



AWARENESS ABOUT OSTEOPOROSIS AMONG HEALTH CARE PROVIDERS IN A COMMUNITY HOSPITAL: A CROSS-SECTIONAL STUDY

Priyadarshini Gunaseelan	Consultant Family Physician, Sundaram Medical Foundation, (Formerly), Shanthi Colony, Chennai.
Adlyne Reena Asirvatham*	Assistant Professor, Department of Endocrinology, Diabetes & Metabolism, Sri Ramachandra Medical College & Research Institute, Chennai -600116. Tamil Nadu. *Corresponding Author
Seshadri Varadarajan	Senior Consultant Physician, Sundaram Medical Foundation, Shanthi Colony, Chennai.
Bala Venkataramani	Senior Consultant Family Physician, Sundaram Medical Foundation, (Formerly), Shanthi Colony, Chennai.
Anusha Sridhar	Senior Consultant Family Physician, Sundaram Medical Foundation, (Formerly), Shanthi Colony, Chennai.
Shriram Mahadevan	Professor & Head, Department of Endocrinology, Diabetes & Metabolism, Sri Ramachandra Medical College & Research Institute, Chennai -600116. Tamil Nadu.

ABSTRACT *Context:* Osteoporosis is a silent global epidemic posing great economic burden. Knowledge about osteoporosis is essential to prevent fractures and morbidity. Health care providers are the link between physician and patients and should be aware about this disease.

Aim: We intended to assess awareness about osteoporosis among young health care providers of a community hospital using Osteoporosis Health Belief Scale (OHBS).

Materials & Methods: A questionnaire (OHBS)-based study in 154 health care providers in a community hospital was conducted. The volunteers were aged between 18 and 30 years and included men and women.

Results: Out of 154, 22 were males (14%) and 132 were females (86%). 74% were aware about the disease and 95% identified that osteoporosis affects bones. 58.5% opined that fracture would be the clinical presentation of osteoporosis.

Conclusion: Our study shows modest level of awareness among health care providers in hospital that should improve with health education.

KEYWORDS : Osteoporosis; Awareness; Fracture;

INTRODUCTION

Osteoporosis is a metabolic bone disease that remains silent unless it is complicated by fractures as a result of trivial trauma. World Health Organization (WHO) defines Osteoporosis as bone mineral density (BMD) that is >2.5 SDs below the young-adult mean value (T-score -2.5 or lower) in postmenopausal women and men over 50 years of age and Osteopenia as BMD with T-Score between -1 and -2.5.(1) In 2013, it was estimated that around 50 million people in India were either osteopenic or osteoporotic.(2) With increasing longevity of Indian population, this problem is going to reach epidemic proportions.(3) Osteoporotic bones are fragile and susceptible for fracture, deformity and disability thus adding tremendous burden to the national health care system.(4) It occurs more commonly in the elderly population especially in postmenopausal women. Knowledge about this bone disorder is important for prevention of osteoporosis and its complications like fragility fracture, disability etc. So we decided to evaluate the awareness about osteoporosis among young men and women and provide health education on various aspects of this bone disorder. As a preliminary step, we intended to assess the awareness about osteoporosis among the health care providers in our hospital before assessing the general population.

MATERIALS AND METHODS

A cross-sectional study was conducted among 154 health care providers of our hospital who were between 18 and 30 years of age. Level of awareness about osteoporosis was assessed based on demography, risk factors, management and prevention of the disease condition. Questionnaire consisting of 15 questions was validated based on the Osteoporosis Knowledge Test (OKT) and Osteoporosis Health Belief Scale (OHBS). OHBS has two main subscales: Osteoporosis Health Belief Calcium Scale (OHBCS) and the Osteoporosis Health Belief Exercise Scale (OHBES). The subscales are used to evaluate the perceptions of osteoporosis regarding seriousness, susceptibility, and general health motivation. The parameters measuring the concepts of barriers and benefits are specific to calcium intake and exercise behaviour and are different for both the

subscales. Post survey all the volunteers were given health education about risk factors of osteoporosis, fall and fracture prevention, dietary measures and importance of bone mineral density measurement.

