



## TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING ON PREVENTION AND MANAGEMENT OF OSTEOPOROSIS AMONG WOMEN ABOVE AGE OF 35 YEARS

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### ABSTRACT

Osteoporosis is one of the metabolic bone disorder and remains and increasingly significant problem, affecting 200 million individuals worldwide.

**Objectives:-** To assess the existing knowledge about prevention and management of osteoporosis among women age above 35yrs. To associate the knowledge with selected demographic variables.

**Method & material:-** The study was conducted in selected area of Wardha. One group pre test post test design was used. Sample size 60 among women above 35 years.

**Result :-** The mean pre test score was  $4.55 \pm 1.556$  and mean post test knowledge score was  $11.95 \pm 1.333$ . From the findings the knowledge score regarding prevention and management of osteoporosis that planned teaching was effective as majority of the participants of the participants had very good knowledge in post test.

**KEYWORDS :** osteoporosis, prevention, management

### INTRODUCTION

National osteoporosis awareness and prevention month is celebrated each May, and becomes a chance for our Nation to become more familiar with the effects of this disease, and about the preventable steps that we can do to deal with it.

Osteoporosis is a common musculoskeletal disorder, referred to as silent diseases that often remains asymptomatic until bone fracture occurs. Because of the high morbidity associated with fracture, prevention is a clinical priority. Osteoporosis is one of the metabolic bone disorder and remains and increasingly significant problem, affecting 200 million individuals worldwide. It affects men as well as women. One out of every two women and out of every four men over 50 is prone to develop osteoporosis – related fracture of the hip, vertebrae or wrist in their life time.<sup>1</sup>

Osteoporosis means porous bone. It is derived from Greek word osteon meaning "bone", and pores meaning "pore". It is a disease of bones that leads to an increased risk of fractures. In osteoporosis, the bone mineral density (BMD) is reduced, bone micro-architecture is deteriorating, and the amount and the variety of proteins in bone is altered. Osteoporosis is defined by World Health Organization (WHO) as a bone mineral density that is 2.5 standard deviations or more below the mean peak bone mass (average of young, healthy adults); the term "established osteoporosis" includes the presence of a fragility fracture. The disease may be classified as primary type 1, primary type 2 or secondary. The form of osteoporosis is common in women after menopause.<sup>2</sup>

### Problem statement

To assess the effectiveness of plan teaching on prevention and management of osteoporosis among women above age of 35 years

### Objectives

- To assess existing knowledge about prevention and management of osteoporosis among women above 35yrs.
- To associate the knowledge with selected demographic variables.

### Methodology

**Research approach-** quantitative research approach

**Research design-** one group pretest posttest research design

**Setting of study-** selected area of Wardha

**Sample-** women age above 35 yrs

**Sample size-** 60

**Sampling techniques-** Non probability purposive sampling technique

**Tool-** structured knowledge questionnaire including demographic variables will be used for the study.

**Independent variable-** planned teaching on knowledge regarding osteoporosis

**Dependent variable-** it is the knowledge regarding osteoporosis

### Sampling criteria

#### Inclusion criteria

- Women's age above 35 years.
- Women's who are able to read or write Hindi or Marathi.
- Women's above age 35 years who are available at the time of data collection.

#### Exclusion criteria

- Women's who are not willing to participate in the study.
- Women's who do not know to read or write Hindi or Marathi.
- Women's age below 35 years,

### Result

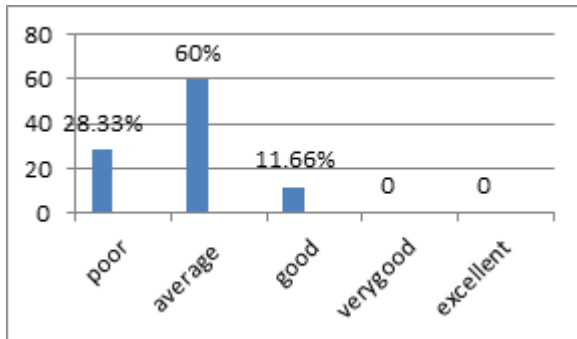
This section deals with the assessment of knowledge regarding osteoporosis. The level of knowledge is divided under following headings: poor, average, good, excellent.

