

A Study to Assess the Effectiveness of Planned Teaching on Knowledge Regarding Prevention of Osteoporosis among Post Menopausal Women in Selected Areas of Vidarbha Region

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Abstract

In this study, to assess the effectiveness of planned teaching on knowledge regarding prevention of osteoporosis among post menopausal women, 60 post menopausal women were selected by using convenient sampling technique. The pre test was conducted by using a structured interview questionnaire. Planned teaching was conducted on the same day and seven days later post test was conducted using the same structured interview questionnaire. Most of them had poor knowledge 25 (41.67%) in pre test after planned teaching 38 (63.33%) had very good knowledge and 21 (35%) had excellent knowledge, 1 (1.67%) had good level of knowledge. Paired 't' test was applied to compare pre test and post test mean and SD. Knowledge on prevention of post menopausal osteoporosis was statistically significant ($p < 0.05$). There was a significant association between post test knowledge score with selected demographic variable such as residence ($p < 0.05$) which was statistically confirmed with F test. This study demonstrated that planned teaching on prevention of osteoporosis is effective in improving the knowledge of post menopausal women.

Keywords: Post menopausal osteoporosis; Prevention.

Background of the Study

It appears from recent studies that the effects of oestrogen must be achieved indirectly. Although the dominating pathogenetic factor for osteoporosis in women is oestrogen deficiency, many other factors play a role, such as nutrition, physical activity and chronic illness. Certain nutritional and life style factors, such as inadequate intake of calcium, may contribute to low bone mass independent of oestrogen level and this can further increase a woman's risk of developing postmenopausal osteoporosis.[1]

Everyone loses bone as they age, but not everyone gets bone thinning to the point that they have osteoporosis. Although genetics and gender play

important roles, research has identified key, life-long preventive measures — such as having enough calcium in your diet every day, and doing weight-bearing and resistance (weight-lifting) exercises regularly — that can help avoid osteoporosis.[2]

Need for the Study

Osteoporosis is an enormous public health problem that most often affects postmenopausal women. Half of all postmenopausal women will have an osteoporosis-related fracture during their lives; including 25% who will develop a vertebral deformity and 15% who will have a hip fracture. Fracture rates are higher in older women than in similarly aged men, and approximately 80% of the economic burden of osteoporosis has been attributed to its occurrence in women.[3]

The worldwide annual incidence of fracture is approximately 1.7 million. An increase in incidence in women between 45 and 60 years of age has been observed. It is estimated that 30% of postmenopausal

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women suffer from this disease.[3]

The key to avoiding severe effects from osteoporosis is prevention. Women may protect themselves from severe bone loss by maintaining a balanced diet rich in calcium, performing regular weight-bearing exercise (such as walking or aerobics), limiting alcohol intake, not smoking, and considering hormone replacement therapy.[4]

All these above mentioned factors have urged the investigator to provide effective planned teaching on the knowledge of osteoporosis. And awareness, regarding its prevention, might help women to prevent the disease resulting in better health as they age.[5]

Objective of the Study

- Assess the knowledge regarding prevention of osteoporosis among post menopausal women.
- Evaluate the effectiveness of planned teaching regarding prevention of osteoporosis.
- Associate the post test knowledge score with their selected demographic variables.

Research Design

Pre experimental- one group pre test post test design.

Pre Test	Intervention	Post Test
Day 1	Day 1	Day 7
01	X	02

Sampling Technique

Non probability convenient sampling method was selected.

Sample Size

60 post menopausal women.

Variables

Independent Variable

Planned teaching on knowledge regarding prevention of osteoporosis.

Dependent Variable

Knowledge of Post menopausal women regarding

prevention of osteoporosis.

Description of the Tool

The tool for data collection consisted of the following two parts.

Section A: Responses related to demographic factors.

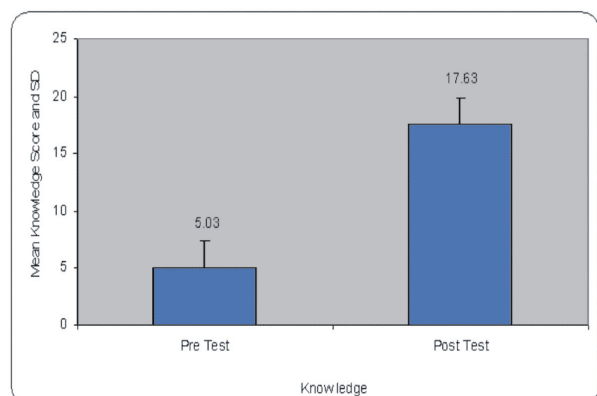
Section B: Responses related to knowledge items.

