International Journal of Science and Research (IJSR)
ISSN: 2319-7064
ResearchGate Impact Factor (2018): 0.28 | SJIF (2019): 7.583

Women's Awareness about Osteoporosis

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Abstract: ***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. It is estimated that currently India has more than 36 million population affected by osteoporosis. The purpose of this study was to assess the knowledge of osteoporosis among women, and to find an association between knowledge score of women with demographic variables. A total of 50 women were selected and interviewed. A structured questionnaire was administered. Majority (62%) of the sample belong to 30-35 years of age group. 46% of the women studied up to secondary education, 30% had primary education and 24% women were graduated. 74% of the sample belong to Hindu religion. 74% of the women were married and 24% of the women were separated. 56 % of the samples have less than Rs.5000 as family's monthly income. 74% of the women were not working, 26 % were working. 82.0% of the sample had information about osteoporosis. 46% of the samples had information from health personnel, 20% got information from mass media. And 16% of the women had information from family & friends. Regarding, type of diet, 82% consumed mixed diet, 12% were consumed non vegetarian diet and 6 % consumed vegetarian diet. Regarding knowledge, 40% of the women had poor knowledge, 56% of the women had average knowledge, 4% of the women had good knowledge and none of the sample had excellent knowledge. This study finding also revealed that there is no significant association between knowledge score of women with demographic variables.***

Keywords: osteoporosis, menopause, prevalence, BMD, adolescence

1. Introduction

After menopausal in women the process of osteoporosis is accelerated due to deficiency of estrogen. Estrogen helps in the positive calcium metabolism. Menopause accelerates the bone loss to 2-5% per year, which may continue till 10 years. Prevalence of osteoporosis increases with age in women and not in men. It is reported that 42.5% women and 24.6% men above the age of 50 years suffer from osteoporosis in India. In India peak bone mineral density (BMD) at hip, forearm and spine is significantly lower than corresponding western counterparts. Osteoporosis is becoming a public health problem in India with lower normative index of BMD as compared to western countries. . The number of women with osteoporosis, ie, with reduced bone mass and the disruption of bone architecture, is increasing in India. Low calcium intakes with extensive prevalence of vitamin D deficiency, increasing longevity, sex inequality, early menopause, genetic predisposition, lack of diagnostic facilities, and poor knowledge of bone health have contributed toward the high prevalence of osteoporosis. Bone health may be optimized by creating an environment to achieve peak bone mass during adolescence, maintenance of healthy bone throughout the life cycle, and prevention of bone loss postmenopausal. In Indian women, calcium, vitamin D, and bishosphonates are the commonest first-line therapies used. The use of other drugs such as hormone replacement therapy, estrogen agonists, calcitonin, and parathyroid hormone is decided as per the affordability and availability of treatment options.

Osteoporosis is a preventable disease. Health care providers need to determine the population's knowledge of and attitudes towards osteoporosis to plan effective education programs. One of the first steps for raising awareness and planning education is to examine how much is known about the disease by those who have the disease and by the lay public.

1.1 Objectives

1) To assess the knowledge of osteoporosis among women.
2) T0o find an association between knowledge score with demographic variables.

1.2 Hypothesis

1) There is a significant association between knowledge score with demographic variables.

2. Material and Methods

A Non experimental Descriptive Research Design was adopted to conduct the study. The study was carried out in Marapadi village, Kanyakumari district, Tamil Nadu. A total of 50 women aged 30 to 45 years who agreed to participate in the study were interviewed. They were selected by using non probability purposive sampling technique. Permission was obtained from Panchayat President of that area, and all women gave oral informed consent. Data was collected by using a structured questionnaire. The questionnaire consisted of three parts. The first part collected information on demographic factors such as age, educational status, occupation, family's monthly income, religion, marital status, food habits, and source of information. In the second part, participants' knowledge about osteoporosis was assessed using a 20-item questionnaire developed after a wide literature review. The total score could range from 0 to 20. Statistical analysis Descriptive statistics (means, SDs, percentages) were used to describe the characteristics of the study population and main variables. The obtained data were analyzed and tabulated, descriptive statistics as frequencies, and percentage were calculated. Chi- square test also used and P value less than 0.05 was considered as statistically significant.

3. Findings

1) Description of demographic Variables of Women

Majority (62%) of the sample belong to 30-35 years of age group. 46% of the women studied up to secondary education, 30% had primary education and 24% women were graduated. 74% of the sample belong to Hindu religion. 74% of the women were married and 24% of the women were separated. 56 % of the samples have less than Rs.5000 as family's monthly income. 74% of the women were not working, 26 % were working. 82.0% of the sample had information about osteoporosis. 46% of the samples had information from health personnel, 20% got information from mass media. And 16% of the women had information from family & friends. Regarding, type of diet, 82% consumed mixed diet, 12% were consumed non vegetarian diet and 6 % consumed vegetarian diet.

