and statistical processing. The findings are presented under the following headings:

- Section I : Distribution of samples according to demographic variables.
- Section II : Distribution of Statistical Value of Pretest knowledge Score Regarding menopause and its impact among women.
- Section III : Distribution of Statistical Value of Post Test knowledge Score Regarding Menopause and its impact among women.
- Section IV : Comparison of pre and post test knowledge score Regarding Menopause and its impact among women.
- Section V : Effectiveness of Self Instructional Module on knowledge regarding menopause and its impact among women.
- Section VI : Association of knowledge scores with selected demographic variables.

SECTION – I

Table 4.1 Distribution of sample According to Demographic Variables.

(n =40)

S.No.	Demographic Variables	Frequency	Percentage
		f	%
1.	Age		
	a) 30-35years	7	17.5
	b) 36-40years	5	12.5
	c) 41-45years	28	70
2.	Religion		
	a) Hindu	28	70
	b) Christian	7	17.5
	c) Muslim	5	12.5
3.	Educational Status		
	a) PUC	27	67.5
	b) Diploma	13	32.5
4.	Occupation		
	a) Homemaker	8	20
	b) Private employee	8	20
	c) Self employed	24	60
5.	Marital Status		
	a) Single/others	9	22.5
	b) Married	31	77.5
6.	Any Family History of Early		
	a) Yes	25	62.5
	b) No	15	37.5
7.	Source of Information		
	a) Magazine and newspapers	12	30
	b) Health professionals	6	15
	c) Friend and family members	22	55

Table 4.1 shows the distribution of women characteristics according to demographic variables.

- Out of 40 women 28 (70%) belonged to the age group of 41 - 45 years, 5 (12.5%) were in the age group of 36-41 years, and 7 (17.5%) belonged the age group of 30-35years.
- Most of the sample 28 (70%) were Hindu, 7 (17.5%) were Christian, and the rest 5 (12.5%) were Muslim.
- With regard to educational status 27 (67.5%) had got PUC education, 13(32.55 %) were diploma holders.
- With regard to occupation 24 (60%) were self employed, 8 (20%) were private employee, and 8 (20%) were homemakers.
- Majority of women 31 (77.5%) were married and 9 (22.55 %) were single.
- Most of the sample 25 (62.5%) had family history of early menopause and 15 (37.5%) doesn't have any family history of early menopause.
- With regarded to source of information 6 (55%) got information through friends and family members, 12 (30%) got information through magazines and news papers and rest of 6 (15%) got information through health professional.

