A Study to Assess Knowledge Regarding Postmenopausal Osteoporosis among Women at Selected Community Nadathara, Thrissur with a View to Develop an Information Booklet

Karthika Raju[1], Rancy Davis P[2], Sona Jose[3], Siji. K. Kannan[4], Sreeparvathy Surendran[5], Sreya V.D[6], Treesa Mariya M.B[7], Uneesha Unnikuttan[8]*and Neethu A.J[9]

[1-8]IV Year B Sc Nursing, Aswini College of Nursing, Thrissur, Kerala, India
[9]Lecturer, M. Sc Nursing, Aswini College of Nursing, Thrissur, Kerala, India

ABSTRACT

Osteoporosis is a systemic skeletal disorder characterized by compromised bone strength predisposing to an increased risk of fracture. Nurse, as the primary care giver must encourage and make the mothers aware about osteoporosis. Hence, the study was undertaken to assessing the knowledge of post menopausal osteoporosis among women at selected rural community, Nadathara, Thrissur. The objectives of the study were to assess the knowledge of postmenopausal osteoporosis among women and the association between knowledge scores on postmenopausal osteoporosis among women with their selected demographic variables and to prepare a information booklet regarding postmenopausal osteoporosis. The design of the study was descriptive survey and was conducted over 50 post menopausal women. The samples were selected by using non probability convenient sampling. The result showed that about 32% of post menopausal women were having inadequate knowledge, 68% of post menopausal women were having moderate knowledge and none of them had adequate knowledge on osteoporosis. The study also showed some association between knowledge score of women regarding post menopausal osteoporosis with the selected demographic variables such as age, and no association between selected variable such as education, type of family, occupation, family income, religion. Thus the study concluded that, the women are having lack of knowledge regarding post menopausal osteoporosis and if they get enough knowledge regarding the same, the complications of post menopausal osteoporosis can be prevented to an extent.

KEYWORDS

Postmenopausal osteoporosis; Knowledge; women; Information booklet

INTRODUCTION

"Your bones are for life. Look after them and they will carry you far"

-SusanHampshire.

Background of the study

Bone is a living, dynamic tissue that undergoes constant remodeling throughout life[1]. In childhood, bones grow and repair very quickly, but this process slows down as you get older. Bones stop growing in length between the ages of 16 and 18, but continue to increase in density until late 20s. From about the age of 35, bone gradually lose its density. This is a normal part of ageing, but for some people it can lead to osteoporosis. Osteoporosis is a condition that affects the bones, causing them to become weak and fragile and more prone to break[2].

Osteoporosis is estimated to affect 200 million women worldwide - approximately one-tenth of women aged 60, one-fifth of women aged 70, two-fifths of women aged 80 and two-thirds of women aged 90[3].

The World Health Organization (WHO) reveals that one out of three adult females in India suffers from osteoporosis, making India one of the worst affected countries in the world. The Arthritis Foundation of India says there has been an estimated 200 per thousand cases across Asia in 10 years[4].

The leading cause of osteoporosis is a lack of certain hormones, particularly estrogen in women and androgen in men. Women, especially those older than 60 years of age, are frequently diagnosed with this disease. Menopause is accompanied by lower estrogen levels and increases a woman's risk for osteoporosis[5].

The key factor to avoid 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, limiting alcohol intake, not smoking, and considering hormone replacement therapy[6].

A descriptive study to assess knowledge of postmenopausal osteoporosis among perimenopausal women in selected area of Byahatti PHC, Dharwad district Karnataka. Totally 30 perimenopausal women were selected by simple random sampling technique. The knowledge was assessed by using structured knowledge questionnaire. The study results reveal that, majority of subjects 21 (70%) had an average knowledge and remaining 9 (30%) had poor knowledge regarding post menopausal osteoporosis[7].

NEED AND SIGNIFICANCE OF THE STUDY

Osteoporosis is a major public health problem, causing fractures of wrist, back and hip with high associated morbidity and mortality and those particularly at risk are post menopausal women[8].

Osteoporosis is a disease that threatens more than 28 million post menopausal women in America and more than 61 million post menopausal women in India. By 2050, the world wide incidence of hip fracture is projected to increase by 310% in men and 240% in women. More than 50% of hip fracture in the world will occur in Asia[11].

A cross sectional study was conducted to find out the prevalence of osteoporosis and osteopenia in pre and post menopausal women in India with the aim to screen urban population for osteoporosis. A total number of 92 Indian pre-post menopausal women were screened for osteoporosis at New Delhi. The study concluded that there is no association between Body Mass Index (BMI) and Bone Marrow Density (BMD). Further the results show that there is no significant association between osteoporosis osteopenia with sedentary lifestyle and family history[12].

