CHAPTER – I

PREAMBLE

1.1: INTRODUCTION

“Speak up. Be courageous in what you say, however uncomfortable.”

– Margie Warrell

Health is not only absence of disease it is more than that; it is common theme in all cultures and it is a positive force that helps people to accomplish their aspirations and goals, satisfy their needs and ambitions and helps to cope with the environment in order to live a long healthy life. Health embarks psycho-social, socio-economic and spiritual aspects of an individual and it is essential for well-being of mankind. (Berga SL & Parry BL 1995)

With regard to work well being there is no single opinion universally, but at basic requirement of well-being involves having positive emotions and thinking and absence of depressive mood, anxiety, stress. Well-being leads to satisfaction with all the life processes, accomplishment of one’s needs and desires of the life and positive functioning in general. Physical health is considered to be critical for overall well-being in general. Different researchers have explained different aspects of well-being that not only include physical well-being but also include well-being in the areas like self-satisfaction, economic, social well-being and emotional well-being as well. (Herrman HS et al 2005)

The individual’s life continuum can be divided into several life phases; each phase is having certain unique characteristics and needs. Every stage of life continuum is influenced by various factors, in period of infancy, period of childhood, period of adolescent, adult period, middle age and old age. (Shoji J 2006)

In every woman stages of life are divided into period of infancy, period of puberty, sexual maturation period, climacteric period and post-climacteric period on the basis of biological aspect. Adolescence or period of puberty is roughly corresponds to ages of individual from junior high school to college life. From the period of late teenage to pre menopause in the late 40 years is a period of sexual maturation stage and is also known as age of reproduction, the each side of menopause i.e. 5 years before and after menopause is
known as the climacteric or premenopausal period and it is said that, a woman is reached menopause when no menstruation occurs for at least 12 consecutive months and this usually occurs in the middle of 40 years to middle of 50 years. The life stage which is associated with old age is called post climacteric period or post-menopausal period, and in this stage the functions of ovaries comes to almost at its end, and problems those are associated with aging begin to grow. (Yuko Takeda 2010)

The word menopause refers to last menstrual period. It is defined as the time of cessation of function of ovary and is results in amenorrhea permanently. (Howkins J & Bourne G 2008); absence of menstruation for 12 months confirms that menopause has set inas per the World Health Organization.

Woman’s last period of menstruation is called as menopause and is defined after a year retrospectively. The word menopause literally means the pause of the menses, and it is taken from Greek roots ‘meno’ (month) and ‘pausis’(cessation).The permanent cessation of menstruation is known as menopause. That in turn leads to the end of reproductive life due to loss of ovarian follicular activity it is the time when last and final menstruation occurs in woman. By following the stoppage of menstruation for continuously 12 months without any other pathological conditions the clinical diagnosis is confirmed as menopause. As such, a woman is declared to have attained menopause only after one year retrospectively. (Dutta D C)

A woman reaches the middle age of their life during occurrence of menopause and it is a important physiological event which occur in all women globally. Menopausal women may experience psychological, emotional, psychosomatic, urogenital and sexual cycle. Menopause is am crucial physiological event which occurs with a large reproductive and menstrual change, the hormonal changes, and biological changes prior to menopause and at least one year after the attainment of menopause throughout this transition process of menopause the passes through reproductive phase to non-reproductive phase of life as process of aging. (WHO 1981)

Menopause is an unattended, unspoken, reality of life; the cause of menopause is still undiscovered completely by human being. Menopause is
one such stage of midlife which might be overcome easily or make a woman miserable depending on her luck. This phase of life is shrouded with of myths and taboos. (Kulshreshtha 2008)

During transition of menopausal process the women passes through significant physiological and biochemical changes. As menopause is important physiological process in women’s life. The mean menopausal age in women ranges from 45-50 years across the world. During transition of menopause the women passes through significant physiological and biochemical changes. Compared to other parts of the world women from the areas of western counties have a higher menopausal age as given by world health organization. (WHO 1996)

The menopause process does not occur suddenly but rather it is a gradual attainment of amenorrhea. It is a different experience for the each and every woman and is called as premenopausal transition period which occurs during the process of menopause. The average age of permanent amenorrhea is 51 years. It may occur early at 30 years of age of woman or it may delay to age of 60 years of age of the woman. No reliable laboratory tests are available to predict exact time of experience of menopause by women. The age of onset of menopause is not concern to the age of commencement menstrual periods in women. Abnormal per vaginal bleeding, urinary and vaginal symptoms, hot flashes, mood changes and so on are the symptoms experienced by the women during menopause.

Following are the commonly used terms related to menopause-

- **Perimenopause** – The period immediate prior to and the one year after the menopause is known as peri-menopause. (it is the period when clinical features of approaching menopause begins and endocrinological and biological changes starts occurring). The WHO and North American menopause society defines Perimenopause the it is period of several years prior to permanent natural amenorrhoea and one year followed by the last amenorrhea

- **Menopausal transition** – Menopausal transition is another term used for premenopause and Perimenopause. The menopause transition is the process of approaching a woman to menopause due menstrual changes
Climacteric – Climacteric or menopause stage comprises bio-physiological changes before and post permanent amenorrhoea. The phase may marked by large variation before and post attainment of menopause. It is phase in women’s life, where the reproductive and sexual functions are reduced and women moves from menstrual stage to non-menstrual stage.

Menopausal syndrome (premenopausal and Perimenopause) – It comprises all the symptoms associated with the phase of climacteric is collectively known as climacteric syndrome. It occurs sometimes and not necessarily always among all women.

Premenopause – It is phase includes all the changes occur prior to the natural menopause or period of fertility prior to menopause is called as premenopause. The expert group recommended that the work premenopause may be used consistently in the latter sense that include whole of reproductive age starting to the final menstrual period.

Post menopause – Once attained menopause which have amenorrhoea continuously for one year from the time of last menstrual period, regardless of occurrence of menopause whether it is induced or spontaneous is known as period of post menopause.

Premature menopause – is defined as occurrence of menopause earlier to the recommended age for natural menopause or ideally, premature menopause will be considered as premature menopause when menopause occurs at an age lower than two standard deviations lesser to the standard mean observed for the population. Practically the non-availability of rational estimation of the distribution of age of spontaneous menopause in developing countries is 40 years is considered to ascertaining age of menopause, below which is said to be premature. It affects 1% of women under the age of 40 years.

Induced menopause – Induced menopause is distinct natural menopause occurs when there is a reduction in secretion oestrogen and progesterone. It is caused by certain events such as damage to ovaries by exposing to radiation, chemotherapy and long term of medication or surgical removal of ovaries (bilateral oophorectomy) (Dasgupta D & Ray S 2009)

Endocrinology of menopause
The ovarian follicles become resistant to pituitary gonadotropins along with depletion of the ovarian follicles few years prior to menopause in hypothalamo pituitary gonadal axis. It results in diminished oestradiol production along with impaired effective folliculogenesis. The level of serum estradiol fall significantly to 10-20 pg/ml after menopause period as compared to before menopausal period, 50-300 pg/ml. This results in increase amount of Follicular stimulating hormone as a result of feedback mechanism on hypothalamo-ovarian axis. Other cause of increase of FSH is decreased level of inhibit. During this period due to disturbance in folliculogenesis may results in oligo ovulation, anovulation, premature corpus luteum or insufficiency of corpus luteum. The endometrial hyperplasia and clinical manifestation of menstrual abnormalities may occur prior to menopause due to sustained level of estrogens.

- **Oestrogen**
  
  The estrogen is predominant and estradiol in a lesser extent secreted following the menopause. Serum level of estradiol is lesser than estronein the body. The peripheral conversion of androgens from ovaries and adrenals are the major source of estrone and androgens are produced by adrenal gland andro stenedione particularly are converted by the process of aromatization into estrogen and mainly to estrone.

  The conversion or aromatization occurs mainly adipose and muscles tissues level. The fat, liver, hypothalamus and kidney are the tissues where these reactions have been shown. The factors like age, weight and sex influence this reaction of conversion and in the women with overweight or obesity this conversion is higher with high level of concentration of estrone which may lead or induce endometrium changes and results in bleeding at post menopausal period and possible development of carcinoma of endometrium. As time passes the sources fail to supply the adequate precursors of estrogen and this occurs about 5-10 years after menopause period.

- **Androgens**
  
  Because of increase level of LH the stromal cells of ovary continue to produce hormones androgens after menopause. Testosterone and
androstenedione are the main androgens which are secreted. Mainly by adrenal gland and partly by the ovary these hormones are produced. This results in cumulative effect of decrease in oestrogen and androgen ratio. And the result of this is change in voice and increased facial hair growth. More androgens are converted in oestrone in obese patients and these people are having less chances of developing symptoms of oestrogen deficiency and bone disease osteoporosis. But these people are more prone to get endometrial hyperplasia and carcinoma of endometrium.

**Menstruation pattern prior to menopause**

Any of the following patterns may be observed:

- Cessation of menstruation Gradual hypomenorrhea or scanty abruptly or
- Irregular cycles with or without heavy bleeding, infrequent cycles or oligomenorrhea

**Organ changes during menopause**

Ovary

Ovaries shrink; their surface becomes grooved and furrowed. It also becomes wrinkled. There is increase in medullary components with thinning of cortex is observed. Fallopian tubes show features of atrophy. The muscle coat becomes thinner, from the tubal epithelium of uterus the cilia disappear and plicae of tubes become less prominent during menopause.

- **Uterus**

  With reverting ratio 1:1 between body and cervix uterus becomes smaller and atrophic changes and thinning is observed in endometrium.