**Table no. 1. Assessment of knowledge of the women regarding prevention and management of osteoporosis in pre-test.**

Level of knowledge score	Score	Percentage score	Pretest	
			Frequency	Percentage
Poor	1-3	0-20%	17	28.33%
Average	4-6	21-40%	36	60%
Good	7-9	41-60%	7	11.66%
Very good	10-12	61-80%	0	0%
Excellent	13-15	81-100%	0	0%
Minimum score	2			
Maximum score	9			
Mean score	$4.55 \pm 1.556$			
Mean Percentage	30.33			

**Table 1.** shows the pre test score, 28.33% of womens had poor level of knowledge score, 60% had average, 11.66% had good 0% had very good and 0% had excellent level of knowledge score.

**Graph 1:**

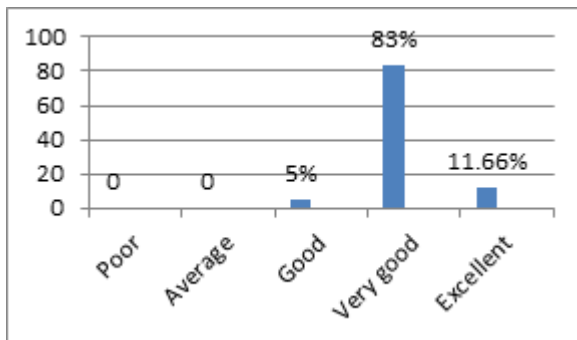


**Table no.2:Assessment of knowledge of the womens regarding prevention and management of osteoporosis in post-test**

Level of knowledge score	score	Percentage score	Post-test score	
			Frequency	Percentage (%)
Poor	1-3	0-20%	0	0%
Average	4-6	21-40%	0	0%
Good	7-9	41-60%	3	5%
Very good	10-13	61-80%	50	83%
Excellent	14-15	81-100%	7	11.66%
Minimum Score	9			
Maximum Score	15			
Mean Score	11.95±1.333			
Mean Percentage	79.66			

**Table no. 2:** shows the post test score, 0% of womens had poor level of knowledge score, 0% had average, 5% had good 83% had very good and 11.66% had excellent level of knowledge score

**Graph2:**



**Table no. 3 : Comparison of knowledge in pre-test and post-test**

Level of knowledge score	Score	Percent age score	Pretest score		Post-test score	
			Frequen cy	Percent age (%)	Frequen cy	Percent age (%)
Poor	0-9	0-20%	17	28.33%	0	0%
Average	10-17	21-40%	36	60%	0	0%
Good	18-24	41-60%	7	11.66%	3	5%
Very good	25-31	61-80%	0	0%	50	83%
Excellent	32-38	81-100%	0	0%	7	11.66%
Minimum score	2		9			
Maximum score	9		15			
Mean Score	4.55±1.556		11.95±1.333			
Mean percentage	30.33		79.66			

**Table no.3 :** shows that in pre test score, 6.66% of subjects having poor knowledge, 38.33% having average knowledge, 30% having

good knowledge, 25% having very good knowledge, 0% having excellent knowledge. The minimum score was 8; maximum score of pre-test was 31 and mean score was 18.58 but in pos-test score 0% of subjects having poor knowledge, 0% having average knowledge, 2% having good knowledge, 21.66% having very good knowledge, 75% having excellent knowledge. The minimum score was 21; maximum score of pre-test was 38 and mean score was 32.78.

**Discussion**

A study was conducted to assess the prevalence and the relative importance of risk factors for low bone mass among women above 40 years of age in Pune, India. Data were collected on anthropometry and life style factors in apparently healthy 80 pre and 92 post-menopausal (40-75 years) women. The study results showed that the prevalence of osteoporosis was highest at the lumbar spine among post-menopausal women, while prevalence of osteopenia was high among pre-menopausal women. The study concluded that age, weight, height, menopause low intake of calcium with poor sunlight exposure are the major factors contributing to bone loss in Indian women above 40 years of age

**Conclusion**

There was significant increase in the knowledge of subjects shows after the introduction of planned teaching . to find the effectiveness of planned teaching “t” test was applied and the “t” value was calculated, post test score was significantly higher at 0.05 level of significance than that of pre test score and the mean value of post test score is significantly higher than pre test score. Thus it was concluded that planned teaching on prevention and management of osteoporosis was found effective as a teaching strategy

**Recommendation**

Based on the findings of the present study recommendations offered for the future

study are:

- Similar study can be conducted on a larger sample.
- A comparative study can be conducted with control group.
- Similar study can be conducted with different population and setting

**Reference**

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