CHAPTER - 1

Introduction

1.1 Background of the Study

Ageing is a lifelong process, which begins before we are born and continues throughout life. We all age differently as we journey from womb to tomb [1]. The ageing of the population especially affects women, whose life expectancy exceeds that of men by almost a decade[2].

In the process of aging, women proceed through a sequence of hormone related stages in their lives like menarche, perimenopause menopause and post menopause. Menarche and menopause are the two important milestones which demarcate the limits of potential reproductive life span in a woman. These are biological and physiological events, which occur in the life cycle of every normal female. All healthy women transit from a reproductive or premenopausal period, marked by regular ovulation and cyclic menstrual bleeding, to a postmenopausal period, marked by amenorrhea or menopause[3].

Women over age 50 currently make up almost 9% of the world population and this number will grow rapidly in developing countries over the next three decades[4]. According to 2001 census, in India there were 54 million women who were above the age 50 years, and this number is going to increase drastically in the forthcoming years. A total of 130 million Indian women are expected to live beyond menopause into old age by 2015[5].

Menopause is derived from the Greek words "meno" for month/menses and "pausis" for pause and refers to the cessation of menses. World Health Organization

defined menopause as the permanent cessation of menstruation resulting from the loss of follicular activity of the ovaries that occurs naturally or is induced by surgery, chemotherapy or radiation. Natural menopause is recognized after 12 months of amenorrhea that is not associated with a pathologic cause[6].

The age at which natural menopause occurs is between the ages of 45 and 55 for women worldwide. The average age of menopause is generally accepted at about 51 years in industrialized countries[7]. In India, 19 percent of women already reach menopause age by 40–41years and the incidence of menopause increases rapidly after age of 41 years. By 48–49 years of age, two-thirds of women attain menopause, much earlier than the international average age[8]. A recent survey highlights the finding, that an average of nearly 4 percent Indian women, menopause between the ages of 29-34 years. It goes up to 8 percent in the case of women between 35 and 39 years. This is shocking because Indian women are attaining menopause, much earlier than the average age[9]of the rest of the world.

Menopause is the most significant event in a women's life and brings in a number of physiological changes that may affect day to day adjustments. It roughly starts in the early 40's, when for most of the people it is the "best" period in life, when their achievement is at the highest point. Midway between the challenges of adulthood and despair of old age, comes the change – menopause in women and during which lives take a compulsory change of direction. It is the gatekeeper standing in the middle between middle and old age. As a woman approaches menopause, the hormone levels in her body start to shift. Estrogen and progesterone levels decline sharply, stabilizing

a few years after the final menstrual period. The perimenopause period encompasses the time before, during and after menopause [10].

Perimenopause is defined as the transition period immediately prior to the menopause when endocrinological, biological and clinical features of the approaching menopause commence; continuing for at least the first year after menopause. It begins with irregular menstrual cycles as reflection of declining ovarian function and ends a year after the last menstrual period. The average duration of perimenopause varies but it is usually considered to last approximately 3 – 4 years although it can last just a few months or extend as long as a decade, beginning with the decline in ovarian function in woman's 40's and continuing until she has not had a menstrual period for 1 year, occurring at a median age of 51 years [11].

Loss of ovarian function at menopause and associated decrease in circulating hormone affects nearly every organ in a woman's body. Women in the menopausal transition commonly report a variety of symptoms, including vasomotor symptoms (hot flushes and night sweats), vaginal symptoms, urinary incontinence, trouble sleeping, sexual dysfunction, depression, anxiety, labile mood, memory loss, fatigue, headache, joint pains, and weight gain [12]. The hot flash is one of the most common symptoms reported by women going through the menopausal transition. Between 50% and 88% of women experience hot flashes and night sweats during the menopausal transition [13]. Vaginal symptoms, caused by oestrogen deficiency such as a feeling of aridity, smarting pain, itching, pain during sexual intercourse, and superficial bleedings and secretion, are common. Moreover urinary symptoms such as smarting pain upon urination, frequent need to urinate, recurrent inflammation of the urinary

tract and urinary incontinence are frequently reported. Oestrogen deficiency, causing urogenital symptoms, has been found in 20–50% of women of peri-postmenopausal age[14]. Urinary incontinence, however, is more than just a physiologic loss of urine. Emotional distress is also a significant issue for incontinent individuals[15].

