

# Health education program about postmenopausal changes to perimenopausal women in an urban slum area, Coimbatore

Sugunadevi G, Divya B V

Department of Community Medicine, Karpagam Faculty of Medical Sciences and Research, Coimbatore, Tamil Nadu, India

Correspondence to: Divya B V, E-mail: divya.bv@gmail.com

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## ABSTRACT

**Background:** Menopause is the stage in every woman's lifetime after which their body undergoes changes, to which the females have to adopt. There are several risk factors for menopause-related diseases, most of which are modifiable by change in lifestyle during the perimenopausal period itself. **Objective:** The objective of this study is to create awareness about postmenopausal risks among women of perimenopausal age group. **Materials and Methods:** The educational interventional study was conducted among 75 women of age 35–50 years residing in an urban slum area of Coimbatore. After informed consent, pre-intervention survey was done to find their awareness levels on postmenopausal problems. Health education program was conducted, and after a month, the improvement in their knowledge levels was assessed using post-test questionnaire. **Results:** After our health education, the knowledge of the women on menopausal symptoms, health problems during menopause, appropriate dietary intake, and the other modes of preventing the problems were evaluated, and there was a significant gain in knowledge among the perimenopausal women. **Conclusion:** Most of the participants felt that the awareness program was very useful. There was also significant gain in knowledge among the perimenopausal women after the health education program ( $P < 0.0001$ ).

**KEY WORDS:** Menopause; Health Education; Perimenopause; Lifestyle Modification; Quality of Life

## INTRODUCTION


Menopause is the stage in every woman's lifetime after which their body undergoes changes, to which the females have to adopt into for the remaining period of existence. The period of cessation of ovarian function which results in permanent amenorrhea is known as menopause. Menopause occurs usually between the ages of 45 and 50 years.<sup>[1]</sup>

There are various symptoms occurring in a female during the process of menopause, namely, hot flushes, sweating, insomnia, headache, psychological problems, and several

others.<sup>[2]</sup> These symptoms are all caused due to the changing levels of estrogen and progesterone. These hormones have been the key players in a woman's life from the time of birth to this period. During menopause, the ovaries become less functional and they produce less hormones. The body responds accordingly with specific symptoms and disease condition which ranges from mild to severe in nature.

Even though females are freed from monthly routine of menstrual cycles, they have a bigger battle ahead of them in the postmenopausal period. Most of the body organs and systems are affected in different ways during the postmenopausal period changing the life of the female drastically. They are liable to develop osteoarthritis, osteoporosis, cardiovascular accidents, stroke, skin changes, and various health problems.

After the attainment of menopause, the life of a female changes completely. She enters a period of various health-related issues until her day of existence. The journey of a female's

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life during the postmenopausal period can be made better and healthier by preparing her for it in the perimenopausal period. There are several risk factors for menopause-related diseases, most of which are modifiable by change in lifestyle during the perimenopausal period itself.

Perimenopause, or menopause transition, begins several years before menopause. It is the time when the ovaries gradually begin to make less estrogen. It usually starts in a woman's 40s but can start in her late 30s or even earlier. Perimenopause lasts up until menopause, the point when the ovaries stop releasing eggs. In the past 1–2 years of perimenopause, this drop in estrogen speeds up. At this stage, many women have menopausal symptoms.<sup>[3]</sup>

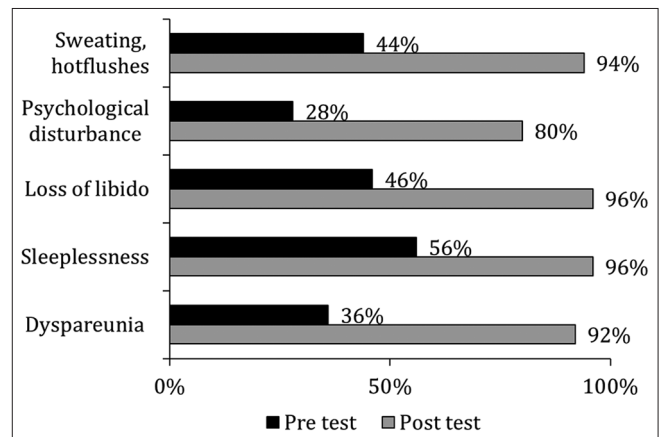
Climacteric is the phase of waning ovarian activity and is thus a phase of adjustment between the active and inactive ovarian function and occupies several years of a woman's life, and it involves physical, sexual, and psychological adjustments.<sup>[1]</sup> Due to the complexity of menopausal symptoms, many different alternatives have been developed to control these symptoms. They include the use of herbal drugs, diet/nourishment, exercise programs, and lifestyle modification programs.<sup>[4]</sup> A total healthcare approach is still beneficial: Exercise, a low-fat and normocalcemic diet, and proper use of hormone replacement therapy.<sup>[2]</sup>