- **Cervix**

  Vaginal portion of cervix is represented by a small prominence at the site of vaginal vault and it becomes smaller. As the cervix shrinks after menopause the vaginal fomices slowly disappear.

- **Vagina**

  Due to loss of elasticity it becomes narrower and epithelium of vagina becomes thin, pale and dry and it becomes prone to get infection causing senile vaginitis. The rugae flatten progressively and there is loss of glycogen. There is absence of Dorderlein's bacillus and pH of vagina becomes alkaline.

- **Vulva**
The features of atrophic change and narrowing of vaginal orifice is shown by vulva. The skin of vestibule and labia minora becomes pale, thin and dry. In the labia major there is considerable reduction of fat occurs. The hairs at pubic area are reduced and become grey in color.

- **Breasts**

  Fat is deposited around the breasts, hips, and abdomen. Glandular tissue atrophies, deposition of fat often makes breasts more pendulous. The nipples decrease in size. *(Howkins & Bourne)*

  The transferring period from menstrual cycle to menopause, a women passes through significant physiological and biochemical changes, she may experience urinary and genital changes, vasomotor, psychophysiological and mental features. And these may be associated with sexual dysfunction.*((WHO 1996)).*

  Between each individual’s and the same population and individual’s with different population throughout world the prevalence of these symptoms varies widely. Some may experience few symptoms and some may more of symptoms.*((Shah R et al 2004)).*

  There is huge difference in quality of occurrence and frequency of occurrence of menopausal symptoms across the country and within the population of one culture. Some women may take yearsto develop these symptoms and others may become symptomatic within few days to months and some women may never experience or develop any of these symptoms associated with the menopause.*((Sharma S el al 2007)).*

  The menstruation cycle gets changed when there are changes in the pituitary hormones and the activity of hypothalamus. As an ovarian follicle becomes less in number there will be failure in the function of ovaries. The production of ovarian estrogen and progesterone comes down and cease afterwards as ovary will not give reaction to FSH and LH hormones of pituitary glands .As sparing in stromal compartment the production of androgens from the ovary remains continue beyond the period of menopausal transition. Due to peripheral conversion or aromatization of adrenal and ovarian androgens the women of menopause continue to have low levels of circulating estrogen hormones.
The main site of conversion or aromatization is adipose tissue in the body. As a result the women with menopause become obese. The axis of ovarian-hypothalamic-pituitary remains untouched or uninjured due to fluctuation or changes in aging ovaries during menopausal transition. As there will be no negative feedback mechanism from the organs of ovary. Which will results in enhancement of level of follicular stimulating hormone at a time of less production in estrogen which occurs at the time of follicular apparatus gets artesian leads in decreased inhibit levels and rise in follicular stimulating hormone level. This is one of the most important sign of menopause.

The period which is called as menopausal transition or Perimenopause means a particular time which starts when there is irregular menstruations. This period will be their up to the last menstrual period. This leads to changes in reproductive hormones in women. During this period the other symptoms in the women will be irregularities in the menstruation, menstrual flow will be more and menstruation period is lasts longer. There will be amenorrhea for some days fertility will be reduced, symptoms of vasomotor and sleep disturbances. In all these symptoms some of the symptoms will starts from four years before the actual menopause. During the time of menopausal transition there will be decrease in estrogen, FSH and LH levels. In Perimenopause period menstruation cycle length vary and menses missed out but in the post-menopausal period there will be complete stoppage of menstruation which is called as amenorrhea.

The immature egg cell or ovum in the ovary is called oocyte. This oocyte is first source of estrogen progesterone. It is again major source of androgens. Menopausal women will have infertility because there will be decrease in oocytes. Progesterone production by ovaries gets reduced without any clinical consequences. But there will be risk of rapid multiplication of endometrial cells, Imperfect development of the organs and cancer as there is production of endogenous estrogen or in case of estrogen treatment in menopausal women.

Some of the post menopausal women will get health problems those are related to deficiency of estrogen and due to aging. This is very difficult to
come to conclusion that these health problems are exclusively because of estrogen deficiency or because of aging process.

Major health problems in menopausal women are vasomotor symptoms, wasting of urogenital parts, which are called urogenital atrophy. The women may also get problems in her bones this is called as osteoporosis, diseases related to heart and blood vessels, malignancy or cancer, problems of mental health (psychiatric problems) reduced power in perceiving things which is known as cognitive problems and problems of sexuality. These all problems begins but it is difficult to find out any one reason for these problems. Menopausal women will get these problems because of inter mix reasons. These reasons are reduced function of ovary, aging process, and socio – environmental factors of midlife women. Many problems post menopausal women get collectively it is called as postmenopausal syndrome. These are hot flashes, irritability, restlessness, mood changes, lack of sleep, dryness in the vagina, problems in concentration, mental confusion, incontinence due to stress, bone problems which is called as osteoporosis, depressed mood headache problems in vasomotor activity. Among these some of the problems are explained below.

1. **Vasomotor symptoms** – There are changes in cardiac function at menopause in the form of decreased myocardial contractility, decreased stroke volume, decreased peak flow, decreased peak flow velocity and decreased ventricular function. Due to deficiency of oestrogen hormone among menopausal women the risk of diseases of cardio vascular system is high compared to other women. In several ways estrogen prevents the risk of cardio vascular diseases.

   Estrogen increases the HDL lipids and decreases LDL lipids and total lipid level in the blood. The aggregation of macrophage and platelets at the site of vascular intima is inhibited by this hormone. To dilate the blood vessels it stimulates the release of prostacycline and nitric oxide from the endometrium of Blood vessels. By its own antioxidant property it lowers the risk and Prevents development of atherosclerosis.

   The important symptom of menopause is hot flash. This symptom is related vasomotor function. This problem will affect 75% of perimenopausal
women. After the menopause these symptoms will be experienced by women at least 1 to 2 years of period. Some post menopausal women experience this problem up to 10 years or more years. During hot flash women will experience sudden heat and then profuse sweating may also experience increased heart beat, tiredness, weakness, disturbances during work, disturbances in day-to-day activities, sleep disturbances because of sweating at night. Women is unable to concentrate therefore there will be emotional changes. However the age increases thyroid diseases may occur. This requires thyroid function test.

Physiologic changes with hot flashes are excessive sweating and coetaneous dilation. This is because of thermo regulatory center in with GnRH center in the hypothalamus is involved. Vasomotor symptoms also experienced by a woman who have undergone surgery for removal of pituitary glands. Vasomotor symptoms not because of exclusively deficiency of estrogen but because of absence of estrogen.

Treatment of vasomotor symptoms includes Hormone Therapy (HT). Some of the women who are healthy during premenopausal period and having hot flashes but still they are having menstruation are prescribed with oral contraceptive. Hormone therapy improves vasomotor complaints and also reduces urogenital atrophy, the bone density and mineral level will be increased and leads to decreased risk of vertebral and hip fractures and there will be lesser in the chance of colorectal (adenocarcinoma) cancer and hormone therapy also functions as protector of cardio vascular system as estrogen has got property of antioxidant and it prevents oxidation of low density lipids.

Estrogen therapy is given in very low dose this will treat hot flashes given orally or transversally and Side effects are minimum. In case of hysterectomy progestin therapy is given concurrently. (Genant Hk, 1997)

Estrogen is contra indicated in some of the women, in such situation an alternative approach can be used and that is Maddox progesterone acetate (MPA) can be prescribed to women. The dose of this drug is 20 mg/day and along with this megesterolacetate can also be prescribed. The dose is two times 20 mg per day. These two therapies are sufficient to treat the
symptoms of vasomotor system. Another drug Clopidine an $a_2$ adrenergic agonist is also used to reduce severity and duration of hot flashes. Codeine is shown to be effectively relieves vasomotor manifestations in research studies like placebo-controlled approach and randomized trials.

The dose used of clonidine is 0.1–0.2 mg/day orally and also clonidine can be given transversally in the form of patch and dose for this purpose is 0.1 mg/day. Some side effects may occur such as hypotension, orthostatic hypotension and drowsiness (Sdhill I et al 1980).

Antidepressants also can be used to relieve the hot flashes experienced by the post menopausal women. Selective Serotonin Reuptake Inhibitors (SSRI) are also can be used to treat these symptoms. This is proved in a randomized, double-blind, placebo-controlled trial of paroxetine controlled release.

The dosage of this drug is 12.5 to 25 mg/day. By using these drugs menopausal women got relieved from the symptom of hot flashes both in severity and frequency of episodes. The hot flash composite score shown declined 62% in population of paroxetine against 38% in the placebo population as shown in result of the place to controlled trials. Low dose was tolerated well even though both doses were found effective. The common side effects occurred is nausea, insomnia, headache and other psychomotor symptoms.

