

A Study to Assess the Knowledge regarding Osteoporosis among Post - Menopausal Women in Selected Community Areas at Adgaon, Nashik

Tamboli Sana¹, Rupali Chaugule²

¹Clinical Instructor, SMBT Institute of Nursing, Dhamangaon, Nashik, Maharashtra, India

²Associate Professor, SMBT College of Nursing, Dhamangaon, Nashik, Maharashtra, India

Abstract: *The present study aims to assess the knowledge regarding osteoporosis among patient attending osteoporosis women residing at Adgaon. The researcher has adopted the descriptive research approach and non - experimental research design. Samples were selected by convenient sampling techniques by the investigator. Sample size selected for this study was 60 as it is an non - experimental descriptive study. The tool consists of demographic data, question related to osteoporosis in post menopausal women. The study it can conclude that samples have the basic knowledge related to the meaning, risk factors symptoms and management of osteoporosis they also have good knowledge regarding osteoporosis in post menopausal women but many of the samples are not having the knowledge regarding exercise, when considering the selected demographic variables age, marital status, religion, education, occupation, samples between 45 to 60 years age groups having good knowledge compared to other age group that is 20 to 30 years and above 60 years. Findings suggest that knowledge level of client primarily depends upon the education status than age group*

Keywords: post - menopausal women, osteoporosis, osteoporotic fracture, in - service education, FSH

1. Introduction

Osteoporosis is one of the emerging health issues worldwide. It is a silent disease and causes fractures of bones. Due to an increase in longevity of life in India, osteoporotic fractures are becoming a major cause of morbidity and mortality, which is similar to the western part of the world. It is estimated that currently India has more than 36 million population affected by osteoporosis. After menopausal in women the process of osteoporosis is accelerated due to deficiency of estrogen. Estrogen helps in the positive calcium metabolism and osteogenesis. Menopause accelerates the bone loss to 2 - 5% per year, which may continue till 10 years.¹

Currently, it is estimated that over 200 million people worldwide suffer from this disease. Approximately 30% of all postmenopausal women have osteoporosis in the United States and in Europe. In India, the prevalence of osteoporosis in postmenopausal women in various studies varies between 25% and 62%. Aging of populations worldwide is responsible for a major increase in the incidence of osteoporosis.

Patients with a history of vertebral fracture have a 2.3 - fold increased risk of future hip fracture (HF) and a 1.4 - fold increase in the risk of distal forearm fracture. Twenty percent of women aged above 60 years die within 1 year of sustaining HF. Thus, osteoporosis contributes to significant morbidity and mortality to postmenopausal women.²

2. Literature Survey

A literature review is a comprehensive summary of previous research on a topic. The literature review surveys scholarly articles, books, and other sources relevant to a particular area of research. The review should enumerate, describe,

summarize, objectively evaluate and clarify this previous research. It should give a theoretical base for the research and help you (the author) determine the nature of your research.³

- 1) **Manickavasagam Senthilraja, Kripa Elizabeth Cherian et al, (2019)** Objectives: Osteoporosis continues to be under - recognized in many parts of India. This study was undertaken to assess the level of knowledge of osteoporosis among postmenopausal women referred for a dual - energy X - ray absorptiometry (DXA) scan in a teaching hospital in southern India. Methodology: This cross - sectional study assessed the state of awareness in consecutive postmenopausal women referred for a DXA scan using a validated questionnaire - Osteoporosis Knowledge Assessment Tool. Results: A total of 302 consecutive postmenopausal women who were referred for DXA participated in this study. The mean (standard deviation) age of the postmenopausal women included in this study was 58.8 (6) years. Overall about 60% had poor awareness about osteoporosis. Conclusion: This study showed a gross deficit in awareness of osteoporosis in Indian postmenopausal women. There is a need to prioritize on designing appropriate awareness campaigns in subjects at risk, according to their level of literacy.⁴
- 2) **Sarah Sayed, E. Tawaba et al, (2016)** The current study was conducted in order to assess knowledge about osteoporosis (OP) among women aged more than 40 years in Alexandria of Egypt as well as identifying its relation with other variables. A cross sectional survey included 532 women aged at or more than 40 years who lived in Alexandria govern - orate in Egypt was conducted using a self - administered questionnaire as well as the Facts on Osteoporosis Quiz (FOOQ). Results. The mean age of studied women was 49.92 ± 7.75 years. The majority of them (95.1%) reported that

they are familiar with OP and 77.1% perceive it as a serious disease and mass media was the main source of information regarding OP (54.2%) among them. Conclusion: The knowledge of OP among Alexandrian women could be considered moderate as regards its risk factors, preventive measures and consequences.⁵

- 3) **Keerat. (2019)** Objective: The main objective of the study was to assess and compare the knowledge of women regarding prevention and management of Osteoporosis in the pre - test and post - test and also to assess the effectiveness of Structured Teaching Programme on the knowledge. Methodology: A Pre - Experimental research design was selected. The total sample selected was 60 women. The data obtained was analyzed using both descriptive and inferential statistics in terms of frequency, percentage and distribution, mean, median, standard deviation, t value and chi square. Results: in the pre - test the mean knowledge score (7.353.861) of women was less than the post - test mean knowledge score (23.053.422). The calculated t value was 32.142 which was more than the table value at $p < 0.05$. Conclusion: Based on the findings the study concluded that the Structured Teaching Programme was effective in improving knowledge of the women regarding prevention and management of Osteoporosis.⁶