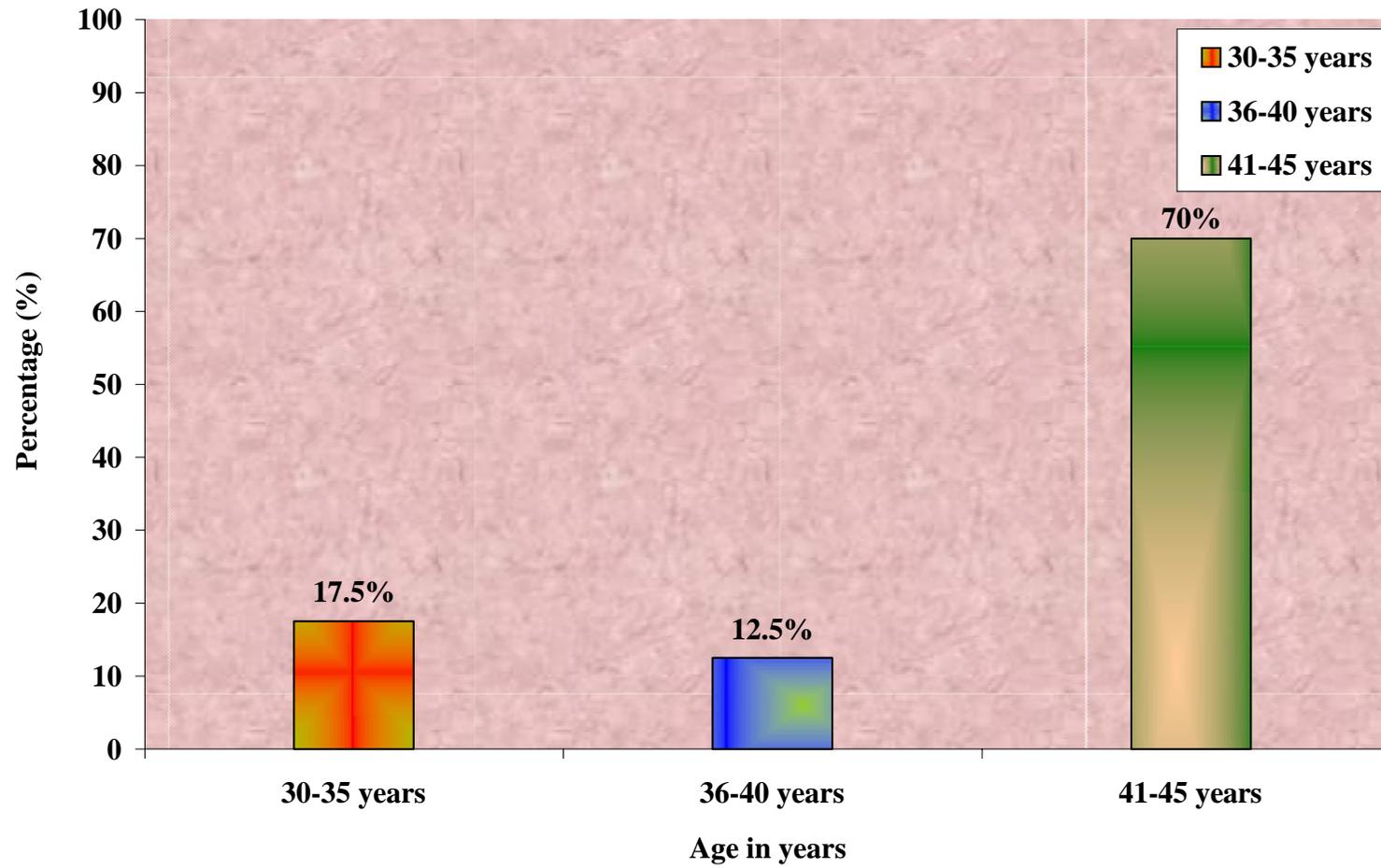


Figure 4.4 Percentage Distribution of Women with Respect to Age in Years

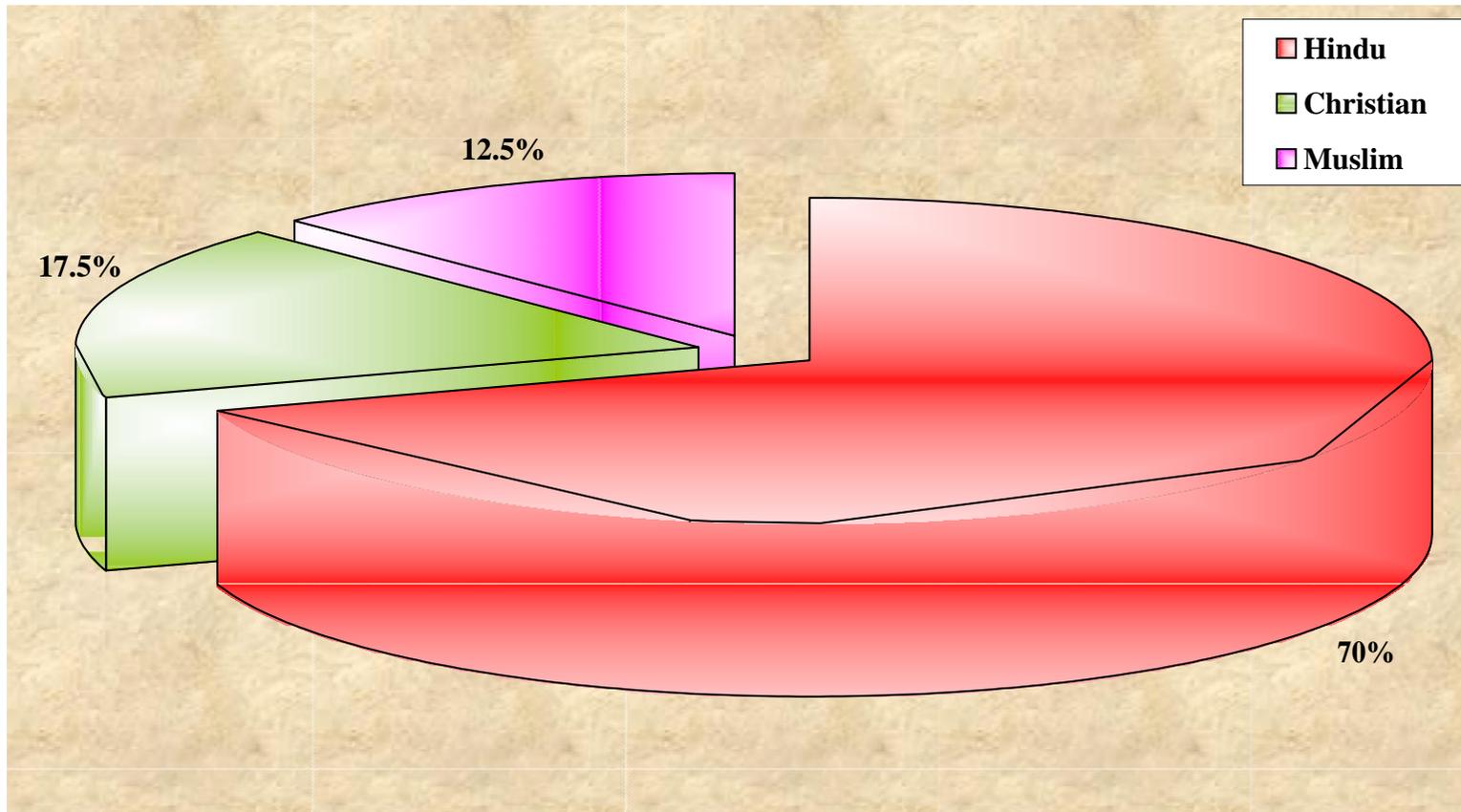


Figure 4.5 Percentage Distribution of Women with Respect to Religion

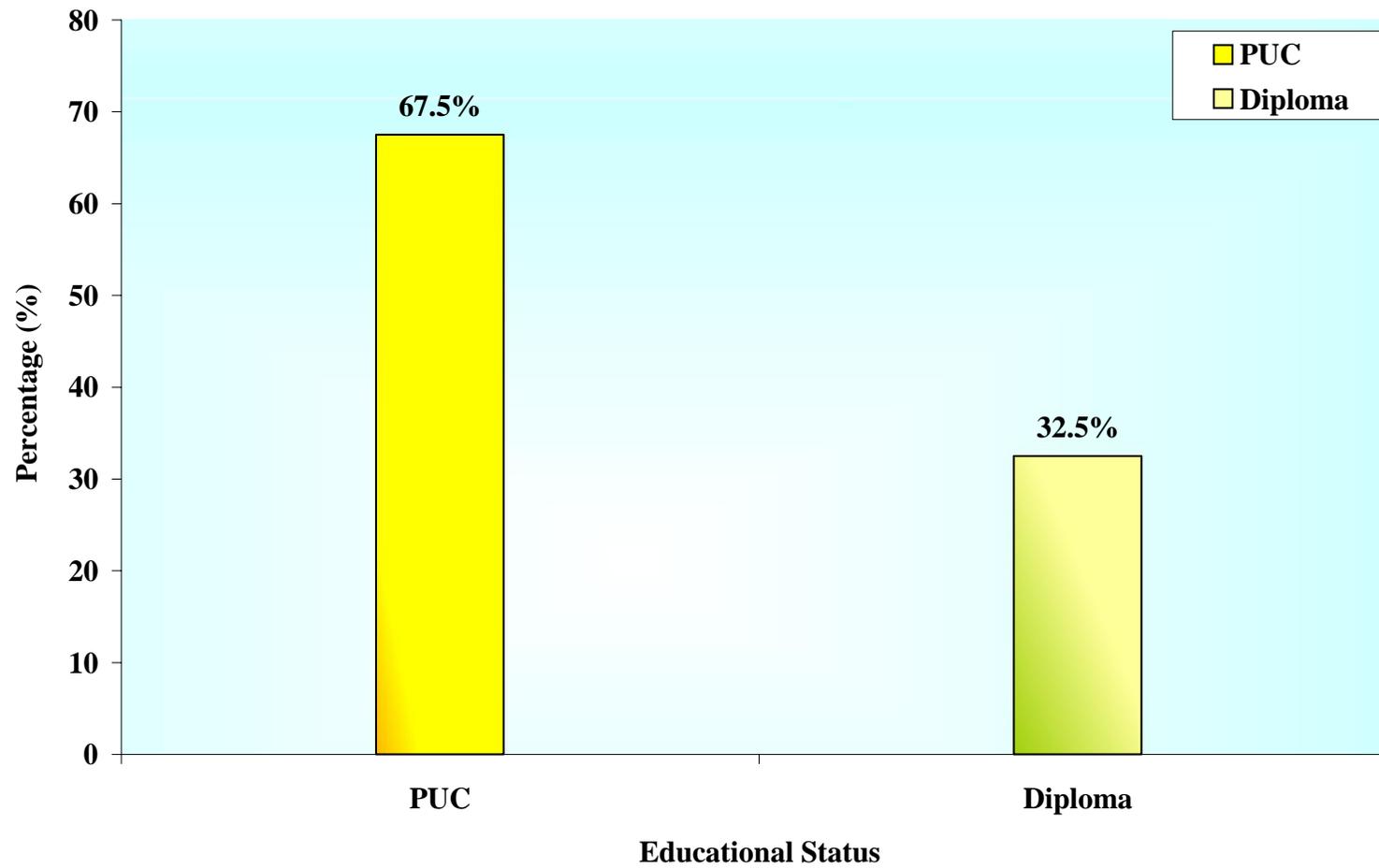


Figure 4.6 Percentage Distribution of Women with Respect to Educational Status

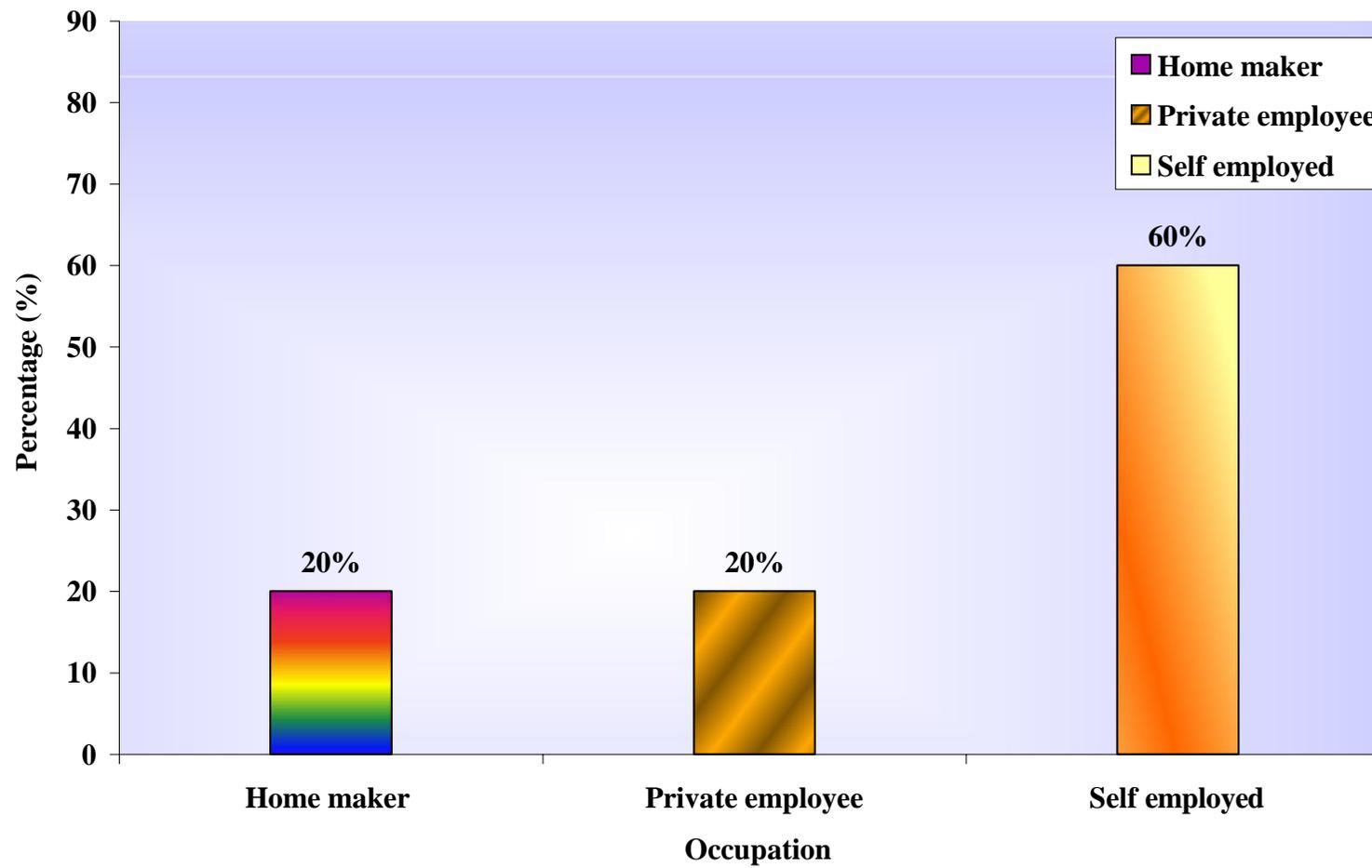


Figure 4.7 Percentage Distribution of Women with Respect to Occupation Married

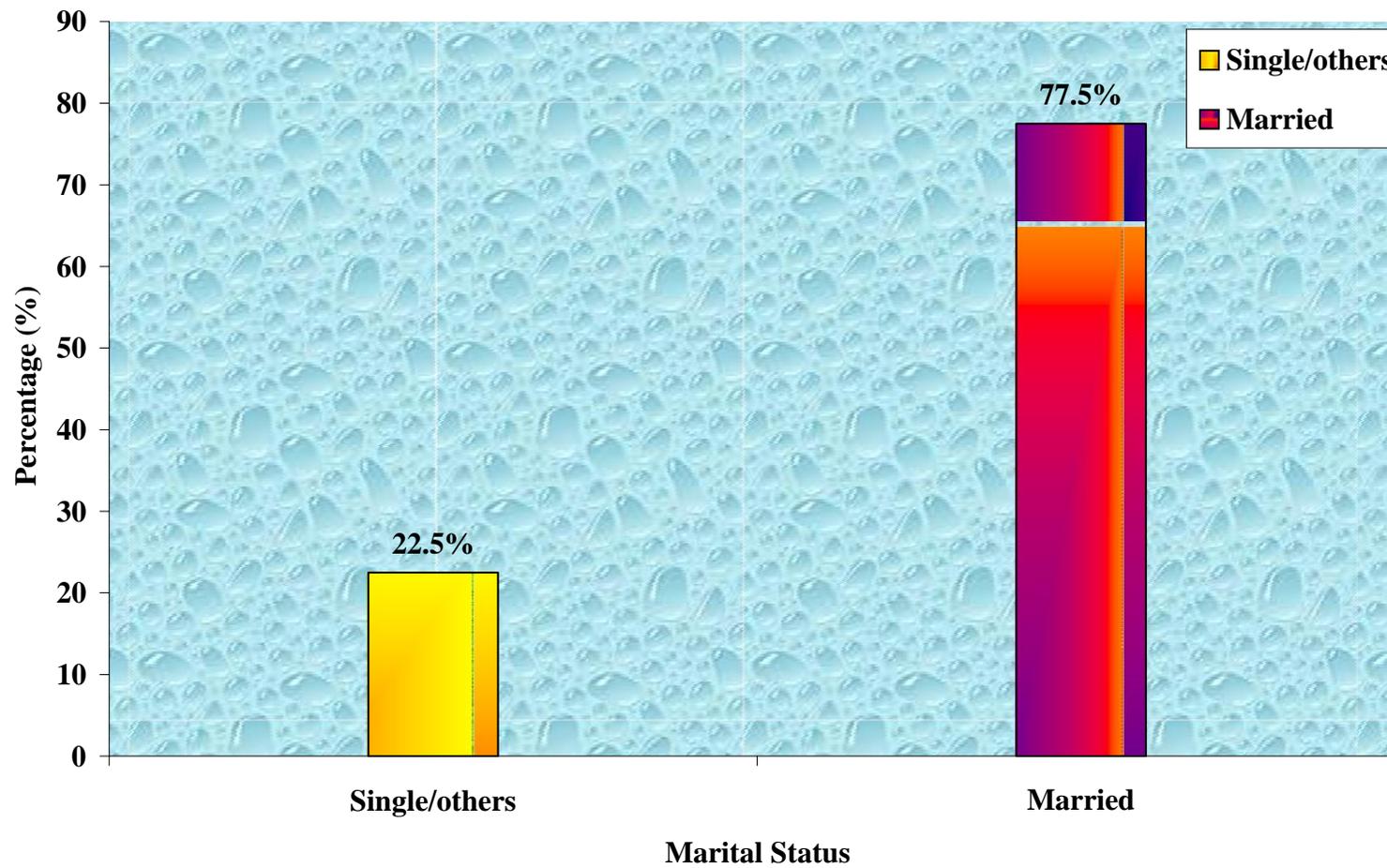


Figure 4.8 Percentage Distribution of Women with Respect to Marital Status

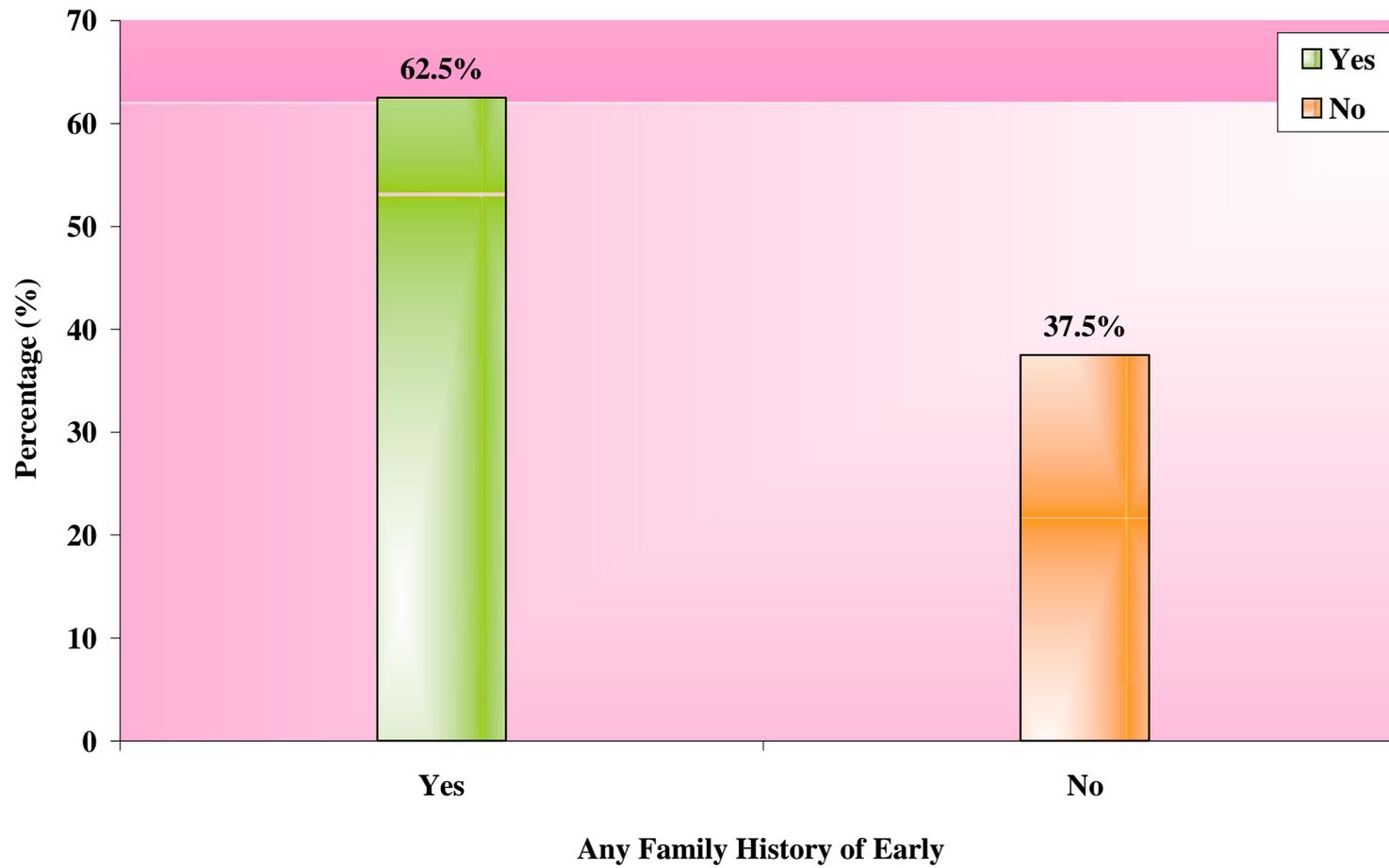


Figure 4.9 Percentage Distribution of Women with Respect to Family History of Early Menopause

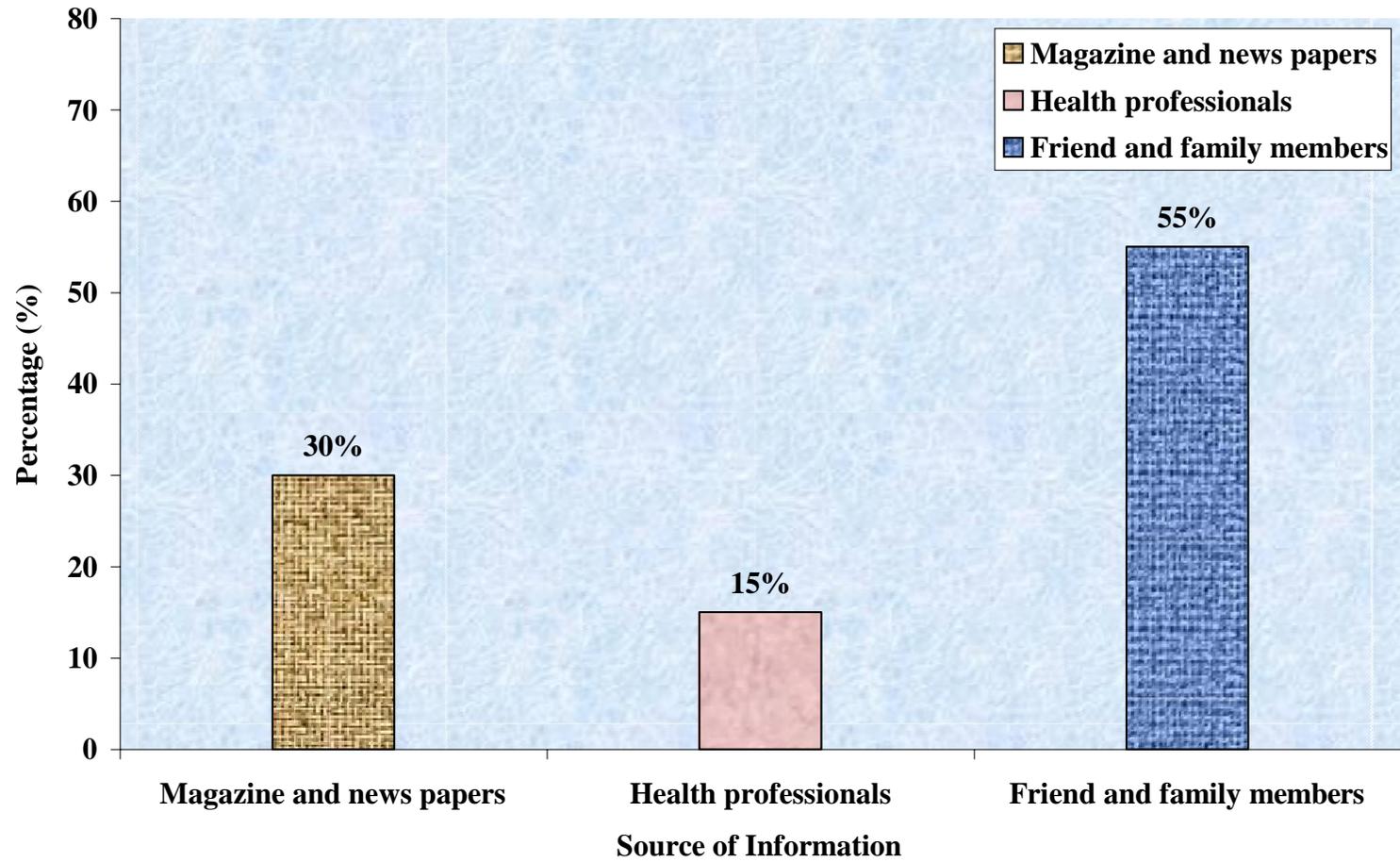


Figure 4.10 Percentage Distribution of Women with Respect to Source of Information

SECTION - II

Table 4.2 Distribution of Statistical Value of Pretest Knowledge Score
Regarding Menopause and its impact among women.

n = 40								
S. No.	Aspect of Knowledge	Max Score	Mean	Median	Mode	Range	SD	Mean %
1.	Anatomy and physiology of the uterus	6	1.05	1	0.9	2	0.49	17%
2.	General information on menopause	4	1.4	2	3.2	3	0.83	35%
3.	Causes impact and treatment of menopause	21	2.56	2	0.88	4	0.93	12%
4.	Knowledge score	31	5.05	4	1.9	5	1.46	16%

Table 4.2 shows the maximum score was obtained by the women in the aspect of anatomy and physiology of uterus with the mean percentage of 17% and a standard deviation of .49. The mean percentage obtained by the women on general information on menopause was 35% with the standard deviation of .83%. Mean percentage of causes and impact and treatment of menopause was 12 % with a standard deviation of .93 and the overall knowledge score by the women were 16% with a standard deviation of 1.46.

