"A STUDY TO ASSESS THE EFFECTIVENESS OF VEDIO ASSISTED TEACHING MODULE REGARDING KNOWLEDGE AN OSTEOPOROSIS AND ITS PREVENTION AMONG PATIENTS WHO ARE ATTENDING OPD AT ADICHUNCHANAGIRI HOSPITAL AND RESEARCH CENTRE, B G NAGARA."

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ABSTRACT

The human body is rather like a highly technical and sophisticated machine. It operates as a single entity, but is made up of a number of systems that works inter- dependently. The skeletal system (bones and joints) works interdependently with the skeletal muscle system and provides basic functions that are essential to life such as it protects the brain and internal organs, maintains upright posture, blood cell formation, mineral homeostasis, stores fat and minerals. Inappropriate functioning of the metabolic processes results in disorders manifested by changes in both physical and chemical structure of the bone. Bone mass changes in a person's life time can be categorized into three phases – Growth, Consolidation and Involution. Peak bone mass is accumulated in the growth phase, about 90% of ultimate bone mass is deposited in the space this is followed by consolidation which lasts for 15 years. The involution starts between ages 35-40 years in both sexes, with acceleration of bone loss within a decade after menopause in women. The prevalence of osteoporosis and low bone mass is expected to increase worldwide with increased aging of the population. Across the globe, the number of individuals aged 50 years and greater is expected to increase nearly fivefold by the year 2050, from 323 million to 1.55 billion. **Methods;** An experimental study was conducted among 60 post-operative patients who were selected by us Non probability convenient sampling technique was adopted to select the samples. Video assisted teaching in Adichunchanagiri hospital & research centre B.G Nagara. The study setting is selected because of availability of the samples, feasibility of conducting study and geographical proximity. The data collected was analyzed and interpreted based on descriptive and inferential statistics. **Results;** The Overall pre-test, post-test, and enhancement knowledge scores regarding an osteoporosis and its prevention among patients who are attending OPD .pre-test score 12.37 and post test score is 17.50. The paired't' test is 9.74 was carried out and it was found significant at 0.05 level, research hypothesis H1 was accepted. It evidence that is regarding an osteoporosis and its prevention among patients who are attending OPD video assisted teaching was significantly effective on improving the knowledge.

INTRODUCTION

Osteoporosis common bone problem both men and women across the world. Osteoporosis and its rate of fracture are much higher in Postmenopausal Women's than in men. According National Osteoporosis foundation estimates there are 9.1 million women with Osteoporosis and an additional 26 million with low bone mass, which exceeds the estimated 2.8 million men with Osteoporosis and 14.4 million men with low bone mass.

In Asia it is projected that more than about 50% of all osteoporotic hip fracture can occur in Asia by the year 2050, osteoporosis is greatly under diagnosed and under treated in Asia.

The study among India men and women aged 30-60 years from low-income groups. BMD at all the skeletal sites were much lower than values reported form developed Countries. With a high prevalence of osteopenia 52% and osteoporosis 29% though to be due to inadequate nutrition.

OBJECTIVES OF THE STUDY

1. To assess the level of knowledge regarding osteoporosis and its prevention among patients who are attending OPD in terms of pretest score.
2. To develop and implement the video assisted teaching module regarding osteoporosis and its prevention among patients who are attending OPD.
3. To evaluate the effectiveness video assisted teaching module regarding osteoporosis and its prevention in term of post test score.
4. To find out the association between pre test knowledge score with selected demographic variables of client who are attending OPD.

METHOD

RESEARCH APPROACH
An experimental research approach was used in this study

RESEARCH DESIGN
Pre experimental study design with single group pre-test and post-test.

RESEARCH SETTING
Adichunchanagiri Hospital and Research centre Nagara.

POPULATION
The patients who are attending OPD.

SAMPLE
Adult women patients who are above age group of 40 years at Adichunchanagiri Hospital and Research centre Nagara.

SAMPLING SIZE; 60 patients

SAMPLING TECHNIQUE

Non probability convenient sampling technique

INCLUSION CRITERIA
- Clients among patients who are attending OPD with osteoporosis.
- Client under age group of 35-70 year.
- Client who are willing to participate in the study.

EXCLUSION CRITERIA
- Client who are critically ill and unconscious.
- Client with severe osteoporosis.
- Client who are not willing to participate.