Result/Major Findings of the Study

The maximum number of subjects 25 (41.7%) belongs to the age group of 53 to 56 years, 16 (26.7%) belongs to the age group of above 49 to 52 years, 13 (21.7%) belongs to the age group of 57 to 60 years and 6 (10%) belongs to age group of 45 to 48 years. It is evident that most of them 39 (65%) had primary education, 13 (21.7%) had secondary education and remaining 8 (13.3%) were illiterate and majority 44 (73.3%) were earning between Rs. 5001-10,000 and 15 (25%) were earning between Rs. 10001- 15000 and very few were earning below Rs. 5000 and majority of the respondents 31 (51.7%) were house wife and 26 (43.3%) were heavy workers and 3 (5%) were sedentary workers. With regards to residence, 50% were from urban and remaining, 50% from rural area and majority of them 39 (65%) attained menopause between 45-48 years and 16 (26.7%) between 49-52 years and remaining 5 (8.3%) was between 53-56 years.

The findings shows that in pre-test nobody had

Figure 1: Mean Knowledge Score and SD of Subject Regarding Prevention of Osteoporosis in Pretest and Post Test



very good and excellent knowledge, 25 (41.67%) had poor level of knowledge score, 34 (56.67 %) had average level of knowledge and 1 (1.67%) had good knowledge and in post test 1 (1.67%) of samples had very good level of knowledge and 21 (35%) had excellent knowledge and 38 (63.33%) had very good level of knowledge. In pretest mean knowledge score obtained by the subjects was 5.03 and in the post test it increased to 17.63. The knowledge score shows marked improvement after giving planned teaching. This shows that planned teaching was effective in improving the knowledge of the subjects. The calculated 't' value was 43.84 which was greater than tabulated 't' value 2.00 at 5% level of significance which was statistically acceptable level of significance. Hence, the research hypothesis H_1 is accepted.

There was no significant association between post test knowledge and any demographic variables like age, type of family, educational qualification, occupation, and monthly income of family and age of menopause except residence.

Nursing Implications

The findings of this study have implications for nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice

When professional liability is recognized, it defines the parameters of the professional conduct. Nurses should, therefore, enhance their professional knowledge. The role of nurses has expanded rapidly within past ten years to include expertise specialization, autonomy and accountability. The patient is considered the consumer of nursing and health care. The planned teaching can be used for imparting knowledge regarding prevention of post menopausal osteoporosis. It can be used as a guide and can serve as reinforcement to the health education given by the nurse to the patient. This study will help nurses to identify post menopausal changes at the earliest and prevent complication.

Nursing Administration

This shall ensure better professional standards of nursing. Moreover, nurses who are knowledgeable

about prevention of post menopausal osteoporosis can act as a nurse manager, nurse observer are nurse supervisor while, junior nurses, colleagues can give care to post menopausal women.

Nurse administrators can arrange in service education, workshop regarding prevention of post menopausal osteoporosis among nursing staff. Health education, health camps can be arranged for post menopausal women in community. Various policies and protocols can be formulated for giving their care to post menopausal women. Findings of the study can be used by the nurse administrators to improve nursing care.

Nursing Education

Health care personnel should be given an opportunity to update their knowledge periodically. Though post menopausal osteoporosis is included in the curriculum of both graduate and diploma nurses, not much important is given to its prevention. Nurse educators, when equipped with proper knowledge and become aware will teach students about prevention of post menopausal osteoporosis.

In nursing curriculum, much emphasis should be given on teaching nurses that early identification and prevention is helpful for post menopausal women to reduce bone fragility.

Nursing Research

Nursing research is an essential aspect of nursing as it uplifts the profession, develop new nursing norms and enhance the body of nursing knowledge. It also improves the image and perception of nursing in society which is urgently required for the future of nursing. There is a need for extensive and intensive nursing research in the areas of prevention of post menopausal osteoporosis. Those are neglected because of family responsibility, work load, lack of health facility accessibility, illiteracy and poverty. Extensive research is needed to see the effect of different methods of teaching in reducing the post menopausal osteoporosis.

The findings of the study have added to the knowledge in the nursing profession. Other researchers may utilize the suggestions and recommendations for conducting further study. The tool used has added to the body of knowledge and

can be used for further references.

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