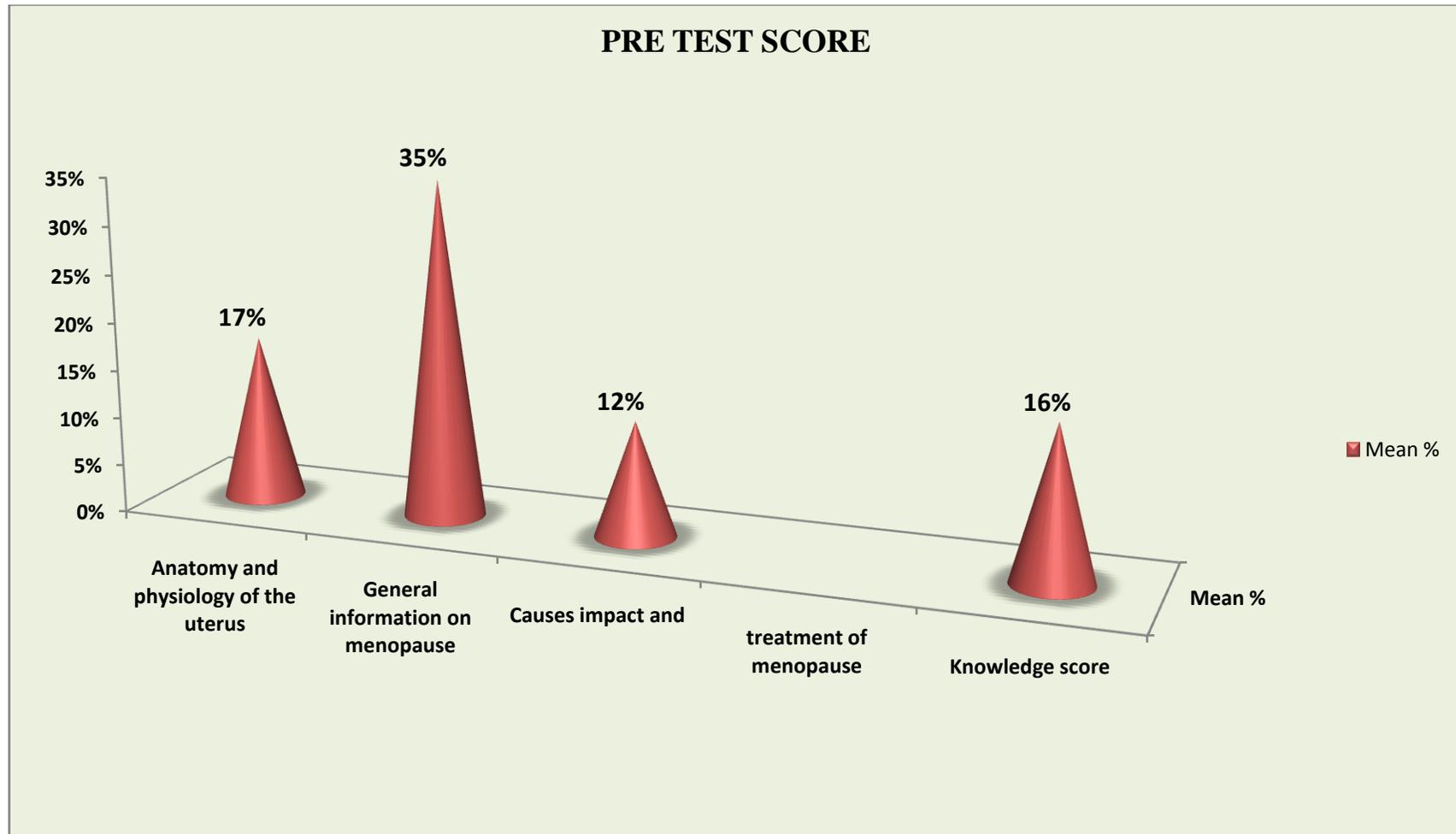


Figure 4.11 Mean Percentage of Pre Test Knowledge Score Regarding Menopause and its impact

SECTION - III

Table 4.3 Distribution of Statistical Value of Post Test Knowledge Score
Regarding Menopause and its impact among women.

n = 40								
S. No.	Aspect of Knowledge	Max Score	Mean	Median	Mode	Range	SD	Mean %
1.	Anatomy and physiology of the uterus	6	5.75	6	4.96	1	0.43	96%
2.	General information on menopause	4	3.72	4	4.56	1	0.43	93%
3.	Causes impact and treatment of menopause	21	20.75	21	21.5	1	0.078	99%
4.	Overall knowledge score	31	30.25	31	32.5	2	0.60	97%

Table 4.3 shows the maximum mean percentage on anatomy and physiology of the uterus was 96%, on general information on menopause 93%, on causes and impact of menopause was 99%. Overall knowledge score mean % is 97%. Based on the pre test knowledge score the women were categorized into the following

- Inadequate knowledge - <Mean-SD[<3.59]
- Moderate knowledge - Mean-SD to Mean +SD [3.59 -6.51]
- Adequate knowledge - >Mean +SD[>6.51]

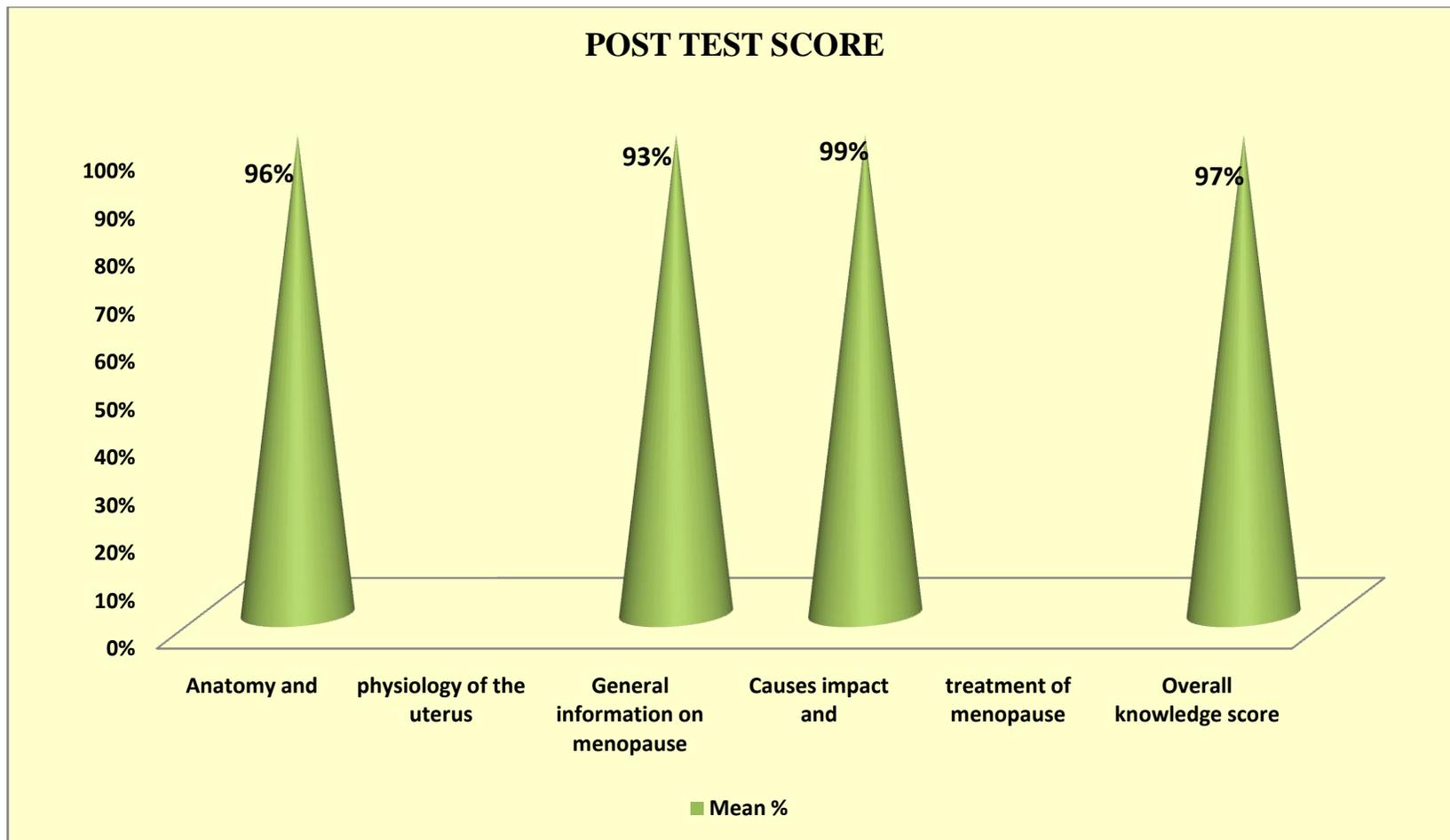


Figure 4.12 Mean Percentage of Post Test Knowledge Score Regarding Menopause and its impact

SECTION - IV

Table 4.4 comparison of pre and post test knowledge score Regarding Menopause and its impact among women.

n = 40

S. No.	Overall Score	Knowledge Inadequate		Moderate		Adequate	
		f	%	f	%	f	%
1.	Pre test	4	10%	32	80%	4	10%
2.	Post test	0	0%	0	0%	40	100%

Table 4.4 shows the depicts that 10% of women had inadequate knowledge whereas 80% of them had moderate knowledge and 20% of them had adequate knowledge in pre test which was improved to 100% in the post test score after the Self Instructional Module.

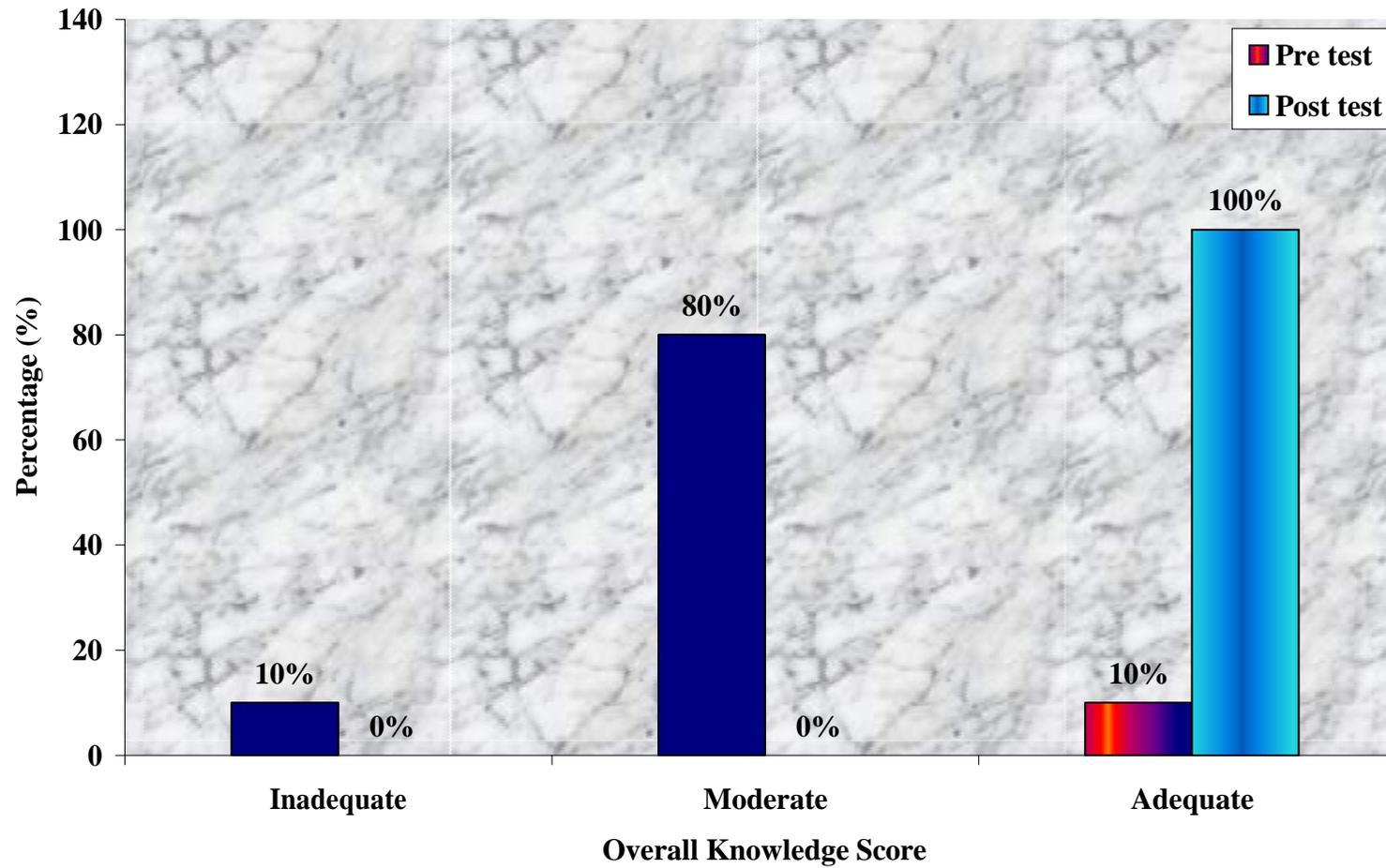


Figure 4.13 Comparison of Overall Pre and Post Test Knowledge Score Regarding Menopause and its Impact Among Women.

SECTION - V

Table 4.5 Effectiveness of Self Instructional Module on Menopause and Its Impact
Among Women.

n = 40

S. No.	Aspect of Knowledge	Pre Test			Post Test			Paired 't' test
		Mean	Mean %	SD	Mean	Mean %	SD	
1.	Anatomy and physiology of the uterus	1.05	17%	0.49	5.75	96%	0.43	13.12
2.	General information on menopause	1.4	35%	0.83	3.72	93%	0.73	10.7
3.	Causes impact and treatment of menopause	2.56	12%	0.93	20.75	99%	0.78	17.4
4.	Knowledge Score	5.05	16%	1.46	30.25	97%	0.60	22.9

(df: 40) $t(0.05) = 1.684$ (table value)

Table 4.5 shows the depicts comparison of pre and post test knowledge score regarding causes and impact of early menopause. The overall pre and post test percentage was 16% and 97% with an enhancement of 81% .The paired 't' value obtained for pre and post test knowledge in above the table value of 1.684. Hence hypothesis is accepted (H).

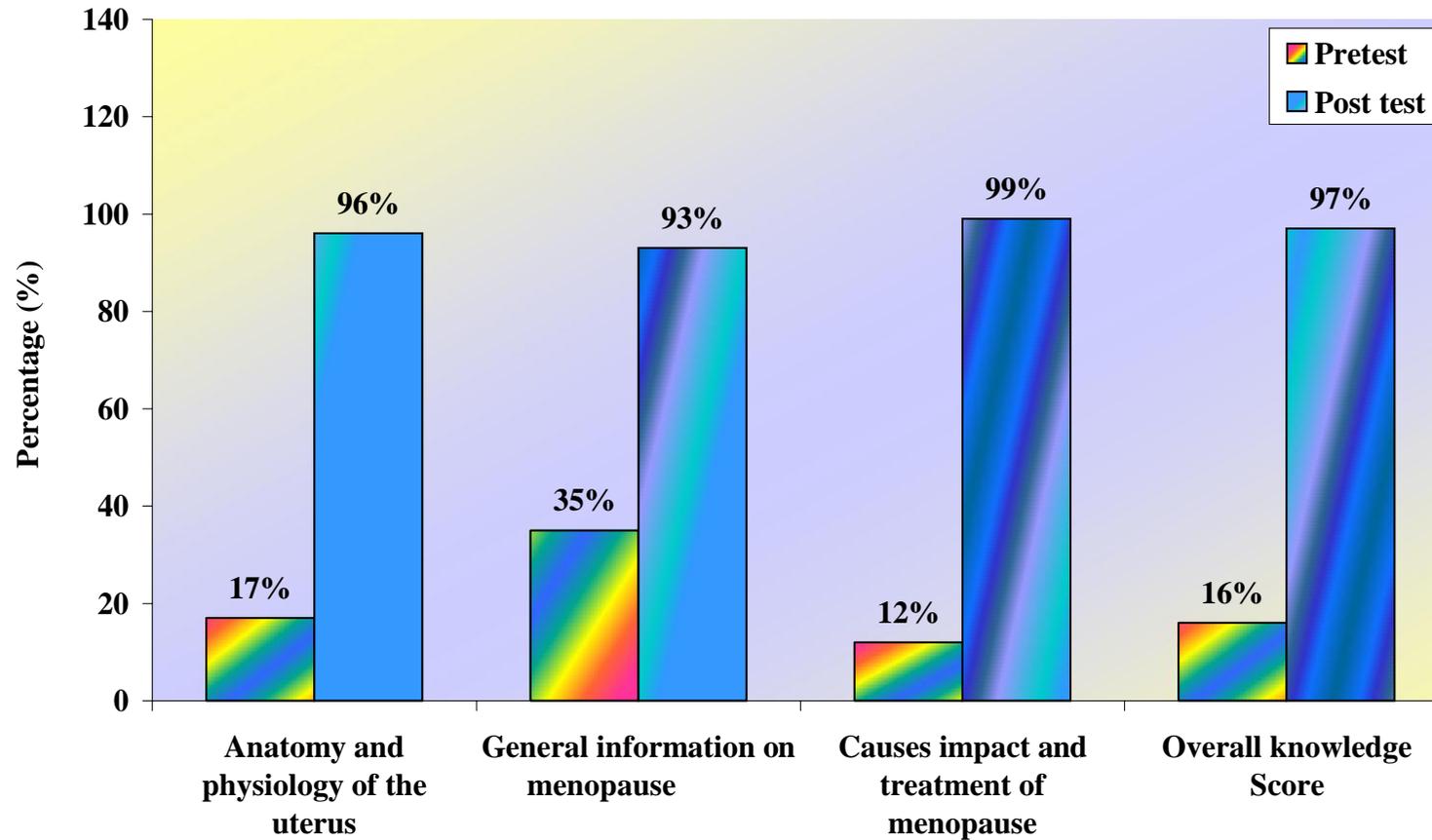


Figure 4.14 Percentage Distribution of Comparison of Aspect Wise Knowledge Score of Pre and Post Test

SECTION – VI

Table. 4.6 Association Between Knowledge Scores with Selected Demographic Variables.

