International Journal of Allied Medical Sciences and Clinical Research (IJAMSCR)

ISSN:2347-6567

IJAMSCR |Volume 6 | Issue 3 | July - Sep - 2018
www.ijamscr.com

Research article *Medical research*

Effectiveness of structured teaching programme on knowledge regarding risk factors and prevention of osteoporosis among premenopausal women

Dhanalakshmi .J*[1], Malathi.S[2]

[1]*Research Scholar in Nursing, Vinayaka Missions Research Foundation, Salem.*
[2]*Professor & HOD, Department of Community Health Nursing, Vinayaka Missions Research Foundation, Salem*

***Corresponding Author: J.Dhanalakshmi, M.Sc (N)**
Vice Principal, Dhanalakshmi Srinivasan College of Nursing, Perambalur.
Email id: j.sridhana@gmail.com

ABSTRACT

Bone is a living, dynamic tissue that undergoes constant remodeling throughout life. This is necessary to allow the skeleton to increase in size during growth, respond to the physical stresses placed on it and repair structural damage due to structural fatigue or fracture. This process requires range of proteins and minerals, which are absorbed from the blood stream. Osteoporosis is often known as the silent thief because bone loss occurs without symptoms; one in four women over the age of 50 has osteoporosis. One in eight men over 50 year also has the disease. However, the disease can strike at any age. More women die each year as a result of osteoporotic fractures than from breast and ovarian cancer. This quasi experimental design was undertaken to assess the effectiveness of structured teaching programme on knowledge regarding risk factors and prevention of osteoporosis among premenopausal women. 50 premenopausal women were selected by convenience sampling method at ammapalayam village. Conceptual frame work was modified Rosan's stock health belief model was adopted for the study. The data was collected by using structured interview schedule. It is inferred that majority of the pre-menopausal women who participated in the study was aged between 30-45 years, coolie, higher secondary, married and income more than 3000-5000. Pre -test shows 43(86%) had inadequate knowledge, 7(14%) had moderate knowledge and none of them had adequate knowledge. The paired't' test was used to evaluate the effectiveness of structured teaching programme by comparing pre-test and post-test knowledge score. It was found that pre-test mean knowledge score was 6.72(SD=2.7) and post-test mean knowledge score was 20.64(SD=2.05) and paired 't' value was 28.819*.The observed value of paired t-test is not less than the table value at ($p<0.05$).So the research hypothesis was accepted. It is evident that the post-test knowledge score on risk factors and prevention of osteoporosis is significantly higher than the pre-test score. There was a significant association between the pre-test knowledge score on risk factors and prevention of osteoporosis with income among premenopausal women

INTRODUCTION

Bone is a living, dynamic tissue that undergoes constant remodeling throughout life. This is necessary to allow the skeleton to increase in size during growth, respond to the physical stresses placed on it, and repair structural damage due to

structural fatigue or fracture. This process requires range of proteins and minerals, which are absorbed from the blood stream. [1] In child hood, bones grow and repair very quickly, but this process slows down as you get older. Bones stop growing in length between the age of 16 and 18, but continue to increase in density until late 20s. From about the age of 35, gradually lose bone density. This is a normal part of ageing, but for some people it can lead to osteoporosis and osteoporosis is a condition, that affects the bone, causing them to become weak and fragile and more likely to break. [2] Over 300 million people suffer from osteoporosis in India. More women die of osteoporosis fractures than of breast and ovarian cancer. Osteoporosis fractures occur 10-20 years earlier in Indians compared to people in western countries. India shows the highest prevalence of osteoporosis. One in two Indian women above the age of 45 suffers from osteoporosis. In India, six out of 10 fractures and bone injuries are caused by osteoporosis. Unfortunately, osteoporosis shows no symptoms and is often diagnosed only after a fracture, by which time the patient may have suffered considerable bone loss. [3] Recent estimates show that a total of 2.5 million Indians will be affected from osteoporosis. Osteoporotic fractures in India, occurs commonly in both sexes and may occur at a younger age than in the west. According to WHO, one out of eight males and one out of three females in India suffers from osteoporosis making India one of the largest country in the world. The number of patients is projected to increases approximately from 26 million to 36 million by 2013. [4]

Keywords: Osteoporosis, Premenopausal.

OBJECTIVES OF THE STUDY

1. To assess the existing level of knowledge regarding risk factors and prevention of osteoporosis among premenopausal women.
2. To evaluate the effectiveness of structured teaching programme on risk factors and prevention of osteoporosis among the premenopausal women.
3. To find out the association between the post-test knowledge score with their selected demographic variables among premenopausal women.