A change of lifestyle before menopause and the mode of approach to life after menopause can help the females to be prepared for what is ahead of them and thereby reduce the menopause-related health problems which may affect them. Perimenopause is the 2–10 years time frame before menopause. Hormonal changes during this transitional phase can cause many menopausal symptoms. However, many women are not aware that these symptoms are related to their hormones and may attribute them to other causes.<sup>[5]</sup> Of the women who used the complementary medicine and non-pharmacological interventions, namely, diet/nutrition, exercise/yoga, relaxation/stress management, and homeopathic/naturopathic remedies, large proportions reported them to be helpful.<sup>[6]</sup>

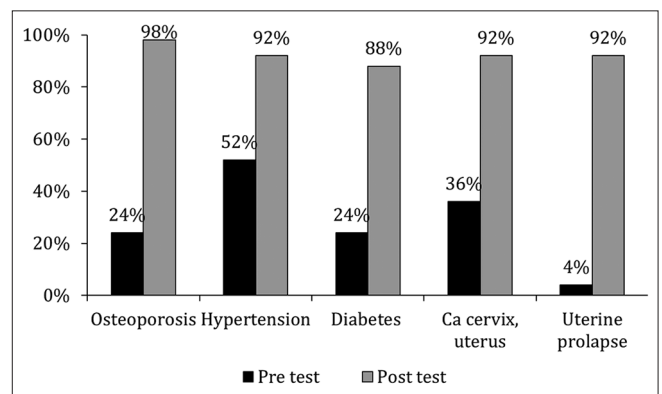
Principal health concerns of menopausal women include vasomotor symptoms, urogenital atrophy, osteoporosis, cardiovascular disease, cancer, psychiatric symptoms, cognitive decline, and sexual problems. It has been difficult to distinguish between symptoms that result from loss of ovarian function and those from the aging process or from the socioenvironmental stresses of midlife years.<sup>[7]</sup>

**Rationale**

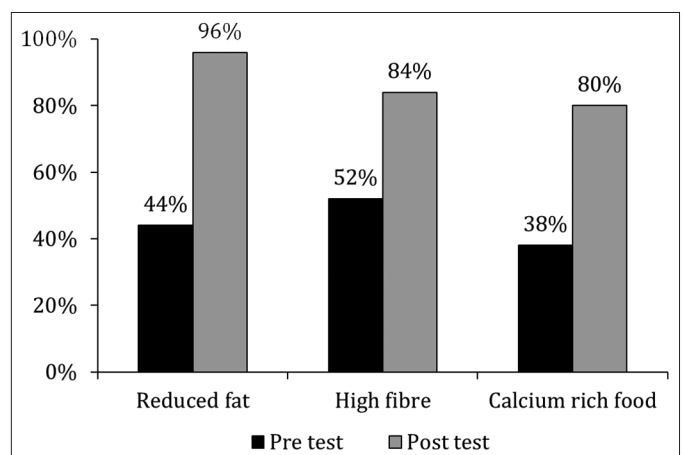
By educating women of perimenopausal age group about the changes occurring during and after menopause and by identifying the risk factors involved in menopause-related disease, we can improve their quality of life. Hence, this study



**Figure 1:** Awareness on menopausal symptoms among the study participants, n = 75



**Figure 2:** Awareness on health problems during menopause, n = 75



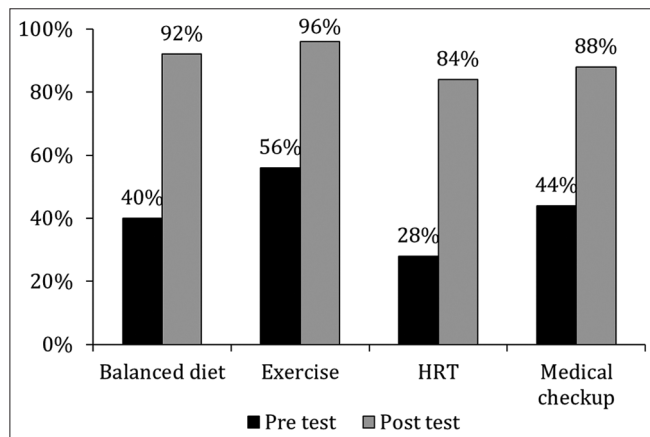
**Figure 3:** Awareness about food items to be consumed in menopausal period, n = 75

**Table 1:** The impact of health education on menopause among the study subjects

| Parameters | Mean score |
|------------|------------|
| Pretest    | 10.00      |
| Posttest   | 18.76      |

Student paired t-test P<0.0001

was done with the objective, to educate the perimenopausal women on the risk factors, menopausal symptoms,



**Figure 4:** Awareness on prevention of health problems due to menopause,  $n = 75$

menopause-related health problems, investigations to be done, management, and modification of lifestyle, to make them prepared to experience a better and healthy life after menopause.