(n =40)

S. No.	Demographic Variables	Inadequate	Moderate	Adequate	Chi-square	
					Cal	Table
1.	Age					
	a) 30-35years	0	6	1	2.603	9.49 (df=4)
	b) 36-40years	0	5	0		
	c) 41-45years	4	21	3		
2.	Religion					
	a) Hindu	1	25	2	10.237*	9.49 (df=4)
	d) Christian	1	4	2		
	e) Muslim	2	3	0		
3.	Educational Status					
	a) PUC	1	23	3	3.61	5.99 (df=2)
	c) Diploma	3	9	1		
4.	Occupation					
	a) Home maker	3	4	1	9.99*	9.49 (df=4)
	d) Private employee	0	8	0		
	e) Self employed	1	20	3		
5.	Marital Status					
	a)Single/others	3	5	1	6.19*	5.99 (df=2)
	c)Married	1	27	3		
6.	Any Family History of Early					
	a)Yes	3	20	2	0.532*	5.99 (df=2)
	c)No	1	12	2		
7.	Source of Information					
	a) Magazine and news papers	1	10	1	2.274	9.49 (df=4)
	d) Health professionals	0	6	0		
	e) Friend and family members	3	16	3		

* significant at 0.05 level

Table 6 shows that there exist a significant association in pre test ($\chi^2 = 9.99$, $\chi^2 = 10.23$, $\chi^2 = 6.17$) ($P < 0.05$) in the aspect of occupation, religion, marital status, hence the alternative hypothesis is accepted. However there was no significant association among other demographic variables.

CHAPTER – V

CHAPTER-V

RESULTS AND DISCUSSION

The present study was conducted to **Evaluate the effectiveness of Self Instructional Module on knowledge regarding menopause and its impact among women in selected rural area, Coimbatore.**

The study findings are discussed in this chapter based on the objectives.

In order to achieve the objective of the study Pre-experimental one group pre-test post- test design ($O_1 \times O_2$) was adopted. Non probability convenience sampling technique was used to select women. The designated population for conducting the study was women in selected rural areas. The data was collected from 40 women. The findings of the study have been discussed with specific reference to the objective, hypotheses and with related findings of supportive studies. The data is organized and presented in three sections.

Major Findings:

Demographic variables.

- Maximum number 28 (70%) of women was in the age group 41-45 years.
- Greater part of 28 (78%) of women were Hindu.
- Most of the women about 27 (67.7%) were PUC holder.
- Greater part of women 31 (77.5%) got married.
- About 24 (60%) of women were self employed.
- About 25 (62.5%) of women having the family history of early menopause.
- Most of the women 22 (55%) have got information through friends and family members.

The first objectives of the study were to assess the level of knowledge regarding menopause and its impact among women by pre -test knowledge scores.

After conducting the pretest statistical analysis was done with mean, median, mode, range, standard deviation, and mean percentage.

- Highest mean knowledge score (17%) was obtained in pre test on knowledge of anatomy and physiology of uterus. Highest mean knowledge score (96%) was obtained in post test on knowledge of anatomy and physiology of uterus.
- Highest mean knowledge score 35% was obtained in pre test on knowledge of general information on menopause. Highest mean knowledge score 93% was obtained in post test on knowledge of general information on menopause.
- Highest mean knowledge score 12% was obtained in pre test on knowledge of menopause. Highest mean knowledge score 99% was obtained in post test on knowledge of causes and impact of early menopause.

The overall post test mean knowledge score 97% was higher than overall pre test mean knowledge score 16%

- Inadequate knowledge - $< \text{Mean} - \text{SD}$ [< 3.59]
- Moderate knowledge - $\text{Mean} - \text{SD}$ to $\text{Mean} + \text{SD}$ [$3.59 - 6.51$]
- Adequate knowledge - $> \text{Mean} + \text{SD}$ [> 6.51]

The Second objective of the study was to evaluate effectiveness of self instructional module on menopause and its impact among women.

- The analysis showed that there was a noteworthy increase in knowledge of women from 17% mean percentage to 96% regarding anatomy and physiology of uterus.
- The mean percentage showed that there was an increase in knowledge of 35% to 93% on general information on menopause

- The mean percentage showed that there was an increase in knowledge of 12% to 99% on causes and impact of menopause.
- The overall mean percentage shows a vast difference from 16% to 97% with a standard deviation of 60.

The table 't' value obtained for pre and post knowledge was 22.9. This value was greater than table value. It was observed that there was a high level of significance. So the hypothesis is accepted. Hence it is evident that the Self Instructional Module was effective in improving knowledge.

A cross sectional study was conducted in 2006 in Mexico to assess the knowledge regarding signs and complications of menopause and also to investigate the effect of health education training program on quality of life of women with menopause. The data was collected from the 400 women the tool adopted for the study was structured knowledge questionnaire. The result showed that the overall knowledge score significantly improved after the education ($t=4.39$, $P<0.000$). The study showed that the knowledge of women about signs and complications of menopause were less than the level expected.

An evaluative study was conducted in 2000 at Gujarat, to evaluate the effectiveness of Self Instructional Module on knowledge regarding menopausal changes and coping among menopausal women. A sample of 50 menopausal women aged between 40-45 years was included the data was collected by structured questionnaire was used to assess the knowledge regarding menopausal changes and its coping. Result showed that there was a significant difference between the pre-test and post test knowledge score regarding menopausal changes and its coping as z value was 6.17 and p value 0.000 where $p<0.05$. Thus, the result showed that the Self Instructional Module was effective in enhancing the knowledge of menopausal women regarding menopausal changes and coping.

The Third objective of the study Association between post test knowledge score with demographic variables.

The chi square value for the demographic variables such as occupation ($\chi^2=9.99$, $P<.05$) religion ($\chi^2 =10.237$, $P<.05$)and marital status ($\chi^2=6.19$, $p<.05$)were significant at 0.05 level of significant. Hence there is significant association between religion, marital status and occupation. Other variables such as family history, educational status, and source of information were found to be non significant at 0.05 level of significance.

Overall experience of conducting this study was gratifying and enriching. The respondents of the study were happy, clarified their doubts and satisfied with the information they received. For the investigator the study gave knowledge and a new learning experience.

CHAPTER – VI

CHAPTER-VI

SUMMARY, CONCLUSION, IMPLICATIONS, LIMITATION AND RECOMMENDATIONS

This chapter presents the summary of the entire study. Around the world many women facing menopause unexpectedly in their younger age between the ages of 30-40 years, so it is need to be informed about all possible symptoms to them.

SUMMARY

The study conducted was A study to evaluate the effectiveness of Self Instructional Module on knowledge regarding menopause and its impact among women in selected rural area, Coimbatore.

The present study was aimed to achieve following objectives:

1. To assess the knowledge regarding menopause and its impact among women at selected rural area.
2. To evaluate effectiveness of self instructional module regarding menopause and its impact among women at selected rural areas.
3. To find out the Association between level of knowledge scores with demographic variables.

The present study was done based on the following assumptions

1. Women may have some knowledge regarding menopause and its impact.
2. Self Instructional Module may improve the knowledge of women regarding menopause and its impact.

The research hypothesis was stated as follows:

- H₁ : There will be a significant difference between the pre-test and post – test knowledge scores.
- H₂ : There will be a significant Association between level of knowledge with selected demographic variables.

In this study the data collection instruments used were:

Part I : Demographic variables

This questionnaire was related to the selected personal variables. It had 7 items such as age, educational status, occupation, family history of early menopause, sources of information.

Part II : Structured knowledge questionnaire regarding menopause and its impact among women.

Section A : Items on anatomy and physiology of uterus.

Section B : Items on general information on menopause.

Section C : Items on causes, impact and treatment of early menopause.

Major findings of the study are as follows:

The first objectives of the study was to assess the level of knowledge regarding menopause and its impact among women by pre -test knowledge scores.

After conducting the pretest statistical analysis was done with mean, median, mode, range, standard deviation, and mean percentage.

- Highest mean knowledge score (17%) was obtained in pre test on knowledge of anatomy and physiology of uterus. Highest mean knowledge score (96%) was obtained in post test on knowledge of anatomy and physiology of uterus.
- Highest mean knowledge score 35% was obtained in pre test on knowledge of general information on menopause. Highest mean knowledge score 93% was obtained in post test on knowledge of general information on menopause.
- Highest mean knowledge score 12% was obtained in pre test on knowledge of menopause. Highest mean knowledge score 99% was obtained in post test on knowledge of causes and impact of early menopause.

The overall post test mean knowledge score 97% was higher than overall pre test mean knowledge score 16%.

The Second objective of the study was to evaluate effectiveness of self instructional module on menopause and its impact among women.

- The analysis showed that there was a noteworthy increase in knowledge of women from 17% mean percentage to 96% regarding anatomy and physiology of Uterus.
- The mean percentage showed that there was an increase in knowledge of 35% to 93% on general information on early menopause.
- The mean percentage showed that there was an increase in knowledge of 12% to 99% on causes and impact of early menopause.

The overall mean percentage shows a vast difference from 16% to 97% with a standard deviation of 60.

The table 't' value obtained for pre and post knowledge was 22.9. This value was greater than table value. It was observed that there was a high level of significance. So the hypothesis is accepted. Hence it is evident that the Self Instructional Module was effective in improving knowledge.

A cross sectional study was conducted in 2006 in Mexico to assess the knowledge regarding signs and complications of early menopause and also to investigate the effect of health education training program on quality of life of women with menopause. The data was collected from the 400 women the tool adopted for the study was structured knowledge questionnaire. The result showed that the overall knowledge score significantly improved after the education ($t=4.39$, $P<0.000$). The study showed that the knowledge of women about signs and complications of early menopause were less than the level expected.

An evaluative study was conducted in 2000 at Gujarat, to evaluate the effectiveness of Self Instructional Module on knowledge regarding menopausal changes and coping among pre-menopausal women. A sample of 50 pre-menopausal women aged between 40-45 years was included the data was collected by structured questionnaire was used to assess the knowledge regarding menopausal changes and its coping. Result showed that there was a significant difference between the pre-test and

post test knowledge score regarding menopausal changes and its coping as z value was 6.17 and p value 0.000 where $p < 0.05$. Thus, the result showed that the Self Instructional Module was effective in enhancing the knowledge of pre menopausal women regarding menopausal changes and coping.

The Third objective of the study is to find out the association between post test knowledge score with demographic variables.

The chi square value for the demographic variables such as occupation ($\chi^2=9.99, P < .05$) religion ($\chi^2 =10.237, P < .05$) and marital status ($\chi^2=6.19, p < .05$) were significant at 0.05 level of significant.

Hence there is significant association between religion, marital status and occupation. Other variables such as family history, educational status, and source of information were found to be non significant at 0.05 level of significance.

Overall experience of conducting this study was gratifying and enriching. The respondents of the study were happy, clarified their doubts and satisfied with the information they received. For the investigator the study gave knowledge and a new learning experience.

CONCLUSION

This chapter deals with the conclusion, implications, limitations, and recommendations of the study to assess the effectiveness of Self Instructional Module on knowledge regarding menopause and its impact among women in selected rural area, Coimbatore.

The overall pre test mean percentage knowledge score was found to be 16% and the overall post test mean percentage knowledge score was obtained 97% .so there is an enhancement of 81%, which proves the effectiveness of Self Instructional Module.

IMPLICATIONS:

The findings of this study have implications in the field of Nursing education, Nursing practice, Nursing research, Nursing administration and Community health nursing.

Nursing practice:

- Traditionally nursing was considered as a close, caring relationship between nurse and patient. They gained the right to perform in technical and advanced procedures outside their scope of practice.
- Nurse provides primary, secondary and tertiary nursing care to the patient in the prevention and care of illness as well as in the promotion and maintenance of health.
- The study implies that the nurse play a pivotal role in organizing and executing health education program for the health problems of menopausal women.
- Nurse must keep in mind that while teaching and demonstrating any health practice can use models, charts and also give examples to educate women.

Nursing education:

- Nursing student should be provided with learning experiences in planning and organizing health education programme on early menopause. The findings of the study lightened a way for innovation in nursing education.
- Health educational programme can be organized by the student at different level like college, school and communities.
- Making use of power point in order to give lectures that enhance the curiosity of the student to learn and make them to be self responsible in their education.

Nursing Administration:

- Administrator has a role in developing protocols, standing orders and planning the policies for imparting information to the accessible population.
- Administrators need to organize educational programs for the women in rural areas.
- Nurse administrators can be able to take the initiative in imparting, developing and introducing some materials in the community and home by using different teaching methods.

Nursing Research:

- Research is systemic attempt to obtain answers to meaningful questions about phenomena or events through the application of scientific procedures.
- It is an objective, impartial, empirical and logical analysis and recording of controlled observations that may lead to the development of generalizations, principles or theories.
- The study findings would help to expand the scientific body of knowledge upon which further researches can be conducted.
- The large scale studies can be conducted by following various methods of research:

Community health nursing:

- Public health nursing focuses on the health of entire populations or communities and providing services to individuals and families within the context of the health of the larger community.
- The role of public health nurse are health promotion, illness prevention and health protection are the core functions of the public health nurse.
- Community health nursing services are directed to the general population with priority given to high-risk populations.

- The role of a nurse should be extended by conducting various health education programs in the community areas.
- Some health protection services apply to high-risk groups.

Limitations:

The limitations recognized in the study were:

- Sample of the study was limited to 40 women.
- Due to limitation of time, the investigator could not get feedback.
- Only a single domain that is considered in the present study.
- The study did not use any control group.

Recommendations:

On the basis of findings of the study, the following recommendations are stated:

- A similar study can be replicated on the larger sample to generalize the findings.
- The follow-up of study for a longer period for more reliability and effectiveness of the Self Instructional Module.
- The similar study can be done as a comparative study among urban and rural women.
- A study can be conducted by including additional demographic variables.
- Manuals, structured teaching program may be developed in the area of menopause and its impact.

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ANNEXURES

ANNEXURES - I

Permission Letter for Conducting Study

To

Through

The Principal,

PPG College of Nursing

Coimbatore-35.

Respected Madam,

Sub: Seeking Permission for Conducting Research Study

I am a Student of M.sc. Nursing in PPG College of Nursing. Our College is affiliated to the Tamilnadu Dr. M G.R. Medical University, Chennai. I have taken the Specialization in Medical Surgical Nursing.

Topic: A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE (SIM) ON KNOWLEDGE REGARDING MENOPAUSE AND ITS IMPACT AMONG WOMEN IN SELECTED RURAL AREA, COIMBATORE

I request you to kindly permit me to conduct my study in hospital. Hope you will consider my requisition and do the needful.

Thanking you,

Yours Truly,

Date:

Place: Coimbatore



PPG COLLEGE OF NURSING

(A Unit of P. Perichi Gounder Memorial Charitable Trust)

An ISO 9001 : 2015 Certified Institution

Affiliated to the Tamilnadu Dr. MGR Medical University, Chennai.

Recognised by Indian Nursing Council, New Delhi. (Cr. No. : 18-1183/2000 - INC. Resl. No. : 172) and
Tamilnadu Nursing Council, Chennai.



Requisition Letter for Content Validity

From

Mrs.S.Thenmozhi
M.Sc. (N) II Year
PPG College of Nursing
Coimbatore.

To

Through: Principal, PPG College of Nursing.

Respected Sir/Madam,

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

I am a student of M.sc (N) II Year, PPG College of Nursing affiliated to the Tamilnadu Dr. M.G.R Medical University, Chennai. As a partial fulfillment of the M.Sc., (N) program I am conducting

A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE(SIM) ON KNOWLEDGE REGARDING MENOPAUSE AND ITS IMPACT AMONG WOMEN IN SELECTED RURAL AREA, COIMBATORE

Here with I have enclosed the developed tool for content validity and expert opinion and possible solution. It would be very kind of you to return the same as early as possible.

Thanking You,

Yours Faithfully,

ANNEXURES - III

LIST OF EXPERTS

1. Prof. KOGILA
Vice Principal
Annai Meenakshi College of Nursing,
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ANNEXURES - IV

CERTIFICATE FOR CONTENT VALIDITY

This is to certify that the tool constructed by Mrs.S.Thenmozhi M.Sc. Nursing II Year, College of Nursing, PPG College which is to be used in her study titled **“A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE(SIM) ON KNOWLEDGE REGARDING MENOPAUSE AND ITS IMPACT AMONG WOMEN IN SELECTED RURAL AREA, COIMBATORE.”** has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

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CHAPTER-I INTRODUCTION Woman is a precious creature of God. She has many roles in the society to perform being a daughter, sister, wife and a mother. In order to perform these functions effectively her health needs has to be taken care and requires more attention. When women have been tired, family function would be altered. Women are facing lot of problems through their life.

