Need-Based Educational Intervention on Post Menopausal Care in Order to Prevent Osteoporosis

Sinmayee Kumari Devi

Abstract

“Menopause is an event in life, not a disease”. It is a universal transition that most women normally experience. Menopause is the time when menstruation ceases, commonly between the ages of 45 to 53 years and the main complication of menopause is osteoporosis. It is important that all the women should have knowledge regarding how to take care of herself to limit the complication. Therefore, a pre-experimental study was conducted among 30 post-menopausal women in Chaketishani (Bhubaneswar), with a view to provide need-based educational intervention on post-menopausal care in order to prevent osteoporosis. It was revealed that all the women gained sufficient knowledge after getting the intervention and it was found effective.

Now-a-days, health systems describe the plans based on the family’s health. Women are considered as pivotal in a family’s health. They manage the health of family members by training and propagating a healthy lifestyle to the next generation. Women have a greater population and their average age and life expectancy is more than men, but their imperfection and disability is higher and they face special issues resulting from their natural and physiological conditions; one of these issues is the menopausal transition period.

Menopause is defined as general cessation of periods for 12 months or a period equivalent to three previous cycles or as a time of cessation of ovarian foundation resulting in permanent amenorrhea. Menopause is said to be a universal reproductive phenomenon, which can be perceived as unpleasant. This period is generally associated with unavoidable manifestation of aging process in women (Puri et al, 2008).

According to Palank, “Knowledge is a basic condition for the use of health services and attitude is an effective organising principle in performing an action and can start a health behaviour due to the effect it has on the person.” He believes that creating knowledge and a positive attitude is a useful and logical issue for making continuous changes in behaviour. One way to achieve this is through health education. In fact, training (education) is one of the most important ways of women’s empowerment and, the first step in any training is recognition and analysis of the knowledge, attitudes and behaviour of the subjects, based on which one is enabled perform the next steps for designing and implementing training programmes.

Unfortunately, so far in our country, policies and programs of women’s health promotion are specifically limited to specific issues such as pregnancy and family planning, and enough attention is not paid to other needs of women’s health, including the problems of menopausal transition period (Mansourian, 2007).

Therefore, the investigator sought to assess the knowledge regarding post-menopausal care and to provide a need-based education in order to prevent osteoporosis, which is essential for post-menopausal women.

Review of literature

Lack of oestrogen after menopause is directly related to the development of osteoporosis. After menopause, bone desorption (breakdown) occurs and outpaces the building of new bone. Early menopause (before age 45) and any prolonged periods in which hormone levels are low and menstrual periods are absent or infrequent can cause loss of bone mass (Gass, 2006).

Following menopause there is decline in collagenous bone matrix resulting in osteoporotic changes. Regular sessions of weight bearing exercise, coupled with 1500 mg of calcium and 400-800 IU of vitamin D daily, can stop bone loss for some post-menopausal women. The bone density test can serve as a benchmark for preventive efforts (Pande, 2002).

Post-menopausal women can be evaluated for signs of osteoporosis in routine physical examina-

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tions. Intake of calcium and vitamin D, weight bearing and other exercises, including brisk walking, strength training, stair climbing, hiking and dancing. Avoiding smoking and excessive alcohol consumption are recommended. Some experts feel that ordinary activities such as gardening, raking and house work also help to maintain physical fitness and healthy bones (Galler, 2002).

One survey found that majority of post-menopausal women had average knowledge about osteoporosis and preventive behaviour and treatment of osteoporosis. Post-menopausal women had less knowledge (40%) on risk factors and prevention - associated factors with osteoporosis than general knowledge on osteoporosis (Supawitoo, 2006).

In a study to assess the prevalence of osteoporosis risk factors in menopausal women, 10,514 women were included. Socio-demographic, medical history, and lifestyle data were assessed. The prevalence of osteoporosis risk factors was 67.6 percent. The most common risk factors were physical inactivity (53.6%) and low calcium intake (30.1%). There was correlation between the degree of menopausal symptoms severity and the risk of suffering from osteoporosis. The researcher recommended to prevent the risk factors through education of the people regarding prevention of osteoporosis (Garcia, 2010).

**Literatures related to knowledge of menopausal women on osteoporosis**

A study of 311 women to determine their knowledge and attitudes in osteoporosis showed that more than 65 percent were unaware that the disease is directly responsible for disabling hip fractures, and more than 40 percent were unable to identify significant risk factors. A considerable number of the women are unaware about preventive measures of osteoporosis (Mehmetu, 2003).

Another case-based study addressing the screening for osteoporosis in the primary care setting concluded that osteoporosis was prevalent in post-menopausal women. Osteoporosis-related fractures are a cause of major morbidity and mortality in older adults. Increased awareness of osteoporosis is necessary (Edward, 2004).

A study was designed to investigate the knowledge, self-efficacy and behaviours of osteoporosis prevention among 198 peri-menopause women and to explore the related factors. Using Osteoporosis Knowledge Test, the Osteoporosis Self-Efficacy Scale and the self-designed osteoporosis prevention behaviour questionnaire. The post-menopause women got significantly higher score than pre-menopause women. Positive correlations existed among the score of self-efficacy and behaviour, as well as the score of knowledge so their knowledge behaviour and self-efficacy on osteoporosis prevention needs to be improved (Wuxae, 2009).