Table 1: Frequency and Percentage Distribution of Demographic variables of Women(N=50)

Demographical Variable	Categories	N	Percentage
Age (years)	30-35	31	62
	36-40	8	16
	41-45	11	22
Education	Primary	15	30
	Secondary	23	46
	Graduate	12	24
Occupation	Working	13	26
	Coolie	1	2
	Business	2	4
	Employee	10	20
	Not working	37	74
Religion	Hindu	37	74
	Christian	12	24
	Muslim	1	2
Marital Status	Married	37	74
	Unmarried	7	14
	Separated	6	12
Family monthly Income (In Rupees)	≤5000	28	56
	5000-8000	8	16
	>8000	14	28
Type of Diet	Vegetarian	3	6
	Non vegetarian	6	12
	Mixed	41	82
Source of Knowledge	Yes	41	82
	Mass media	10	20
	Health personnel	23	46
	Family &friends	8	16
	No	9	18

2) Knowledge of women on Osteosporosis

Assessment of level of knowledge of women on osteoporosis shows that 40% of the women had poor knowledge, 56% of the women had average knowledge, 4% of the women had good knowledge, and none of the sample had excellent knowledge.

Table 2: Frequency and Percentage Distribution of knowledge of women on osteoporosis (N=50)

Score	Knowledge category	Frequency	Percentage
0-5	Poor Knowledge	20	40
6-10	Average Knowledge	28	56
11-15	Good Knowledge	2	4
16-30	Excellent Knowledge	0	0

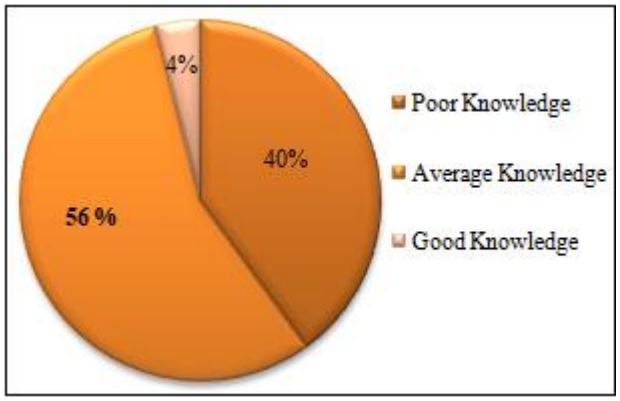

Figure 1: Knowledge of Women about Osteoporosis

3) Association between Knowledge of Nursing Students regarding PCOS and Demographic Variables.

The present study findings revealed that there was no significant association between knowledge on Osteosporosis and demographic variables of samples.

Table 3: Association between Knowledge and Demographic Variables of respondents

Demographic Variable	df	Table Value (P<0.05)	Calculated Value($\chi^{2)}$	Inferences
Age	2	5.99	2.6	Not Significant
Education	2	5.99	0.4	Not Significant
Occupation	3	7.82	0.1	Not Significant
Marital Status	2	5.99	0.1	Not Significant
Religion	2	5.99	0.36	Not Significant
Family monthly Income	3	7.82	3.7	Not Significant
Type of Diet	2	5.99	2.6	Not Significant
Sources of information	1	3.841	1	Not Significant

4. Conclusion

Investigator concluded that there was a general lack of knowledge about osteoporosis and that there was a need for increased involvement of health personnel in education about certain aspects in Osteoporosis especially preventive aspects of osteoporosis. Hence the knowledge of the disorder and counseling for women should be included in the education programme which will provide awareness towards the disorder and lifestyle modification.

5. Recommendation

1) A similar study may be conducted among reproductive age group
2) A similar study can be conducted with large number of samples
3) A comparative study can be done among peri- and postmenopausal women
4) A comparative study can be done among women in urban and rural area

Conflicts of interest- There are no conflicts of interest.

Source of Funding- Self

6. Ethical Clearance

The ethical clearance was obtained from the Doctoral committee of Sree Mookambika College of Nursing. Oral consent was obtained from the samples before collection of data by explaining the purpose of this study and its importance for each student. After getting the oral consent, an explanatory letter and the questionnaire were handed out to the samples. The explanatory letter provided a credible and meaningful explanation of the research intention. The researcher remained with the participants, informing them of the strategies employed to protect their anonymity and other safeguards taken to protect their identities prior to publication. They were also assured that their responses would be kept confidential. The ethical principles of guaranteeing the principles of honesty, confidentiality, privacy, avoidance of harm and informed consent underpinned the total research process.

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