One of most common problem they are facing is menopause and hormonal changes during their middle adulthood. Reproductive stage begins from menarche till menopause. Menstruation is an outward proof that a girl is becoming a woman. In women, the fertile period starts at the menarche and ends with the menopause. As a girl matures and enters puberty, the pituitary gland releases hormones that stimulate the ovaries to produce hormones called estrogen and progesterone.

These hormones have many effects on a girl's body, including physical maturation, growth, and emotions. About once a month, a tiny egg leaves one of the ovaries that process called ovulation and travels down to the one of the fallopian tubes toward the uterus. In the days before ovulation, the hormone estrogen stimulates the uterus to build up its lining with extra blood and tissue, making the walls of the uterus thick and cushioned. This happens to prepare the uterus for pregnancy.

If the egg is fertilized by a sperm cell, it travels to the uterus and attaches to the cushiony wall of the uterus, where it slowly develops into a baby. If the egg are not fertilized with egg women will be getting monthly cycles, when this happens the uterus sheds the extra tissue lining, blood, and unfertilized egg that leave the uterus, going through the vagina on the way out of the body. Menopause is the time in a women's life when menstruation ceases.

ANNEXURES - V

PART - 1

DEMOGRAPHIC VARIABLES

Sample no:-----

Introduction

Read every statement carefully and indicate the response that you choose by placing a tick in the appropriate space given.

1. Age in years _____

2. Religion

- a. Hindu
- b. Christian
- c. Muslim
- d. Others

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

3. Educational status

- a. Primary education
- b. Secondary education
- c. PUC
- d. Diploma
- e. Graduation or above

<input type="checkbox"/>

4. Occupation

- a. Home maker
- b. Govt. employee
- c. Private employee
- d. Self employed

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

5. Marital status

- a. Single
- b. married
- c. Widow
- d. Divorced/separated

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

6. Any family history of early menopause ?

a. Yes

b. No

7. Source of information regarding early menopause ?

a. Magazines and news papers

b. Health professional

c. Friends and Family members

d. Electronic mass media

e. No information

PART -2

INSTRUCTIONS:

Kindly read the following question and mention the correct option in the box.
Kindly respond to all the questions.

SECTION A

ITEMS ON ANATOMY AND PHYSIOLOGY OF FEMALE REPRODUCTIVE SYSTEM.

1. Which system is responsible for conception?
 - a. Respiratory system
 - b. Reproductive system
 - c. Digestive system
 - d. Nervous system

2. Which are the parts of female reproductive system?
 - a. Stomach, small intestine & large intestine
 - b. Kidney, bladder & ureter
 - c. Uterus, cervix & vagina
 - d. Brain, skull & spinal cord

3. Which is the major female sex organs that produce ova or egg?
 - a. Ovary
 - b. Fallopian tube
 - c. Cervix
 - d. Vagina

4. What is the term for the onset of menstrual cycle ?
 - a. Dysmenorrhea
 - b. Menopause
 - c. Menarche
 - d. Amenorrhea

5. What is the terminology for complete cessation of menstruation?
 - a. Dysmenorrhea
 - b. Menopause
 - c. Menarche
 - d. Amenorrhea

6. What is the average age of menopause?

- a. 35-45 years of age
- b. 45-55 years of age
- c. 55 -65 years of age
- d. 65-75years of age

SECTION B

ITEMS ON GENERAL INFORMATION ON MENOPAUSE.

7. What is early menopause ?

- a. Cessation of menstruation before 45 yrs
- b. Cessation of menstruation after 55 yrs
- c. Cessation of menstruation between 45 -55 yrs
- d. Cessation of menstruation between 55-60 yrs

8. Which one of the following is not an investigation to detect menopause?

- a. Pap smear
- b. Trans Vaginal Ultrasound
- c. Blood test
- d. Digital examination

9. What are the common signs and symptoms of menopause?

- a. Hot flush
- b. Vaginal dryness
- c. Mood swing
- d. All of the above

10. When a women is considered to be in menopause after she has missed how many menstrual cycle?

- a. 3
- b. 12
- c. 9
- d. 6

SECTION -C

ITEMS ON CAUSES, IMPACT AND TREATMENT OF MENOPAUSE.

11. Which one of the following is the most possible cause of menopause ?

- a. Smoking
- b. Hysterectomy
- c. Family history
- d. All of the above

12. Which one of the following is not an impact of menopause?

- a. Heart disease
- b. Osteoporosis
- c. Stroke
- d. Renal failure

13. Why heart disease associated with menopause?

- a. Decreased estrogen
- b. Increased cholesterol
- c. Decreased blood count
- d. Increased estrogen

14. What is osteoporosis ?

- a. Weakening of body
- b. Weakening of bone
- c. Weakening of muscles
- d. Weakening of ligaments

15. What is the typical weight change associated with menopause?

- a. Weight loss from all over the body
- b. Weight loss of fluids usually in extremities
- c. Weight gain of body fat particularly around the abdomen
- d. Weight gain of body fat usually in face

16. When there is a drop in female hormone can increase the risk of certain health problems what are they?

- a. Renal failure and heart failure
- b. Liver disease and lung disease
- c. Peptic ulcer and duodenal ulcer
- d. Osteoporosis & heart disease

17. What is the preventive measure of menopause?

- a. Surgery
- b. Chemotherapy
- c. Life style modification
- d. Hormone replacement therapy

18. Which of these medication are used to minimize some negative effects of early menopause?

- a. Calcium tablets
- b. Estrogen tablets
- c. Iron tablets
- d. Sea cod tablets

19. Which one of the following is consider as the natural source of estrogen content?

- a. Wild yam
- b. Elephant yam
- c. Potato
- d. Tapioca

20. What is the impact of estrogen deficiency?

- a. Deep vein thrombosis
- b. Skin diseases
- c. Osteoporosis
- d. Diabetes mellitus

21. Which one of the following is a good source of vitamin D?

- a. Fruits
- b. Dairy products
- c. Green leafy vegetables
- d. Sunlight

22. What is the medical management for early menopause?

- a. Hormonal replacement therapy
- b. Herbal therapy
- c. Chemotherapy
- d. Multi vitamin therapy

23. Which vitamin helps to maintain skin integrity for the menopausal women?

- a. Vitamin A
- b. Vitamin B
- c. Vitamin C
- d. Vitamin D

24. Which is the most widely used technique adopted to manage stress for menopausal woman ?

- a. Aroma therapy
- b. Yoga
- c. Art therapy
- d. Nutritional therapy

25. Which is the richest natural sources of Vitamin A

- a. Fish liver oil
- b. Green leafy vegetables
- c. Fruits
- d. Dairy products

26. Which is the most important life style modification to reduce the occurrence of early menopause?

- a. Reduce exposure to dust
- b. Reduce exposure to extreme hot
- c. Reduce conception of coffee
- d. Reduce smoking and alcohol intake

27. Which exercises can reduce the risk of hot flush ?

- a. Leg movement exercise
- b. Coughing exercise
- c. Controlled Deep breathing exercise
- d. Pelvic floor exercise

28. Which among the following supplements keep the bone healthy ?

- a. Vitamin
- b. Protein
- c. Fat
- d. Calcium

29. Which vitamin is consider as stress fighter help to deal with emotional symptoms?

- a. Vitamin A
- b. Vitamin B
- c. Vitamin D
- d. Vitamin C

30. What is the daily recommended intake of calcium for reducing the risk of osteoporosis ?

- a. 1000 mg
- b. 800mg
- c. 500mg
- d. 250mg

31. What is the use of hormone replacement therapy for menopausal women?

- a. Help in digestion
- b. Helps in strengthening of bone
- c. Help in elimination
- d. Helps in respiration

ANSWER KEY

Question Nos	Correct Response
1.	b
2.	c
3.	a
4.	c
5.	b
6.	b
7.	a
8.	a
9.	d
10.	b
11.	c
12.	d
13.	a
14.	b
15.	c
16.	d
17.	c
18.	b
19.	a
20.	c
21.	d

Question Nos	Correct Response
22.	a
23.	a
24.	b
25.	a
26.	d
27.	c
28.	d
29.	b
30.	a
31.	b

பகுதி 1

மக்கள்தொகைமாறிலிகளின்முறையானநேர்காணல்படிவம்

கீழ்க்கண்ட வினாக்களுக்கு ஏதேனும் ஒன்றை மட்டும் குறியிடுக:

1. வயது

2. மதம்

அ. இந்து மதம்

ஆ. கிரிஸ்துவர்

இ. முஸ்லீம்

ஈ. மற்றவர்கள்

3. கல்வி நிலை

அ. முதல்நிலை கல்வி

ஆ. இரண்டாம் நிலை கல்வி

இ. PUC

ஈ. டிப்ளமோபட்டதாரி அல்லது அதற்கு மேல்

4. தொழில்

அ. முகப்பு தயாரிப்பாளர்

ஆ. அரசாங்க ஊழியர்

இ. தனியார் ஊழியர்

ஈ. சுயதொழில்

5. திருமண நிலை

அ. ஒற்றை

ஆ. திருமணம்

இ. விதவை

ஈ. விவாகரத்து / பிரிக்கப்பட்ட

6. மாதவிடாயின்தொடர்பானகுடும்ப வரலாறும?

அ. ஆம்

ஆ. இல்லை

7. மாதவிடாய் தொடர்பான தகவலின் ஆதாரம்?

அ. இதழ்கள்மற்றும் செய்தித் தாள்கள்

ஆ. உடல்நலம் தொழில்முறை

இ. நண்பர்கள் மற்றும் குடும்ப உறுப்பினர்கள்

ஈ. மின்னணு வெகுஜன ஊடகம்

உ. தகவல் இல்லை

பகுதி 2

பிரிவு அ

உடற்கூற்றியல் மற்றும் பெண் மறுபிரவேசம் அமைப்பு குறித்த
உளவியல் பற்றிய தகவல்கள்.

1. கருத்துருவுக்கு பொறுப்பான அமைப்பு எது?

அ. சுவாச அமைப்பு

ஆ. இனப்பெருக்க அமைப்பு

இ. செரிமான அமைப்பு

ஈ. நரம்பு மண்டலம்

2. பெண் இனப்பெருக்க அமைப்பின் பாகங்கள் யாவை?

அ. வயிறு, சிறு குடல் மற்றும் பெரிய குடல்

ஆ. சிறுநீரகம், நீர்ப்பை & சிறுநீர்

இ. கருப்பை, கருப்பை வாய் & யோனி

ஈ. மூளை, மண்டை மற்றும் முள்ளந்தண்டு வடம்

3. ஆவா அல்லது முட்டை உற்பத்தி செய்யும் முக்கிய பெண் பாலியல்
உறுப்புகள் எது?

அ. கருப்பை

ஆ. கருமுட்டை குழாய்

இ. கருப்பை வாய்

ஈ. வாகினா

4. மாதவிடாய் சுழற்சியின் ஆரம்பம் என்ன?

அ. மாதவிடாய் நிறுத்தம்

ஆ. மாதவிடாய்

இ. பூப்பூ

ஈ. மாதவிலக்கின்மை

5. மாதவிடாய் முழுமையான நிறுத்தத்திற்கான சொல் என்ன?

அ. சூதகவலி

ஆ. மாதவிடாய்

இ. பூப்பூ

ஈ.மாதவிலக்கின்மையாகவும்

6. மாதவிடாய் சராசரி வயது என்ன?

அ. 35-45 வயது

ஆ. 45-55 வயது

இ. 55 -65 வயது

ஈ. 65-75 வயது

பிரிவு ஆ

மாதவிடாயின் பொது தகவல் பற்றிய தகவல்.

7. ஆரம்பகால மாதவிடாய் என்ன?

அ. 45 மாதங்களுக்கு முன் மாதவிடாய் நிறுத்தம்

ஆ. 55 ஆண்டுகளுக்குப் பிறகு மாதவிடாய் நிறுத்தப்படுதல்

இ. 45-55 வயதுக்கு இடையில் மாதவிடாய் நிறுத்தம்

ஈ. 55-60 வயதிற்குள் மாதவிடாய் நிறுத்தம்

8. மாதவிடாய் கண்டறிவதற்கு கீழ்க்கண்டவற்றில் எது ஒரு

விசாரணை அல்ல?

அ. அபாப் ஸ்மியர்

ஆ. டிரான்ஸ் வெஜினல் அல்ட்ராசவுண்ட்

இ. இரத்த சோதனை

ஈ. டிஜிட்டல் பரிசோதனை

9. மாதவிடாய் பொதுவான அறிகுறிகளும் அறிகுறிகளும் யாவை?
- அ.ஹாட் ஃப்ளஷ்
- ஆ.யோனி வறட்சி
- இ.மூட் ஸ்விங்
- ஈ.மேலே உள்ள அனைத்து
10. எத்தனை மாதவிடாய் சுழற்சியை இழந்தபிறகு ஒரு பெண் முன்கூட்டியே மாதவிடாய் நிலையில் இருக்கும்போது?
- அ. 3
- ஆ. 12
- இ. 9
- ஈ. 6

பிரிவு இ

இக்கட்டான சூழ்நிலைகள், மாதவிடாயின் தாக்கம் மற்றும் சிகிச்சை.

11. மாதவிடாயின் மிக முக்கிய காரணியாக இது ஒன்றாகும்?
- அ. புகை
- ஆ. கருப்பை நீக்கம்
- இ. குடும்ப வரலாறு
- ஈ. மேலே உள்ள அனைத்து
12. மாதவிடாயின் தாக்கம் இது ஒன்றல்ல.
- அ. இருதய நோய்
- ஆ. எலும்புப்புரை
- இ. ஸ்ட்ரோக்
- ஈ. சிறுநீரக செயலிழப்பு

13. ஆரம்பகால மாதவிடாயுடன் இதய நோய் ஏன் தொடர்புடையது?
- அ. ஈஸ்ட்ரோஜன் குறைவு
 - ஆ. அதிகரித்த கொழுப்பு
 - இ. இரத்தம் குறைவு
 - ஈ. அதிகமான ஈஸ்ட்ரோஜன்
14. எலும்புப்புரை என்றால் என்ன?
- அ. உடல் பலவீனமாக
 - ஆ. எலும்பின் பலவீனத்தை
 - இ. தசைகள் பலவீனப்படுத்தி
 - ஈ. தசைநார்கள் பலவீனப்படுத்தி
15. முன்கூட்டியே மாதவிடாய் தொடர்புடைய வழக்கமான எடை என்ன?
- அ. உடல் முழுவதும் எடை இழப்பு
 - ஆ. வழக்கமாக நீள்வட்டங்களில் திரவங்களின் எடை இழப்பு
 - இ. குறிப்பாக வயிறு முழுவதும் உடல் கொழுப்பு எடை அதிகரிப்பு
 - ஈ. பொதுவாக முகத்தில் உடல் கொழுப்பு எடை அதிகரிப்பு
16. பெண் ஹார்மோன் ஒரு துளி போது சில சுகாதார பிரச்சினைகள் ஆபத்து அதிகரிக்க முடியும் என்ன அவர்கள்?
- அ. சிறுநீரக செயலிழப்பு மற்றும் இதய செயலிழப்பு
 - ஆ. கல்லீரல் நோய் மற்றும் நுரையீரல் நோய்
 - இ. பெப்ட்டிக் புண் மற்றும் சிறுகுடல் புண்
 - ஈ. எலும்புப்புரை மற்றும் இதய நோய்
17. ஆரம்பகால மாதவிடாயின் தடுப்பு நடவடிக்கை என்ன?
- அ. அறுவை சிகிச்சை
 - ஆ. கீமோதெரபி
 - இ. வாழ்க்கை பாணி மாற்றம்
 - ஈ. ஹார்மோன் மாற்று சிகிச்சை

18. மாதவிடாயின் சில எதிர்மறை விளைவுகளை குறைக்க இந்த மருந்துகளில் எது பயன்படுத்தப்படுகிறது?

- அ. கால்சியம் மாத்திரைகள்
- ஆ. ஈஸ்ட்ரோஜன் மாத்திரைகள்
- இ. இரும்பு மாத்திரைகள்
- ஈ. கடல் முரட்டு மாத்திரைகள்

19. ஈஸ்ட்ரோஜன் உள்ளடக்கத்தின் இயற்கையான ஆதாரமாகக் கருதப்படுகிற ஒன்று எது?

- அ.காட்டுயம்
- ஆ.யானையம்
- இ.உருளைக்கிழங்கு
- ஈ.மரவள்ளிக்கிழங்கு

20. ஈஸ்ட்ரோஜன் குறைபாடு என்ன?

