

A Descriptive Study to Assess the Knowledge and Practice Regarding Prevention of Osteoporosis among Group D Female Workers of Selected Tertiary Care Hospitals in Mangaluru

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Abstract

Background: Osteoporosis knowledge is one of several factors that are associated with osteoporosis preventive behaviour. Moreover, the educational level of individual has the potential to change the perception of health and illness to a much better level. The objective of the study was to assess the level of knowledge regarding prevention of osteoporosis among Group D female workers, to determine the level of practice regarding prevention of osteoporosis among Group D female workers, to find correlation between knowledge and practice on prevention of osteoporosis among group D female workers, to find association of knowledge and practice with selected demographic variables. **Methodology:** A descriptive study design was adopted for this study. The samples were drawn through Purposive sampling technique and the sample comprised of 87 female group D workers. The tool used for this study was demographic proforma, OKAT questionnaire, and self reported practice checklist. **Conclusion:** The mean percentage of knowledge score was 37.05% and the mean percentage of practice score was 37.18%.

Key words: osteoporosis, OKAT, Group D female workers

Introduction

Osteoporosis knowledge is one of several factors that are associated with osteoporosis preventive behaviour. Moreover, the educational level of individual has the potential to change the perception of health and illness to a much better level. Thus, highly educated people usually seek knowledge and have an opportunity to learn about health preventive behaviour more than those with lower education¹. Bone density peaks when a person is in their late 20s, and it starts to weaken at

around 35 years of age, as a person grows older, bone breaks down faster than it rebuilds. It occurs more in women after menopause because of the sudden decrease in estrogens²

Worldwide, osteoporosis cause more than 8.9 million fractures annually, resulting in an osteoporotic fracture every 3 seconds. It is estimated to affect some 200 million women globally – approximately one – tenth of the aged 60, one fifth aged 70, two fifth aged 80, two third aged 90. also one in every three women over the age 50 years will experience osteoporotic fracture, as in one in every 5 men of the same age group.³ It is projected that more than about 50 % of all the osteoporotic hip fractures will occur in Asia by the year 2050.⁴

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Osteoporosis develops in older adult when the normal process of bone formation and resorption become impaired. Treatment program should therefore

focus on strategies that reduce falls, optimum treatment and prevention of osteoporosis require modification of risk factor particularly smoking, physical activity, and diet in addition to pharmacology interventions.

Material and Methods

A descriptive correlational research design was adopted for this study. The respondents in the study were Group D female workers in selected Tertiary care hospitals in Mangaluru. The 87 respondents were selected using purposive sampling technique.

Sampling Criteria

Inclusion criteria:

- Women's between 30-60 years of age
- Able to communicate in Kannada or English.
- Person available at the time of data collection

Exclusion criteria:

- Women's above 60 and below 30 years of age
- Women's taking calcium supplementation
- Women's those who are suffering from mental illness

Sample is selected through purposive sampling method. The tool used for the study consists of demographic variables like Age, educational status, marital status, type of family, habits, regular exercise, previous family history, history of earlier menopause, previous source of information, Modified OKAT and self reported practice checklist was developed by the investigator and used to collect the data. The reliability of knowledge questionnaire was calculated by split half method, and practice scale by cronbach's alpha. The reliability co-efficient was $r=0.91$ for OKAT which indicated that the tool is reliable. The data collection period extended from 14th September to 22nd September 2020. The investigator explained the purpose of the study and requested the participants' full cooperation and assured the confidentiality of the data. Written

consent was taken from subjects. Participants cooperated well during the time of data collection process. Formal written permission was obtained from the authorities to conduct the study. Data collected from the sample were analyzed using descriptive and inferential statistics using SPSS version 23.

Results

Section I: Sample characteristics

The findings of the study demonstrated that among 87 group D female workers who are working in Yenepoya Medical college Hospital surveyed, the highest percentage of the subject (49.43%) belonged to an age group of 40-50 years. Maximum number of subject had Higher secondary education (85.06%), majority of the subjects (90.80%) were married, maximum number of the subjects (87.36%) were belongs to nuclear family. Most of the subjects (82.76%) had caffeine intake. Almost (78.16%) of the subjects had no exercise. Majority of the subjects (88.51%) had no previous family history. The maximum number of subjects (87.36%) had no history of earlier menopause. Majority of the subjects (88.51%) were not received any information.

