

Osteoporosis education programs, changing knowledge and Behaviors among 20 – 60 years old females

* Aida A. Abd El_Rahman, † Howyida S, Abd El_Hameed, ‡ Soaad A. Ramadan

Abstract: Osteoporosis is a serious and preventable disease that affects a large population of women.. therefore the aim of this study was implement and evaluate the impact of these programs. The goals of each program were to increase knowledge about osteoporosis , assess health beliefs , and to increase the frequency of osteoporosis preventing behaviors. This study was conducted to the faculties of Arts ,Commerce and law in Zagazig and El Monofya university as well as the Maternal and Child health centers in Benha and shebin Elkom. However, a sample of 150 young college and adult women were chosen randomly from the previous settings. Women were divided into 3 groups . Each group consisted of 50 participants. Women were assignad into the intense educational program group or Intermediate program group or brief program group according to their background about osteoporosis and its management. Results show that program improved the knowledge and behavior of women therefore , it was concluded that effective community based educational programs can improve knowledge and health behavior related to osteoporosis and its care. Therefore, it was concluded that osteoporosis prevention program are needed to change womens health beliefs.

INTRODUCTION

Osteoporosis is a disease of major public health importance which affects over one-third of all postmenopausal women causing severe pain, disability and even mortality. Osteoporosis affects more than 25 million Americans, 80% of whom are women. Because osteoporosis is a "silent disease" that can progress undetected for decades, early screening can identify women at risk, which may help to avert the escalation of this health problem.¹ In the

Arab Republic of Egypt, menopausal women

constitute a considerable sector of the whole population. Percentage of women at menopausal age to all women age group is 20.5%, their percentage to the whole population is 10.7%. Recent statistics that were done in Egypt proved that about 4.7 millions of women at age of 45 years or more have osteoporosis. This number is expected to increase to 7.7 millions by year 2010 and to 13 millions by the year 2030.²

Osteoporosis is a condition caused by decreased density, or thinning, of the bone. It occurs when the skeletal "bank reserves" drop below your body's needs. Although the chemical composition of the existing bone is normal, the decreased bone mass results in weakness and brittleness of the bone which is a key characteristic of the disease. Osteoporosis is characterized by a reduced amount of bone tissue per volume unit of bone. It is a systemic skeletal disease characterized by low bone mass and micro architectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture.³

Worksite health promotion programs are strategically positioned to provide a vital service in osteoporosis prevention with educational programs, risk assessments, screenings, and referrals. The nurse in the workplace must stay current about osteoporosis prevention strategies and knowledge about the disease so that accurate and up to date information can be conveyed to employees.³

Osteoporosis is a condition in which the amount of bone tissue is so low that the bones easily fracture in response to minimal force. A person with osteoporosis can fracture wrist or hip from a fall on the ice or receive a broken rib from an affectionate hug. Osteoporosis leads to physical changes including fractures, severe curvature of the spine, and loss of height which affect body image and self esteem.⁴

The three types of osteoporosis are post-menopausal osteoporosis [Type I], senile osteoporosis [Type II], and secondary osteoporosis. Postmenopausal osteoporosis [Type I] is directly linked to the decreased production of estrogen that coincides with menopause. It is characterized by an increased bone density and primarily affects trabecular bone, with losses at an accelerated rate that is estimated as three times the rate of normal loss. Though postmenopausal osteoporosis affects cortical bone loss as well, fractures associated with [Type I] osteoporosis are typically present within 10 to 15 years after the onset of

menopause, and often occur in the lumbar vertebrae, distal radius Colles' fracture, and other bones containing a large composition of trabeculae.⁵

Senile osteoporosis [Type II] is a second type of primary bone loss resulting from a proportionate, gradual loss of trabecular and cortical bone usually due to decreased bone cell activity accompanying aging. Inadequate calcium intake and the decrease in physical activity, common in the elderly years, contributes to the etiology.

In contrast to postmenopausal osteoporosis, senile osteoporosis is experienced equally by both genders with fractures occurring mainly in the hip. This type of disorder predominately afflicts men and women over the age of 70 years.⁶

Secondary osteoporosis can result as a consequence of certain disease states. The most common health conditions include chronic renal disease, hypogonadism, hyperthyroidism, and some forms of cancer. In addition, surgical procedures, such as early oophorectomy in women or subtotal

gastrectomy, can lead to bone loss. Some medications, in particular anticonvulsants and corticosteroids, also have toxic effects on bone.⁷

One in two women and one in five men develop osteoporosis fractures. A woman's risk of developing a hip fracture is equal to the combined risk of developing breast, uterine, and ovarian cancer. Yet, in the 1991 National Family Opinion survey, fewer than 42% of the women surveyed believed that osteoporosis can result from menopause.

This indicates that women need more accurate information related to osteoporosis.⁸

Osteoporosis Risk Factors have been identified by the National Osteoporosis Foundation [1994] as factors that place individuals at a greater risk for osteoporosis.

These factors are 1- Age: The older the person is, the greater the risk of osteoporosis. Bones become less dense and weaker as individuals age. 2- Sex: The chances of developing osteoporosis are greater for women. Women have less bone tissue and lose bone more rapidly than men