- அ. ஆழமான நரம்பு இரத்த அழுத்தம்
- ஆ. தோல் நோய்கள்
- இ. எலும்புப்புரை
- ஈ. நீரிழிவு நோய்

21. வைட்டமின் டி யின் ஆதாரமாக உள்ள பின்வரும் எது?

- அ. பழங்கள்
- ஆ. பால் பொருட்கள்
- இ. பச்சை இலை காய்கறிகள்
- ஈ. சூரிய ஒளி

22. மாதவிடாய்க்கு மருத்துவ முகாமைத்துவம் என்ன?

- அ. ஹார்மோன் மாற்று சிகிச்சை
- ஆ. மூலிகை சிகிச்சை
- இ. கீமோதெரபி
- ஈ. பல ட்டமின் சிகிச்சை

23. மாதவிடாய் நின்ற பெண்களுக்கு தோல் வைத்தியத்தை பராமரிக்க எந்த வைட்டமின் உதவுகிறது?
- அ. வைட்டமின் ஏ
- ஆ. வைட்டமின் பி
- இ. வைட்டமின் சி
- ஈ. வைட்டமின் டி
24. மாதவிடாய் நின்ற பெண் மன அழுத்தத்தை நிர்வகிக்க மிகவும் பரவலாக பயன்படுத்தப்படும் நுட்பம் எது?
- அ. வாசனை சிகிச்சை
- ஆ. யோகா
- இ. கலை சிகிச்சை
- ஈ. ஊட்டச்சத்து சிகிச்சை
25. வைட்டமின் ஏவின் மிகச் சிறந்த இயற்கை ஆதாரங்கள் எது?
- அ. மீன் கல்லீரல் எண்ணெய்
- ஆ. பச்சை இலை காய்கறிகள்
- இ. பழங்கள்
- ஈ. பால் பொருட்கள்
26. மாதவிடாய் ஏற்படுவதைக் குறைக்கும் மிக முக்கியமான வாழ்க்கை பாணி மாற்றம் எது?
- அ. தூசி வெளிப்பாடு குறைக்க
- ஆ. தீவிர சூடான வெளிப்பாடு குறைக்க
- இ. காபியைக் கருத்தில் கொள்ளுங்கள்
- ஈ. புகைத்தல் மற்றும் மது உட்கொள்ளல் குறைக்க
27. எந்த பயிற்சிகள் சூடான பறிப்பு ஆபத்தைக் குறைக்கலாம்?
- அ. லெக் இயக்கம் உடற்பயிற்சி
- ஆ. இருமல் உடற்பயிற்சி
- இ. கட்டுப்படுத்தப்படும் டிப் சுவாச பயிற்சிகள்
- ஈ. இடுப்பு மண்டலம் உடற்பயிற்சி

28. கீழ்காணும் கூடுதல் மருந்துகளில் எலும்புகள் ஆரோக்கியமானவை.

அ.வைட்டமின்

ஆ.புரத

இ.கொழுப்பு

ஈ.கால்சியம்

29. உணர்ச்சி அறிகுறிகளை சமாளிக்க மன அழுத்த மன உளைச்சலால் எந்த வைட்டமின் கருதுகிறது?

அ.வைட்டமின் ஏ

ஆ.வைட்டமின் பி

இ.வைட்டமின் டி

ஈ.வைட்டமின் சி

30. ஆஸ்டியோபோரோசிஸ் அபாயத்தை குறைப்பதற்காக கால்சியம் தினசரி பரிந்துரைக்கப்பட்ட உட்கொள்ளல் என்றால் என்ன?

அ. 1000mg

ஆ. 800mg

இ. 500mg

ஈ. 250mg

31. மாதவிடாய் நின்ற பெண்களுக்கு ஹார்மோன் மாற்று சிகிச்சையின் பயன்பாடு என்ன?

அ. செரிமானத்தில் உதவுங்கள்

ஆ. எலும்பு வலுவூட்டுவதில் உதவுகிறது

இ. நீக்குவதில் உதவி

ஈ. சுவாசத்தில் உதவுகிறது

விடைக்குறிப்பு

கேள்வி எண்	சரியான பதில்
1.	ஆ
2.	இ
3.	அ
4.	இ
5.	ஆ
6.	ஆ
7.	அ
8.	அ
9.	ஈ
10.	ஆ
11.	இ
12.	ஈ
13.	அ
14.	ஆ
15.	இ
16.	ஈ
17.	இ
18.	ஆ
19.	அ
20.	இ
21.	ஈ

கேள்வி எண்	சரி பதில்
22.	அ
23.	அ
24.	ஆ
25.	அ
26.	ஈ
27.	இ
28.	ஈ
29.	ஆ
30.	அ
31.	ஆ

ANNEXURE - VI
PROTOCOL
SELF INSTRUCTIONAL MODULE
ON MENOPAUSE AND ITS IMPACT

CONTENT
SELF INSTRUCTIONAL MODULE

- Unit-1 : Anatomy and physiology of female reproductive system
- Unit-2 : Definition, risk factors, signs and symptoms, diagnostic evaluation
- Unit-3 : Causes, impact and treatment of menopause

OBJECTIVES OF SELF INSTRUCTIONAL MODULE

General objective:

After reading and understanding self instructional module, the women's will get adequate knowledge on causes and impact of early menopause.

Specific objectives:

The women's will be able to explain the

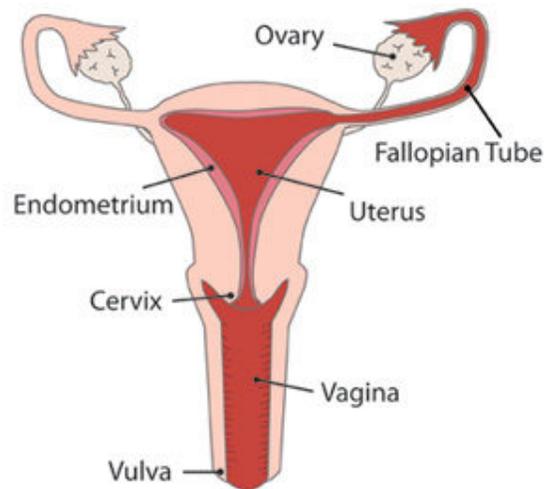
1. Explain about female reproductive system
2. Explain the definition of menopause
3. List of the symptoms of menopause
4. Mention the Risk factors of menopause
5. Discuss the diagnostic evaluation of early menopause
6. Explain the causes of menopause
7. Discuss the impact of menopause
8. List the treatment of menopause

UNIT-1

ANATOMY AND PHYSIOLOGY OF FEMALE REPRODUCTIVE SYSTEM

INTRODUCTION

The female reproductive system consist of uterus, cervix, vagina, ovary, fallopian tube, breast. The major function of female reproductive system is to ensure the production of offspring. The uterus is one of the reproductive organ is that ovary is one of the major sex organ that produces ova. It is situated in the pelvic cavity. The lining of the uterus is called endometrium. Each month the endometrium grow thicker to prepare pregnancy. If the women does not become pregnant, the top layers of endometrium with bloodshed. The onset of first menstruation in life is called menarche. The permanent cessation of menstruation at the end of reproductive life due to loss of ovarian follicular activity, It is the point of time when last and final menstruation occurs called as menopause.



UNIT-2

DEFINITION, RISK FACTORS, SIGNS AND SYMPTOMS, DIAGNOSTIC EVALUATION

WHAT IS EARLY MENOPAUSE?

Menopause is the final ceasing of menstruation occur prior to the age of 45. This may happen spontaneously, it may be the result of disease, surgical removal of ovaries, hysterectomy, chemotherapy or radiation.

WHAT ARE THE RISK MENOPAUSE?

Risk factors	Comments
Family history	Risk increased up to 12-fold
Smoking	Increased risk
Poor response to ovarian stimulation in assisted reproduction	Increased risk
Epilepsy	Increased risk
Increased BMI Early menarche Irregular menstrual Cycle/cycle length Decreased parity/nulliparity Low education status Previous breast feeding history Marital status	These variable as risk factors

WHAT ARE THE COMMON SIGNS AND SYMPTOMS?

- Hot flushes
- Vaginal dryness
- Bladder irritability
- Irregular/missed periods
- Mood swings
- Dry skin, eyes, or mouth

- Insomnia
- Decreased libido
- Anxiety
- Depression
- Stress
- Sleeplessness
- Palpitation
- Psychological symptoms-irritability, depression, mood changes
- Memory and concentration difficult

WHAT ARE THE DIAGNOSTIC METHODS TO MENOPAUSE?

- Physical examination
- Blood test: to measure estradiol levels. Low level of estradiol indicates that ovaries are starting to fail. When estradiol levels are below 30, it indicates that women who are in early menopause
- Blood test can measure follicle stimulating hormone (FSH). FSH causes ovaries to produce estrogen. When the ovaries slow down their production of estrogen, levels of FSH increase. When FSH rise above 40 mIU/mL, it usually indicates that women who are in early menopause.
- Transvaginal ultrasound for assessing ovarian function

UNIT-3

CAUSES, IMPACT AND TREATMENT OF MENOPAUSE

WHAT ARE THE CAUSES FOR EARLY MENOPAUSE?

- **Unknown causes:** In vast majority of cases causes is unknown
- **Socioeconomic status:** Lower educational attainment and non non-employment or socioeconomic status, lower economic status of the women and her husband independently associated with earlier age of menopause. Social and physical stress and also associated with amenorrhea and reproductive dysfunction
- **Chemotherapy:** The risk of medically induced early menopause increase in who are 35 years old or older when they undergo chemotherapy drugs used are all risk factors. Higher does chemotherapy for a longer period of treatment, is more likely causes early onset of menopause. Chemotherapy and radiation therapies combined also increase the likelihood of medically induced early menopause.
- **Tamoxifen:** Tamoxifen used to be prescribed for breast cancer would run a risk for early menopause as a side effort.
- **Infection:** Infection also linked with early menopause. Infection such as the mumps and tuberculosis can infect the ovaries, affected the hormonal balance.
- **Stress:** Stress is also associated with early menopause its play an important role in severity and frequency of symptoms.
- **Family history:** family history of early menopause are more likely to be associated with early menopause.
- **Smoking:** smoking is associated with early age at natural menopause. Women who smoke stop menstruating 1-2 years earlier than comparable nonsmokers, heavy smoker have an earlier menopause than light smokers.

- **Heart disease:** Women who had heart disease were significantly younger at natural menopause have increased risk of morbidity and mortality.
- **Marital status and parity:** Separated, divorced, widowed women had an earlier menopause caused by premature ovarian failure.
- **Diminished ovarian Reserve:** This condition is a precursor to early menopause caused by premature ovarian failure.
- **Viral infection:** Viral infection like mumps cytomegalo virus could trigger early menopause.
- **Chromosomal defects:** Problem in the chromosomal can causes early menopause.
- **Autoimmune disease:** The body's immune system, which normally fight off disease, may mistakenly attack the ovaries and prevent them from making hormones. Thyroid disease and arthritis are two disease that can cause this to happen.
- **Surgery to remove the ovaries:** Surgical removal of both ovaries are called bilateral oophorectomy causes menopause in early. A women's periods will stop after this surgery, and her hormones drop quickly, immediately have strong menopausal symptoms, like hot flashes and diminished sexual desire.
- **Surgery to remove the uterus:** A hysterectomy, or the surgery to remove a women's uterus, is a common procedure used to treat many condition, including gynecological cancer, fibroids and endometriosis they no longer have their periods could causes early menopause.
- **Surgery to remove fallobian tubes:** Salphingectomy causes early menopause Hormone and egg production in dramatically interrupted leading to the onset of early or premature menopause.

WHAT ARE THE IMPACTS?

- **Heart disease:** When estrogen levels drop as a result of early menopause cause increased risk of heart disease and stroke. A women's undergo early menopause may have higher risk of developing one of the conditions than an older women.
- **Osteoporosis:** Osteoporosis refers to weakening of bones. When there is a drop of estrogen increase the risk of osteoporosis. Women will be experiencing 3-5% of bone loss annually for first five years.
- **Gum disease and Tooth disease:** Estrogen deficiency causes an increased risk of osteoporosis can also lead to reduced bone mineral density in the alveolar bone. Alveolar bone helps to hold teeth in place. If this bone become weak or other bones in the mouth are not as strong due to reduced levels of estrogen in the body, women are more likely to lose teeth or suffer from periodontal (gum) disease. This increased risk of gum disease is present in all menopausal women, but is worse in women who go through menopause early.
- **Infertility:** Early menopause almost universally causes infertility, because ovulation is no longer occurring resulting infertility.
- **Weight gain :** Women at early menopause often experience weight gain, particularly around the abdomen. This is due to declining oestrogen levels, changes in metabolism, age related loss of muscle tissue and life style factors, such as the quality and quantity of food eaten and lack of exercise and activity.

WHAT ARE THE TREATMENT APPROCHES FOR EARLY MENOPAUSE?

- **Lifestyle Changes**
- **Stress Management:** Stress has a negative effect on women's body. Some techniques to manage stress are yoga, medication, visualization, aromatherapy etc. Yoga is the best one for reducing the stress and also promoting better blood circulation and oxygenation to all cells and tissues. This helps optimize the function of the endocrine glands and organs of the female reproductive tract.

- **Emotional Support:** Moods and emotions are also affected. Friends and family support are important, especially for young women.
- **Balanced Diet:** A healthy diet rich in vitamins is recommended for women.
- **Exercise Regularly:** Exercise provides muscles with the elasticity, Exercise increase estrogen levels, which can decrease the severity of hot flashes. Strength training and impact activities (like walking and running) can help strength the bones and prevent osteoporosis. Controlled deep rhythmic breathing know as paced respiration, practiced twins daily decreases hot flashes. This breathing technique involves taking a slow, deep breath, holding it for a few seconds, and exhaling just as slowly.
- **Reduce Smoking and Alcohol Intake:** Research has shown that women that smoke or drink regularly tend to experience early menopause. Smoking and alcohol consumption should avoid.

➤ **ALTERNATIVE NATURAL TREATMENT**

Another option for early menopause treatments is natural alternative medicine. It has proved to be both effective and risk free. Natural alternative treatments for early menopause refer mostly to use of herbal remedies in the relief of hormonal imbalance. There are two types of herbal remedies being used to help alleviate early menopause symptoms. They are classified by their Estrogen content.

- **Phytoestrogenic herbs:** Herbs contain human-like estrogen called phytoestrogen. Women can use these herbs to balance their levels of estrogen decrease by introducing it to the body through pills.
- **Non-estrogenic Herbs:** As their name suggests, they don't contain estrogen. They work in the body as hormone simulator, helping the pituitary and endocrine glands to produce the hormone by themselves.



- **Wild Yam:** Wild yam is often suggested by manufactures of supplements and cream made from this herb as a remedy for many menopausal symptoms, including hot flashes, stomach cramps and mood swings. It is considers as a natural source of the hormone estrogen.
- **Vitamin D:** Get some sun: Vitamin D is important as calcium for bone health. Without vitamin D body cant absorb calcium. Most adults need 600 IUs daily Those 71 and older may need 800 IUs per day vitamin Dis in many foods and supplements, but there's another source the sun.

Tip in the summer, It's easier to get the daily 10 to 15 minutes of sunlight body needs to make vitamin D.

- **DHEA:** Hormone of youth

Natural levels of DHEA (dehydroepiandrosterone) hormone drop in our bodies after age 30. DHEA supplements reduces menopause symptoms such as low libido and hot flashes. Daily recommended intake of DHEA for early menopausal women is about 25mg or 50mg but for only 12 months.



- **Vitamin E and citrus Bioflavonoids:** This combination is for hot flash buster, ie 400 IU of vitamin E with 1300 mg of bioflavonoids taken in the morning and again before bed time help to reduce frequency and severity of hot flashes. Vitamin E is also for helping with vaginal dryness. Good sources are vegetable oil, egg yolk etc.
- **Vitamin A:** Helps maintains tissues, skin, and mucous membranes which help to fight against vaginal dryness and skin changes that often comes with low estrogen levels. Good sources of vitamin A are liver, egg yolk, cheese, milk, fish, meat, orange, papaya, mango, fish liver oil is the rich natural source of vitamin A, daily intake is about 600mg.
- **Vitamin B:** These family of vitamin can be a big help in coping with early menopause, it help to prevent vaginal dryness, increase resistance in infection, help to maintain adrenal gland function, which are the precursor of estrogen, Vitamin B is consider as stress fighters can help to deal with the emotional symptoms such as anxiety, irritability, mood swings, even insomnia, rich sources of milk, nuts, soybeans, meat, green leafy vegetables etc.
- **Calcium:** It help to prevent osteoporosis(weakening of bone) and also help to lower blood pressure. Bone loss can really become a serious problem once hormone levels drop after menopause. Its crucial to get enough calcium for keeping bone healthy. Women who are below the age 51 years need 1000 milligrams of calcium a day. Best sources are milk and milk products, eggs, fish etc.