HYPOTHESIS

H1- There will be significant difference between the pre-test and post-test knowledge scores regarding risk factors and prevention of osteoporosis among the premenopausal women.

H2-There will be significant association between the post-test knowledge score regarding risk factors and prevention of osteoporosis with their selected demographic variables.

METHODOLOGY

The research approach for this study was the quantitative research. Quasi experimental design was used for this study. The study was conducted at ammapalayam village, Perambalur. The sample size of the study was 50 premenopausal women. Non probability convenient sampling method was used. The sample selection was based on the following inclusion and exclusion criteria. The inclusion criteria were the patient age from 35 years to 45 years, who were willing to participate in this study. Exclusion criteria were who have attained menopause and who were not available during the period of data collection.

The structured interview schedule was used in this study .It contains 2 sections.

Section 1: Sought information on demographic variables such as age, educational status, occupation, marital status and family income, There were totally 10 items.

Section II: Sought information to assess knowledge regarding risk factors and prevention of osteoporosis among premenopausal women **i.e.:** knowledge on osteoporosis, risk factors, prevention of osteoporosis such as hormonal replacement therapy, diet exercise, life style modifications. This section contained 36 questions.

RESULTS

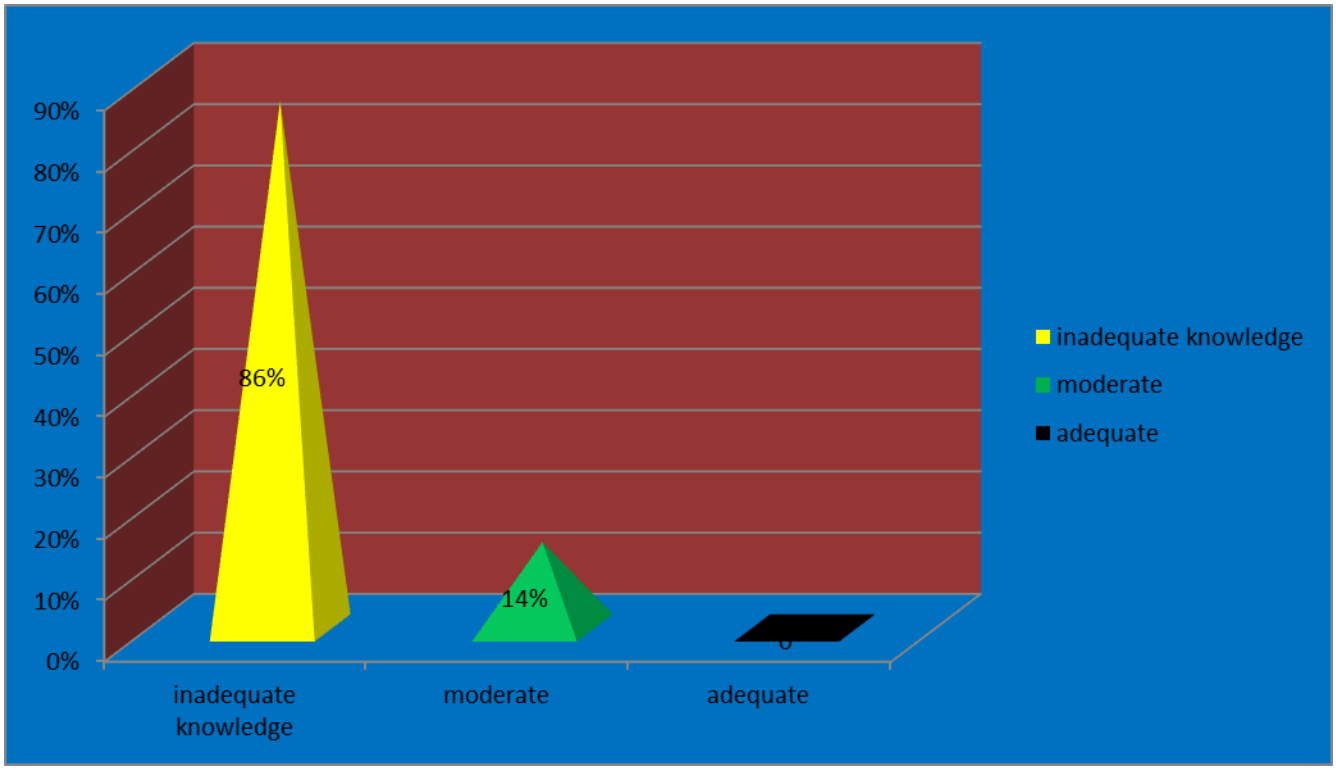

Fig 1 Distribution of existing level of knowledge regarding risk factors and prevention of osteoporosis among premenopausal women

Figure-1 represent the level of knowledge regarding risk factors and prevention of osteoporosis among pre-menopausal women 43(86%) had inadequate knowledge, 7(14%) had moderate knowledge and none of them had adequate knowledge.