In a cross over randomized, double blind, placebo controlled trial approach the drug fluoxetine in a dosage of 20 mg/per day was found to have medium improvement for these symptoms. In all studies improvement with the group of drugs SSRI is not found. A 9 months another study parallel group double blind trial no improvement is found with the use of fluoxetine or citalopram as compared with the placebo drug (Stearns V et al, 2003)

The drug Venlafaxine one of the antidepressant which modulates Central neurotransmitters is with a dosage of 75 mg/day is effective to reduce vasomotor symptoms. It significantly reduced hot flashes and shown improvement in condition in a randomized controlled trial. This study result showed that venlafaxine group showed 61% reduction in symptom whereas placebo group shown 27% of reduction of symptoms. But more side effects
like nausea, dry mouth and loss of appetite is observed in treatment group than placebo group. *(Loprinzi CL et al, 2000)*

In another cross sectional randomized placebo controlled trial shows that hot flushes are reduced significantly by Vit–E at a dose of 800 IU/day. *(Barton DL et al, 1998).*

Life style modification which includes physical activity (weight bearing) will help in reducing vasomotor symptoms. This was proved in some of the research studies. These studies have shown women with increased body weight and having habit of smoking hadexperienced severe symptoms related vasomotor activity than that of the women who had normal body weight and not having the habit of smoking. These findings will encourage women with post menopausal period not to be overweight themselves and not to have habit of smoking. *(Gold EB et al, 2000).*

2. Genital and urinary symptoms:
The common symptoms observed in genital and urinary system are-

- It is observed that there will be significant thinning of wall membrane and diminishes of elasticity in all inner and outer reproductive organs. Vaginal membranes will be thinned at the vagina, vulva, cervix, outer urinary tract.
- Symptoms like dryness, itching, watery and blood discharges may occur.
- Frequency of urination, urinary incontinence and urgency may occur
- There is more risk of inflammation and infection of genito urinary tract like candidiasis and urinary tract infections.

Urogenital atrophic changes may seen in menopausal women. Women may experience vaginal pruritus, vaginal dryness, dyuria, dyspareunia and urgency in urination. Women with menopause need prolong time to respond well to the treatment.

In vaginal dryness, dyspareunia and other urinary symptoms the systemic estrogen therapy is found to be effective mode of treatment. Topical application of low doses of estrogen cream for 1-3 times weekly is another mode of administration of estrogen therapy. An alternative option is estradiol vaginal tablet of 25 mg used weekly. This is one of the easy methods than estrogen cream. *(Handa VL 1994).*
Women who are on vaginal estrogen treatment are instructed to inform in case of genital bleeding and that must be examined promptly. If women are on low dose vaginal estrogen in that case systemic progestin therapy is not prescribed. Non hormonal alternatives like lubricants are advised which reduces discomfort during inter-course in case of urogenital atrophy.

Urinary symptoms such as frequency and urgency are treated with vaginal estrogen therapy and also this decreases the risk of occurrence of frequent UTI infections in menopausal women. Some research study results reviled that there was improvement in incontinence with estrogen therapy. (Grady D et al, 2001).

3. Skeletal problems and Osteoporosis

Most commonly reported musculo-skeletal problems during post menopausal period are-

- Pain in bones or osteopenia and there is gradual development of risk of osteoporosis over time
- Pain in the joints, pain in the muscles and back pain
- Soft tissue, skin and breast atrophy may occur
- Skin becomes dry and it leads to thinning of skin
- Elasticity of skin decreases
- A sensation like pins and needles known as formication and more specifically like ants crawling under and on the skin may occur.

Menopausal women are more likely to get osteoporosis. They will get symptoms like backache, fractures of the bone even with minor trauma, decreased height and difficulty in moving. (Mobility related to muscular–skeletal system). Reasons or the common risk factors for bone problems or osteoporosis among the post menopausal women can be categorized in to two categories as modifiable risk factors which can be modified by necessary actions and non modifiable risk factors as these cannot be changed. Age, race, history of problems in family, small body stature, prior history of fracture, menopause occurring early and history of oophorectomy are the some of non modifiable risk factors.

Some of modifiable risk factors are deficiency of calcium due to decreased intake of calcium through diet and deficiency of vitamin D.
Sedentary life style and history of smoking in women. Menopausal women also at risk of osteoporosis when she had some of the medical conditions associated such as ovulation during reproductive years, hyperthyroidism, hyperparathyroidism. Chronic renal disease and diseases which require administration of systemic corticosteroids.

The time of consideration of treatment of osteoporosis is very important to check all these risk factors and it required consideration about bone mineral density test for women.(Cauley JA et al, 2001).

Menopause and bone metabolism

Depending on the many factors like age, nutrition, endocrine and genetic factors and so on there is normally a balance between bone formation or osteoblast and resorption of bone or osteoclast.

There is loss of 3-5% of bone mass per year following menopause due to deficiency of hormone estrogen. The bone condition where there is reduction in bone mass but bone matrix to bone mineral ratio is normal known as osteoporosis. Due to this condition menopausal women have burden of a high risk for fracture and other bone deformities.

Estrogen role in preventing osteoporosis

Estrogen increases absorption of calcium from gut and inhibits osteoclastic activity. It stimulates the secretion of calcitonin from the C cells of thyroid gland and increases vitamin D. all these factors lead to increased activity of bone mineralization.

Counseling the women is very important to prevent and treat osteoporosis. Through counseling life style modifications can be encouraged. Dietary changes and supplementation will help her to take care of calcium and vit D deficeincy. The dosage of calcium is to be 1000 to 1500 mg and 400-800 IU of vit D daily.

Treatment is necessary for women with osteoporosis, osteopenia and any other risk factors. Drug therapies are antiresorptive drugs those reduced loss of bone and arabolic agent those leads to stimulation of new bone formation. Daily regular exercises and cessation of smoking are the non pharmacological therapies which also help in a big way for post menopausal women.
Another therapy recommended is Hormone therapy (HT) to treat and prevent osteoporosis. Researches (observational) studies shown that approximately 50% of fractures can be reduced which are osteoporosis related. Soon after the attainment of menopause hormonal therapy should be started and it should be continued for long term. The randomized controlled trial study conducted by Women's Health Initiative reveals that reduction in hip fractures by 34% among the women who are on hormonal therapy after a mean follow up of 5 years.

Very low dose estrogen therapy with estradiol dosage 0.25 mg, per day equally conjugated estrogen and Medroxyprogesterone acetate MPA 1.5 mg/day and application of marked increase in bone density and mineral concentration as correlate with placebo effect of the drug as shown by another research study. (Rossouw JE et al, 2001).

4. Psychological problems and Depression:

Common psychological changes occurs during post menopausal period are
- Disturbance in mood
- Irritability and stress
- Fatigue and boredom
- Loss of memory and concentration problem
- Anxiety and depression, low self esteem, loss of interest in activities and forgetfulness

About 20% of estimated menopausal have depression at some point during their menopause. (Soares CN, 2004).

Research studies have shown that women who had depression during Perimenopause had decreased risk of getting depression during post-menopausal years.

Depression is a symptom which is increased during women's menopausal transitional period and these decreases after menopause as shown by the Penn ovarian aging cohort trial (Freeman EW. et al 2004).

To rate their symptom of depression pre-menopause and three and half years after menopause a cross sectional survey study was conducted at Netherland in 2013.data was collected by asking women regarding this. Study
results revealed that, women had depression during their menopausal transition.

In another cross sectional research that was carried out in the United States on community sample among women who had natural menopause. Results revealed that there was an increase in depression symptoms during their Perimenopause. (Maartens WE et al 2004).

Studies conducted by Harvard to assess moods and cycles among peri-menopause women between 36-44 years who don’t have history of major depression. A 9 years follow up is carried out among these women’s to exclude new onset of major depression. This study results revealed that, women during peri-menopause had two times more risk for depression than the women who had not yet started the menopause.

During menopause depressive disorders will occur because there will be fluctuations and reducing levels of estrogens for example oestrogen. Estrogen acts in the central nervous system in different mechanism. They help in expression of receptors and stimulate the synthesis of various neurotransmitters and show its effect on the permeability of the membrane. (Steiner M et al 2003)

There is no correlation exist between depression and gonadal hormones. No abnormal levels of gonadal hormones found when the concentration checked among the perimenopausal and post menopausal women who were having depression. But disturbances can be seen when hormonal level changes. Pre menstrual and post menstrual mood disturbances or history of mood disorders may observe among these women. As hormone levels are changing perimenopause women may experience more depression than other women. But during the period of post menopause progesterone and estrogen level are less but they are stable. (Payne JL, 2003).

Contributions of society also are significant in women getting perimenopausal depression. Expectations from the women are multi-dimensional it may be from family and society. She faces stressors like poor society support, lack of employment, induced menopause, and poor health status of women these all are putting her in depression. Dysphoria is common during
beginning period of perimenopausal transition in women who has low educational level, which may be one of the reason to have low socio-economic status in turn that leads to stress for the women. (Bromberger JT et al, 2003).

According to study conducted in Australia revealed that women during her transition to menopause had following conditions which made her to have depression. (Rasgen NL et al 2007)

The conditions are there is a negative mood prior to menopause, negative attitude towards the menopause and its symptoms, advances in age, smoking, lack of physical activities, loneliness in life, poor health status, negative feelings towards partner, many perceived problems, illness in family members, care of aging parents, changes in employment, change in role ex-child bearing, fertility loss and which means there is no meaning in life, syndrome like empty nest and the societal value which is received by youth.

When the aspect of treatment is concerned the treatment of choice will be administration of standard antidepressant drugs. Women who are having peri-menopausal depression, SSRI anti-depressants drugs are the drugs of choice among the antidepressants. These drugs are efficient and these drugs take 4-6weeks to bring desirable effect. They may show serotonin syndrome and also produce some of the common adverse effects such as nausea and vomiting, diarrhea, sweating excessively, decrease in libido, dizziness, headache, sleeping problems and akathisia.