SELECTION AND DEVELOPMENT OF RESEARCH TOOL
Knowledge of Preventive Modalities of Osteoporosis assessment checklist was selected for the study and was used to assess the knowledge of preventive modalities of Osteoporosis.

DESCRIPTION OF THE TOOL

The tool for data collection is structured in two sections

Section I: It consisted of 10 items seeking informing about Age, sex religion, marital status, education, occupation, and type of family, previous knowledge on osteoporosis, dietary habits, and family history of osteoporosis.

Section II: It consisted of 32 knowledge items which include anatomy of bone, general knowledge regarding osteoporosis, causes of osteoporosis, signs and symptoms of osteoporosis, diagnosis and treatment, management and preventive modalities of osteoporosis.

RESULTS AND FINDINGS

The study result shows pre-test, post-test, and enhancement knowledge scores regarding an osteoporosis and its prevention among patients who are attending OPD. pre-test score 12.37 and post test score is 17.50. The paired't' test is 9.74 was carried out and it was found significant at 0.05 level, research hypothesis H1 was accepted. Its evidence that is regarding an osteoporosis and its prevention among patients who are attending OPD video assisted teaching was significantly effective on improving the knowledge.

TABLE–1: Classification of study participants by socio-demographic Variables. N=60

SL. NO	SOCIO DEMOGRAPHIC VARIABLES	CATEGORIES	FREQUENCY	PERCENTAGE OF FREQUENCY
1	Age in years	25	0	0.0%
		30-35	11	18.3%
		40-45	18	30.0%
		50-65	31	51.7%
2	Gender	Male	28	46.7%
		Female	32	53.3%
3	Religion	Hindu	29	48.3%
		Muslim	19	31.7%
		Christian	12	20.0%
4	Marital status	Married	38	63.3%
		Unmarried	3	5.0%
		Divorced	5	8.3%
		Widowed	14	23.3%
5	Educational status	Non formal education	29	48.3%
		Primary education	9	15.0%
		Secondary education	9	15.0%
		PUC and Degree	13	21.7%
6	Occupation	Cooli	13	21.7%
		Agriculture	31	51.7%
		Private workers	10	16.7%
		Professional	6	10.0%
7	Type of family	Nuclear	39	65.0%
		Single parent	6	10.0%
		Joint family	15	25.0%
8	Any previous information acquired regarding osteoporosis	Physician	20	33.3%
		Any health personnel	18	30.0%
		News paper	12	20.0%
		Television	10	16.7%
9	Dietary habits	Vegetarian	15	25.0%
		Non vegetarian	18	30.0%
		Mixed	27	45.0%
10	Presence of family history of osteoporosis	Yes	19	31.7%
		No	41	68.3%

TABLE-2: Pre-test level of knowledge regarding osteoporosis and its prevention among patients. (N=60)

LEVEL OF KNOWLEDGE	PERCENTAGE OF KNOWLEDGE SCORES	NO. OF STUDY PARTICIPANTS.	PERCENTAGE OF FREQUENCY
INADEQUATE	≤50%	57	95.0%
MODERATE	50-75%	3	5.0%
ADEQUATE	>75%	0	0.0%
Total		60	100.0

TABLE-3: Post-test level of knowledge regarding an osteoporosis and its prevention among patients. (N=60)

LEVEL OF KNOWLEDGE	PERCENTAGE OF KNOWLEDGE SCORES	NO. OF STUDY PARTICIPANTS.	PERCENTAGE OF FREQUENCY
INADEQUATE	≤50%	14	23.3%
MODERATE	50-75%	46	76.7%
ADEQUATE	>75%	0	0.0%
Total		60	100.0

Table 4: COMPARISON BETWEEN PRE-TEST AND POST-TEST LEVEL OF KNOWLEDGE REGARDING OSTEOPOROSIS AND ITS PREVENTION AMONG PATIENTS.(N=60)

LEVEL OF KNOWLEDGE	PERCENTAGE OF KNOWLEDGE SCORES	No. of study participants.		Percentage of frequency	
		PRE TEST	POST TEST	PRE TEST	POST TEST
INADEQUATE	≤50%	57	14	95.0%	23.3%
MODERATE	50-75%	3	46	5.0%	76.7%
ADEQUATE	>75%	0	0	0.0%	0.0%
Total		60	60	100.0	100.0

