

EVALUATE THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING BONE DENSITY INVESTIGATION AND ITS IMPORTANCE IN SELECTED COMMUNITY AREA

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Abstract

Background: The cross-sectional research on premenopausal women found decreased DXA BMD in those having fractures. Premenopausal women with Collis fractures were shown to have considerably reduced BMD than controls without fractures at the non-fractured radius, lumbar spine, and femoral neck. The WHO FRAX tool calculates fracture likelihood solely for people over the age of 40 and is meant to be used by postmenopausal women. As a result, BMD measurement When diagnosing or treating osteoporosis in premenopausal women, by DXA shouldn't be the only information needed. Women who are not yet menopausal shouldn't undergo DXA bone mineral density testing A Quasi experimental (Pre experimental) pre- and post-tests for one group, a study to assess the efficacy of a proposed instructional curriculum on knowledge regarding bone density investigations and its importance among pre-menopausal women in selected area of community Objectives of the study were: 1. To assess the effectiveness of planned teaching program on knowledge and practice regarding ill effects of mobile phones among higher secondary school students in selected areas of Wardha district. 2. To evaluate the knowledge score regarding low bone density investigation and its importance among pre- menopausal women in community area. 3Posttest Knowledge Score to Selected Demographic Variables Association.

Methods and material: study design is pre experimental one group pre test post test design. Participants were 50 premenopausal women at community area

Result: the post test score was significantly 0.05 level than type of pre test score. Thus the pre menopausal women education was found effective. There was significant association between education.

Conclusion: the pre menopausal women were not having any having knowledge about the investigation and importance of low bone density . according to the study findings it was concluded undoubtedly that the pre menopausal women education conducted by the investigation helped the pre menopausal women to improve their knowledge on investigation and its importance of low bone density.

Keywords: Pre menopausal women, DEXA, management, investigation.

INTRODUCTION

Bone mineral density Premenopausal women are less prone than postmenopausal women to acquire osteoporosis .Low skeletal mineral content and fractures but on the other hand do occur in premenopausal women, and these conditions necessitate special clinical considerations.(1)

It is not advised to measure BMD in healthy premenopausal women unless they have a history of mild trauma fracture or another condition that is known to induce subsequent bone loss or osteoporosis.(2) The sample was conducted Using information from the population-based, prospective cohort study Health in the Community Research (CHS), which was established to investigate risk factors for widespread chronic and infectious diseases. The menopausal status of each woman was assessed using her self-reported yearly menstrual bleeding frequency, self-reported history of gynecologic surgery, and self-reported usage of chemotherapy,(3) . Women who reported nursing were regarded as premenopausal since they continued

to have normal menstrual cycles in the years that followed. According to theory and research, once menstruation returns, the bone loss that happens during breastfeeding is reversed. To the best of our knowledge, this is the first research to use repeated BMD measurements and linear regression to calculate the rates of premenopausal bone loss in women over a 6-year period in a population-based setting. regressions carried out with a mixed model.(4) The women's ages in the beginning varied from 24 to 44. This research discovered strong proof of premenopausal The mean age at the point of inflection of the quadratic lumbar spine BMD function was shown to represent the age at which bone loss in the lumbar spine started.(5) A second mixed model was fitted to show To determine the age at which bone loss at the femoral neck first manifested itself, we used BMD as a linear function of age. Low oestrogen premenopausal women BMD were less likely to fracture than postmenopausal women.(6) bones are lost Low BMD may be a sign of low peak bone mass due to genetic susceptibility, environmental variables, and lifestyle choices in the absence of fragility fractures. choices.. Clinical assessment can tell the difference insufficient peak bone mass and a chronic condition that lowers BMD and makes bones more brittle. Premenopausal women's lower bone density is mostly brought on by ovarian problems and low body weight(7). Osteoporosis is a risk for perimenopausal ladies. young premenopausal ladies with illnesses or illnesses linked to accelerated bone loss may be more vulnerable to osteoporosis.. Some asymptomatic women want to get their bone mineral density (BMD) checked.(8) Without fragility fractures or significant risk factors for fracture, premenopausal women might have poor bone density. The justifications for, correct BMD test interpretation, treatment of low BMD in premenopausal women and BMD testing in premenopausal women all need to be understood to primary care physicians.(9) This BMD During an osteoporosis investigation, a blood sample may be taken to evaluate certain hormone and mineral levels. Blood calcium levels in osteoporosis are often normal. The liver and bone enzyme alkaline phosphatase is often active in osteoporosis.(10)