These treatment options are helpful in Perimenopause but not for post-menopausal women. In mild depression, hormone replacement therapy is sufficient. Harmon’s such as Estrogen, conjugated estrogen, medroxy progesterone are commonly used if traditional anti-depressantstreatment not work effectively or when women do not want to take psychotropic medications or when women having other vasomotor symptoms. Research study reports shows that replacement therapy with hormone estrogen had effect of anti-depression or antidepressant treatment is enhanced in case of women with peri-menopause phase. In other research studies result showed that estrogen bursts the effect of SSRIS. Some of the other research studies showed that estrogen has antidepressant effect only in women who has vasomotor
symptoms. Studies on perimenopausal women conducted in check whether effect is there in women without depression on mood or quality of life. But some of the small studies showed that a small positive impact is there on mood of the women. But majority of studies revealed that healthy women without depression, there is no beneficial effects of estrogen. (Amsterdam J et al, 1999).

If women have negative view of menopause there will be depression and physical symptoms of menopause in her. If health education is given to her about menopause and its reality decreases anxiety, depression and irritability. This may results immediately or one year later. (Robinson GE et al, 1997).

5. Cognitive functions.

Problems related to memory are common in perimenopausal and post menopausal women. This shows that cognitive problems are related to menopausal transition but not due to the aging process. Clinical trials showed that estrogen enhanced the cognitive function. Cognitive difficulties are due to hormonal changes in menopausal women. These problems may be because of sleep disturbances due to hot flashes during night or because of hormonal effects on the brain region, these regions influence the memory power. (Hackman BW and Galbraith D, 1997).

Women are having more risk for getting Alzheimer’s disease than men. A research study such as observational studies and small trials has revealed that therapy with hormone decreases the risk of Alzeimar’s disease. In a randomized controlled research study which was conducted among the women with mild to moderate level of Alzeimer’s disease and the women were treated with hormone estrogen for one year of course. Study shows the progression of disease was not slowed down or not shown improved the cognitive function of the women..

In another research study conducted to check the effectiveness of hormonal therapy on cognitive function in the women without dementia disease. This was a randomised-double blind, placebo-controlled trial study, in this study 65 years aged women were enrolled in women health initiative trial. Concerning to findings of the study, women who had randomised to hormone therapy observed that there is two times increase in risk of
dementia and Alzheimer’s disorder. Use of hormone therapy was related to an adverse effect on cognition

Comparative study showed that, when compared women who are treated with placebo therapy, women who belonged to hormone therapy group had scored significantly lower in mental state examination. This examination was notified Mini – Mental status Examination, when it was observed in WHI trial that there was increase in incidence of stroke among women who were using hormone therapy possibility was there than small undetectable cerebro-vascular changes were more likely to occur in women were receiving hormone therapy for their symptoms. This made these women to be in the risk of dementia. (Shumaker SA et al 2003).

6. **Sexual dysfunction:**
Common sexual problems after menopause includes-

- There is symptom of decreased libido or sexual energy
- Dryness in vagina and atrophic changes in vagina
- Problems related to sexual function like reaching orgasm
- Dyspareunia or painful intercourse during sexual activity

During menopause many women have the problem of sex. They have sexual dysfunction. The exact reason and coincidence rate are not known. But some of the factors are involved in this, such as reduced interest in sexuality or no desire in initiating the activity, reduced arousal or inability to get an organ during sexual relations, other factors are also involved in this those are psychological problems as depression, anxiety, conflict between husband and wife. History of physical of sexual abuse, use of medications etc and physical factors like presence of endometriosis or atrophic vaginitis in women.

When this dysfunction in sexual activity in menopausal women is complex in nature and it is necessary for health personnel to find out or evaluate carefully about physiological, psychological, lifestyle and relationship factors. This will help for initiating effective therapy. To improve the sexual function comprehensive therapy is necessary that includes treatment of anxiety and depression, counseling, specific exercises activity which are performed under the supervision of a sex therapist.
The atrophic changes of genitor-urinary tract can be treated by using local or systemic vaginal estrogen hormonal therapy or vaginal creams. Sildenafil Citrate was ineffective in treating the women with sexual dysfunction found in randomized and double blind, placebo controlled trail study. (Basson R et al, 2002).

Women with no other cause of sexual problems and who are having low levels of andrones for them the androgen therapy is more beneficial in the management of the problems related to sexual dysfunction. (Bachmann G et al, 2002).

Another randomized crossover research was conducted among women had a surgical menopause. In this study women is administered intramuscular injection of testosterone and the effect of this therapy was assessed. It revealed that, the effect of this intramuscular dose was higher to improve the sexual fantasy, sexual desire and sexual arousal. This treatment was better when compared to other treatment with estradiol or placebo therapy. (Sherwin BB and Gelfand MM, 1985).

Another double – blind randomized trial research wasdoneto find out the effect of oral drug methyl-testosterone in combination with esterified estrogens on libido. Results shown that there was significant improvement in sexual interest Another study that is randomized, double blind controlled by placebo therapy of estrogen women who are without ovaries and sexual dysfunction in them testosterone therapy was given by putting transdermal patch. This showed significant increase in sexual activity and pleasure (Lobo RA et al, 2003).

Also androgen therapy is useful but it has some of the potential risk of complication Impotence, decreased libido, hot flashes, and alteration in liver function results into changes in lipid profile, anaemia osteoporosis which affect the quality of life menopausal women.

7. Sleep Problems :

About 40 – 50 % of women will have insomnia when they have menopausal transition. These problems related to sleep some time are due to mood disorders and many times may not be related to disorders of mood.
Women who have insomnia will get anxiety, stress, tension and depressive symptoms. (Soares CN et al, 2004).

Post menopausal women get sleep disturbances because it is associated with deficiency of estrogen, as it has a crucial function in inducing sleep. One of the study conducted showed that when LH levels are elevated during menopause have caused poor sleep because of thermoregulatory mechanism. This resulted in high body temperature. This is not clear that sleep problems are occurring as age is increasing or changes in hormone because of vasomotor symptoms. (Krystal AD, 2004).

However, age increased sleep apnea increases from 6.5% of women who are in the group of 32 – 39 years of age and 16% in the women who are belongs to group of 50-60 years of age. Exact cause not known but some of theories states that because there will be weight gain in post menopausal women or reduced in the levels of progesterone levels as progesterone stimulates respiration. (Miller EH, 2004).

In post menopausal women there will be reduced melatonin and growth hormone and changes in estrogen and progesterone these have effects on sleep. (Shin K & Shapiro C, 2003).

To get relief from vasomotor symptoms which disturb sleep estrogen therapy will be helpful. A study was conducted on post menopausal women who had hot flashes, swatting during night, anxiety, mood swings and insomnia and for them hormonal therapy with micronized progesterone and estrogen was given and this improved the sleep. (Gambacciani M et al, 2005).

**Diagnosis of menopause:**
Following characteristics suggest and helps to diagnosis of menopause-

a) Cessation of menstruation continuously for 12 months during the period of climacteric.

b) Appearance of symptoms of menopausal symptoms

c) Study of cytology of vagina shows maturation index and it is of at least 10/85/5 and this is a features of low level of estrogen

d) Serum oestradiol level becomes low < 20pg/ml and Serum Follicular Stimulating Hormone& LH level more than 40MIU / ml
e) Pelvic examination shows atrophic changes in genito-urinary tract
f) Breast examination shows atrophic changes
g) Routine screening tests helps to understand the health status and these tests includes complete blood count, analysis of urine, Fasting and post prandial blood sugar level, liver function tests, renal function tests and lipid profile test.
h) TVS Scan for assessment of endometrial thickness
i) Routine mammography can be done.

**Management of menopause**

- Non hormonal treatment
- Hormone replacement therapy
- Complementary and alternative therapy

**Non hormonal treatment**

- Balanced diet with nutrients like calcium and protein is helpful and Supplementary intake of calcium daily about 1-1.5 gram can reduce the risk of osteoporosis and fracture
- Physical activities and exercise: Walking routinely, weight bearing exercises and other aerobic exercise like jogging can be done.
- Vitamin D: Supplementation of vitamin D in the form of vitamin D3 400 to 800 IU/day along with calcium supplement can reduce osteoporosis and fractures. Exposure to sunlight also enhances synthesis of cholecalciferol or vitamin D3 in the skin.
- Cessation of habits of smoking and alcohol helps to improve status of health.
- Biphosphonates to prevent osteoclastic activity of bone resorption. And for this commonly used drugs are alendronate and etidronate
- Fluoride prevents osteoporosis and increases bone matrix. The dose of fluoride is 1 mg/kg of body weight and is giver short term only.
- Calcitonin inhibits bone resorption. It is given either by nasal spray (200IU) or by injection S.C (50-100IU)
- Selective oestrogen receptor modulators (SERM):Raloxifene an SSRI has shown to increase the density of bone mineral, reduces LDL and increase the HDL level. The other drug Clonidine having the action of alpha
adrenergic agonist may be used to decrease the duration and severity of symptom hot flushes.

- The drug Thiazides which is used to reduce the urinary calcium excretion and it increases bone density especially when it is combined with hormone estrogen.
- Antidepressant drugs: Paroxetine a serotonin reuptake inhibitor is effective in management hot flushes, mood improvement and enhances quality of life.
- To lower the vasomotor symptoms, cardio vascular diseases and osteoporosis other drugs like phyto estrogens containing isoflavones are used. Soya protein is also used and is found to reduce vasomotor symptoms.

- **Hormone replacement therapy (HRT)**
  The Hormone replacement therapy is indicated in menopausal women to overcome the short term and long term consequences of oestrogen deficiency.