## MATERIALS AND METHODS

### Type of Study

This was a educational interventional study.

### Study Population

Women aged 35–50 years were included in the study.

### Study Area

The study was conducted at Slum area in Sowripalayam, Coimbatore district.

### Study Period

June-August, 2005.

### Sample Size

A total of 75 women were included in the study. A cluster sampling method was used in the slum area consisting of ten streets in the locality which were randomly selected, and in each street, first 7 or 8 study subjects of the age group 35–50 years who gave consent for the study were included in the study.

### Data Collection Tool

Pre-tested oral questionnaire was used.

### Ethical Consideration

Institutional Human Ethics Committee permission received and informed consent was obtained from the study participants.

A pre-interventional survey was done among the study participants, and then, health education was given. After 1 month, post-interventional survey was done to find the impact of the health education program.

### Statistical Analysis

The statistical analysis was performed using proportions and student paired *t*-test.

## RESULTS

Only 44% of the perimenopausal women were aware of the distressing menopausal symptoms of sweating and hot flushes. Majority (56%) of the perimenopausal women were aware of sleeplessness as a distressing problem. After the health education, the knowledge on these menopausal symptoms increased to 94–96%, respectively Figure 1.

The awareness about the health problems during menopause was low (4–52%) before the intervention, which increased to 88–98% after the health education Figure 2.

The awareness on foods to be consumed during menopause was very low ranging from 38% to 52% among the participants. Health education was given on low fat, high fiber diet, and calcium-rich food items. There was an overall increase in knowledge about food items to be taken during menopausal period from 80% to 96%, respectively Figure 3.

Most of the women were ignorant about the preventive measures that can be done during perimenopausal and menopausal period. Many of them realized its importance after the health education program as the awareness increased to 84–96% Figure 4.

After the health education program, there was a significant improvement in knowledge about menopause among the study participants ( $P < 0.0001$ ) Table 1.

## DISCUSSION

In the present study, women aged 35–50 years were included in the study. They were enquired about their awareness on menopausal symptoms, namely, sweating, hot flushes, psychological disturbances, loss of libido, sleeplessness, and dyspareunia, and it ranged between 28 and 56%. The health education imparted to them improved their knowledge on most of the menopausal symptoms to more than 90%.

In Denver, menopause survey done in 1990 among 300 women nearly 4 of 10 women surveyed said that hot flushes were the most disturbing symptom of menopause. In a national survey, however, sleep disturbances ranked as the most disturbing menopausal symptom.<sup>[5]</sup> In our study, 56%

of women had awareness on menopausal symptoms like sleeplessness and only 44% of the perimenopausal women were aware of the distressing menopausal symptom sweating and hot flushes, but after the health education, it increased to 96% and 94%, respectively. Hot flushes not only disturb women at work and interrupt daily activities but also disrupt sleep.

Another study by Daley *et al.*<sup>[6]</sup> showed the symptoms associated with estrogen deficiency after the menopause was hot flushes and night sweats, insomnia, and vaginal dryness. In Denver menopause survey, fewer than 1 in 5 women surveyed recognize that sexual dysfunction maybe related to menopause, but nearly 40% said that they are worried about maintaining health, vital sex life into their older years.<sup>[5]</sup> Similar findings were seen in another study by Ravnkar,<sup>[2]</sup> the common symptoms during menopause are hot flushes, sweating, insomnia, psychological, and sexual problems.

Vasomotor symptoms affect up to 75% of perimenopausal women. Symptoms last for 1–2 years after menopause in most women but may continue for up to 10 years or longer in others. Hot flushes are the primary reason that women seek care at menopause. Many women report difficulty concentrating and emotional liability during the menopausal transition.<sup>[7]</sup>

A clinic-based study from Mumbai by Shah *et al.*<sup>[8]</sup> reported that 25% of urban women between 40 and 60 years of age complained of vasomotor symptoms. A population-based cross-sectional study done in rural South India showed that higher proportion of postmenopausal women reported hot flushes, night sweats, urge incontinence, and other somatic symptoms as compared to premenopausal women.<sup>[9]</sup> The study done by Ballinger<sup>[10]</sup> has reported high rate of depression among women attending menopause clinics and among middle-aged women attending gynecology clinic similar to our study.

