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A study to assess the knowledge of osteoporosis prevention among pre-menopausal women

R.Nimmi, Professor, Sree Balaji college of Nursing, Bharath institute of higher education and Research.

Abstract

Both men and women experience bodily changes as they age. Sometimes, these changes have an impact on both the body and the mind. An inevitable stage of a woman's ageing process is menopause. Every woman will eventually go through menopause, providing she lives to be at least middle age. Osteoporosis is a serious public health issue that can lead to wrist, back, and hip fractures as well as high rates of morbidity and mortality. Postmenopausal women are especially vulnerable. Most young women do not get the necessary amount of calcium each day, and they do not exercise enough to protect their bones from osteoporosis. Education regarding osteoporosis among young women has either been neglected by healthcare providers and educational institutions, or it has not been received and maintained. **Problem statement:** A study to assess the knowledge of osteoporosis prevention among pre-menopausal women. **objectives:** To assess the knowledge regarding prevention of osteoporosis among pre-menopausal women in rural areas. 2. To find out the association between pre-test knowledge scores and selected demographical variables. **Research methods:** Pre-experimental one group pre-test research design was adopted to achieve the goal of the study. **Sample Techniques:** A non random purposive sampling technique will be used to select the subject as the sample. **Data collection instrument** Structured interview schedule will be used for data collection. **Data analysis:** will be done with the help of descriptive and inferential statistics. Descriptive statistics will be used to describe the background characteristics of educated women. Testing the level of significance of hypothesis will be done with the help of inferential statistics like, Chi-square test Co-efficient, correlation will be used to identify the relationship between knowledge of educated women regarding post menopausal osteoporosis with selected socio demographic variables. **Results:** there is a significant association between pre-test level of knowledge among premenopausal women with their selected socio demographic variable such as education, occupation and family income. The overall pre-test knowledge score with maximum score 20, Mean score 12.16, Mean percentage 50.8% and Standard deviation. **Keywords:** assess, knowledge, prevention, osteoporosis

Introduction

Osteoporosis is a major public health problem, causing fractures of wrist, back and hip with high associated morbidity and mortality particular at risk are post menopausal women. The majority of young women are not consuming the recommended daily amount of calcium and are lacking sufficient osteo protective exercise for building healthy bones. Osteoporosis is a condition characterized by a decrease in the density of bone, decreasing its strength and resulting in fragile bones. Osteoporosis literally leads to abnormally porous bone that is compressible, like a sponge and pre menopause is the stage where there is a high risk of osteoporosis

Osteoporosis is a serious public health issue that can lead to wrist, back, and hip fractures as well as high rates of morbidity and mortality. Postmenopausal women are especially vulnerable. Most young women do not get the necessary amount of calcium each day, and they do not exercise enough to protect their bones from osteoporosis. Osteoporosis is a disorder in which the density of bone declines, weakening it and leaving frail bones as a result. Osteoporosis literally causes unusually porous, compressible, sponge-like bone, and pre-menopause is the time when this risk is highest.

Objectives

- 1.To assess the knowledge regarding prevention of osteoporosis among pre-menopausal women in rural areas.
2. To find out the association between pre-test knowledge scores and selected demographical variables

Research methods: Pre-experimental one group pre-test research design was adopted to achieve the goal of the study.

Sample Techniques: A non random purposive sampling technique will be used to selects the subject as the sample

Sample size:120 women in premenopausal age group

Null Hypothesis

NH1: There will not be significant association between level of knowledge of pre-menopausal women regarding prevention of osteoporosis and selected demographic variable

Criteria For Selection of Sample

- Women age between 35-46 years.
- Women who are willing to participate.
- Women who are able to read English

Data collection

Data collection was done using the structured instrument and tabulated.

Description Of Tools This consist of two parts: Part A Consist of demographic variables such as age, education, occupation, type of family, family income, previous knowledge regarding prevention of osteoporosis. Part B Structured knowledge questionnaire will be used to assess the level of knowledge regarding prevention of osteoporosis among the pre-menopausal women of the age group of 35-45.

Scoring procedure: For knowledge assessment – If right answer – 1 If wrong answer – 0 Scoring interpretation: The knowledge level is arbitrary divides into 3 categories based on self-administered knowledge questionnaires' and accordingly, the score was allotted Adequate knowledge – 67-100% • Moderately adequate knowledge - 34-66% • Inadequate knowledge - < 33%

Descriptive Statistics 1. Frequency and percentage distribution are used to describe the demographic variables. 2. Mean and standard deviation will be used to assess the knowledge regarding the prevention of osteoporosis in pre-menopausal women. Inferential Statistics : Chi-square test will be used to associate of the knowledge on osteoporosis symptoms and its prevention with a selected demographic variable.