- **Magnesium:** Magnesium is a very important calcium helper, it also fight the crashing fatigue that often comes at the beginning of premature or early menopause. Sources are wheat, soybean, gram etc.
- **Pharmaceutical Options and Drugs:** The most popular pharmaceutical option used as an early menopause treatment is hormone replacement therapy (HRT) to treat the symptoms of estrogen. Younger women frequently require higher doses of estrogen (equivalent to 1.25mg conjugated equine estrogen) foe symptom control and maintenance of bone mineral density (BMD). In those women with an intact uterus where combined (estrogen+progesterone) HRT is required.

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சுய தகவல் செயல்முறை
மீது
மாதவிடாய் மற்றும் அதன் தாக்கத்தைத் தாங்கும் காரணிகள்

உள்ளடக்கம்

சுய தகவல் செயல்முறை

பிரிவு -1: பெண் இனப்பெருக்க அமைப்பு உடற்கூறியல் மற்றும் உடலியல்

பிரிவு -2: வரையறை, ஆபத்து காரணிகள், அறிகுறிகள் மற்றும் அறிகுறிகள், கண்டறியும் மதிப்பீடு

பிரிவு -3: காரணங்கள், மாதவிடாய் தாக்கம் மற்றும் சிகிச்சை சுயநிர்ணய வழிமுறைகளின் நோக்கங்கள்

பொது நோக்கம்:

சுய வழிகாட்டி தொகுதி படித்து புரிந்துகொள்வதற்குப் பிறகு, பெண்களுக்குமாதவிடாய் ஏற்படுவதற்கான காரணங்கள் மற்றும் தாக்கம் பற்றிய போதுமான அறிவைப் பெறுவார்கள்.

குறிப்பிட்ட நோக்கங்கள்:

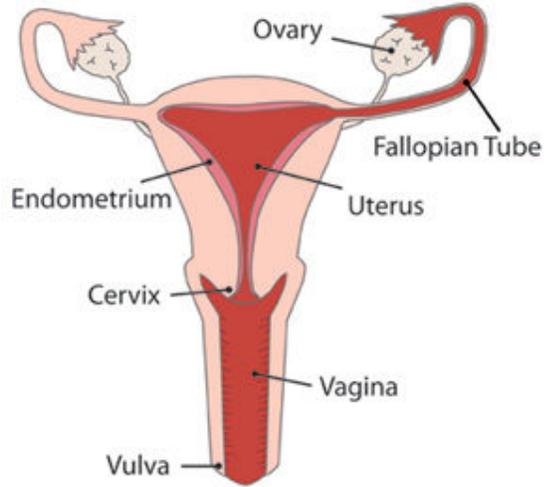
பெண்களின்விளக்கத்தை விளக்க முடியும்

1. பெண் இனப்பெருக்க அமைப்பு பற்றி விளக்குங்கள்
2. மாதவிடாய் வரையறை வரையறை
3. மாதவிடாய் அறிகுறிகளின் பட்டியல்
4. மாதவிடாயின் ஆபத்து காரணிகளை குறிப்பிடுங்கள்
5. மாதவிடாய் நோயறிதல் மதிப்பீடு பற்றி விவாதிக்கவும்
6. மாதவிடாய் ஏற்படுவதற்கான காரணங்களை விளக்குங்கள்
7. மாதவிடாய் தாக்கம் பற்றி விவாதிக்கவும்
8. மாதவிடாய் சிகிச்சையை புரிந்து கொள்ளுங்கள்

பிரிவு -1

பெண் இனப்பெருக்க அமைப்பு உடற்கூறியல் மற்றும் உடலியல்

பெண் இனப்பெருக்க அமைப்பு கருப்பை, கருப்பை வாய், புணர்புழை, கருவகம், ஃபலோபியன் குழாய், மார்பகம் ஆகியவற்றை உள்ளடக்கியது. பெண் இனப்பெருக்க முறையின் முக்கிய செயல்பாடு பிள்ளையின் உற்பத்தியை உறுதி செய்வதாகும். கருப்பை இனப்பெருக்க உறுப்புகளில் ஒன்றாகும், இது கருப்பையை உருவாக்கும் பெரிய பாலின உறுப்புகளில் ஒன்றாகும். இது இடுப்பு குழியில் அமைந்துள்ளது. கருப்பையின் புறணி எண்டோமெட்ரியம் என்று அழைக்கப்படுகிறது. ஒவ்வொரு மாதமும் எண்டோமெட்ரியம் கர்ப்பத்தைத் தயாரிக்க தடிமனாக வளர்கிறது. பெண்கள் கர்ப்பமாக இல்லாவிட்டால், இரத்த சிவப்பணுக்களின் மேல்மட்ட அடுக்குகள் சிதைகின்றன. வாழ்க்கையில் முதல் மாதவிடாய் தொடங்கியது மெனாரெக் என்று அழைக்கப்படுகிறது. முதிர்ச்சிக்குரிய ஃபோலிக்லர் செயல்பாட்டின் இழப்பு காரணமாக இனப்பெருக்க வாழ்க்கையின் முடிவில் மாதவிடாய் நிரந்தரமாக நிறுத்தப்படுதல், கடைசி மற்றும் இறுதி மாதவிடாய் மாதவிடாய் என்று அழைக்கப்படும் நேரமாக உள்ளது.



Ovary	-	கருப்பை
Fallopian tube	-	கருப்பைகுழாய்
Uterus	-	கருவகம்
Endometrium	-	கருப்பையகம்
Cervix	-	கருப்பைவாய்
Vagina	-	யோனி
Vulva	-	புணர்புழை

பிரிவு-2

வரையறை, அபாய காரணிகள், குறிப்புகள் மற்றும் அறிகுறிகள், சிகிச்சைமதிப்பீடு

ஆரம்பகால மாதவிடாய் என்ன?

மாதவிடாய் மாதவிடாயின் இறுதி இடைவெளி 45 வயதிற்கு முன்பே நிகழ்கிறது. இது தன்னிச்சையாக நடக்கும், இது நோய், கருப்பை நீக்க அறுவை சிகிச்சை, அறுவை சிகிச்சை நீக்கம், கீமோதெரபி, கதிர்வீச்சு அல்லது கதிர்வீச்சு ஆகியவற்றின் விளைவாக இருக்கலாம்.

மாதவிடாய்காரணிகள் யாவை?

ஆபத்து காரணிகள்	கருத்துக்கள்
குடும்ப வரலாறு	ஆபத்து 12 மடங்கு அதிகரித்துள்ளது
புகை	அதிகரித்த ஆபத்து
உதவி இனப்பெருக்கம் உள்ள கருப்பை தூண்டுதல் குறைவான பதில்	அதிகரித்த ஆபத்து
வலிப்பு	அதிகரித்த ஆபத்து
அதிகமான பிஎம்ஐ ஆரம்பகால ஆண்கள் ஒழுங்கற்ற மாதவிடாய் சுழற்சி / சுழற்சி நீளம் குறைந்துவரும் சமநிலை / குழந்தை பெறாத பெண் சார்ந்த குறைந்த கல்வி நிலை முந்தைய மார்பக உணவு வரலாறு திருமண நிலை	ஆபத்து காரணிகள் இந்த மாறி

பொதுவான அடையாளங்கள் மற்றும் அறிகுறிகள் என்ன?

- ஹாட் ஃப்ளஷஸ்
- யோனி வறட்சி
- சிறுநீர்ப்பை எரிச்சல்
- ஒழுங்கற்ற / தவறவிட்ட காலங்கள்
- மனம் அலைபாய்கிறது
- உலர் தோல், கண்கள் அல்லது வாய்
- இன்சோம்னியா

- லிபிடோ குறைக்கப்பட்டது
- கவலை
- மன அழுத்தம்
- மன அழுத்தம்
- நித்திரையின்மை
- நெஞ்சுத்துடிப்பு
- உளவியல் அறிகுறிகள்-எரிச்சல், மன அழுத்தம், மனநிலை மாற்றங்கள்
- நினைவகம் மற்றும் செறிவு கடினமானது

நான்மாதவிடாய்கண்டறியும்நெறிமுறைகள்என்ன?

- உடல் பரிசோதனை
- இரத்த சோதனை: எஸ்ட்ராடியோல் அளவை அளவிட.எஸ்ட்ராடியோல் குறைந்த அளவு கருப்பைகள் தோல்வி தொடங்கும் என்று குறிக்கிறது.எஸ்ட்ராடியோல் அளவுகள் 30ஐ விடக்குறைவாக இருக்கும்போது, ஆரம்பகால மாதவிடாய் காலத்தில் இருக்கும் பெண்களுக்கு இது குறிக்கிறது
- இரத்த சோதனை நுண்ணுயிர் தூண்டுதல் ஹார்மோன் (ஃபுளோலி-ஸ்டிமுலேட்டிங் ஹார்மோன்) அளவிட முடியும்.ஈ.எஃப்.எஃப் ஈஸ்ட்ரோஜனை உருவாக்குவதற்கு கருப்பையறைகளை உருவாக்குகிறது.கருப்பைகள் ஈஸ்ட்ரோஜனை உற்பத்தி செய்யும் போது, இஃபுளோலி-ஸ்டிமுலேட்டிங் ஹார்மோன் அளவு அதிகரிக்கும்ஃபுளோலி-ஸ்டிமுலேட்டிங் ஹார்மோன்40 mIU / mL ஐ விட அதிகமாக இருக்கும்போதும் ஆரபகல மாதவிடாய் காலத்தில் இருக்கும் பெண்களுக்கு இது பொதுவாக குறிக்கிறது.
- கருப்பை செயல்பாட்டை மதிப்பீடு செய்ய Transvaginal அல்ட்ராசவுண்ட்

பிரிவு -3

மாதவிடாய் நோயாளிகள், தாக்கம் மற்றும் சிகிச்சை மாதவிடாய் காரணங்கள் என்ன?

- **அறியப்படாத காரணங்கள்:**பெரும்பாலான நிகழ்வுகளில் காரணங்கள் அறியப்படவில்லை
- **சமூக பொருளாதார நிலை:**கீழ்நிலை கல்வி அடைதல் மற்றும் அல்லாத வேலைவாய்ப்பற்ற அல்லது சமூக பொருளாதார நிலை, பெண்களின் குறைந்த பொருளாதார நிலை மற்றும் அவரது கணவர் சுயமாக சுய முதுகெலும்பு முந்தைய வயது தொடர்புடைய.சமூக மற்றும் உடல் மன அழுத்தம் மற்றும் அமினோரியா மற்றும் இனப்பெருக்க செயலிழப்பு ஆகியவற்றுடன் தொடர்புடையது
- **கீமோதெரபி:** மருத்துவசிகிச்சையளித்த ஆரம்பகால மெனோபாஸ் அதிகரிப்பு 35 வயது அல்லது அதற்கு மேற்பட்ட வயதிற்குட்பட்டவர்கள், அவர்கள் பயன்படுத்தும் கீமோதெரபி போதை மருந்துகள் உள்ளிட்ட ஆபத்து காரணிகள்.நீண்ட கால சிகிச்சையின் கீமோதெரபி அதிகமானால், மாதவிடாய் ஆரம்பத்தில் ஏற்படுகிறது.கெமொதெரபி மற்றும் கதிர்வீச்சு சிகிச்சைகள் இணைந்து மருத்துவ தூண்டப்பட்ட ஆரம்ப மாதவிடாய் வாய்ப்பு அதிகரிக்கின்றன.
- **தமொக்சிபென்:**மார்பக புற்றுநோய்க்கு பரிந்துரைக்கப்படும் தமொக்சிபென் ஒரு ஆரம்ப முயற்சியாக ஆரம்ப மாதவிடாய் ஏற்படுவதற்கான அபாயத்தை ஏற்படுத்தும்.
- **நோய்த்தொற்று:**ஆரம்பகால மாதவிடாய் நோயுடன் கூட தொற்றுநோய் ஏற்பட்டுள்ளது.குடல்கள் மற்றும் காசநோய் போன்ற தொற்றுநோய் கருப்பையை பாதிக்கும், ஹார்மோன் சமநிலையை பாதிக்கும்.
- **மன அழுத்தம்:**மன அழுத்தம் முதுகுவலி மற்றும் அறிகுறிகளின் அதிர்வெண் ஆகியவற்றில் அதன் முக்கிய நாடகத்தின் முக்கிய பங்களிப்புடன் தொடர்புடையது.
- **குடும்ப வரலாறு:**ஆரம்பகால மாதவிடாயின் குடும்ப வரலாறு முந்தைய மாதவிடாயுடன் தொடர்புடையது.

- **புகைபிடித்தல்:**புகைபிடிப்பது இயல்பான மாதவிடாய் நேரத்தில் ஆரம்ப வயதுடன் தொடர்புடையது.புகைபிடிக்கும் பெண்களுக்கு 1-2 ஆண்டுகளுக்கு முந்தைய மாதங்களில் புகைபிடிப்பதை நிறுத்துங்கள், புகைபிடிப்பவர்கள் புகைபிடிப்பவர்களை விட முந்தைய மெனோபாஸைக் கொண்டுள்ளனர்.
- **இதய நோய்:**இயல்பான மாதவிடாய் காலத்தில் இதய நோய் உள்ள பெண்கள் குறிப்பிடத்தக்க அளவில் இளமையாக உள்ளனர்.
- **திருமண நிலை மற்றும் சமத்துவம்:** பிரிக்கப்பட்ட, விவாகரத்து செய்யப்பட்ட, விதவை பெண்களுக்கு முன்கூட்டிய கருப்பை தோல்வியால் ஏற்படும் மாதவிடாய் ஏற்பட்டது.
- **குறைக்கப்பட்ட கருப்பை ரிசர்வ்:** இந்த நிலை முன்கூட்டிய கருப்பை தோல்வி காரணமாக ஏற்படும் ஆரம்ப மாதவிடாய் முன்னோடி ஆகும்.
- **வைரஸ் தொற்று:** முப்பரிமாண சைப்டோமெல்லோ வைரஸ் போன்ற வைரஸ் தொற்று நோய் ஆரம்பகால மாதவிடாய் ஏற்படலாம்.
- **குரோமோசோமால் குறைபாடுகள்:** குரோமோசோமலில்பிரச்சனை ஆரம்ப மாதவிடாய் ஏற்படலாம்.
- **உடற்கூறியல் நோய்:** உடலின்நோயெதிர்ப்பு அமைப்பு, பொதுவாக நோயை எதிர்த்து போராடும், தவறுதலாக கருப்பையை தாக்கும் மற்றும் ஹார்மோன்கள் செய்வதிலிருந்து தடுக்கலாம்.தொடர்ந்து நோய் மற்றும் மூட்டுவலி ஆகியவை இரண்டு நோய்களாகும், இதனால் இது ஏற்படலாம்.
- **கருப்பைகள் நீக்க அறுவை சிகிச்சை:** இரு கருப்பையங்களின் அறுவை சிகிச்சை அகற்றப்படுவது இருதரப்பு ஒளபோரெக்டோமை முன்கூட்டியே மாதவிடாய் மாதவிடாய் ஏற்படுகிறது.இந்த அறுவை சிகிச்சையின் பின்னர்பெண்களின்காலங்கள் நிறுத்தப்படும், மற்றும் அவளுடைய ஹார்மோன்கள் விரைவாக வீழ்ச்சியடையும், உடனடியாக கடுமையான மாதவிடாய் அறிகுறிகளும், சூடான ஓப்ளாஷ்கள் மற்றும் குறைந்துவரும் பாலியல் ஆசை போன்றவை.