It appears that the signs and symptoms of menopause are numerous, but fortunately, all of them would not aggregate in one individual and some women never experience any of them. Despite that, it is estimated that about 75% of women experience acute symptoms during menopause. These signs and symptoms are classified as short, medium and long term according to the time they appear. The short and medium term symptoms include irregular bleeding, vasomotor symptoms, myoarthralgia, sexual dysfunction, and urinary problems and long term as cardiovascular disease and osteoporosis[16].

From the medical perspective, the early symptoms are mostly harmless and it is the longer term consequences of oestrogen deficiency which cause greater anxiety. A variety of non specific symptoms such as irritability and fatigue, memory complaints, sleep disturbances and increased premenstrual symptoms may be features of the early menopausal transition[12].

In the Penn Ovarian Aging Study[17], investigators followed a cohort of more than 400 women for 9 years to document symptoms associated with the transition from premenopause to postmenopause. At study onset, subjects ranged in age from 36 to 49 years (mean age, 42 years). The prevalence of hot flushes and aches, joint pain and stiffness increased throughout the transition, with the prevalence of each symptom

peaking at about 80%. Depressed mood was experienced by about 60% of women during the menopausal transition, when menses and hormonal levels fluctuate wildly, and the prevalence decreased in the postmenopause stage.

The long term effects of estrogen deficiency are associated with increased risk of many diseases and cause specific mortality. Women's health status changes over menopause. In addition to the loss of fertility, women generally (although not in all the cases) experience changes in cardiovascular function and bone metabolism. Some of the changes associated with significant increase in morbidity and mortality for example the rates of hypertensive heart disease and stroke increase almost fourfold in postmenopausal women as compared with premenopausal women and the risk of clinically significant bone loss also increase many fold after menopause without hormone replacement.[18].

Women have a mortality advantage over men during their 40s and 50s , after the risk of child birth is behind them. By stimulating skeletal growth, estrogen and progesterone help maintain healthy bones, protect the heart and veins by upping the body's 'good cholesterol' (HDL or high-density lipoprotein) and lowering 'bad cholesterol' (LDL or low-density lipoprotein). But with the onset of menopause, and the subsequent dip in the levels of these hormones, a woman's overall health gets impacted[19].

Cardiovascular Disease is unusual before menopause but becomes the most common cause of death in women after the age of 60. After a natural menopause, women are 3-4 times more likely to suffer atherosclerosis[20]. Osteoporosis will become a large-scale global health issue as the world's population continues to age. It affects

30% of women over the age 45 and causes 1.2 million fractures per year of wrist, vertebrae and hip. Osteoporotic fractures, such as hip fractures, may render an individual unable to walk independently following the fracture. The negative health consequences following osteoporotic fractures often result in a decrease of individual independence, compromising not only the physical health but the general quality of life of women affected by this disease. Osteoporosis is not an inevitable consequence of aging; however it can be prevented in at-risk patients and those who have already lost bone mass[21].

The prevalence of each of these symptoms related to menopause varies widely not only among individuals of same population but also between different ethnic and socioeconomic groups, and between rural and urban women. Studies have been undertaken in the past to find out correlation of age and symptomatology of menopause, which also suggest varying trends. These symptoms can have a significant impact on women and their families and negatively impact their quality of life (QOL), regardless of age or other socio demographic variables [22].

Most women care not only about living long lives but also about living healthy lives free of disability, disease, and unpleasant symptoms that prevent the enjoyment of, and involvement in meaningful relationships, work, and recreation. The characteristics of a healthy life are the essence of what is meant by health-related quality of life (HRQOL)[23].

Quality of life (QOL) can be defined as one's own subjective view of one's physical health, psychosomatic status and personal life. Physical health refers to general physical health, energy level and body weight. Psychosomatic status concerns one's nervous and emotional state, self confidence, occupational health, ability to

make decisions and ability to concentrate. Personal life encompasses a person's family life and time for self, along with hobbies and interests[24].

