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EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON MANAGEMENT OF OSTEOPOROSIS AMONG ELDERLY PEOPLE AT HOME FOR THE AGED, BOIGUDA, SECUNDERABAD, A. P.

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ABSTRACT

A Pre - experimental study was undertaken to evaluate the effectiveness of planned teaching programme on management of osteoporosis among elderly people at Home for the Aged Boiguda,Secunderabad, A P. The objectives of the study were :To assess the knowledge regarding management of osteoporosis among elderly people by pretest.1 To evaluate the effectiveness of planned teaching programme regarding management of osteoporosis by comparing pre and posttest knowledge. 2.To find out the significant association between posttest knowledge scores with their selected background variables. Hypothesis: H1= There will be significant difference between pre-test and posttest knowledge scores. H2= There will be significant association between the posttest knowledge scores of elderly people with their selected background variables. Method: A Pre experimental study with one group pre and posttest design was adopted for the present study. The structured knowledge questionnaire on osteoporosis was developed to collect the data. 50 Elderly people were selected by nonprobability purposive convenient sampling technique. The final study was conducted from 26nd May to 3rd July, 2012 at Home For The Aged, Boiguda, Secunderabad and data was collected, analyzed and interpreted based on descriptive and inferential statistics. Results: The mean percentage of overall knowledge in pretest was 40.6 with standard deviation of 2.19, where as in postest was 87.26 with standard deviation of 2.45. The obtained 't' value 27.05 is greater than the table value 2.660 and found to be highly significant at the level of $p < 0.05$. So, it is evident that the planned teaching programme was effective in increasing the knowledge level of elderly people on management of osteoporosis. There was no significant association between the posttest knowledge scores with their selected background variables. Conclusion: The present study attempted to evaluate the effectiveness of planned teaching programme on management of osteoporosis among elderly people and found that most of the subjects 31(62%) had inadequate knowledge in pretest and concluded that there was a significant improvement in subject's knowledge in the posttest 48(96%)after administration of planned teaching programme (PTP).

Key words: Planned teaching programme, Osteoporosis, Elderly people, Home for the aged

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INTRODUCTION

A wise man should consider that health is the greatest of human blessings, and learn how by his own thought to benefit from his illness.

- HIPPOCRATES (460 BC- 377 B.C)

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 work interdependently. If one system fails, the consequences can extent and may reduce the ability of the body to function normally. Among the systems, one system which enables changes in movement, position in our body is musculoskeletal system which is made up of bones and muscles.

Bones are living, growing tissue in the body. It is made up mostly of collagen, a protein that provides a soft

framework, and calcium phosphate. So any disorders affecting bone may alter all the above functions. The common disorders affecting bone are osteoporosis, bone fracture, Osteomyelitis, Osteosarcoma, Osteochondritis,

Osteoporosis is derived from Greek word which means "porous bone". It is a disease of bones that leads to an increased risk of fracture where the bone mineral density is reduced, bone micro architecture is deteriorating, and the amount and variety of proteins in the bone is altered. Osteoporosis is often known as the "silent thief" because bone loss occurs without symptoms and the progressive loss and thinning of bone tissue happens over many years. This disease affects millions of people throughout the world. Women are likely to develop osteoporosis than men[1].

Medical scientists have identified some risk factors contributing to osteoporosis such as genetic factor, advanced age, low weight and body mass index and dietary pattern such as low calcium, vitamin D, high phosphate intake etc. Complications of osteoporosis include both mortality and morbidity like decrease in quality of life, permanent disability, hip fractures, deep vein thrombosis, pulmonary embolism, pneumonia, immobility, and alteration in daily life activities.

The goal of treatment is to prevent fractures and dietary management includes supplementation of calcium 1,000 mg daily in their diet like drinking milk or calcium, fortified orange juice and eating food high in calcium such as cheese, salmon performing weight bearing exercise such as walking or aerobics maintaining normal body weight.

Medical management includes hormone replacement therapy with estrogen and progesterone has been the mainstay of therapy to retard bone loss and prevent occurrence of fractures. Selective oestrogen receptor modulator such as raloxifene, reduces the risk for osteoporosis by preserving bone mineral density without estrogenic effects on the uterus. They are indicated for both prevention and treatment of osteoporosis.

Exercise and lifestyle modification should also be incorporated. Regular exercise can reduce the likelihood of bone fractures associated with osteoporosis. Physical activity is essential to strengthen muscles, improve balance, prevent disease atrophy, and retard progressive bone demineralization. Management includes early identification, management of risk factor like failure to develop optimal peak bone mass during childhood and adolescence. Increased calcium intake, participating in regular weight bearing exercises and modifications of life style like reduce use of caffeine, cigarettes, and alcohol are interventions that decrease the risk for development of osteoporosis.

NEED FOR STUDY

Osteoporosis, a silently progressing metabolic bone disease that leads to loss of bone mass, is widely prevalent in India and osteoporotic fracture is a common

of morbidity and mortality in adult Indian men and women. In India according to 2012 census, 10.5 percent of total population was above the age of 60 years. Accidents are a major health problem in the elderly. The bones become fragile due to a certain amount of decalcification as a result of which they break easily. Accidents are more common in the home than hip fracture outside. Fracture of neck of femur is a very common geriatric problem [2-5].