Section II: Distribution of subjects according to their knowledge score

Table 1: Frequency and percentage distribution of subjects according to the level of knowledge

Maximum Score=20 n=87

Level of knowledge	Frequency (f)	Percentage (%)
Excellent knowledge	1	1.2
Good knowledge	61	70.1
Poor knowledge	25	28.7

The data presented in Table 1 shows that, majority (70.1%) of the subjects had good knowledge, 28.7% of the subjects had poor knowledge. This is shown in figure I

Section III: Distribution of subject according to their practice score

Table 2: Frequency and percentage distribution of subjects according to level of practice

Maximum score 11 n=87

Levels of practice	Frequency(f)	Percentage (%)
Poor practice	18	20.7%
Average practice	63	72.4%
Good practice	6	6.9%

The data presented in Table 2 shows that, majority of the subjects(72.4%) had average practice, 20.7% of the subjects had poor practice, and 6.9% of the subjects had good practice.

Correlation between knowledge and practice

Finding of the study revealed that there is a positive correlation between knowledge and practice. As the knowledge increase practice also increase. The result shows that $r=0.277$.

Association between knowledge score and selected demographic variables

The findings of the study revealed that there was a significant association between knowledge score and the following demographic variables such as Type of family, Previous Information but rest of all there is no significant association between knowledge score and demographical variables.

Association between practice score and selected demographic variables

The findings of the study revealed that there is a significant association between practice score and demographic variables such as type of family, earlier menopause, previous information whereas rest of all there is no significant association between the practice

score and demographic variables.

Discussion

Distribution of subjects according to their knowledge score

Majority of the subjects (70.1%) having good knowledge on prevention of osteoporosis, 1.2% of the subjects having excellent knowledge and 28.7% of the subjects having poor knowledge. The mean percentage of overall level of knowledge was 37.05%.

The following study supports the findings of current study

A cross sectional study was conducted to assess Knowledge on Osteoporosis prevention among Bahraini women. Sample consisted 400 Bahraini women using convenience sampling technique in a community setting. The data were collected using Osteoporosis Knowledge Assessment Tool (OKT). The study revealed that Most of the women (73%) had moderately adequate knowledge on osteoporosis.⁵

Distribution of subjects according to the level of practice

The findings of the study revealed that the majority (72.4%) of the subjects had average practice, 20.7% of the subjects had poor practice and 6.9% of the subjects had good practice. The mean percentage of overall level of practice was 37.18%.

The following study supports the findings of current study:

A descriptive study was conducted to assess knowledge, beliefs and practices regarding osteoporosis among female medical school entrants in Sri Lanka. A self administered questionnaire was used to assess knowledge, beliefs and practices on osteoporosis, including a food frequency chart to assess the calcium intake. Majority of the participants (51.6%, n=96) had an average score (40–60) on the knowledge test, while 40.8% (n=76) had a poor score (<40). However, in depth knowledge on risk factors, and protective factors was

lacking. Perceived susceptibility for osteoporosis was low with only 13.9%. Only 7(3.8%) participants were currently engaged in specific behaviours to improve bone health whilst 20(10.8%) had thought of routinely engaging in such behaviour.⁶

Conclusion

The following conclusions were drawn on the basis of the findings of the study:

v majority of the subjects had good knowledge (70.1%), 28.7% of the subjects had poor knowledge.

v Most of the subjects (72.4%), had average practice 20.7% of the subjects had poor practice, and 6.9% of the subjects had good practice.

Limitations:

v The study is limited to group D female workers in Yenepoya Medical College Hospital, Mangaluru.

v Study is limited to Knowledge Questionnaire and Practice Checklist

Disclosure of potential conflicts of interest: The authors declare that they have no conflict of interest

Ethics approval: Approval was granted by the

Yenepoya Ethics Committee-2, Yenepoya (deemed to be university) of Mangaluru.

Consent to participate: Written informed consent was obtained from the study participants.

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