Many women approach menopause with uncertainty about what will happen and how to deal with changes that occur. Some women will seek treatment when symptoms affect their quality of life, while others take a proactive approach to become informed on issues related to menopause, as well as access options for care in advance of symptoms[25]. Therefore, when the risks of their diseases are presented, most women will embrace the chance to make early adjustments to their lifestyles to gain a sense of future well being.

Health promotion is a process that allows people to increase control over and thus improve health and its determinants (WHO 2006). It includes complex dimensions of providing health education, marking health messages, encouraging necessary lifestyle modifications, engaging in social and environmental ages and incorporating values. It is important to address the symptoms, menopause related diseases and prophylactic measures so that women can lead an enjoyable and health y life[26].

1.2 Need for the Study

Menopause currently affects the lives of millions of women globally and will be an issue of increasing concern as the population ages over the next few decades. It is characterized by major physical, psychological and social changes and is currently considered an important public health problem associated with a worse health related quality of life. Post menopause women can be considered a risk population, although menopause itself is not considered a disease [2]. Unequal access to information and basic health practices further increase the health risks for women [27].

The menopause has been reported as one of the opportunities for women, who are higher utilizers than men, to visit health care services. Some women, however, consider that these symptoms are natural and transient, and they often wait for the symptoms to pass. Therefore, middle-aged, healthy women may possibly experience a decrease of QOL for 4–5 years around menopause without any social help [28].

Sixty million women in India are above the age of 50. With the general increase in life expectancy, many women are likely to live for more than 20 years after menopause, spending about one quarter of their lives or more in a state of estrogen deficiency[29]. The onset of menopause usually begins between ages 45 and 55, with a worldwide average of 51[7].

A pan-India survey, conducted recently by the Bangalore-based Institute for Social and Economic Change (ISEC)[9], highlights the alarming new phenomenon of premature menopause amongst Indian women. This is increasingly becoming a source of consternation amongst the medical community. If this trend continues, a large

number of Indian women in future may experience a longer period of menopause and be burdened with health problems.

As menopause health demands priority in the Indian scenario due to increase in life expectancy and growing population of menopausal women, large efforts are required to educate and make these women aware of menopausal symptoms and improve their physical health related quality of life. This will help in early recognition of symptoms, reduction of discomfort and fears and enable to seek appropriate medical care if necessary[30].

Menopausal health has been one of the neglected areas in our country and needs timely vital attention. The need of the hour is to conduct awareness campaigns to inform general public, health workers etc about menopause and associated health issues through various forms of mass media. Education can provide the information women want and can decrease their uncertainty about menopause [27].

The problems traditionally associated with menopause are often diagnosed and treated as a disease. It must be understood that menopause is natural transition and symptom control and disease prevention can be approached in many different ways, not simply through hormone therapy. Health care providers should expand their focus to provide and promote preventive health in menopausal women [31].

In today's health care environment, physician's time to engage in thoughtful dialogue and provide information and counseling to women's wants is constrained. There is a mismatch between women's needs and the ability of everyday outpatient care to meet their needs[27].

Women in Western countries tend to be better informed about implications of menopause. One survey conducted at Mexico City by Velasco–Murrillo et al [32] reported that 83.8% of women have knowledge about climacteric symptoms and 90% knew about osteoporosis, 37% had some knowledge about cardio vascular risk after menopause. Another[33] study has shown that 78.79% women were aware about menopause but only 15.87% had knowledge about symptoms and health implication of menopause.

Women need health education or information to be able to take informed decisions about their own health, reduce uncertainty associated with menopause or existing health behaviours. Moreover, health education for middle aged women has a long term impact and help women deal emotionally and practically with menopausal symptoms[27].