**Indications of Hormone Replacement Therapy**
- To relieve the menopausal symptoms
- Prevention of bone problems and osteoporosis
- To maintain and improve quality of life of women with menopause

**Contra indications to Hormone Replacement Therapy**
- Undiagnosed genital tract bleeding
- Neoplasm which is hormone dependent in the body
- Presence of history related venous thrombo-embolism in women
- Active liver disease and diseases of gall bladder
- Uterine fibroids and Endometriosis

**Commonly used estrogens are**
- Conjugated oestrogen  dose is 0.625 to 1.25 mg, per day
- Micronized oestradiol  dose is 1 to 2 mg, per day

**Progestins used are**
- Deviry (Medroxy progesterone acetate) (2.5–5 mg per day)
- Prometrium (Micronized progesterone) (100- 300 mg per day)
- Dihydrogesterone (5-10 mg per day)
Oral oestrogen regime
- Etnogen 0.625mg or 0.3 mg is given daily for women who have underwent hysterectomy procedure.

Oestrogen and cyclic progestin
- Estrogen is given continuously for 25 days and progestin is included for last 12-14 days for women with intact uterus.

Continuous treatment with Estrogen and progestin
- Subdermal implants: subcutaneously implants are inserted over the anterior part of abdominal wall by using local anaesthetic agent. Implants of estradiol 25, 50 or 100 mg and it can be kept in place for 6 months.
- Gel of Percutaneous oestrogen: percutaneous applied gel 1 gm delivers 1 mg of estradiol per day and is applied on skin over the anterior part of abdominal wall or thighs.
- Transdermal patch: Transdermal patch should be applied below the waist line and it should be changed 2 times in a week.
- Vaginal cream: in case of atrophic vaginitis a cream containing estrogen 1.25 mg daily helps to improve the condition.
- Tibolone: A steroid which is having weakly progestogenic, estrogenic and androgenic properties can be given a dose of 2.5 mg

Complications of Hormonal replacement therapy
The complications of hormonal replacement therapy comprise the endometrium, cancer, cancer of breast, venous thrombo-embolism, dementia, coronary heart diseases, stroke and diseases of gall bladder
1.2 PROBLEM ON HAND

The period often overlaps with the timing when children leave the home for their job or other purposes, when the need arises to care of elderly parents, due to a loss of common goals as a couple the relationship changes occurs with husband or any disease which affect the husband. So all these factors consequently leads to mental depression, loss of motivation in the life, mental exhaustion and accumulation of physical fatigue and all these factor influence the health and wellness in a women. Some women even become depressed clinically, faces their physical limitations and have sense of running out of the time. (Anai K, 2008)

Menopausal women spend most of their life time, approximately around one third of their life time spend in the condition of estrogen deficiency. The life expectancy is seems to be increased after menopause. They like to live for 2 to 3 decades after the menopause.(Bener A et al, 1998)

Women of age 50 years and above were living in the world were 467 million estimated in the year 1990. The number may increase to 1200 million by the years 2030 reported by WHO.(WHO, 1996)

The incidence of medical diseases specifically during post-menopausal period has been increased due to average rise in life expectancy of women. The decreased amount of estrogen from the ovaries during menopausal period the symptoms like sweating abnormally, hot flushes or flashes and vertigo. Due to deficiency of estrogen there is a risk of osteoporosis as there is increased bone resorption, due to decreased level of LDL receptors there is risk of hypercholesterolemia and progression of atherosclerosis. All these diseases are also associated with habits, lifestyle and require active interventions. (Yuko Takeda, 2010)

Other important symptoms of menopause are related to psychology of women. These symptoms may include the changes in mood, incontinence of urine and migraine headache. The severity of all these symptoms varies from one to other; some women develop morbid conditions known as menopausal disorders or climacteric depending of factors like personality, social and environmental factors which may call for medical attention and treatment. (Yuko Takeda, 2010)
About 20% of women have depression during their menopause even though most of the women who are in transition to menopause do not experience psychiatric problems. The reproductive hormones secreted during the time of menopause contribute to alterations in mood such as depression; mood swings etc as shown by research. (Soares CN, 2004)

Around 40- 50% of women, who are in transition period experience insomnia, sleep problems such as sleep apnea as the age increasing. This problem is commonly found among the women of 30-39 years age group and the percentage is 6.5% and it is 16% in the women who belong to 50-60 years age group. (Soares CN et al, 2004)

Schizophrenia disease is commonly seen in middle age women of 45-50 years. This reported as second highest incidence of schizophrenic disorder among middle age females than men. During the period of menopausal transition there is worsening of the course of schizophrenia among women as it is noted by the some researchers. These all observations directly suggest that there is relationship between estrogen level and psychiatric symptoms, psychopathology of schizophrenia suggest that altered level of estrogen precipitate the schizophrenia. During menopause the panic disorder are common and there is chance of new onset of panic disorder during this period. Sometime the pre-existing panic disorder may worsen and these disorders are most common among women who are having many other physical symptoms related to menopause. (Smoller JW et al, 2003)

In the year 1990, it is estimated that about 25 million women have acquired the menopause across the world and it is estimated this number will be doubled by the year late 2020. Estimation concerning to Indian women this number reaches to 130 million by 2015. (Kaulagekar A, 2011)

Extensive study was done on menopause related symptoms in western countries, but it is given very less importance in developing countries and very little data is available from all developing countries, especially from the countries of South East Asia. (Rahman S et al, 2011)

A Malaysian research study reported the most common post-menopausal complaints among the women. According to this study the common symptoms were discomfort in muscle (84.3%), anxiety (71.4%) was
next, mental and physical discomfort noted was (67.2%) and sweating and hot
flushes (67.1%). And it also said in study that, these differences which are
found in symptoms frequencies may be concern with to differences in living
pattern, culture, race, genetic background, food what they consume. (Jahanfar et al, 2006)

Zhou B in their study explored that, among perimenopausal or
postmenopausal patients who are having anxiety and depression disorders
climacteric symptoms are associated with these psychological disorders or
physical factors. In this study in two group they recruited 78 patients of post
menopausal period with presence of anxiety or depression disorder and in
other control group 72 post menopausal women without anxiety or depressive
disorders. The data regarding symptoms was collected by using Green
climacteric symptom scale in both groups. Other information like socio
demographic data and sexual hormone level, density of bone, blood pressure,
cognitive functions test and so on. The result of this study revealed the group
which was having anxiety and depression disorders was having good scores
of mini mental status examination, progesterone and estradiol as compared to
other control group. In addition to this high score in Greene climacteric scale
and somatic symptoms was found among the anxiety depression disorder
group than control group. Apart from this, the depression, somatic symptoms
and anxiety were positively correlated with their other variables. GCS scores
were not associated with density of bone, B P and such other symptoms at (P
> 0.05).

In the study conducted by Waidyasekera et al, 2009 they reported
that; the found that the common and ascertaining symptoms of menopause
such muscle ache, joint discomfort, physical and mental tiredness, hot flushes
etc.

It a study conducted by Indian menopause society, in 2006 that
about 65 million women are there over the age of 45 years are there in India.
Hence, the health of menopausal women demands higher priority especially
in Indian scenario.

Many studies were conducted among post-menopausal women
regarding quality of life in developed countries. These women of post-
menopausal period were in deferent socio cultural practices which have influence on perceiving of their life quality and perceiving the symptoms of menopause. In developing countries very little information is available about women of post-menopausal period regarding their quality of life among. *(Nisar N and Ahmed S N, 2009)*

In Indian scenario increased life span is a recent phenomenon and among the women of post menopausal syndrome is seen very less as life threatening. In the past most of the women did not had more life expectancy and did not live long enough to experience the manifestations of menopause and become serious. But in the next 25 years the entire situation could be different. India will have a large number of populations of elderly people and majority among them will be women population. The severe decrease in level of estrogens will be considered as life threatening. In post menopausal state the Indian women usually live between 10 to 20% of their lives and this is challenge for the public health care system to meet the challenges those are posed by their health needs. In Indian scenario the concentration of public health care system is on women of childbearing age. There is less attention is paid on women who move out of this age and they receive very less attention from public health and to speak, unless they have goo access to health care system run by private agency. *(Lyla Bavadam1999)*

**HEALTH STATUS OF WOMEN IN INDIA:**

Women health status in India can be determined by so many factors or indicators. All these factors or indicators differ based on economical status, social status of the women, culture and location of women. Health is one of the important factors which make the all mankind to have a feeling of well being and ultimately this helps and leads to grow economically. We need to think in different dimensions in all the aspects to improve health status of women in our nation. These all dimensions should be examined by relating with health status of women globally and it should be also compared with the health status of men in India.

At present women in India face so many health problems and in turn this affects socio economic growth of the country. This needs taking care of gender bias, inequality in ethnicity or class which in prominent in health care
services provided. To have the economic gain of the country we need to have improvement in health care to the women. This demands development of human resources with quality, increasing the investment in health care sector and savings.

**Gender inequality to health care system:**

As we all aware that India is developing country and it has middle income population. The issue of gender inequality existing more in India compared to developed countries. According to World Economic Forum, India ranks low in the world in terms of gender inequality. but only 25% of health services One of the social determinants of health is gender of the person. For the better health status of women social, economic and political factors and access to the good health services contribute major role.

Many of the research studies conducted throughout the country reviled that, men are receiving better treatment and health care facilities compared to women. Discrimination with respect to gender starts before the birth of the female baby when the baby is in mother’s womb. It means female fetuses are seen as Burdon to families and are aborted. If women during pregnancy found to having female fetus and if it not aborted then women experiences more stress and harassments from other family members because of family’s preference are male baby. Apart from all these if female baby is born then that baby is not given proper feeding and proper care. However, when she enters in to adult life many factors prevents her from reaching equal level of health that of men. Mainly such cases are more among the rural areas of the country and in the families with poor socio economic conditions.