Table 5: association between pre-test level of knowledge of study participants and their socio-demographic variables. (N=60)

Sl. No	Demographic Variables	Categories	Pre Test Knowledge Level		Calculated χ^2 Value	Df
			Below median	Above median		
1	Age in years	25	0	0	3.93 (NS)	2
		30-35	4	7		
		40-45	13	5		
		50-65	20	11		
2	Gender	Male	15	13	1.45 (NS)	1
		Female	22	10		
3	Religion	Hindu	15	14	2.50 (NS)	2
		Muslim	14	5		
		Christian	8	4		
4	Marital status	Married	3	0	3.09 (NS)	3
		Unmarried	21	17		
		Divorced	3	2		
		Widowed	10	4		
5	Educational status	Non formal education	19	10	2.63 (NS)	3
		Primary education	7	2		
		Secondary education	4	5		
		PUC and Degree	7	6		
6	Occupation	Cooli	5	8	4.55 (NS)	3
		Agriculture	20	11		
		Private workers	8	2		

		Professional	4	2		
7	Type of family	Nuclear	26	13	1.19 (NS)	2
		Single parent	3	3		
		Joint family	8	7		
8	Any previous information acquired regarding osteoporosis	Physician	11	9	2.20 (NS)	3
		Any health personnel	13	5		
		News paper	6	6		
		Television	7	3		
9	Dietary habits	Vegetarian	11	4	5.98 (S)	2
		Non vegetarian	7	11		
		Mixed	19	8		
10	Presence of family history of osteoporosis	Yes	10	9	0.96 (NS)	1
		No	27	14		

Table 6: association between post-test level of knowledge of study participants and their socio-demographic variables. (N=60)

Sl. No	Demographic Variables	Categories	Pre Test Knowledge Level		Calculated χ^2 Value	Df
			Below median	Above median		
1	Age in years	25	0	0	2.27 (NS)	2
		30-35	8	3		
		40-45	8	10		
		50-65	16	15		
2	Gender	Male	16	12	0.30 (NS)	1
		Female	16	16		
3	Religion	Hindu	17	12	0.65 (NS)	2
		Muslim	9	10		
		Christian	6	6		
4	Marital status	Married	2	1	1.50 (NS)	3
		Unmarried	22	16		
		Divorced	2	3		
		Widowed	6	8		
5	Educational status	Non formal education	15	14	0.96 (NS)	3
		Primary education	6	3		
		Secondary education	4	5		
		PUC and Degree	7	6		
6	Occupation	Cooli	10	3	5.15 (NS)	3
		Agriculture	16	15		
		Private workers	3	7		
		Professional	3	3		
7	Type of family	Nuclear	21	18	0.03 (NS)	2
		Single parent	3	3		
		Joint family	8	7		
8	Any previous information acquired regarding osteoporosis	Physician	11	9	4.88 (NS)	3
		Any health personnel	9	9		
		News paper	4	8		
		Television	8	2		
9	Dietary habits	Vegetarian	8	7	2.14 (NS)	2
		Non vegetarian	12	6		
		Mixed	12	15		
10	Presence of family history of osteoporosis	Yes	11	8	0.23 (NS)	1
		No	21	20		

Table-7: mean, mean%, sd and cv of overall pre-test, post-test and enhancement knowledge scores regarding osteoporosis and its prevention among patients. (N=60).

	Mini mum	Maxi mum	Rang e	Mean	mean %	Std. Deviation	co-efficient of variance	Paired t Test Value
Pretest	5.00	18.00	13.00	12.57	39.28	2.88	22.91	
Post test	12.00	24.00	12.00	18.70	58.44	2.36	12.62	11.89 (S)
Enhancement	0.00	14.00	14.00	6.13	19.16	3.99	65.09	

(S)=SIGNIFICANT AT 0.05 LEVEL   t(0.05, 59 df)= 2.00

DISCUSSION

Video assisted teaching programme was effective in bringing enhancement of Knowledge of preventive modalities in OPD Patients at Adichunchanagiri Hospital.

RECOMMENDATIONS

On the basis of findings of the study the following recommendations have been made:

☐ A similar study can be replicated on a large sample to generalize the findings.

☐ A similar study can be conducted among the health professionals

☐ Study can be conducted in community health centers and primary health centers.

☐ Comparative study can be conducted between effectiveness of an osteoporosis and its preventive measures.

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