Liao KLM et al[34] conducted a study to evaluate the short-term outcome of a health education intervention devised to prepare 45-year old women in general practices. One hundred and seventy-eight, 45-year old women registered at five general practices in south London, were targeted for the research; 106 of the women responded and 86 of these women formed a usable pre-menopausal sample which was randomly allocated to the preparation, intervention and control conditions. Preparation involved two health education sessions carried out in small groups and covering information and discussion of the normal menopause transition in the context of mid-life. The women completed pre- and post-intervention (3 and 15 months) questionnaires which assessed knowledge and beliefs about menopause and a number of health-related behaviours. Knowledge improved significantly at the follow-up assessments for the preparation group but not for the control group. On the whole, the

prepared women's beliefs about menopause became less negative following the intervention, although there were also some changes reported by the control group.

Sedigheh et.al.[16] conducted a study to find the effect of education and awareness on quality of life and improvement of health standards in menopausal women. The finding of this study asserted that the four aspect of quality of life following menopause well improved after educational intervention and education can cause an improvement in the QOL by decreasing the problems of menopause stage and lowering their intensity. This finding confirms that of Keefer et al[35], who reported an improvement in the quality of life following education on menopause symptoms and coping skills in the study group while the controls, due to progressive nature of climacteric complication, registered some worsening. Therefore, the urgency of need to plan and implement an appropriate educational program is emphasized in order to promote the quality of life in this group of people.

Perimenopause is a time when women are actively seeking health information, particularly if they are experiencing menopausal symptoms. When such information is framed in terms of supporting women to take an informed, proactive role in choosing, using, and evaluating management options for themselves, they appear to be open for making lifestyle changes and adhering to them, as others have also found [27].

Women during perimenopause generally suffer from number of physical and psychological discomforts, without realizing that it may be the beginning of menopausal transition. Majority of women do not have adequate knowledge regarding menopause and its consequences. At times they are embarrassed to disclose certain issues to anybody, like problems related to genitourinary system[36]. Knowing more about menopause might empower women to cope better with menopausal changes and

lead a good quality of life[37]. Involving women in decision making, clearly explaining risks and benefits and helping to develop a personalized regimen may be effective in meeting the health needs of perimenopausal women.

The researcher has observed many friends, relatives, colleagu es and women in the rural and urban community with lack of knowledge on menopause and health practices during perimenopause, paying less attention to self and so suffer from various physical and psychological symptoms. Hence the investigator recognized t he need to conduct a study on perimenopausal women by providing information on management of selected physical components of menopause affecting HRQoL.

1.3 Problem Statement

The effect of planned teaching on knowledge and self expressed practices among women during perimenopause in relation to management of selected physical components of menopause affecting health related quality of life (HRQoL).

1.4 Objectives of the Study

1. To find out the existing symptoms of menopause affecting physical health related quality of life (HRQoL) among women during perim enopause.

2. To assess the existing knowledge and self expressed practices of women, in relation to management of selected physical components of menopause, before teaching.

3. To assess the effect of planned teaching on knowledge and self expressed practices of women, in relation to management of selected physical components of menopause after teaching.

4. To compare the effect of planned teaching on knowledge and self expressed practices of women, in relation to management of selected p hysical components of menopause before and after teaching.

5. To find the association between selected demographic characteristics, personal characteristics and knowledge and self expressed practices of women in relation to management of selected physical components of menopause.

6. To find out the views of women about the instructional manual

1.5 Operational Definitions

1. Menopause:

According to World Health Organization menopause means permanent cessation of menstruation resulting from loss of follicular activity of the ovaries that occurs naturally or is induced by surgery, chemotherapy or radiation.

In this study menopause refers to all women with natural menopause.

2. Perimenopause

According to World Health Organization the term perimenopause refers to the period immediate prior to the menopause (when the endocrinological, biological, and clinical features of approaching menopause commence) and the first year after menopause. Perimenopause usually begins at mid-to-late 40s and lasts about 4 years, with menopause occurring at a median age of 51 years.

In this study perimenopause refers to women in the age group of 40 to 55 years.

3. Effect

According to Oxford Advanced Learner's dictionary it means … result, outcome or change produced by an action.

In this study effect refers to change produced in the level of knowledge and self expressed practices of women who had participated in the study, as measured by the instrument prepared by investigator on knowledge and practices in relation to management of selected physical components of menopause affecting health related quality of life.