Many cultural patterns are also contributing in their own way for the discrimination of women in society. Societal norms bring the pressures regarding patriarchy and hierarchy especially in joint families. Men always have more privileges and rights superior to women. This leads to unequal society in which women do not have any power. Women are considered with as less valuable in a family because of existing dowry system and problems of marriage. Every family while getting done their daughters married need to pay dowry even though it is illegal and one of the social problem. This makes parents of the family to have burden on finance and parents naturally think of
having sons than daughters. According to Indian culture sons enjoy all the privileges in the society and only have the rights of doing last rights of parents. This is one of the factor creates more pressure to have sons. Women are less involved in public life.

Because of all above mentioned factors women has poor health status. Research studies reports showed that, admission rate to the hospital of men is more than women and even women are under reported about the illnesses and health problems. She will not get proper care during pregnancy and will not get complete immunization. In the year 2006 a research study conducted by Choi showed that, boys received correct immunization than girls among rural population.

**Availability of Health services in India:**

In India among the total population 75% of population lives in rural areas but only 25% of health services available to them. Whereas 25% of people lives in urban areas and they receive 75% of health services. Health care professionals like doctors and nurses reside in urban areas and show less interest to serve rural population in the country. This makes rural population to have the health services from quacks or unqualified health care providers. These factors also contribute women to have less health services in rural areas of nation.

National Family Health Survey - II reported that; Government of India, the maternal mortality rates more in rural areas than urban areas. For this Government of India framed many policies and programs to remove the gender inequalities in the country. National Commission for Women established in 1992 to look after the gender inequalities. But many of the social factor and cultural norms in India become the barrier to for the adoption of this policies fully and make inequality between men and women. In 2005 India started National Rural Health Mission with the aim to reduce maternal mortality rate and infant mortality, to provide public health services universally and balancing gender ratio in the country. In the year 2011, a research study was conducted by Nair and Panda reported that maternal health improved after the implementation of National Rural Health Mission but India is still far behind than other countries.
Malnutrition and Morbidity:

When we consider overall health status of an individual, nutrition has major role in that. Physical health status and psychological condition of the person is affected by malnutrition. India has one of the highest cases of malnourished women among developing countries. According to one of the research study conducted in the year 2000 reports that 70% of general (non-pregnant) women were malnourished where as 75% of pregnant women had disease of iron deficiency anemia. One of the main reason for this is women is considered to have second place in the society and family. In the year 2012 a research study was conducted by Tarozzi found that, malnutrition increases for the risk of illnesses among women as she enter in to adult life. Jose et al draw result in their study that susceptibility of malnutrition increased in married women as compared to unmarried women. Malnutrition is one of the important reasons for maternal morbidity, mortality and in children birth defects.

- **Breast Cancer** - India is having growing cases of cancer epidemics; breast cancer is a highly prevalent among women. By the year 2020 70% of world’s cancer patients will be from developing countries among them 5th of those cases comes from India. This situation is because of life style changes i.e. adoption of Western life style, increase in urban life of the women and later child bearing. There are no adequate screening services for women. That results into poor health status.

- **Reproductive (RCH) Service** - One reason for disparity in the economy is poor maternal health because poor maternal reduces the ability of the women to contribute for economic activities. Therefore India implemented important health programs like National Rural Health Mission and Family Welfare Programes. Maternal mortality is not same all over India. It is higher in the states where literacy rate is less, where lack of health services for women.

- **HIV/AIDS** - The cases of HIV infections remained high, the rise is due to lack of use of contraceptives such as condoms, cultural factors, lack of education and inadequate measures by the public health system. Currently mortality due to HIV/AIDS is high among women than men. The
reasons are many to name some of them are illiteracy, women’s dependency for economic necessary on men, lack of adequate health services for women, having fewer opportunities for admission in the hospitals and get medical care services than men. Ultimately this makes her to have complications which are associated with HIV/AIDS. This also leads to stigma in the society.

• **Rights of women regarding reproductive health** - Rights of the women in some of the sensitive issues of her life are to be reviewed time to time. In India we have MTP Act which was formed in 1970. MTP is legalized abortion. Abortion should be conducted in certain conditions only. But easy access to services is lacking because of shortage of care providers and lack of equipments and supplies to conduct the MTP procedure. In spite of having criteria for MTP, this procedure is done to abort the female fetuses. This practice is because of many contributing factors such as social, economical, religious, illiteracy which ultimately leading to imbalance in male- female ratio.

• **Cardiovascular health** - This is one of the vital problem women are facing in India. Cardiovascular problems growing etiological factor of death among female of middle age. India has 60% of the world’s heart diseases. Indian Heart Association doing efforts to create awareness about cardiovascular diseases and health. Relating to heart diseases mortality is more among female population than men population because female population does not have easy access to health services relating to cultural and social factors. One example says that if women have congenital heart disease they are not coming to hospitals for operation because the scar remains on their body and it become a problem for their marriage.

• **Mental Health** - There are many reasons for mental illnesses among women in India. Among them most prevalent mental illnesses in women is depression. Gender of the new-born baby is again plays a major role in depression among postnatal women.

• **Domestic Violence** – Domestic violence is a major problem among Indian women. Women are mainly victims of domestic violence and are due to
male domination in the family. The exact number and percentage of this is not clear because of under reporting or not reporting at all to keep the name of the family. When women are working men feel he is powerless and this makes him to violent against women. Use of alcohol is another reason for domestic violence against women.

According to Khan HG and Hallad SJ 2006, in India, there is no availability of current health program that concentrate towards the postmenopausal women’s specific health needs. Moreover, RCH-II program and NRHM only concentrates their services on women of reproductive age group and these ignores the health needs of women who have crossed their reproductive stage. Also very few studies have been conducted in rural areas to understand menopause at micro level.

The organizations working to help the post menopausal women are -

- **International Menopause Society**

  IMS society was formed 1978. Rodney Baber is a president from September 2016.

  The term Menopause was first described in 1821 by Dr. C P L de Gardanne. Eds R Lobo, et al. Edward Tilt in 1852 – 1893 published one of the first book on the climacteric described as menopause was a type of madness residing in the uterus. His solution for this problem was hysterectomy.

  In 1871 a Psychiatrist Henry Maudsley reported that menopause lead to mental instability. He found some women developed post menopausal nymphomania. Treatment he suggested that sedation, modest living are admission an asylum. Other remedies he suggested includes herbs, opium, lead mixtures & pulverized cow ovaries.

  **Mission of International Menopausal Society** – this is a scientific society with a goal to holistic study all aspects of all men and women approaching Climacteric phase. This is society of individuals, not a federation. The Secretariat from Belgium by Monique Boulet from 1978 – 2002. Aim of IMS – encouraging members and potential members, helping other organization, attending to financial and membership matters and assisting the Executive Secretary, the IMS Board and the Present.
Aims of the IMS

- To aware the middle age women regarding menopause
- To understand about menopause process and to study the process of aging among women holistically.
- To conducting workshops conference related to changing trends in care and management of menopause and climacteric.
- To promote sharing of menopausal experience their research facts between individual member.

IMS is a Charitable Incorporated Organization (CIO) in the UK. IMS organizes congresses, symposiums and workshops. IMS also has its own Journals title of the Journal on Climacteric disseminated by Francis, Taylor publishers. Menopause societies affiliation council and world school for study of menopause are secondary organizations of IMS

Council of Affiliated Menopause Societies (CAMS)

It an organization works under the flagship of IMS, it responsible to provide stage to uniform membership and voting right to its all national organs which are associated with IMS. Due its standard of IMS it has fewer members across the globe, contrast to it CAMS grants the membership from all over the world. The associated member no longer required to pay the membership fees decided in 11th CAMS world congress in 2005.

Membership of CAMS

Membership is given to any regional or national menopause society which is accepted for affiliation to the International Menopausal Society. If any inquiries about the requirements for affiliation, it should communicated to the director of IMS. Every member of council affiliated to Menopause Societies is represented on the council by delegates appointed it. Every member has to secure their vote to agenda made by the CAMS. CAMS form once in every two years in the World Congress.

The member of CAM in 2017 from India is Atul Munshi from Indian Menopause Society.

Council of Affiliated Menopause Societies Officers

There are three officers serving on Council of Affiliated Menopause Societies Board: they are President, General Secretary and Treasurer.
The board of officers will be elected for term of 2 years and member can contest for two times. Last board of officers were elected in 2016

- The president is Mr. Camil Castelo-branco from Spain
- Secretary is Mr Peter Chedraui (Ecuador)
- David Archer is elect as Treasurer Elected at the Board Meeting in Prague in

WORLD MENOPAUSE AWARENESS MONTH:

In collaboration with WHO, the International Menopause Society observe October 18 as World Menopause Day. In context of menopause day international society and regional delegates of CAMS, the organisations associated with IMS. Arrange some of the educating events to aware a middle females about menopause and distributes material related to effect of deficiency of estrogen and its care as well. International Menopause Society has designated October as World Menopause month because the almost impossible for all regional organs of CAMS to formulate the activities on October 18th only. During the October i.e. World Menopause Month collaboration is done by local societies with other organizations for working towards health of adults women arrange educating event on care of complication such as osteoporosis, breast cancer in joint manner with these organisations. World Menopause Month also is an opportunity to make and implement policies for treatment and research in the area of menopausal hygiene of women.

As increase in the age of world population, the number of women attaining the menopause and surviving beyond the menopause will increase simultaneously. The females are susceptible for aged related problems such as cardiac disorders and osteoporosis. Therefore, it is necessary for the all the nations to give education to women about the menopause, its symptoms and available health services for preventing these complication. The international menopause society will ensure the regional organs of IMS will project the necessity of menopause of menopausal health issues during World Menopause Month.