METHODOLOGY

Research methodology describes what research is, how to do it, how to track its success, and how to monitor progress. The choice of approach has major effects on the reliability and validity of the study's findings. The term "research methodology" refers to the fundamental structure of how an empirical study will be conducted as well as the methods used to collect accurate and trustworthy data. The method utilised to evaluate data about low bone density examinations and their importance is covered in this chapter. It includes a summary of the research technique, a, a summary of the research methodology, selection of the goal and attainable population, and study environment the selection of the sample and the methods used in the selection process, the development of data collecting, and preparation for data analysis. The data for this study is organised, and it uses a number of approaches to collect and analyse it methodically. This chapter covers the research design, study setting, population with a focus on the specific methodology used by the study, sample, sample selection criteria, sampling procedure, sample size, tools and scoring, tool preparation, feasibility of the study, validity and reliability method of data collecting, and statistical analysis.

Results:

The analysis and the interpretation of the finding were done under the four section .

- In Section A : distribution of premenopausal women according to demographic characteristics.
- In Section B: Evaluation of pre- and post-test knowledge of bone density research and its significance among premenopausal women.
- In section C: The success of the planned teaching program's assessment of premenopausal women's knowledge of bone density research is found in Section C.
- In Section D: Relationship between post-test knowledge scores on bone density research and premenopausal women's understanding of its significance.

Section A:

Table 1: Premenopausal women are distributed in percentages based on demographics characteristics .

Demographic Variables	No. of premenopausal women	Percentage (%)
Age(years)		
30-34 years	14	28
35-39 years	23	46
40-44 years	10	20
45-49 years	3	6
Educational Status		
Illiterate	1	2
Primary	21	42
Secondary	14	28
Graduation and above	14	28
Occupation		
Homemaker	31	62
Other	19	38
Residence		
Rural	23	46
Urban	27	54
Marital Status		
Married	50	100
Unmarried	0	0
Number of children		
1	31	62
2	15	30
3	3	6
4 and above	1	2
Religion		
Hindu	18	36
Muslim	21	42
Christian	2	4
Others	9	18

SECTION B

Table 2: assessment with level of pre test knowledge

Level of pre test knowledge	Score Range	Level of Pre test Knowledge Score	
		No of premenopausal women	Percentage
Poor	0-20%(0-5)	1	2
Average	21-40%(6-10)	33	66
Good	41-60%(11-15)	16	32
Very Good	61-80%(16-20)	0	0
Excellent	81-100%(21-25)	0	0
Minimum score		5	
Maximum score		14	
Mean knowledge score		9.84±2.35	
Mean % Knowledge Score		39.36±9.43	

Section C

Table 3 : The significance of the gap in knowledge scores

Premenopausal women were tested both before and after menopause.

Test	Mean	SD	Mean Difference	t-value	p-value
Pre Test	9.84	2.35	9.10±3.09	20.81	0.0001 S,p<0.05
Post Test	18.94	2.38			

Section D

Table 5: Association of post test knowledge score regarding Bone density investigation and it's performance in relation to educational status

Educational status	No. of community people	Mean post test knowledge score	F-value	p-value
Illiterate	1	16±0	8.17	0.0001 S,p<0.05
Primary	21	17.52±2.06		
Secondary	14	19.57±2.31		
Graduation and above	14	20.64±1.44		

Discussion

The current study was designed to measure premenopausal women's awareness of poor bone density examination and its significance. A thorough examination of the literature revealed that there are several research that show education had significant effect in improving the knowledge regarding bone density investigation and its importance and there by contributing in providing knowledge regarding the investigation and importance. This study represented a small effort to educate premenopausal women about low bone density research and its significance [15-25].

The results reveal this in the pre-test scores. It was concluded that 32% of the samples had excellent knowledge, 62% had average knowledge, and 18% had moderate knowledge. Nonetheless, 75% of post-test respondents demonstrated superior knowledge. hence it was statistically interpreted reduces the prevalence and severity of low bone density

Early women guidance effectively reduces the prevalence and severity of low bone density and improve the investigation rate of bone density at three month educating pre menopausal women and professional about proper investigation of low bone density[26-35].

CONCLUSION

The study's findings, which are confirmed by evidence from the literature, lead to the conclusion that follows. The pre menopausal women in a selected community have a average knowledge regarding the bone density investigations and its importance. After the intended instruction was implemented, there was a noticeable improvement in topic knowledge. The results of the paired "t" test for. There is a very large variation in the students' knowledge scores between pre-test and post-test knowledge and knowledge. We may thus draw the conclusion that the intended instruction on bone density and its studies and value was pretty successful in enhancing the understanding of the pre-menopausal women residing in a particular region of the community.

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