4. Planned Teaching

According to Oxford Advanced Learner's dictionary.. PLANNED – means decide on and arranged in advance. TEACHING – means give information about a particular subject to help somebody to learn something.

In this study planned teaching refers to a structured teaching program on management of selected physical components of menopause affecting HRQoL.

5. Information Booklet

According to Oxford Advanced Learner's dictionary Information means the facts or knowledge provided and Booklet means a small , thin book.

In this study Information Booklet refers to a small , thin book with a brief description and colourful illustrations on management of selected physical components of menopause.

6. Knowledge

According to Oxford Advanced Learner's dictionary Knowledge means information and skills gained through experience or education.

In this study Knowledge refers to the awareness of women about management of selected physical components of menopause as measured by Part III of the instrument prepared by investigator.

7. Practices

According to Oxford Advanced Learner's dictionary Practices means the usual or expected way of doing something.

In this study practices refer to the knowledge of expected behaviour of women as expressed by self reporting and measured by Part IV of the instrument prepared by the investigator.

8. Selected physical components of menopause affecting HRQoL

In this study, selected physical components of menopause affecting HRQoL, refers to the knowledge and self expressed practices of women in relation nine physical symptoms prevalent during perimenopause and post menopause and two health hazards most significant in women after menopause affecting HRQoL. The selected physical components are...

Symptoms

1. Hot Flashes

Experiencing intense heat in the upper body, arms and face, followed by profuse sweating which affects daily activities.

2. Night Sweats:

Experiencing hot flashes at night and sweating excessively, affecting sleep and comfort.

3. Heart Discomfort:

Experiencing unusual awareness of own heart beats, feeling of heart skipping and chest tightness.

4. Disturbed sleep:

Difficulty in falling asleep, difficulty in sleeping through and waking up early morning, affecting day time activities.

5. Joint Pains:

Sensation of pain and early morning stiffness, involving knee, elbow, shoulder and other parts of the body, affecting comfort and daily activities

6**. Urinary symptom:**

Experiencing pain sensation while passing urine, increased need to pass urine and urine leakage.

7. Vaginal Problems:

Sensation of dryness, burning and itching in the vagina which causes pain during intercourse.

8. Sexual Problems:

Change in sexual desire, sexual activities and sexual satisfaction.

9. Gain in weight:

Increase in body weight, change in body shape and waist hip ratio which affects daily activities.

Health Hazards:

1. **Diseases of Heart and Blood Vessels**:

Harmful effects of menopause on heart and blood vessels and its preventive measures.

2. **Osteoporosis:**

Harmful effects of menopause on bones and its preventive measures.

1.6 Assumptions

1. Women of childbearing age may receive more attention from family members than women above the age of 40 years.
2. Information, education and communication activities promote health, prevent illness and enhance early health seeking behaviours.
3. Nurses working in clinical and community settings have a key role in convincing and educating women to follow measures to promote health and prevent diseases.

1.7 Research Hypotheses

1. **Ho1**.The planned teaching has no significant effect on the level of knowledge among women during perimenopause in relation to management of selected physical components of menopause affecting health related quality of life.

2. **Ho2**.The planned teaching has no significant effect on self expressed practices among women during perimenopause in relation to management of selected physical components of menopause affecting physical health related quality of life.

3. **Ho3**. The planned teaching has no significant association between knowledge , self expressed practices of women and selected demographic characteristics (age, marital status, education,) and personal characteristics (medical checkup, breast self examination and Pap smear).

1.8 Delimitations of the study:

1. Selected physical components of menopause were only included in the study.
2. Self administered questionnaire was used for data collection and information booklet was provided to the participants. This required participants who could read and write.
3. The measurement of practices was based on self reporting which has its own limitations.
4. The study was conducted in urban area, hence the perception about menopause, health behaviour and quality of life may differ from women in rural areas.
5. It is very difficult to isolate the effect of planned teaching from those of other sources like mass media, friends, internet magazine etc.