- The World School for the Study of Menopause (WSSM)
It is founded to enlarge the knowledge among health professionals regarding menopause and problems related. It is no political, non-religious and fully social devoted society. It offers numerous courses, seminar academic programs, about adult’s women health care and menopause In Collaboration with Regional & national societies and organize a health talk from eminent speaker and experts from various parts of world. Arrange small scale seminars. Programme titles are CVS issue among Menopause, features and management its updates about osteoporosis among menopausal women. There will be rational programs according to the local needs in local language. Seminars conducted for general practitioners. A reward of program attendance is awarded for nurse specialist, auxiliary staff by IMS

**Contact** – International Menopause Society

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**Indian Menopause Society**

Indian menopause society started in the year 1995. It is a multidisciplinary society. The aim of this society is for encouraging well-being of the Indian women who are mature and elderly. The Indian menopause society gives an opportunity for health professionals as well as people to reach the goals of the society.

**Goals of the society:**

1. To educate and increase the knowledge about menopause and process of aging through educational activities and community health programs.
2. To help the women in a multi-disciplinary, multi factorial comprehensive approach.
3. To update the doctors and health professionals in menopause medicine, this ensures that women will get appropriate health care.
4. To make it easy for exchange of ideas and experiences of many other disciplines because the physical, mental and emotional health of women after menopause is multidimensional.
5. To collect information data especially with reference to Indian women.
6. To support for research activities in the filed of menopause in the Indian setting.
7. To bring awareness and to give services to the women of the country who are less privilege

Who can become member of Indian menopause society?

- Indian menopause society is open for doctors and also to non – medical people.
- Any individual who is interested in helping with problems of menopause.

The facilities available for life members are-

- Life members have an opportunity to update themselves and can attend CMEs in cities with local doctors.
- National conferences will be conducted yearly on scientific and social issues therefore life members have opportunity to participate in these.
- Life members will get medical practice guidelines for management of menopause.
- Life members can participate in the “National Data Collection” research program.
- Can offer voluntary services for underprivileged women.
- Life members will get scientific journal of IMS By annually. The title of the journal is “The Journal of Midlife Health.”
- They will get public awareness magazine. It is a quarterly magazine and the title is “Poise”
- There are also certification courses in “Menopause medicine” for doctors.
- Additional practical training will also be given in the menopause clinics.

IMS Heritage:

In 1995 Dr Urvashi Jha the Chief Gynecologist at Hinduja Hospital, Mumbai thought about the idea of launching of Indian menopausal society to study menopausal health. Then Dr Urvashi asked Dr Rama Vaidya about this. Then they thought that it would be a better idea to start Indian menopause society to exchange knowledge and experiences about menopausal health in Indian context. They also thought that it is better to make it a multidisciplinary. Them a meeting was conducted with founding members of
multidisciplinary/super specialists. Dr Rama Vaidya was nominated as founding president and Dr Urvashi Jha as founder secretary and Dr Manoj Bharucha as a founder treasurer. Total eight of them made society. They all became life members. Dr Urvashi Jha wrote the draft constitution of IMS then days moved on IMS became national body and got recognition and became society to provide services to underprivileged women.

Society created a module called MAITREYI for health care of the women of 40 years and above. The vision of MAITREYI is to provide holistic multi-system and multi-specialty health care for physical, social, mental and spiritual health for women of midlife and beyond. The MAITREYI group worked on last Sunday of every month and ran services till 2007.

IMS – Reports of activities of IMS.
1. Academic and public awareness Activities Report from August 2016 – January 2017. Theme – was: Riding High on The waves of menopause! Slogan was: fit @ Forty, strong at six ty. & Independent at eighty. This was conducted in Bangalore, Karnataka.
2. Bangalore Chapter Secretary was Dr Jyothika A Desai.
3. On 18th October 2016 IMS Quiz was conducted on “My Heart and my Hormones” 45 post graduates participated in this quiz.
4. Another ongoing project from IMS is menopause Survey. This was initiated on World Menopause Day. The World Menopause Day is on 18th October.
5. Camps also conducted by Bangalore Society of Obstetrics and Gynecology on screening for Cancer Cervix. Pap smears are also collected. Talks were given on Women’s Health at Midlife.

On 18-10 2016 Continued Medical Education (CME) was organized on “Menopause and Beyond”. The following issues discussed in the CME – It is time to hear the calling of our hormones – menopausal transition, the deleterious effect of menopause on the bones and heart and increased propensity towards malignancy, Is dementia on the rise among older women? Sleep disorders, about Lipids- good and bad?, Is any Indian women passed her prime, frank about her sexual history or the lack of it? . Do the urogenital changes contribute to the reduced libido?

Activity reports from Bangalore:
Indian menopause society was organized a conference – IMSCON – 2016 – 19th, 20th & 21st of February at Nagpur. Theme was Menopause – Enrich, Empower and Enlighten. Slogan was : Fit @ forty, strong @ sixty and independent @ eighty. More than 500 delegates participated. Fifty-two (52) delegates presented papers & twenty-two (22) poster presentations.

On 19th of February 2016 preconference were conducted on Lifestyle modification, Colposcopy and Breast disease.

**How to become member to Indian Menopause Society?**

- To become member of Indian Menopause Society the individual have to select a chapter which is nearest to their town.
- If the individual want to find the chapter which is nearest to them, they have to go to Section office bearers in the website & go to “Governing Council Members”.
- Send the filled membership application form with the draft of the payment. Payments also can be paid online.

**Membership fee:**

- NRI Life Membership : $ 250+15% service tax.
- Life membership: Rs 5750/-
- Ordinary Annual Membership Rs. 1750/-
- Corporate Annual Membership Rs. 57,000/-
- Corporate Life Membership Rs. 5.75 Lakh

**Some Facts from New Research:**

1. **Knee pain** – women are more at risk for osteoarthritis also women are more prone to get knee osteoarthritis with cartilage loss. Women can take some important precautions such as not to ignore knee pain, women who are above 40 should not do high impact aerobics or jumping exercises because they may get ligament injury.

2. **Over weight** – every increase in body weight increases extra force on the knee. This puts considerable load on knee joints. Over weight also causes osteoarthritis in the knee, this may lead to loss of knee’s cushiony cartilage. Existing arthritis may worsen in case of excessive over weight. One of the statistics shows that two out of three obese
adults suffer from osteoarthritis at some time in their life. In such situation diet and exercises will help.

**What type of exercises?**

- Stationary cycling and straight walk on smooth surface and this can be done at a brisk pace also.
- Rehabilitation – whenever knee injury occur one must give time to heal that injury therefore rest and rehabilitation is important.

**Indian Menopause Society – Organizational structure.**

**Office bearers – Governing council members - 2017 -18.**

**Executive Council.**

1. President – Prof. Survana Khadilkar – Mumbai.
2. Vice President – Dr. Jignesh Shah – Ahammadabad.
3. Secretary General – Prof Charanur Ambuja – Hydrabad.
4. Joint Secretary – Dr. Parag Biniwale Pune.
5. Treasurer - Dr R N Goel – Agra.
8. Chapter Secretary – Karnataka – Dr. Jyothika A Desai. – Bangalore.

Expectance of life is increased and growing population of women with menopause in India it needs priority in health care facilities related to these population. Many women with menopause due to lack of awareness they do not understand these all features as being due to menopausal transition phase. The scientific data, knowledge about features of menopause those are experienced by the menopausal Indian women is less especially those living in the rural areas of the country.

According to latest census in India, approximately 70% of the total country’s population lives in the rural areas of India and for the first time since from the independence the overall growth rate of total population has been declined sharply.

Among the total population of 121 crore, about 37 crore live in urban areas where as about 83 crore population lives in rural areas of country. And opposite to this data when we see the health care facilities distribution majority of health care facilities of about 70% are available to urban
population where as only 30% of health care facilities are available to rural population of India. This uneven distribution poses rural population a great risk for health related problems.

Since majority (68.84%) of Indian population resides in rural areas, therefore there is an urgent need to focus our health services to postmenopausal women residing in rural areas.

This study is therefore expected to bring out the magnitude of suffering of menopausal women due to bio-psycho-social issues, coping strategies followed by them to cope with these issues and quality of life lead by the postmenopausal women in rural areas.

1.3 RESEARCH OBJECTIVES

1.3.1 Statement of the Problem

“A study to assess Bio-Psycho-Social problems, coping strategies and quality of life of post-menopausal women of selected rural community in Dharwad District, Karnataka”

1.3.2 Objectives of the Study

The objectives of the study are:

1. To assess the Bio-Psycho-Social problems of women during post menopause in rural community.
2. To identify coping strategies adopted by women of post-menopause phase in rural community.
3. To assess quality of life in menopausal female of rural community.
4. To determine the relationship between Bio-Psycho-Social problems and quality of life of post-menopausal women of rural community.
5. To find out an association between the quality of life of women of post-menopause phase in selected rural community with their selected demographic variables.
6. To find out an association between the level of coping of women of post-menopause phase in selected rural community with their selected demographic variables.
1.3.3 Operational Definitions

1. **Bio-psycho-social problems:** It refers to the extent to which the post-menopausal women's experience physiological, psychological and social problems as measured by structured menopause rating scale.

2. **Coping Strategies:** It refers to the specific physiological, psychological and social efforts employed by women after menopause to solve Biopsychosocial problems experienced by them as measured by structured Menopause Coping Strategies Scale.