RESULTS

Our study population included 154 health care providers in our hospital. Out of 154, 22 were males (14%) and 132 were females (86%). 74% were aware about this disease entity. 95% identified that osteoporosis affects the bones and make them weak. 140 out of 154 subjects (91%) agreed that women were commonly affected by this bone disorder. 51% accepted that osteoporosis more commonly affects the elderly population. Awareness about the dietary sources of calcium is shown in figure 1. Out of 154 subjects, 90 (58.5%) opined that fracture following a trivial fall would be the clinical presentation of osteoporosis and 55 (35.7%) said that the initial presentation would be back pain. Knowledge about the risk factors of osteoporosis is shown in figure 2. 34% of the participants were of the opinion that medical management of osteoporosis was vitamin D and calcium supplementation only. The specialist whom they would prefer to consult is depicted as a pie diagram in figure 3.

Figure: 1 showing the knowledge about the dietary sources rich in calcium.



Figure: 2 depicting the awareness about the risk factors of osteoporosis.

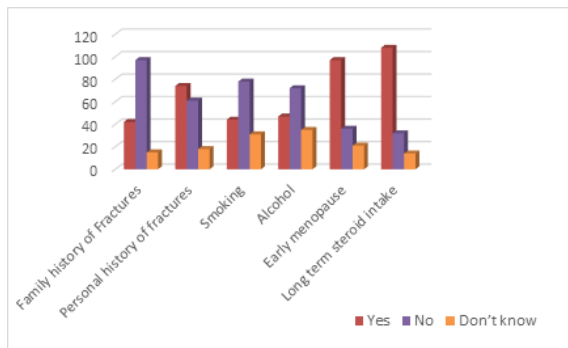
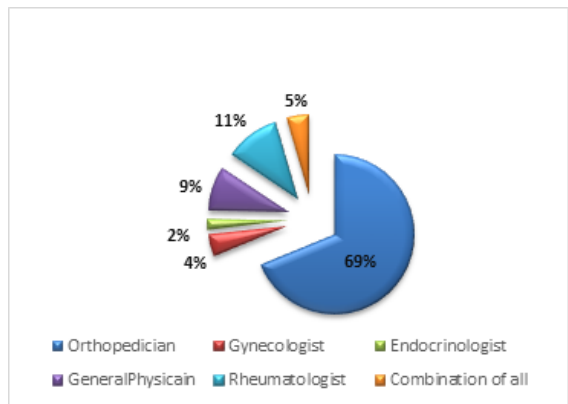


Figure: 3 shows the pie chart representing the specialist who has to be consulted for osteoporosis.



DISCUSSION

This study shows that there is lack of awareness about osteoporosis even among the health care providers in a community hospital. The study population was predominantly women (86%). Peak bone mass acquisition at a younger age contributes significantly to the bone strength later in life. If young women like the volunteers in this study are educated about good diet, physical activity and general bone health, reduction in the bone mineral density could be delayed to some extent. Nearly, most of them understood that osteoporosis affects the bone and makes them weak and fragile. All but 14 subjects agreed that it affects women commonly, but only 51% thought that it would affect the aging population.

Most of them identified milk as a good source of calcium but unfortunately many failed to recognize our native cereal ragi and grams as calcium rich food stuffs. Interestingly, 77% were aware that vitamin D was related to bone health and is used to treat osteoporosis. Clinical presentation of osteoporosis was better known in this study population likely because of their contribution to patient care in hospital. Almost 69% of the volunteers presumed that osteoporosis is always diagnosed and managed by orthopaedic surgeons. This bias may be attributable to the clinical presentation of patients with fractures which is common in our population requiring surgical assistance.

Similar studies have been conducted in various study populations including postmenopausal women (5), young women (6,7) and also high school students (8). Most of the studies showed modest knowledge about osteoporosis and few showed a greater awareness. Though the awareness was good, practising bone health measures were not adequate as described in some studies. (9) Our study shows that lack of awareness prevails even among health care providers. Prospective studies with larger numbers and post education surveys would help us to assess the knowledge better.

CONCLUSION

This study suggests that there is deficit in the awareness level of even health care providers about osteoporosis. Most of them were aware about the management rather than the prevention of osteoporosis. Hence we conclude by emphasizing the fact that health education starts

with the health care system before we attempt in the general population.

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