1.9 Theoretical Framework

The theoretical framework[38] of this study is based on Health Belief Model (by Rosenstock, Strecher, & Becker) The Health Belief Model (HBM), a motivational model, is most commonly used theory in health education and health promotion . The underlying concept of the original HBM is that health is determined by personal beliefs or perception about a disease and the strategies available to decrease its occurrence.

The following four perceptions serve as the main constructs of the model: perceived susceptibility, perceived seriousness, perceived benefits and perceived barriers. Each of these perceptions individually or in combination can be used to explain health behaviour. More recently, other constructs have been added to the HBM; thus the model has been expanded to include, cues to action, modifying

factors and self efficacy. All the components are regarded as independent predictors of health behaviour.

Perceived Seriousness

The construct of perceived seriousness speaks of an individual's belief regarding the possibility of developing an undesirable condition or disease. While the perception of seriousness is often based on medical information or knowledge, it may also come from beliefs a person has about the difficulties an undesirable condition or disease would create or the effects it would have on his or her life in general.

Perceived Susceptibility

Personal risk or susceptibility is one of the more powerful perceptions in promoting people to adopt healthier behaviours. The greater the perceived risk, the greater the likelihood of engaging, in behaviours to decrease the risk. Perceived Susceptibility moves people to bring change in their behaviour.

Perceived Benefits

The construct of perceived benefits is a person's opinion of the value or usefulness of a new behaviour in decreasing the risk of developing an undesirable condition or disease. People tend to adopt healthier behaviours when they believe the new behaviour will decrease their chance of developing a certain condition or disease. Perceived benefits play an important role in the adoption of secondary prevention behaviour such as screening for cancer, hypertension, osteoporosis etc.

Perceived barriers

Since change is not something that comes easily to most people, this is an individual's own evaluation of the obstacles in the way of him or her adopting new behaviour. Of all the constructs, perceived barriers are the most significant in determining behaviour change. In order to adopt a new behaviour a person needs to believe the benefits of a new behaviour outweigh the consequences of continuing the old behaviour. This enables barriers to be overcome and new behaviour to be adopted.

Modifying Variables

The four major constructs of perception are modified by other variables such as culture, education level, past experience, skill and motivation to name a few. These are individual characteristics that influence personal perceptions.

Cues to action

Cues to action are events, people or things that move people to change their behaviour, example, illness of a family member, media reports, advice from others, reminder post cards from healthcare providers or health warning labels on a product.

Self Efficacy

Self efficacy is the belief in one's own ability to do someth ing. People generally do not try to do something new unless they think they can do it.

The concept of "**Health Belief Model**" is tested in the present study "effect of planned teaching on knowledge and self expressed practices among women in relation to management of selected physical components of menopause affecting health related quality of life (HRQoL) ***Figure 1.***

Perceived susceptibility and perceived seriousness

In this study includes the existing knowledge and practices of women in relation to following selected physical components and health hazards related to menopause.

1. Hot Flashes
2. Night Sweats
3. Disturbed Sleep
4. Heart Discomfort
5. Joint Pains
6. Urinary symptoms
7. Vaginal Problems
8. Sexual Problems
9. Gain in weight
10. Health Hazards

    - Diseases of Heart and blood vessels
    - Bone softening (osteoporosis)

Perceived benefits

This study refers to gain in knowledge in relation to selected physical components of menopause and the health risks involved.

Perceived barriers

Interest, perception and willingness to bring change in behaviour.

Modifying Variables

Modifying variables in this study are females between the age group of 40 and 55 years as per the inclusion exclusion criteria of the study.

Cues of action

This study refers to **planned teaching** on management of selected physical components of menopause affecting health related quality of life. This is an interventional activity and the related effect contributes to change in behaviour. (Knowledge and self expressed practices).

Self Efficacy

Effect of planned teaching – improvement in the knowledge and self expressed practices in relation to management of selected physical components of menopause after planned teaching

The theoretical framework based on Health Belief model is illustrated as ***figure 1*.**

1.10 Summary

This chapter has dealt with the background of problem, need for study, statement of problem, objectives of the study, operational definitions, assumptions, research hypothesis, delimitations, and theoretical framework.

