

Assessment of Awareness of Osteoporosis Amongst Unmarried Indian Girl Students Pursuing Undergraduate and Postgraduate Professional Courses

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ABSTRACT

Background: Osteoporosis is a silently progressing metabolic bone disease also known to result in bone loss in alveolar processes of maxilla and mandible that provide bony framework for tooth anchorage. Osteoporotic fractures usually occur 10–20 years earlier in Indians than Caucasians. But relatively little is known about risk factors in women in Indian subcontinent. This is the first study to assess awareness of osteoporosis among unmarried Indian girl students pursuing undergraduate and postgraduate professional courses in the city.

Materials & Methods: A 25-item multiple-choice-cum-fill-in-blank-type ‘Osteoporosis Awareness Questionnaire’ (OAQ) was developed keeping in mind healthy participants and not patients. With ‘No idea’ as an option, volunteers had liberty to make honest decisions and avoid forceful selections/speculations.

Results: OAQ was effective in assessing students’ awareness, causes, risk factors, consequences, diagnosis

and measures for prevention and management of osteoporosis. Findings demonstrate low level of osteoporosis awareness among young Indian girl students. Univariate logistic regression analysis revealed that undergraduate students had 1.26-fold lower awareness level and were likely to be at 1.31-times greater risk of osteoporosis than postgraduates.

Conclusion: Persisting gap in health knowledge and practices among young girls and masses can be reduced through education and healthy behavior to enable them to timely diagnose and manage this debilitating disease to lead better quality of life while ageing.

Keywords: Osteoporosis, awareness, Questionnaire, unmarried girl students, India

INTRODUCTION

Osteoporosis is one of the most common silently progressing metabolic bone disease¹ affecting one in three women and one in twelve men at some point in their lives.² In women, this process is accelerated during peri-menopausal period with up to 85% increase in bone resorption rate.³ In men, low testosterone levels have been linked to osteoporosis.⁴ Pertinently, the condition of osteoporosis is well known to result in bone loss in alveolar processes of the maxilla and mandible that provide bony framework for tooth anchorage and may lead to tooth loss, increased vulnerability of alveolar bone to functional loads transferred through removable and fixed prostheses including implants, and dysfunction and pathogenic fracture of the temporomandibular joint especially in the geriatric patients.⁵ World Health Organisation has estimated that 30% of all women above 50 years of age suffer from osteoporosis based on definition of Bone Mineral Density (BMD) being <2.5 standard deviation below the mean bone mass of normal young adult reference population.^{6,7}

Osteoporosis is widely prevalent in India and osteoporotic fractures are common cause of morbidity and mortality in adult Indian women and men.⁸ Experts peg osteoporosis patients in India at approximately 26 million with numbers



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