TABLE 1:- DISTRIBUTION OF PREMENOPAUSAL WOMEN BASED ON SOCIODEMOGRAPHIC VARIABLES.

Variables		Frequency	percentage
Age	35-38 yrs	42	35
	39-42 yrs	38	31.67
	43-46 yrs	40	33.33
Education	Illiterate	16	13.33
	Primary	49	40.84
	Secondary	32	26.67
	Graduate	23	19.16
occupation	Homemaker	52	43.33
	Agriculture	00	00
	Labourer	29	24.16
	Private employee	39	32.5
Type of family	Joint	69	57.5
	Nuclear	51	42.5
	Extended	00	00
Family income	<15000	40	33.33

	5000-10000	33	27.5
	10000-15000	22	18.33
	>15000		
diet	Vegetarian	75	62.5
	Eggiterian	9	7.5
	Mixed diet	36	30
History of osteoporosis	Yes	24	20
	No	96	80

TABLE 2: PRE-TEST KNOWLEDGE SCORE OF PREVENTION OF OSTEOPOROSIS AMONG PREMENOPAUSAL WOMEN

Overall pre-test knowledge score	Maximum score	Mean score	Mean percentage %	Standard deviation
	20	12.16	50.8	2.96

The above table indicates the overall pre-test knowledge score with maximum score 20, Mean score 12.16, Mean percentage 50.8% and Standard deviation

Table3 ASSESS THE KNOWLEDGE WITH DEMOGRAPHIC VARIABLES

Variables		Pretest knowledge			Chi-square value
Age	35-38 yrs	Inadequate	Moderate	adequate	2.401 Not significant
	39-42 yrs	8	25	9	
	43-46 yrs	10	24	4	
		9	26	5	
Education	Illiterate	8	7	1	15.64 significant
	Primary	11	34	4	
	Secondary	7	18	7	
	Graduate	1	16	6	
occupation	Homemaker	13	35	4	13.077 significant
	Agriculture	0	0	4	
	Labourer	11	14	10	
	Private employee	3	26	18	
Type of family	Joint	17	39	13	2.85
	Nuclear	10	36	5	

	Extended	0	0	0	
Family income	<15000	14	21	5	19.74significant
	5000-10000	7	26	0	
	10000-15000	3	11	8	
	>15000				
diet	Vegetarian	13	51	11	4.21
	Eggiterian	2	6	1	
	Mixed diet	12	18	6	
History of osteoporosis	Yes	4	16	4	0.059
	No	23	59	14	

The data shows that the χ^2 value computed between the pre-test knowledge score of pre-menopausal women regarding prevention of osteoporosis with their selected demographic variable such as education ($\chi^2 = 15.64$), occupation ($\chi^2 = 13.077$), family income ($\chi^2 = 19.743$) where found significance at 0.05 level of significance and variable such as Age ($\chi^2 = 2.401$), type of family ($\chi^2 = 2.85$), type of diet ($\chi^2 = 4.219$), and History of osteoporosis ($\chi^2 = 0.059$) where not significant at 0.05 level of significances. Thus it can be interpreted that there is a significant association between pre-test level of knowledge among premenopausal women with their selected socio demo graphical variable such as education, occupation and family income.

Results

The findings shows that the pre-test knowledge score of pre-menopausal women regarding prevention of osteoporosis with their selected demographic variable such as education (15.64), occupation (13.077), family income (19.743) where found significance at 0.05 level of significance and variable such as Age (2.401), type of family (2.85), type of diet (4.219), and History of osteoporosis (0.059) where not significant at 0.05 level of significances. Thus it can be interpreted that there is a significant association between pre-test level of knowledge among premenopausal women with their selected socio demo graphical variable such as education, occupation and family income

Recommendations

On the basis of the findings of the study; it is recommended that:

The study can be utilized to conduct a further research study in the field of knowledge regarding osteoporosis.

A similar study can be done to prepare self-administer knowledge questionnaire for assessing the knowledge regarding the prevention of osteoporosis in pre-menopausal women.

A similar study can be done with self-administered questionnaire

A similar study can be conducted in urban areas.

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