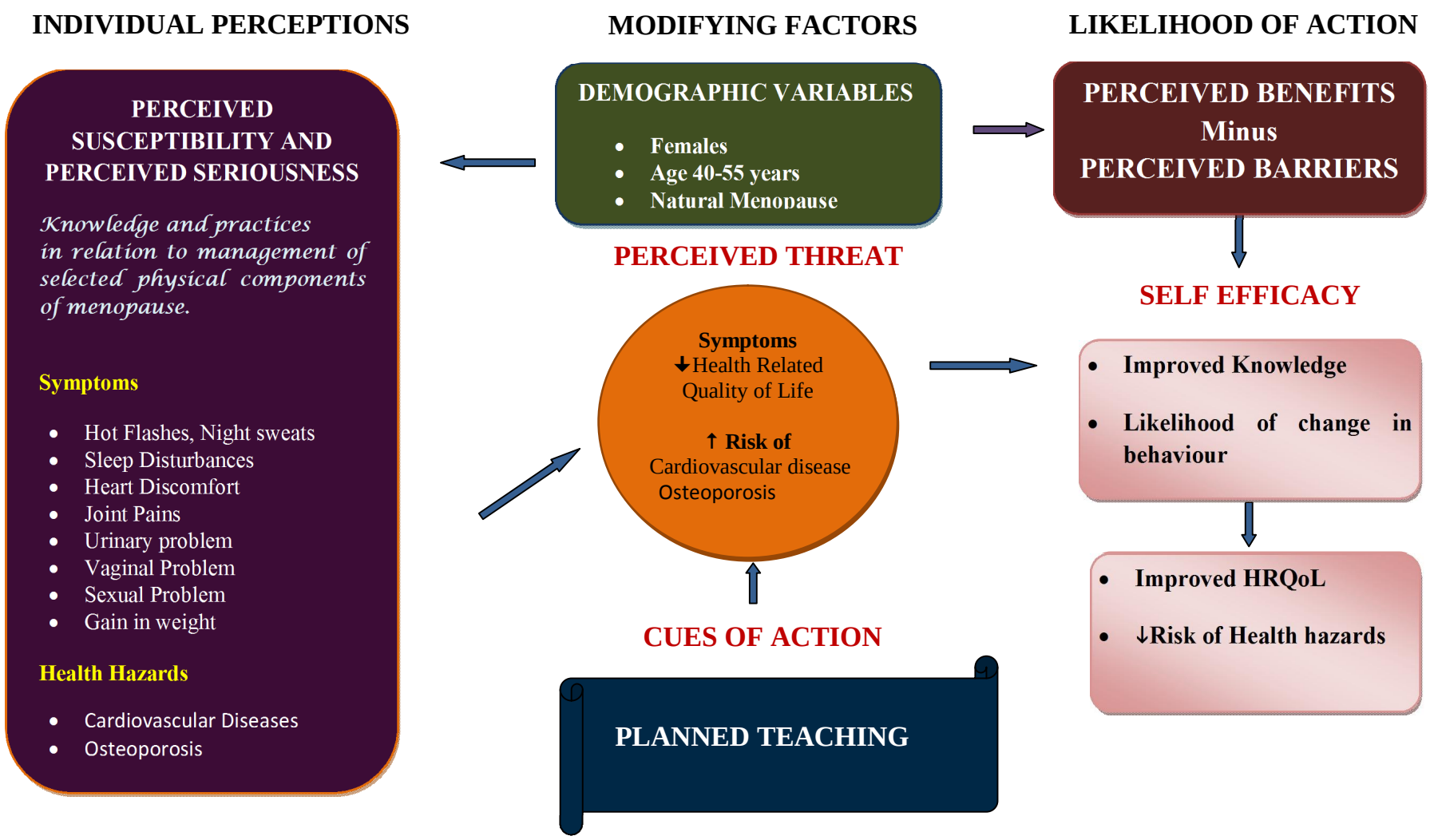

FIGURE - 1 Theoretical Framework based on Health Belief Model