Table 1 Distribution of effectiveness of structured teaching programme on knowledge on risk factors and prevention of osteoporosis among premenopausal women

n=50

S.NO	TEST	PRE-MENOPAUSAL WOMEN		PAIRED -T-TEST
		MEAN	SD	
1.	Pre-test	6.72	2.7	T=28.819*
2.	Post-test	20.64	2.05	

*** Significant at p<0.05 level**

Table 1 represent that, pre-test mean knowledge was 6.72 (SD-2.05), and post-test mean knowledge score was 20.64(SD-2.05), and paired 't' value was 28.819.The observed (calculated) value of paired 't' test not less than the table value at p < 0.05 level(12.71). So the research hypothesis was accepted.

Table-2 Association between the post-test knowledge score regarding risk factors and prevention of osteoporosis among premenopausal women with their selected demographic variables

n=50

DEMOGRAPHIC VARIABLE	CATEGORY	RESPONSE		df	CHI-SQUARE VALUE	P-VALUE
		FREQUENCY (NO)	PERCENTAGE (%)			
Income	A)3000	-	-	6	19.5646*	12.59*
	B)3000-5000	29	58			
	C)5000-8000	17	34			
	D)Above 8000	4	8			

***significant at p<0.05 level**

Table-2 represents the association between post-test knowledge score on risk factor and prevention of osteoporosis and income. The obtained chi-square value 19.5646 was significant at p<0.05 level.

It is inferred that there was significant association between the post-test knowledge score on risk factor and prevention of osteoporosis with income among premenopausal women.

DISCUSSION

The study inferred that the majority of the pre-menopausal women who participated in the study were aged between 30-45 years, coolie, higher secondary, married and income more than 3000-5000. The existing knowledge shows 43(86%) had inadequate knowledge, 7(14%) had moderate knowledge and none of them had adequate knowledge. pre-test mean knowledge was 6.72 (SD-2.05), and post-test mean knowledge score was 20.64(SD-2.05), and paired 't' value was 28.819.The observed (calculated) value of paired 't' test not less than the table value at $p < 0.05$ level(12.71). So the research hypothesis was accepted. It is evident that the post-test knowledge score on risk factors and prevention of osteoporosis among premenopausal women was significantly higher than the pre-test knowledge scores. The overall findings of the study showed the effectiveness of structured teaching programme regarding risk factors and prevention of osteoporosis. The association between post-test knowledge score on risk factors and prevention of osteoporosis and income. The obtained chi-square value 19.5646 was significant at p<0.05 level. It is inferred that there was significant association between the post-test knowledge score on risk factors and prevention of osteoporosis with income among premenopausal women.

REFERENCES

[1]. B. T. Basvanthappa, “Medical Surgical Nursing”, Jaypee puplisher, Newdelhi, 1, 2008, 244-258.
[2]. Basvanthappa BT, “Nursing research”, Jaypee brothers medical publishers(p)ltd,new delhi, 2, 2007, 442-450
[3]. Barbara.K “, Medical surgical nursing”, Philadelphia, Lippincott William’s publishers, 9, 2009, 1236-1238.
[4]. Denisef.Polit and Cheryl tatano beck, “Nursing research”, Wolters kluwer india pvt ltd,new delhi, 8, 2011, 747-770
[5]. Elakkuvana D, “Nursing research and biostatistics”,Emmess medical publishers, banglore, 249-270
[6]. Mohandas, Prevention of osteoporosis in Islamabad, Journal of osteoporosis intervention, 2009, 142-148
[7]. Rid ,Old bones in young bodies ,Journal of American nursing , 2009, 270-271

How to cite this article: Dhanalakshmi .J, Malathi.S. Effectiveness of structured teaching programme on knowledge regarding risk factors and prevention of osteoporosis among premenopausal women. Int J of Allied Med Sci and Clin Res 2018; 6(3): 650-653.
Source of Support: Nil. **Conflict of Interest:** None declared.