

Original Research article

Effectiveness of STP on Osteoporosis in terms of Knowledge among Post Menopausal Women Residing in a Selected Community Area at Chaubepur, Uttar Pradesh.

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Abstract

Osteoporosis is a disease that threatens more than 61 million post menopausal women in India. It is a major public health problem in many parts of the world. Osteoporosis is a major public health problem, causing fractures of wrist, back and hip with high associated morbidity and mortality particular at risk are post menopausal women. A Quantitative research approach with “one group pretest and posttest design” was used in the study. 30 postmenopausal women were selected by convenient sampling technique from CHC Chaubepur. Structured Knowledge Questionnaire, were used for data collection. It indicates that 13.34 % of the postmenopausal women had below average knowledge and 86.66% has average knowledge before structured teaching program. After structured teaching program majority 46.66% postmenopausal women had reported average knowledge and remaining 53.34% postmenopausal women reported above average knowledge in post-test. The mean post-test knowledge score (18.6 SD 2.60) was significantly higher than mean pre-test knowledge score (12.2 SD 2.84). $t=9.2$, $p<0.05$. There was no significant association found between knowledge and demographic variable like are, age, educational qualification, monthly income but significant association found between knowledge and demographic variable, number of children. It was concluded that structured teaching program was effective and improving the knowledge of postmenopausal women. Further studies can be done on the knowledge and postmenopausal women in rural area.

Keywords: Assess effectiveness, knowledge, osteoporosis, structured teaching program, postmenopausal women.

1. Introduction

Osteoporosis is a disease that threatens more than 61 million post menopausal women in India. More than 28 million post menopausal women in America. It is a major public health problem in many parts of the world. Osteoporosis is a major public health problem, causing fractures of wrist, back and hip with high associated morbidity and mortality particular at risk are post menopausal women. It is defined as a disease characterized by low bone mass and micro-architectural deterioration of bone tissue leading to enhanced bone fragility and a consequent increase at fracture risk [1].

Osteoporosis ranks as one of the costliest diseases of aging after diabetes, hyperlipidemia, hypertension and heart diseases. In India it is highly prevalent and has been estimated that among 61 million populations around, 30 million women are reported to be affected [2]. Indians have lower bone density than north-American and European women and also it is reported that osteoporotic fractures occur 10-20

years earlier in Indian women as compared to Caucasians. According to the information collected, osteoporosis is a major public health issue in India. Hence as nurses, it is our responsibility to create awareness regarding osteoporosis among Indian women [3].

In turkey, a study was done to determine knowledge, attitude and prevention of Osteoporosis among 311 women using self administered questionnaire which revealed that 60% of women were unaware of osteoporosis and 40% were unable to identify significant risk factors. The results of the study were 75% of women had inadequate knowledge of osteoporosis. The prevalence of osteoporosis among elderly women aged above 80 years is found to be 84 per cent, the study also reveals that women above 75 years on an average lost 25 per cent of cortical bone and 40 per cent of trabecular bone [4].

In recent years Osteoporosis has become a leading cause of morbidity and mortality among elderly women. It is said that “because of the sedentary nature of work option, modern Indian women have hardly any exposure to sunlight”. This leads to higher incidences of osteoporosis [5]. International osteoporosis Foundation (IOF) The Osteoporosis in general is higher among women and older people. Osteoporosis has resulted into a global problem

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which is increasing in significance as the population of the world is growing. 1 in 3 women aged above 50 years, suffer a fracture due to osteoporosis. 1 in 2 women aged above 60 years also suffer a fracture due to osteoporosis [6].

A study was conducted to examine the knowledge of osteoporosis among 255 people; a quiz programme was used as a measure to test the knowledge of osteoporosis. The study showed that the participants had inadequate knowledge about osteoporosis [7]. Another study was done to assess knowledge about osteoporosis in learned Indian women. A total of 73 female staff members of a teaching institute completed the osteoporosis questionnaire. The correct definition of osteoporosis was given by 74 per cent of faculty members, but there was general lack of awareness in other areas. There was statistical significance difference in the total score depending on the faculty of education with staff members from the science faculty having the maximum mean score ($P < 0.05$). Media (74 percent) was the commonest source of knowledge followed by friends (49 percent) and doctors (25 percent). This study shows that there is general lack of knowledge about osteoporosis in learned Indian women [8].

2. Objectives

- To assess the pre-test and post-test knowledge score regarding osteoporosis among post menopausal women.
- To compare the pre-test and post-test knowledge score regarding osteoporosis among post menopausal women.
- To find association between pre-test knowledge score regarding osteoporosis among post menopausal women with their selected demographic variable.

3 Hypotheses (level of significance at $p < 0.05$)

H1: There will be a significant difference between pre-test and post test knowledge score regarding osteoporosis among post menopausal women.

H2: There will be a significant association between pre test knowledge score regarding osteoporosis among post menopausal women with their selected demographic variables.

4 Assumptions

- Samples may have some knowledge regarding osteoporosis.
- The structured teaching programme may increase the knowledge of post menopausal woman regarding osteoporosis.

4 Delimitation

- The study is delimited to post menopausal women.
- The study is delimited to community area Chaubepur.
- The study is delimited to 30 samples

5 Materials and Methods

Research Approach: Quantitative Approach.

Research Design: Quasi-Experimental with One group pre test post test design.

Setting: The study was conducted at community area chaubepur, kanpur.

Sample size: 30 post menopausal women

Sampling Technique: Purposive sampling Technique

Sampling Criteria:

Inclusion criteria: Women who are fulfilling the following criteria were included in the study.

- Women who were willing to participate.
- Women who could understand and speak Hindi language.
- Women who were available during data collection period.
- Women who were postmenopausal.