The problem of osteoporosis is growing as the percentage of people reach the age of 40 years in society. For example, the number of hip fractures in India is increased from 14,600 in 2006 to 20,900 in 2010 in the absence of effective prevention and treatment regimens. According to International osteoporosis foundation, 984 million cases were recorded worldwide, 150 million cases were recorded in the year 2008, 170 million cases were recorded in the year 2009, 200 million cases were recorded in the year 2010, 210 million cases were recorded in the year 2011, 254 million cases were recorded in the year 2012.

According to Osteoporosis society in India, 13 million cases were recorded in the year 2008, 15 million cases were recorded in year 2009, 18 million cases were recorded in year 2010, 25 million cases were recorded in year 2011, 26 million cases were recorded in year 2012. Dr. Melton conducted a study in 2010, that shows osteoporosis is high in geriatric population and reported that 69.5 % of elderly people in Andhra Pradesh are suffering from osteoporosis. A study conducted by Veena Shatrugna in Hyderabad shows incidence of osteoporosis is about 56% among elderly people who have crossed 50 years and women undergone menopause.

Disease can rarely be eliminated through early diagnosis or good treatment, but prevention can eliminate disease. Adequate food is the cradle of normal resistance, the playground of normal immunity, the workshop of good health and the laboratory of long life. So, the investigator viewed that the teaching programme on osteoporosis will bring awareness about osteoporosis and helps to decrease the incidence of osteoporosis which in turn reduces morbidity and mortality rates among elderly people [6-10].

OBJECTIVES
- To assess the knowledge of elderly people on management of osteoporosis by pretest.
- To evaluate the effectiveness of planned teaching programme on management of osteoporosis by comparing pre and posttest knowledge scores.
- To identify the significant association between pos test knowledge scores with their selected background variables.

Conceptual framework was framed which can serve to guide research which will further support theory development. The conceptual models attempt to represent reality with its minimal use of words. The present study was based on General system theory proposed by Ludwig Von Bertalanffy.

HYPOTHESIS

. H_1 - There will be significant difference between pre-test and posttest knowledge scores

• H_2 - There will be significant association between posttest knowledge scores with their selected background variables.

Research approach: The research approach helps the investigator to determine how to collect the data and analyze the data in view to the nature of the problem selected for the study and the objectives to be accomplished**,** quantitative approach was considered as appropriate research approach

RESULTS

Demographic data was analyzed using frequency and percentage. Frequencies, percentage, mean, and standard deviation was used to determine the knowledge score.
Findings related to pre and post test knowledge score

Level of knowledge	Pretest		Post test	
	frequency	percentage	frequency	Overall percentage
poor	31	62	8	16
Average	12	24	18	36
Good	07	14	24	48
Total	40	100	40	100

Pretest : The majority of subjects 31(62%) have knowledge less than 50 and minimum number of subjects 7(14) have knowledge above 75%

Posttest :The majority of subjects 24(48%) have knowledge more than 75% and minimum number of subjects8(16%) have knowledge less than 50.

Findings related to effectiveness of planned teaching programme.

Knowledge test	Mean score	SD	Calculated 't' value	Table 't' value	df	Level of significance
Pre-test	12.8	2.192	27.056	2.056	49	0.05
Post test	26.18	2.455				

The overall mean in pretest is 12.180 and 26.180 in posttest and the standard deviation in pretest is 2.192 and 2.455 in posttest. The overall 't' value is 27.056 is greater than the table value 2.660 at the level of $p<0.01$, hence it

shows that elderly people knowledge on osteoporosis was improved.Therefore 't' value is found to be highly significant and the research hypothesis stated that there will be significant difference between pre and posttest level of knowledge on management of osteoporosis among elderly people was accepted. This supports that the planned teaching was effective in increasing the knowledge level of elderly people on management of osteoporosis.

It is evident that there was no significant association found between knowledge and background variables such as age, sex, educational qualification, marital status, no. of children, dietary pattern, family history of osteoporosis, and source of information about osteoporosis.

DISCUSSION

The present study was taken up an effort to assess the knowledge of elderly people through pre and posttest method. Planned teaching programme was carried out on management of osteoporosis. Elderly people had only 40.600%of knowledge in the pretest and after planned teaching programme their knowledge increased to 87.267%. The paired 't' test showed that the mean difference between pretest and posttest knowledge score was highly significant [10].

CONCLUSION

The knowledge of elderly people on management of osteoporosis was 87.267%. There was a significant increase in the knowledge of elderly people after administration of planned teaching programme.

It is concluded that planned teaching programme increased the knowledge of the elderly people on management of osteoporosis. The knowledge may be utilized by the elderly people to maintain the health of many patients.

RECOMMENDATIONS:

• An experimental study can be conducted to show strong statistical associations.

• The same study can be replicated on large samples for better generalization.

• A comparative study can be conducted between knowledge and practice of elderly people on management of osteoporosis.

• Similar study can be conducted in other settings.

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