Studies show that a considerable number of people are unaware of the risk factors and consequences of osteoporosis. Perceiving osteoporosis is a major health problem among menopausal women with adequate support of reviews the investigators felt the need to identify the knowledge on osteoporosis among women, so that an information booklet can be prepared to create awareness.

STATEMENT OF THE PROBLEM

A study to assess the knowledge of women regarding post menopausal osteoporosis at selected rural community, Nadathara, Thrissur with a view to develop an information booklet.

OBJECTIVES

1. To assess the level of knowledge regarding postmenopausal osteoporosis among women.

2. To associate the level of knowledge regarding postmenopausal osteoporosis among women with their selected demographic variables.

3. To prepare an information booklet regarding postmenopausal osteoporosis.

Assumptions

➢ Women may have some knowledge regarding post menopausal osteoporosis.

➢ Knowledge regarding postmenopausal osteoporosis among women may be influenced by their selected demographic variables.

Hypothesis

H$_1$: There is a significant association between the selected demographic variables and knowledge score of the women on postmenopausal osteoporosis.

Delimitation

➢ The study is limited to women of age group between 35-45 years

➢ Study is limited to 50 samples

➢ The study is delimited to specific geographic area

MATERIALS AND METHODS

A non experimental descriptive survey design was used for this study in which structured knowledge questionnaire was utilized for assessing the knowledge regarding postmenopausal osteoporosis among women in selected community, Nadathara, Thrissur.

Settings of the study

Setting is the physical location and condition in which data collection takes place in a study.[15] The setting of the study was rural areas under ward 2 and 3 of Nadathara Grama Panchayath. Nadathara is a residential area situated in the city of Thrissur in kerala state of India. The total area is 19.30 sq m, which is spread on one side of NH 47. There are 17 wards under the panchayath. Population is 11,969 of which 5,848 were males and 6,121 are females. Literacy rate is 95.04%. The Block Panchayath is Ollukkara. There are 4 subcenters and 30 anganwadis coming under the panchayath. The main health care outlets are Primary Health Center at Moorkinikara and the private health center atS Minor Road which is run by Jubilee Mission Medical College, Thrissur. The common occupation of people includes agriculture and other kinds of governments and peivate jobs.

Population of the study

A population is the aggregation of cases in which the researcher is interested. In this study the population comprised of all women residing in rural area.

The target population is the aggregate of cases about which the researcher would like to generalize. For the present study, all the women in rural area belonging to Thrissur District.

The accessible population is the aggregate of cases that confirm to designated criteria and that are accessible as subjects for the study. In this study, the accessible population comprised of all the women who are residing in ward 2 and 3 of Nadathara panchayat, Thrissur.

Sample and sampling technique

Sample is a subset of population selected to participate the research study[16]. In this study the sample size comprised of 50 women in Nadathara Grama panchayath,Thrissur.

The researchers selected 50 women who are residing in ward 2 and 3 of Nadathara Panchayath, Thrissur based on the inclusion and exclusion criteria.

Sample selection criteria

The criteria that specify the characteristics that the subjects in the population must possess are referred as eligibility criteria or inclusion criteria.[15]

Inclusion criteria

The present study includes women:

1. In the age group between 35and 45 years.

2. Who have not attained menopause.

3. Who were residing in ward 2 and 3 of Nadathara panchayath.

4. Who were willing to participate in the study.

5. Who are able to write and read Malayalam.

Exclusion criteria

1. Who had undergone hysterectomy.

2. Who were not within the age limit of 35-45 years.

3. Who attained menopause.

4. Who were not willing to participate in the study.

5. Who were not present on the time of data collection.

Tool/Instruments

A research tool is a device used to measure the concept of interest in a research project. Tool used for the present study is structured knowledge questionnaire.

Description of the tool

Section A: Socio demographic Performa

The socio demographic performa consists of 7 variables such as age, educational status, occupational status, religion, type of family, monthly income and previous source of information.

Section B: Structured knowledge questionnaire on postmenopausal osteoporosis

A structured knowledge questionnaire on postmenopausal osteoporosis with 30 multiple choice items was constructed to assess the knowledge of osteoporosis among women regarding

postmenopausal osteoporosis. Each item had 4 alternatives and the right carry 1 mark and wrong answer carry 0 mark. The maximum score was 30. To interpret the level of knowledge, the score were distributed as follows.

Score interpretation

As it observed from table (1), out of 50 samples, majority of the samples 68% (34) have moderate knowledge towards postmenopausal osteoporosis whereas 32% (16) have poor knowledge towards postmenopausal osteoporosis. No samples have adequate knowledge towards postmenopausal osteoporosis.