Exclusion Criteria:

Women who were excluded from the study are:

- Sample who were not willing to participate in the study.
- Sample who were already exposed to same kind of study.
- Sample who are unable to understand and follow researcher's instructions.

6 Variables of the Study

Independent variable: Structured Teaching Programme (STP) on osteoporosis.

Dependent variable: Knowledge score of postmenopausal women regarding osteoporosis.

Demographic variables: Age, education, No. of children, monthly income.

7 Description of the Tool

In the present study data collection tool was divided into 2 parts:

Section A: Socio demographic variable consist of Age, Education, Economic status, number of children.

Section B: Structured teaching programme questionnaires considered of 26 questions related to osteoporosis to assess the knowledge postmenopausal women.

8 Results

Assess the pre-test and post-test Knowledge score regarding osteoporosis among the postmenopausal women.

Table 1: Knowledge levels in pre-test and post-test N=30

Knowledge score	Pre- test		Post- test	
	Frequency	Percentage	Frequency	Percentage
Below Average	4	13.34%	00	00%
Average	26	86.66%	14	46.66%
Above average	00	00%	16	53.34%

It shows that, majority 13.34% of the postmenopausal women had below average knowledge and 86.66% had average knowledge and 00% above average knowledge before structured teaching programme. After structured teaching programme majority 46.66 % of postmenopausal women had reported average knowledge and remaining 53.34% postmenopausal women were reported above average knowledge in post test.

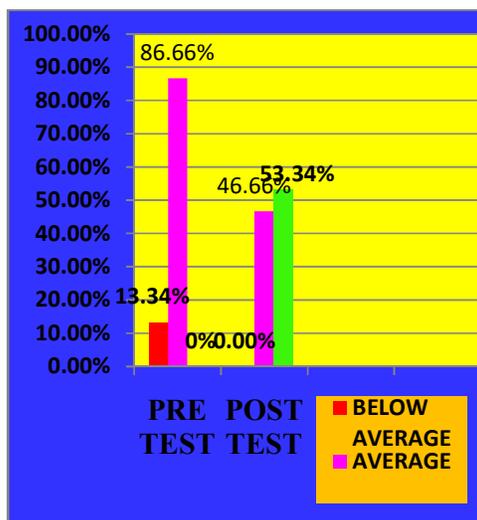


Figure 1: Level of Knowledge in pre-test and post-test

Comparisons of Pre-test and Post-test Knowledge Scores of Post-menopausal Women

Table 2: Comparison of pre-test and post-test knowledge scores N=30

Know-ledge	Mean	SD	t Value	DF	P value
Pre- test	12.2	2.84	9.2 *	29	<0.05
Post- test	18.6	2.60		29	

It showed that the pre-test mean was 12.2 with SD 2.84, which was increased to 18.6 with SD 2.60 in post-test. Pair t-test performed to find them

difference between pre-test and post-test knowledge scores. Calculated 't' value 9.2 was greater than that of table value $p < 0.05$ and DF 29. Thus it could be inferred that gain of knowledge was not by chance but because of intervention.

9 Recommendation

- i. This study can be replicated by using random sampling in selection of samples on a larger population.
- ii. A study can carried out in terms of knowledge and practices on prevention of osteoporosis.
- iii. A survey can be conducted to find out the prevalence of osteoporosis among postmenopausal women.
- iv. Present study can be done on selected age (55-60years) group.
- v. Similar study can be done with longer time period of data collection.
- vi. Comparative study can be done between the urban and rural women regarding knowledge related to osteoporosis among postmenopausal women.

10 Conclusion

The structured teaching program was effective in increasing the knowledge of osteoporosis among postmenopausal women. The mean and SD post-test knowledge score (18.6, 2.60) of postmenopausal women on knowledge of osteoporosis was significantly higher than their pre-test knowledge (12.2, 2.84) scores. Thus indicating gain in knowledge was because of intervention.

Reference

- [1] Joyce M.black, Jane hokanson hawks,(2004). Medical surgical nursing. Elsevier Company 7th edition: page No. 596- 604
- [2] Brunner and Suddarth,s,(2004). Medical surgical nursing. Lippincott Company Philadelphia,10th edition: Page No. 2057-2060
- [3] Shah Rashmi, S., Savardekar Lalita, S.,(2005). "Post menopausal osteoporosis in India: growing public health Concern. National Institute for Research in Reproductive Health, (ICMR), and Presentation made at Forum 9, Mumbai, India, 12 -16.
- [4] Shah Rashmi, S., Savardekar Lalita, S.,(2005). "Post menopausal osteoporosis in India: growing public

- health Concern. National Institute for Research in Reproductive Health, (ICMR), and Presentation made at Forum 9, Mumbai, India, 12 -16.
- [5] Skolbekken, JA., Osterlie, W., Forsmo, S.,(2008). Brittle bones, pain and fractures-lay construction of osteoporosis among Norwegian Women attending the Nord-Trondelag Health study (HUNT) soc sci med. 66 (12) :pg 2562-72.
- [6] Suzanne, C., Smeltzer and Brinda G Bare, Brunner & Siddhartha's, (2004). Text book of Medical Surgical nursing, 10th editions, Lippincott, Williams& Wilkins, pg no 2058
- [7] Dr. Amarnath, the hindu business line, where health takes a back seat, <http://www.blonnet.com/life/2004/03/22/stories/2004032200100200.htm> reviewed on 15 Sep 2017
- [8] International osteoporosis Foundation (IOF). Available from <http://www.iofbonehealth.org/patients-public/aboutosteoporosis.html>.
- [9] Ailinger, RL., Braun, MA., Lasus, H., Whitt, K.,(2005). factors influencing Osteoporosis knowledge : a Community study. Journal of Community Health nurse. 22(3):135-42