In our study, the awareness on sexual dysfunction like loss of libido was 36% and on dyspareunia was 46%, and health education increased the awareness to 92% and 96%, respectively. In the Denver menopause survey,<sup>[5]</sup> only a few <20% mentioned about sexual dysfunction. In this study, the awareness on health problems which the menopausal women are highly at risk, namely, osteoporosis, hypertension, diabetes, cancer cervix, and uterine prolapse was enquired. Although osteoporosis is one of the most disturbing and common problems in menopausal period, only 24% of the study group were aware of it. Their knowledge on the various health problems increased after the intervention.

The current study increased the knowledge about dietary intake of calcium-rich foods in the menopausal period from 64% to 80%. Similar health education on post-menopausal health was given by Juliana *et al.*<sup>[11]</sup> on adequate calcium

and Vitamin D intake that provides sufficient levels for bone formation and bone density maintenance, and it ultimately reduces hip fracture risk in osteopenic and osteoporotic patients. Healthy eating can prevent or reduce certain conditions that may develop during and after menopause, including obesity, Type 2 diabetes, heart disease, certain types of cancer, and osteoporosis,<sup>[12]</sup> and this is addressed in our study.

The current study was able to create awareness on the benefits of doing physical exercise as a way of preventing complications of menopause. Physical inactivity is one of the recognized risk factors for osteoporosis; much evidence shows that exercise can prevent osteoporosis and hip fractures as stated by Ernst in his study.<sup>[13]</sup> The effects of exercise in osteoporotic women for 30–35 min, 3 times a week, can improve the bone mass.

Perimenopause is a period 3–4 years before menopause and followed by 1 year of menopause.<sup>[1]</sup> Menopause is a physiological phenomenon yet its effects are physical and also psychological. The feminine hormones have been shielding her from various diseases which her male counterpart could not shield him with. Gradual decline and cessation of secretion of these hormones occur at this point in her life, resulting in various effects on her health and well-being. Hence, better knowledge about menopause and its consequences would help women in combating this problem.

There will be a large number of women who spend a substantial part of their life after menopause. Health-care providers will need to initiate programs and provide appropriate care for the large population of women living beyond menopause. In addition, attention needs to be directed toward implementing programs that will help to sensitize and increase awareness of menopause among women in India.<sup>[14]</sup> Menopause is an unspoken, unattended, reality of life, the cause of which is still deciphered completely by man. This phase of life is shrouded with lots of myths and taboos. Early recognition of symptoms can help in reduction of discomfort and fears among the women as stated by Shilpa and Amit.<sup>[15]</sup>

According to the study done at Pune, there is a need of setting menopausal clinics and centers to help women with symptoms and signs of estrogen deprivation. Counseling and education are main treatment modalities which was emphasized by Patil *et al.*<sup>[16]</sup> The study on quality of life among menopausal women based on the menopause-specific quality of life questionnaire states that the mean scores suggest that menopausal symptoms were associated with decrease in women quality of life.<sup>[17]</sup>

As the most cost-effective way to avoid, as well as alleviate, many of the health problems is by taking preventive measures such as diet, exercise, and medical examination, and in this study, women were educated on these issues. A similar study

by Nazari *et al.*<sup>[18]</sup> showed that the educational interventions based on health promoting lifestyles can be used as an appropriate strategy to reduce postmenopausal women's menopausal symptoms and improve their health.

In our study, there was a significant gain in knowledge among the perimenopausal women after the health education program through student paired *t*-test ( $P < 0.0001$ ) which was similar in another study by Amin and Kumari<sup>[19]</sup> showing significant results with knowledge score ( $P < 0.05$ ) after the awareness program.

### Recommendations

After the health education, there was significant gain in knowledge about menopausal problems. To sustain the level of awareness and put them into practice or behavior change, repeated interventions at regular intervals is necessary.

Furthermore, not much awareness programs are targeted toward the menopausal women who are at risk of many health problems. Hence, more interventions are to be focused toward these group of women.

### Limitations

Imparting health education once may not bring about a change in behavior. Since the sample size is small, the results of the study cannot be generalized to all perimenopausal women in Coimbatore.

### CONCLUSION

Most of the participants felt that the awareness program was very useful. There was also significant gain in knowledge among the perimenopausal women after the health education program ( $P < 0.0001$ ).

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