- 4) **Haider Al Attia, Amal A Abu Merhi et al, (2008)** Three hundred fifty - eight educated women, 172 with secondary school education (49%) and 186 (51%) with higher education, were consented for the study. Eighty - five percent were Arab females with an average age of 28.8 years. They expressed their knowledge on osteoporosis on one - one interview. A score of two or more correct items would qualify the respondents to indicate the source (s) of their knowledge. Highly educated women had significantly less 0 - 1 score (37/186, 20%) than the other subgroup (74/172, 44%, $p = 0.001$). They, on average, expressed 2.5 items of knowledge vs.1.69 by the other subgroup ($p = 0.002$). A total of 245 females, then, became eligible to indicate the source of knowledge. Highly educated women appeared more respondent than the other group ($p = 0.008$ and $p = 0.05$, respectively). They, however, were not different in the way they perceived osteoporosis as well as in indicating their sources of knowledge. The results reemphasize the lack of an international standard in the understanding of osteoporosis among different populations of females.⁷

- 5) **Shahzad, Dania MBBCh, Thakur, Asiya Aqeel MBBCh et al, (2021)** Study aimed to evaluate the awareness, knowledge, and perception of middle - aged women regarding menopause and hormone therapy (HT). Methods: This observational study was conducted on pre - , peri - , post - , and surgically menopausal women ($n = 591$) from January 2020 until June 2020 in Dubai. A structured questionnaire was developed based on previous literature to assess participants' knowledge and awareness of menopause and HT. Results: Majority (498, 82%) of participant women had fair to poor overall knowledge on menopause, did not know whom HT is used for (404, 48%), and for whom it is contradicted (455, 77%). Knowledge on menopause and HT was highly associated with better attitudes ($P <$

0.001 and $P < 0.001$, respectively). Conclusions: Community medicine educators and primary healthcare providers need to prepare tailored pre - menopausal and postmenopausal educational intervention - al programs for further educating women and preparing them for this phase of their lives.⁸

3. Problem Definition

A study to assess the knowledge regarding osteoporosis among post - menopausal women in selected community areas at Adgaon, Nashik”.

4. Objectives of the Study

- 1) To assess the knowledge about osteoporosis.
- 2) To assess the knowledge level regarding osteoporosis among post menopausal women.
- 3) To find the association between the knowledge regarding osteoporosis among post menopausal women with selected demographic variables (age, education, religion, occupation).

5. Methods/Approach

The research approach is a plan and procedure that consists of the steps of broad assumptions to detailed methods of data collection, analysis, and interpretation. It is, therefore, based on the nature of the research problem being addressed.⁹

The present study aims to assess the knowledge regarding osteoporosis among patient attending osteoporosis women residing at Adgaon. The researcher has adopted the descriptive research approach. Research design is the planned, structured and strategy of investigation of answering the research question is the overall plan. In this study the researcher has adopted non - experimental research design.

Sampling is a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate characteristics of the whole population.¹⁰

In present study, samples were selected by convenient sampling techniques by the investigator. Sample size selected for this study was 60 as it is an non - experimental descriptive study.

6. Results

This chapter deals with the analysis and interpretation of data collected from 60 community people at Adgaon, by convenient sampling method in non - experimental descriptive study to assess the knowledge regarding osteoporosis in post menopausal women. The data collected was coded and analyzed as per objectives and hypothesis of the study.

Section 1: - Description of socio - demographic data.

Section 2: - Area wise assessment of knowledge level of people regarding osteoporosis in post menopausal women.

Section 3: - Area wise assessment of knowledge level of people regarding prevention of osteoporosis in post menopausal women.

Section 4: - Association between knowledge regarding prevention of osteoporosis among post menopausal women with selected demographic variables.

Section 1: Description of socio - demographic data.

Demographic data

Age: n=60

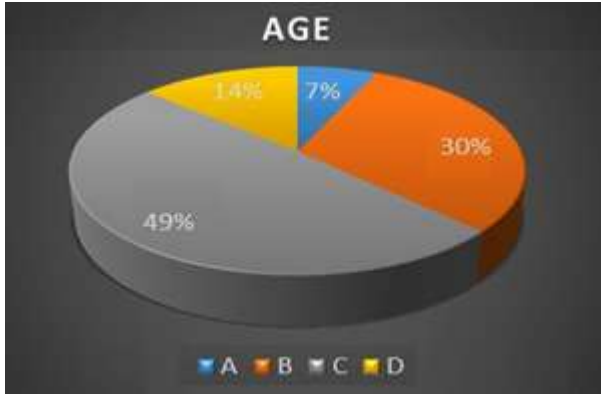


Figure I: Pie graph showing distribution of sample according to age group

Percentage wise distribution of people according to their age depicts that the highest percentage (47% where in the age group of a 45 to 60 years. among the samples 30% of them were in the age group of 35 to 40 year 17% of them where in the age group of 60 year and above among the samples lowest % 7% in the age group of 20 to 30 years hence it can be interpreted that majority of the people under the study belong to 45 to 60 years

Section 2: - Area wise assessment of knowledge level of people regarding osteoporosis in post menopausal women.