- **கருப்பை நீக்க அறுவை சிகிச்சை:** ஒரு கருப்பை அகற்றுதல், அல்லது பெண்களின்கருப்பைஅகற்றும் அறுவைசிகிச்சை ஆகியவை, மின்காந்த புற்றுநோய், நார்த்திசுக்கட்டிகளை மற்றும் இடமகல் கருப்பை அகப்படலம் உட்பட பல நிலைமைகளுக்கு சிகிச்சையளிக்கப் பயன்படுத்தப்படும் பொதுவான செயல்முறையாகும்.
- **ஃபால்போரியன் குழாய்களை அகற்ற அறுவை சிகிச்சை:**ஆரம்பகால மாதவிடாய் அல்லது ஹார்மோன் மற்றும் முட்டை உற்பத்தியை முன்கூட்டியே முன்கூட்டியே அல்லது முன்கூட்டிய மாதவிடாய் ஏற்படுவதற்கு வழிவகுக்கலாம்.

தாக்கங்கள் என்ன?

- **இதய நோய்:** ஆரம்ப மாதவிடாயின் விளைவாக ஈஸ்ட்ரோஜன் அளவு குறைவதால் இதய நோய் மற்றும் பக்கவாதம் ஏற்படும் அபாயம் அதிகரிக்கும்.பெண்களுக்கானங்கள் முன்னதான மாதவிடாய் ஒரு பழைய பெண்களை விட நிபந்தனைகளில் ஒன்று உருவாவதற்கான அதிக ஆபத்து இருக்கலாம் உட்படுகின்றன.
- **ஆஸ்டியோபோரோசிஸ்:** எலும்புகள் பலவீனப்படுத்தப்படுவதை எலும்புப்புரை குறிக்கிறது.ஈஸ்ட்ரோஜன் ஒரு துளி போது எலும்புப்புரை ஆபத்து அதிகரிக்கும்.பெண்கள் முதல் ஐந்து ஆண்டுகளுக்கு ஆண்டுதோறும் 3-5% எலும்பு இழக்கப்படுவார்கள்.
- **கம் நோய் மற்றும் பல் நோய்:** ஈஸ்ட்ரோஜன் குறைபாடு ஆஸ்டியோபோரோசிஸின் அதிகரித்த ஆபத்து மேலும் எலும்பு எலும்பு தாதுக்களில் குறைக்கப்பட்ட எலும்பு தாது அடர்த்திக்கு வழிவகுக்கும்.பல்வகை எலும்பு எப்போதும் பற்கள் நடத்த உதவுகிறது.உடலில் ஈஸ்ட்ரோஜன் அளவு குறைவதால் வாய் வலுவானதாக இல்லாவிட்டால் எலும்புகள் இழக்க நேரிடும் அல்லது பருமனோ (கம்) நோயால் பாதிக்கப்படும்.இந்த நோய்க்கான அதிகரித்த ஆபத்து அனைத்து மாதவிடாய் நின்ற பெண்களிலும் உள்ளது, ஆனால் மாதவிடாய் ஆரம்பிக்கும் பெண்களுக்கு இது மிகவும் மோசமாக உள்ளது.
- **கருவுறாமை:**ஆரம்பகால மாதவிடாயானது உலகளாவிய ரீதியில் கருவுறாமைக்கு காரணமாகிறது, ஏனென்றால் அண்டவிடுப்பின் விளைவாக கருவுறாமை ஏற்படுவதில்லை.

- **எடை அதிகரிப்பு:**குறிப்பாக வயிற்று வலி ஏற்படும்.இது ஈஸ்ட்ரோஜன் அளவை குறைக்கிறது, வளர்சிதை மாற்றத்தில் ஏற்படும் மாற்றங்கள், தசை திசு மற்றும் வயிற்றுப் பாதிப்பின் வயது இழப்பு, உணவின் தரம் மற்றும் தரம் மற்றும் உணவு மற்றும் உடற்பயிற்சி ஆகியவை போன்றவை.

மாதவிடாய்நோய்க்கான சிகிச்சைகள் என்ன?

- **வாழ்க்கை முறைமாற்றங்கள்**
- **மன அழுத்தம் மேலாண்மை:**மன அழுத்தம் பெண்களின்உடலில்ஒரு எதிர்மறை விளைவை ஏற்படுத்துகிறது.மன அழுத்தத்தை நிர்வகிப்பதற்கான சில நுட்பங்கள் யோகா, மருந்துகள், காட்சிப்படுத்தல், நறுமணம் போன்றவையாகும். யோகா மன அழுத்தத்தை குறைப்பதற்கும், அனைத்து செல்கள் மற்றும் திசுக்களுக்கு சிறந்த இரத்த ஓட்டம் மற்றும் ஆக்ஸிஜனேஷன் ஆகியவற்றை மேம்படுத்துவதற்கும் சிறந்தது.இது பெண் இனப்பெருக்கக் குழாயின் நொதிப்பு சுரப்பிகள் மற்றும் உறுப்புகளின் செயல்பாட்டை மேம்படுத்த உதவுகிறது.
- **உணர்ச்சி ஆதரவு:**மனநிலையும் உணர்ச்சிகளும் பாதிக்கப்படுகின்றன.நண்பர்கள் மற்றும் குடும்ப ஆதரவு முக்கியம், குறிப்பாக இளம் பெண்களுக்கு.
- **சமச்சீர் உணவு:**வைட்டமின்கள் நிறைந்த ஒரு ஆரோக்கியமான உணவு பெண்களுக்கு பரிந்துரைக்கப்படுகிறது.
- **வழக்கமான உடற்பயிற்சி:**உடற்பயிற்சி நெகிழ்வுத்தன்மையுடன் தசைகள் வலங்குகிறது, உடற்பயிற்சி அதிகரிக்கும் ஈஸ்ட்ரோஜன் அளவுகள், இது வெப்ப ஃப்ளக்ஷேஷன்களின் தீவிரத்தை குறைக்கலாம்.வலிமை பயிற்சி மற்றும் தாக்கம் நடவடிக்கைகள் (நடைபயிற்சி மற்றும் இயங்கும் போன்றவை) எலும்புகளை வலிமைப்படுத்தவும் எலும்புப்புரைகளை தடுக்கவும் உதவுகின்றன.ஆழ்ந்த தாள சுவாசத்தை கட்டுப்படுத்தப்படும் சுவாச சுவாசம் என அறியப்படுகிறது, இரட்டையர்கள் தினமும் ஹாட் ஃப்ளாஷ் சுழற்சியைக் குறைக்கிறார்கள்.இந்த மூச்சு நுட்பம் ஒரு மெதுவான, ஆழமான மூச்சு எடுத்து, ஒரு சில விநாடிகள் அதை பிடித்து, மற்றும் மெதுவாக தூங்குவதை ஈடுபடுத்துகிறது.
- **புகை மற்றும் ஆல்கஹால் உட்கொள்ளல் குறைக்க:**புகைபிடிக்கும் அல்லது குடிப்பழக்கம் அடைந்த பெண்கள் ஆரம்ப மாதவிடாய் நோயை அனுபவிப்பதாக ஆராய்ச்சி காட்டுகிறது.புகை மற்றும் மது நுகர்வு தவிர்க்க வேண்டும்.

➤ **மாற்று இயற்கை சிகிச்சை**

ஆரம்ப மாதவிடாய் சிகிச்சைகள் மற்றொரு விருப்பத்தை இயற்கை மாற்று மருந்து ஆகும். இது இருவரும் பயனுள்ள மற்றும் அபாயகரமானதாக நிரூபிக்கப்பட்டுள்ளது. ஆரம்ப மாதவிடாய் நோய்க்கான இயற்கை மாற்று சிகிச்சைகள் பெரும்பாலும் ஹார்மோன் சமநிலையின் நிவாரணம் உள்ள மூலிகை சிகிச்சையைப் பயன்படுத்துகின்றன. ஆரம்பகால மாதவிடாய் அறிகுறிகளைக் குறைப்பதற்காக இரண்டு வகையான மூலிகை மருந்துகள் பயன்படுத்தப்படுகின்றன. அவை அவற்றின் மூலம் வகைப்படுத்தப்படுகின்றன ஈஸ்ட்ரோஜன் உள்ளடக்கம்.

- **பைட்டெஸ்ட்ரோஜெனிக் மூலிகைகள்:** மூலிகைகள் பைப்ரோஸ்டிரோன் என்று அழைக்கப்படும் ஈஸ்ட்ரோஜன் போன்ற மனிதர்களைக் கொண்டுள்ளன. பெண்களுக்கு இந்த மூலிகைகள் மூலம் ஈஸ்ட்ரோஜன் குறைவின் அளவுகளை மாத்திரைகள் மூலம் உடலுக்கு அறிமுகப்படுத்துவதன் மூலம் அவற்றைப் பயன்படுத்தலாம்.
- **அல்லாத எஸ்ட்ரோஜெனிக் மூலிகைகள்:** அவர்களின் பெயர் குறிப்பிடுவது போல, அவர்கள் ஈஸ்ட்ரோஜன் கொண்டிருக்கவில்லை. அவர்கள் உடலில் ஹார்மோன் சிமுலேட்டராக வேலை செய்கிறார்கள், பிட்யூட்டரி மற்றும் எண்டோகிரைன் சுரப்பிகள் தங்களைத் தங்களே ஹார்மோனை உற்பத்தி செய்ய உதவுகின்றன.
- **வைட்டீசம்:** வைட்டமின்கள் பெரும்பாலும் இந்த மெல்லுடனான மூலிகைகளால் தயாரிக்கப்படுகின்றன மற்றும் கிரீம் தயாரிக்கப்படுகிறது, இது பல மாதவிடாய் நின்ற அறிகுறிகளுக்கான ஒரு தீர்வாக உள்ளது, இதில் சூடான ஃப்ளாஷ்கள், வயிற்றுப் பிடிப்புகள் மற்றும் மனநிலை ஊசலாடுகிறது. இது ஹார்மோன் ஈஸ்ட்ரோஜனின் இயற்கை ஆதாரமாகக் கருதுகிறது.
- **வைட்டமின் D:** சில சூரியன் கிடைக்கும்: வைட்டமின் D எலும்பு ஆரோக்கியத்திற்கு கால்சியம் போன்ற முக்கியமானது. வைட்டமின் D உடலில் உள்ள கால்சியம் இல்லாமல் கால்சியம் உறிஞ்சப்படுகிறது. பெரும்பாலான வயதினரை 600 IU க்கள் தினமும் 71 மற்றும் அதற்கும் குறைவாக 800 ஐ.யூ.எஸ் வைட்டமின் டி வைட்டமின் டி பல உணவுகள் மற்றும் கூடுதல் தேவைப்பட வேண்டும், ஆனால் மற்றொரு ஆதாரமாக சூரியன் இருக்கிறது. கோடை காலத்தில் குறிப்பு, அது 'எளிதாக தினசரி 10

முதல் 15 நிமிடங்கள் பெற சூரிய ஒளி உடல் வைட்டமின் டி செய்ய வேண்டியிருக்கும்

- டெஹைட்ரோபியாண்ட்ரோஸ்டர்-சல்பேட் (DHEA-S) :இளைஞர்களின் ஹார்மோன் டெஹைட்ரோபியாண்ட்ரோஸ்டர்-சல்பேட் (DHEA) இயற்கை நிலைகள் 30 வயதிற்குப் பின்னர் எங்கள் உடல்களில் வீழ்ச்சியடைகிறது. டெஹைட்ரோபியாண்ட்ரோஸ்டர்-சல்பேட் கூடுதல் குறைவான லிபிடோ மற்றும் ஹாட் ஃப்ளாஷ் போன்ற மாதவிடாய் அறிகுறிகளை குறைக்கிறது. ஆரம்பகால மாதவிடாய் நின்ற பெண்களுக்கு டெஹைட்ரோபியாண்ட்ரோஸ்டர்-சல்பேட் இன் தினசரி பரிந்துரைப்பு 25mg அல்லது 50mg ஆகும், ஆனால் 12 மாதங்கள் மட்டுமே.
- வைட்டமின் ஈ மற்றும் சிட்ரஸ் Bioflavonoids: இந்த கலவை வெப்ப ஃப்ளாஷ் பஸ்டர், அதாவது 400 IU வைட்டமின் E என்ற 400 IU 1300 மி.கி.காலையில் எடுத்து மீண்டும் மீண்டும் முன் வெப்ப நேரம் குறைக்க உதவுகிறது சூடான ஃப்ளாஷ். வைட்டமின் ஈ யோனி வறட்சிக்கு உதவுகிறது. நல்ல ஆதாரங்கள் காய்கறி எண்ணெய், முட்டை மஞ்சள் கரு போன்றவை.
- வைட்டமின் A: திசுக்கள், தோல், மற்றும் சளி சவ்வுகளை பராமரிக்கிறது. இது, குறைந்த ஈஸ்ட்ரோஜன் அளவைக் கொண்டிருக்கும் யோனி வறட்சி மற்றும் தோல் மாற்றங்களுக்கு எதிராக போராட உதவும். வைட்டமின் A இன் நல்ல ஆதாரங்கள், கல்லீரல், முட்டையின் மஞ்சள் கரு, சீஸ், பால், மீன், இறைச்சி, ஆரஞ்சு, பப்பாளி, மாம்பழம், மீன் கல்லீரல் எண்ணெய் ஆகியவை வைட்டமின் A இன் மிகச் சிறந்த இயற்கை மூலமாகும், தினசரி உட்கொள்ளல் 600mg ஆகும்.
- வைட்டமின் பி: வைட்டமின் பி: ஆரம்பகால மாதவிடாயுடன் சமாளிக்கும் ஒரு பெரிய உதவி இது, இது யோனி வறட்சி தடுக்க உதவும், தொற்று எதிர்ப்பு அதிகரிக்கும், ஈஸ்ட்ரோஜன் முன்னோடி இது அட்ரீனல் சுரப்பி செயல்பாடு, பராமரிக்க உதவும், வைட்டமின் பி அழுத்தத்தை கருத்தில் போராளிகள், பதட்டம், எரிச்சல், மனநிலையை, தூக்கமின்மை, பால்,

கொட்டைகள், சோயாபீன்ஸ், இறைச்சி, பச்சை இலை காய்கறி போன்ற பலவிதமான உணர்ச்சிகளை சமாளிக்க உதவலாம்.

- **கால்சியம்:**இது எலும்பின் ஆஸ்டியோபோரோஸிஸ் 9 வீக்கம் தடுக்க உதவுகிறது) மேலும் இரத்த அழுத்தம் குறைக்க உதவும்.மாதவிடாய் பிறகு ஹார்மோன் அளவு குறையும் போது எலும்பு இழப்பு உண்மையில் ஒரு தீவிர சிக்கலாக மாறும்.அதன் ஆரோக்கியமான எலும்பு ஆரோக்கியமாக வைக்க போதுமான கால்சியம் கிடைக்கும். 51 வயதிற்குக் குறைவான பெண்களுக்கு ஒரு நாளைக்கு 1000 மில்லி கிராம் கால்சியம் தேவைப்படுகிறது.பால் மற்றும் பால் பொருட்கள், முட்டை, மீன் போன்றவை சிறந்த ஆதாரங்கள்.
- **மக்னீசியம்:**மெக்னீசியம் ஒரு மிக முக்கியமான கால்சியம் உதவியும் ஆகும், இது பெரும்பாலும் முன்கூட்டியே அல்லது ஆரம்ப மாதவிடாய் ஆரம்பத்தில் வரும் நொறுங்கி நலிவுடன் போராட வேண்டும்.ஆதாரங்கள் கோதுமை, சோயா, கிராம் முதலியவை.
- **மருந்தியல் விருப்பங்கள் மற்றும் மருந்துகள்:**ஆரம்பகால மாதவிடாய் சிகிச்சையில் பயன்படுத்தப்படும் மிகவும் பிரபலமான மருந்து விருப்பம் ஈஸ்ட்ரோஜனின் அறிகுறிகளைக் கண்டறிய ஹார்மோன் மாற்று சிகிச்சை (HRT) ஆகும்.இளம் பெண்களுக்கு ஈஸ்ட்ரோஜனின் அதிக அளவு தேவைப்படுகிறது (1.25mg இணைந்த சமச்சீர் ஈஸ்ட்ரோஜெனிற்கு சமமானதாகும்) எலும்பு தாது அடர்த்தி (BMD) நோய்க்கான அறிகுறி கட்டுப்பாடு மற்றும் பராமரிப்பு.இணைந்திருக்கும் (ஈஸ்ட்ரோஜன் + ப்ரெஸ்டிரோஜென்) HRT தேவைப்பட்டால் அப்படியே உள்ள கருப்பையுடன் அந்த பெண்களில்.

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REGARDING MENOPAUSE AND ITS
IMPACT AMONG WOMEN IN
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COIMBATORE**