Table 1 Frequency and percentage distribution of level of knowledge of women regarding postmenopausal osteoporosis (N =50)

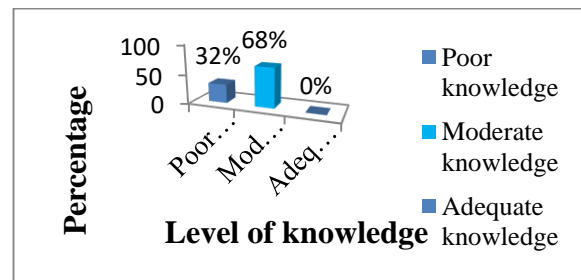| Level of knowledge	Frequency (N)	%
Poor knowledge	16	32
Moderate knowledge	34	68
Adequate knowledge	0	0

Fig 1 Depicts the description of level of knowledge of women regarding postmenopausal osteoporosis. N=50

Validity of the tool

Validity refers whether an instrument accurately measure what is supposed to measure or not[15]. The tool in this study was validated by submitting the tool to experts from nursing. Necessary modifications were made in the tool based on their valuable suggestions and opinions.

Data collection process

Data collection is the gathering of information to address a research problem. A formal permission was obtained from concerned authorities for conducting the study. The data collection was carried out from 10/4/2018 to 12/4/2018. The investigators collected data from 50 women in Nadathara panchayath. The samples were selected according to the sample selection criteria using purposive sampling techniques. An introduction was given by explaining the purpose of the study and obtained informed consent from the subjects. Confidentiality was assured to all the samples to get their good cooperation. Socio demographic data and knowledge on selected aspects of postmenopausal osteoporosis were collected by administering structured knowledge questionnaire. Samples were cooperative during the time of data collection.

Plan for data analysis

The collected data are analyzed by using descriptive and inferential statistics.

The plans of statistical analysis of data were as follows:

- The data on demographic variables was analyzed by using frequency and percentage distribution.

- The data on knowledge of women regarding postmenopausal osteoporosis was analyzed in terms of mean and standard deviation.

- The association between knowledge score of women and selected demographic variables was analyzed by using Chi-square test.

DISCUSSION

The value of a research is only reached when the findings are well communicated and further leads to practice. Discussion refers to whether the research findings or study was aimed to assess the knowledge of women regarding osteoporosis. The study was conducted among women at Nadathara Grama Panchayath, Thrissur. The data was collected by means of a structured knowledge questionnaire. Non probability purposive sampling was used for the selection of the samples for the study. After assessing the knowledge regarding post menopausal osteoporosis an information booklet was distributed among all the premenopausal women's in a community.

The first objective of study was to assess the knowledge of post menopausal osteoporosis among women

In depth analysis of the study findings revealed that among 50 women 32% have poor knowledge, 68% have moderate knowledge and no samples have adequate knowledge.

 In Kerala a study was conducted to assess the effect of STP on knowledge attitude and practice of menopausal women regarding the prevention of cardiac disease and osteoporosis in selected health centre of Kannur Disrtrict. Data was analyzed using descriptive and inferential statistics. Study concluded that there is mild positive correlation between knowledge and practice.[14]

The second objective of the study state that to associate the knowledge of women regarding postmenopausal osteoporosis with their selected demographic variables.

The study reveals that there is no significant association between knowledge of postmenopausal women with selected demographic variables such as education of women, occupation of women, family monthly income, type of family, and previous knowledge regarding osteoporosis. But there is significant association between knowledge and age. A cross sectional study was conducted to find out the prevalence of osteoporosis and osteopenia in pre and post menopausal

women in India with the aim to screen urban population for osteoporosis. A total number of 92 Indian pre-post menopausal women were screened for osteoporosis at New Delhi. The study concluded that there is no association between BMI and BMD. Further the results show that there is no significant association between osteoporosis osteopenia with sedentary lifestyle and family history.[12]

SUMMARY

The present study was conducted to assess the knowledge regarding postmenopausal osteoporosis among women with selected demographic variables. The objectives of the study were,

➢ To assess the knowledge of postmenopausal osteoporosis among women.

➢ To find out the association between knowledge scores of women regarding postmenopausal osteoporosis with their selected demographical variables.

➢ To prepare an information booklet regarding postmenopausal osteoporosis.

A descriptive survey method was adopted for the study and sample size was 50 premenopausal women who belong to Nadathara Grama Panchayath. Who were selected by non probability purposive sampling. The tool used in the study was a knowledge questionnaire regarding osteoporosis and demographic performance of postmenopausal women. The collected data was analyzed by using descriptive inferential statistics.

CONCLUSION

Postmenopausal period is challenging for every women. Especially when the hormonal balance of the body changes. During this time period many changes take place in the like that of the bones. But many of the women are unaware regarding these changes.

In view this concept, the present study was conducted to evaluate the knowledge of women regarding postmenopausal osteoporosis. The reveals that many of the women have poor knowledge regarding postmenopausal osteoporosis. And a booklet was provided to improve the knowledge of the women.

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