**Objectives**

The objectives of the study were (i) to determine the effectiveness of educational intervention on post-menopausal care in order to prevent osteoporosis, and (ii) to compare the level of knowledge of the mother with selected demographic variables.

**Hypothesis**

\( H_0 \) - There will be no significant difference between pre- and post-test knowledge scores of the women regarding post-menopausal care to prevent osteoporosis.

\( H_1 \) - There will be no significant association between post-test knowledge scores of the post-menopausal women and selected demographic variables.

**Delimitations**

The study was limited to the women who (a) had undergone menopause, (b) were able to understand and speak Oriya, (c) were present during the period of data collection, (d) were willing to participate in the study, and (e) had not suffered from any other chronic disorders.

**Methodology**

An evaluative research approach with quasi-experimental research design was used. The study was conducted in Chakesiandi area of Bhubaneswar, Odisha, where 30 post-menopausal women were selected by convenient sampling technique. The tool was developed in 2 sections. Section A included the demographic variable and Section B included structured knowledge questionnaire regarding care during post-menopausal period in order to prevent osteoporosis.

Permission was obtained from the
Corporator of Chakesiani, Bhubaneswar, Odisha and informed consent was taken from the respondents. Pre-test was conducted by using close-ended questionnaires followed by implementation of educational intervention. After 7 days post test was done. Descriptive and inferential statistics was used for data analysis.

Results and Discussion

Frequency and percentage wise distribution of demographic variable shows that majority of the women (78%) were in the age group of 45-50 years and had no formal education (41.6%). Highest percentage of the women (55.6%) were housewives. Paired ‘t’ test was calculated and the finding shows highly significant difference for all the areas (Table 1). Hence, the null hypotheses is rejected (p<0.01) and the statistical hypotheses is accepted. It shows that the Educational intervention was effective for all the areas.

Table 2 shows that area-wise post-test highest mean percentage was 90 percent with mean 2.7±0.46 for area “problems of menopause” and the lowest mean percentage in post-test is 76.66 percent with mean score 2.3±0.53 for area “post-menopausal care”. It was observed that overall mean score during post-test was 35.36±1.58 which is 88.4 percent of the total score and the difference in mean percentage between pre and post-test knowledge score was 59.9 percent revealing the effectiveness of educational intervention for all the areas. Chi square test was calculated and showed that there was no significant association between post-test knowledge scores of the women when compared to age, education, occupation, family income, residential area, type of family, religion and parity (p>0.05). Thus, the difference in mean score related to the demographic variables were only by chance and not true difference. Hence, the null hypothesis formulated was accepted.

Figure 1 and 2 show the difference between pre- and post-test knowledge scores which increase in scores from the lowest to the highest during post-test. This shows the effectiveness of educational intervention on knowledge regarding post-menopausal care. Table 3 outlines the association between post-test knowledge scores and demographic viariables of women related to post-menopausal care.

The finding of the present study are in congruence with the study done by Lalitha (2009), regarding effectiveness of planned teaching programme on prevention of osteoporosis among the women who had undergone hysterectomy.

Nursing implication: The study implies that since post-menopausal women do not have adequate knowledge regarding post-menopausal care in order to prevent osteoporosis, the nurse educator must educate the entire peripheral level health worker and also the community people to

<table>
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<th>‘t’ test</th>
<th>Level of significance</th>
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<td>1</td>
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</tr>
<tr>
<td>2</td>
<td>Effect of post-menopause</td>
<td>30.65</td>
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<tr>
<td>3</td>
<td>Post-menopausal care</td>
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(df = 35, Table Value = 2.70, (p < 0.01)

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<th>SD</th>
<th>Mean %</th>
<th>Mean</th>
<th>SD</th>
<th>Mean %</th>
<th>Difference in mean %</th>
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<td>1.73</td>
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<td>59.71</td>
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<td>0.66</td>
<td>30</td>
<td>2.7</td>
<td>0.46</td>
<td>90</td>
<td>60</td>
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<td>3</td>
<td>Postmenopausal care</td>
<td>0.5</td>
<td>0.68</td>
<td>16</td>
<td>2.3</td>
<td>0.53</td>
<td>76.66</td>
<td>60.66</td>
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<tr>
<td>Overall</td>
<td></td>
<td>11.4</td>
<td>4.91</td>
<td>28.5</td>
<td>35.36</td>
<td>1.58</td>
<td>88.4</td>
<td>59.9</td>
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improve their knowledge regarding post-menopausal care.

**Recommendations:** Similar study can be undertaken with a large sample to generalise the findings. A comparative study can be carried out to find out the knowledge regarding post hysterectomy self-care between urban and rural women.

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<td>8.</td>
<td>Parity</td>
<td>0.49</td>
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$df = 1$ (Table value: 3.84)

**Conclusion**

Menopause being an important stage in life of all women, the health aspect in this phase must not be overlooked. So, here all the health care personnel have the responsibility to create an awareness regarding post-menopausal care in order to prevent osteoporosis and other complications.

**References**

5. Gallagher TC Geling, Comite F. Missed opportunities for prevention of osteoporotic fracture. *Archives of Internal Medicine* 2002; 162, 450-56
6. Pande KC. Prevalence of low bone mass in healthy Indian population, *Journal of Indian Medical Association* 2002; 100, 598-600

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