Table 1: Analysis of Knowledge of the Sample about Osteoporosis

Response	Frequency	Percentage
a) Most commonly affected organ of human in osteoporosis is bone	36	60%
b) First indication of osteoporosis is pain	32	53.33%
c) Symptoms of osteoporosis are all except blindness	38	63.33%
d) Osteoporosis is affect age group commonly is 30 to 40 years	24	40%
e) Osteoporosis means thinning in bone	40	66.66%
f) Reduce chances of osteoporosis is vitamin d and calcium intake	16	26.66%
g) Complaints of osteoporosis is experience more by women's	40	66.66%

Section 3: Area wise assessment of knowledge level of people regarding prevention of osteoporosis in post menopausal women.

Table 2: Analysis of knowledge level of people regarding prevention of osteoporosis in post menopausal women

Response	Frequency	Percentage
a) Menopause is menstrual cycle permanently cease	50	83.33%
b) Normal age of menopause is 40 to 45years	08	13.33%
c) Preventive measures after menopause is prevent fall and fracture	14	23.33%
d) Women at post menopausal should avoid the following except slop	28	46.66%
e) One thing that should prevented in post menopausal women's daily work	24	40%

7. Discussion

Menopause is the permanent physiologic cessation of menses associated with declining ovarian functioning. During this time, the reproductive function diminishes and ends. Post menopause is the period beginning from about 1year after menses cease. Menopause is associated with some atrophy of breast tissue and genital organs, loss in bone density and vascular changes. Menopause starts gradually and is usually signaled by changes in menstruation. The monthly flow may increase, decrease, become irregular and finally cease.

Changes signaling menopause begin to occur as early as the late 30s when ovulation occur less frequently, estrogens levels fluctuate and FSH levels increase in an attempt to stimulate estrogens production. Aim of study to assess the knowledge level regarding osteoporosis among post menopausal women. Descriptive survey approach was used. The study was conducted at Adgaon. Non probability convenient sampling technique was used. Tool was prepared on the basis of relevant review of literature. The tool consist of demographic data, question related to osteoporosis in post menopausal women.

8. Major Findings of the Study

Percentage wise distribution of people according to their age depicts that the highest percentage 47% where in the age group of a 45 to 60 years. among the samples 30% of them were in the age group of 35 to 40 year 17% of them where in the age group of 60 year and above among the samples lowest % 7% in the age group of 20 to 30 years hence it can be interpreted that majority of the people under the study belong to 45 to 60 years. Percentage wise distribution of samples according to their education shows that highest percentage 50% people were primary among the samples 40% of them where in the secondary 07% of them where in the graduation and among samples lowest percentage 3% were in the post graduation.

9. Conclusion

On conducting this research and analyzing this collected data, it can conclude that samples have the basic knowledge related to the meaning, risk factors symptoms and management of osteoporosis they also have good knowledge regarding osteoporosis in post menopausal women but many of the samples are not having the knowledge regarding

exercise, when considering the selected demographic variables age, marital status, religion, education, occupation, samples between 45 to 60 years age groups having good knowledge compared to other age group that is 20 to 30 years and above 60 years. Findings suggest that knowledge level of client primarily depends upon the education status than age group

10. Future Scope

a) Education

The nursing personnel should be given in - service education to update their knowledge and abilities to identify the learning needs and impart education, implement the knowledge regarding osteoporosis among post - menopausal women

b) Administration

Nurse administrator should arrange continuing educational program for nursing personnel regarding osteoporosis among post - menopausal women. Nurse administrator should prepare adequate learning material for giving health education and making necessary educational material available to needy patient. The administrator should emphasize the need for implementing planned educational strategies for improving the knowledge of the patient and care takers. As a nurse administrator, one should encourage a specific association of care takers who can then carry out periodic meetings and programmes so as to be of help for the new care takers.

c) Clinical

The Clinical nurse should be able to use the acquired knowledge to give health education to the patients and family members in the clinical area and will be able to supervise the symptomatic care measures adopted by the patients for the relief of the symptoms during osteoporosis.

d) Research

Study reveals that there is a deficit in the knowledge of the patients regarding osteoporosis during post - menopausal period and there is a need for extended Nursing research into osteoporosis during post - menopausal period. Future nurse researchers should take up various aspects and conduct intervention - al studies. Nursing research will emphasize to increase the knowledge regarding osteoporosis among post - menopausal women.

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Author Profile



Ms. Sana Tamboli is working as a Clinical Instructor in SMBT College of Nursing, Dhamangaon, Nashik, Maharashtra,



Mrs. RupaliChaugule is working as Associate Professor, Department of Obstetric and Gynaecology in SMBT College of Nursing, Dhamangaon, Nashik, Maharashtra,