3. **Quality of life:** It refers to the post menopausal women's general well being after attainment of menopause and includes both positive and negative feature of life as analyzed by structured quality life scale.

4. **Post menopausal women:** It refers to women of age group 45 – 55 years, with minimum of 1 year of amenorrhea and those who had attained natural menopause in last 10 years and residing in selected rural community.

5. **Rural community:** It refers to selected rural areas of Dharwad District, Karnataka.

6. **Demographical variables:** It refers to variables like Age, religion, education, occupation, marital status, type of family, dietary pattern, years after menopause, family income, suffering with any chronic disorders and type of menopause.

1.3.4 Conceptual/Theoretical Framework

A conceptual model is the concepts of inter related parts or summaries which are arranged accordingly in systematic and chronological manner according to condition of their concern to one framework and sometime this model is also known as conceptual framework.

A systematic and abstract explanation of many aspects of reality is known as theory. To describe some portion of the world in a theory the all the concepts are fitted together to from a systematic and inter-related manner. In both qualitative as well as quantitative research theories play an important role.

In researches which involve quantitative approaches, researcher many times starts with framework, conceptual model or theoretical model. On the
basis of all these theoretical model or framework researchers makes a predictions regarding how various phenomena will behave in the world of reality if the theory or framework is true. In other meaning, deductive reasoning is used by researcher to develop and come to general theory to specific predications that can be empirically tested in real world. The outcome of the research is utilized to modify, refuse, accept or lend credence to the theory.

As described by (Sandelowski, 1993) in the researches those uses qualitative approach theories may be used in many ways to draw conclusion. Many times conceptual or theoretical frameworks derive from many other disciplines or tradition of qualitative research provides an important input for a study or offers an orientation to world view of theory with exact conceptual or strong theoretical frame.

In such qualitative research studies, the conceptual framework assists the researcher in interpreting the data which is gathered for the study. In many qualitative research processes, theoretical framework becomes the cornerstone of the study work; the facts is used by the investigator from the study participants by using inductive reasoning as the basis for theory development and is firmly rooted in the experiences of the participants.

The information given by the participants is the beginning point from which the researcher starts to seek explanation of patterns, to conceptualization, to find out commonalities and the relationships emerging from the participant and researcher interactions.

The main goal of all such kind of studies is to arrive at a theoretical framework that explains phenomena they occur naturally and not as they are pre conceived. The theories those are generated inductively from qualitative research studies are sometimes used to more controlled confirmation by using through quantitative research.

The present study is based on HBM model explained by Rosenstock. For Good quality life, the post-menopausal woman should use adequate coping strategies to get rid of Bio-Psycho-Social problems developed as a result of menopause and also develop positive attitude towards life. These coping strategies used by women and quality of life of woman will be
influenced by the **modifying factors** (education, occupation, family income and dietary pattern), **non modifying factors** (age, religion, marital status, type of family, years after menopause and type of menopause) and some **cues to action** i.e, a precipitating force that makes the woman feel the need to take action. These factors include family history Bio-Psycho-Social problems after menopause and previous knowledge regarding post menopausal problems and coping strategies. The adequate coping strategies and positive attitude towards life will help the individual to perceive that they have good quality of life. Thus, once the woman **perceives the threat** of bio-psycho-social problems, she will most likely to weigh the perceived benefits of following good coping strategies to get rid of problems of post menopausal stage against perceived barriers viz; costs, inconvenience, inadequate knowledge, presence of chronic disorders and so on. When the perceived benefits outweigh the perceived barriers there is **likelihood of taking action** i.e, following good coping strategies and leading extremely well quality of life. The schematic representation of the conceptual framework is presented in Fig.1.

1.3.5 **Assumptions**

Assumptions of the study were:

- Women’s experience few bio-psycho- social problems after menopause.
- Post menopausal women use some coping strategies to resolve bio-psycho- social problems experienced by them.
- Having bio-psycho- social problems among post menopausal women leads disturbance in quality of life

1.3.6 **Delimitation**

The delimitation of the study is to post menopausal women’s who are residing at selected rural community of Dharwad district.

1.3.7 **Projected Outcome**

The study will through the light on the bio-psycho-socio problems experienced by women during post menopausal phase at rural community, the coping strategies adopted by the post menopausal women to cope with the problems after menopause and their quality of life after menopause.

1.4 **SCOPE OF RESEARCH WORK**
If women want to get checked by doctor for the problems of her menopause, she can go as soon as she thinks and decides to go to a doctor. Her decision regarding going to a doctor depends on so many elements. In fact she faces many problems to a doctor. These are differences in cultural practices, her educational background, her ethnicity and her psycho-social elements. How much problems she faces of menopause also matters. Some of the research studies showed that, more than one third of the women need support, suggestion, guidance, counseling from the doctor or nurse.

Regarding the menopausal needs and problems the women get inadequate support and inadequate information. One of the survey report states that all women on their 50th birthday should be called and their needs must be analysed and help mc can be extended to them. This will help women to explore their needs problems related to menopause. This strategy provides a platform for women to talk and discuss their problems. Thus researches in this field offer a great opportunity to find out different ways and means to deal with menopausal problems.

Present research work was on the bio-psycho-social problems, coping strategies and quality of life of post menopausal women. Results of this study indicates that majority 385(76.5%) of women had good coping, it means that women feels menopause is a natural change which happens in women’s life at certain age, so for that special concern is not required. But majority of these women facing one or the other problems which are related to their bio-psycho-social life. Here it is important for nurses to observe them and guidance and counseling can be done. Study results suggest that nurses can plan and organize mass awareness programme especially for the women in rural area. This will help them to improve their knowledge, having scientific attitudes and in turn they will be able to take care of themselves. Thus it will be a great scope of the research in the field of menopause.

It is very much important to determine quality of life of women with menopause. This is needed because research studies shown that majority of women in UK had symptoms related to menopause. These symptoms affect their quality of life, for example the post menopausal women who experience hot flushes feel very much discomfort and mood swings make her to be
restless. Therefore she will start to be all alone. This will create social isolation. The problem that is, changes in sexual desire. This affects her marital life thus quality of life will be affected. In this situation research is very much needed to find out what percentage of women facing such problems. Then we can find out community programmes to make women to get the benefits. This present research study provides a best opportunity for women.

1.5 ORGANIZATION OF WORK
The work which is related to this particular study is rural area. Rural area otherwise known as villages. The purpose of selecting the rural is to know the various problems of women in villages. People in villages have limited facility. In the matter of health they have mainly the primary health centres. These provide mainly preventive and health promotive services and selected few curative services. In this situation people have problem. Therefore the work organization is rural community of Dharwad district.

1.6 HYPOTHESES
In quantitative studies expected relationship between variables is known as hypothesis. They lend objectivity to investigations based on scientific method by pointing a specific part of a theory to be tested in the study. Propositions of theory can be tested in the real word by writing and testing the hypothesis. It is also guides the researcher a research design and helps to find out the statistical analysis to be used in the study for analysis. Is also provides the reader an understanding of the expectations of researchers about the study before the collection of the data.
The hypotheses were formulated for the study are as follows-

**H₀₁**: Statistical relationship will not be there among Bio-psycho-social problems and life quality in post menopausal women of selected rural community at 0.05 level of significance

**H₀₂**: The statistical consortium (association) will be not there between the life quality in post menopausal women of selected rural community with their selected demographic variables at P=0.05 level of significance.

**H₀₃**: No statistical consortium (association) in the level of coping among post menopausal women of selected rural community with their selected demographic variables at 0.05 level of significance.
Figure 1: Conceptual framework based on Rosenstock’s Health Belief Model

**MODIFYING AND NON MODIFYING FACTORS**

*Modifying Factors*
- Education
- Occupation
- Family Income
- Dietary pattern

*Non Modifying Factors*
- Age
- Religion
- Marital status
- Type of family
- Years after menopause
- Type of menopause

**INDIVIDUAL PERCEPTION**

- Perceived susceptibility to poor quality of life
- Perceived threat to Bio-Psycho-Social problems

**LIKELIHOOD OF ACTION**

- Perceived benefits & Preventive action
  - For Bio-Psycho-Social problems

- Likelihood of taking recommended action i.e., adequate coping strategies for leading Good quality of life

**Cues to action**
- Family history of Bio-Psycho-Social problems
- Previous knowledge regarding post menopause problems and coping strategies

**Good Quality of life**

**Perceived barriers to adequate coping strategies**

Minus
SUMMARY

This chapter had cleared the importance of the study and need for the study, the title of the research, objectives, operational definitions, conceptual framework, assumptions, delimitations and projected outcomes of the study. The in depth comprehensive discussion is made about the topic in the introduction section and in the need for the study section the research and non research literature was discussed to provide an outline to the relevance and significance of the research problem. The research studies conducted among India and other countries were used to give comprehensive information on menopause and post menopausal symptoms. Post menopausal symptoms were discussed according to system wise among the post menopausal women.

At the end of the introduction of topic being studied a brief description is mentioned about the organizations who work for the betterment of post menopausal women. The organizations included are International menopausal society. The World School for the Study of Menopause, Indian menopausal society and world heritage for menopause

The second part of this chapter dealt with statement of the problem, objectives to be achieved by conducting study, operational definitions, conceptual framework, assumptions, delimitations and projected outcomes of the study. The Rosenstock’s Health Belief Model was used to give conceptual framework for the study, this model describes for the Good quality of life, the post menopausal woman should use adequate coping strategies to get rid of Bio-Psycho-Social problems developed as a result of menopause and also develop positive attitude towards life.