

Role of Community Health Nurse in Prevention and Early Detection of Osteoporosis

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“Osteoporosis is a Paediatric Disease with Geriatric Consequences”

- M. Yagur D 1997

Osteoporosis is a serious public health problem that currently causes global concern. It is a silent and incurable disease, reflected only in a low bone density, till a fracture occurs and many people are not alert to its complications. Each year millions of adults over the age of 50 suffer from devastating hip fractures, with millions more suffering from fractures of the pelvis, spine, wrist, and shoulder. These fractures are not an accident; it is likely that the underlying cause of this is osteoporosis [1]. It is more common in women after the menopause. It was also reported as the fourth main enemy of the human after heart failure, stroke and cancer, and the most common cause of fractures in the World (WHO,2003) [2]. According to current figures, by 2020, 25 percent of the Middle East population will be over 50, a figure that is expected to have risen to 40 percent by 2050 [1].

Osteoporosis is a very serious issue in Saudi Arabia. A report in the eastern region of Saudi Arabia indicates an incidence of postmenopausal osteoporosis (PMO) of 30 percent to 40 percent, with over 60 percent of postmenopausal women already having some degree of osteopenia. With the Kingdom's population of 1,461,401 aged 50 or over, it is estimated that approximately 8,768 suffer from femoral fractures each year, costing the state \$1.14 billion [1]. The Saudi Diabetes and Endocrine Association in the Eastern Province revealed that 30 to 50% of Saudi women above 40 years of age develop osteoporosis [3]. Factors related to the development of osteoporosis include poor diet, low calcium intake, vitamin D deficiency, sedentary lifestyle and smoking. Previous studies have shown that there is a high prevalence of vitamin D deficiency in Saudi women [4,5].

Despite the fact that post-menopausal women are considered a high risk group in terms of osteoporosis, awareness of the disease still remains low. Nearly half the women in Saudi are at risk of developing osteoporosis, and already have the warning signs, such as low bone density levels. A study conducted on prevalence and associated factors of osteoporosis among women in Northern part of Saudi Arabia showed that 82% of Saudi women patients had vitamin D deficiency. Only 21% of women were exposed to sunlight. 58% of the women had low BMD (18% with osteoporosis and 40% with osteopenia). Only 5% of patients took Vitamin D and Calcium rich diet and 7% were in the habit of doing exercise [3].

Osteoporosis is difficult to treat and is still incurable, and thus prevention is critically important. Indeed, it is preventable by changing unhealthy lifestyles to maximize bone mass density before its occurrence. Increasing calcium intake and regular weight-bearing exercise are lifestyle actions that can increase bone mass density and prevent the development of Osteoporosis. There is thus an urgent need for greater public awareness in this regard. For the middle aged and elderly, early detection and treatment of Osteoporosis with available agents can significantly reduce the risk of fractures and associated morbidity and mortality.

Role of Community Health Nurse in Prevention and Early detection of Osteoporosis among Women

A large number of middle aged and elderly Saudi women are unaware of osteoporosis risk factors [6]. Literature review by Mcleod et al. (2011) introduces motivation as an effective and important factor that improves behavior to prevent osteoporosis. Community health nurses should take urgent steps through motivation and to create awareness about osteoporosis in the community by conducting osteoporosis screening camps, do periodical appraisal of Body Mass Index, calcium, vitamin D and Bone Mineral Density levels and provide health education about life style modification such as doing regular aerobic exercises, exposure to sun light, maintaining normal body weight, eating calcium rich foods, intake of calcium and vitamin D supplements and to select the right choice of drug such as calcium supplements along with minerals in order to prevent osteoporosis among women. Taking these preventive measures at the right time will reduce the occurrence of osteoporosis, prevent osteoporotic fractures during elderly and thereby it improves the quality of life of pre and post-menopausal women in Saudi Arabia

References

1. “Osteoporosis serious issue in KSA” (2012) Saudi Gazette.
2. World Health Organization (2003) The burden of musculoskeletal conditions at the start of the new millennium. WHO Technical Report Series 919
3. Anitha Oommen, Ibrahim AlZahrani (2014) Prevalence of osteoporosis and factors associated with osteoporosis in women above 40 years in the Northern Part of Saudi Arabia. *Int J Res Med Sci* 2: 274-278.
4. Amani A Osman (2013) Assessment of Osteoporosis KAP among women in Assir region, Saudi Arabia. *Journal of Medicine and Medical Sciences* 4: 50-55.
5. Warensjo E, Byberg L, Melhus H, Gedeborg R, Mallmin H, et al. (2011) Dietary calcium intake and risk of fracture and osteoporosis: prospective longitudinal cohort study. *BMJ* 342:d 1473.
6. Al-Shahrani FM, Al-Zahrani AM, Al-Haqawi AI (2010) Knowledge of osteoporosis in middle-aged and elderly women. *Saudi Med J* 31: 684-687.

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Received December 01, 2015; Accepted December 08, 2015; Published January 04, 2016

Citation: Cecily HSJ (2016) Role of Community Health Nurse in Prevention and Early Detection of Osteoporosis. *J Comm Pub Health Nursing* 2: e109. doi:10.4172/2471-9846.1000e109

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