

## Lifestyle and Preventive Behaviors of Osteoporosis among Women of Reproductive Age in Qazvin-Iran: A Cross Sectional Study

### Abstract

**Introduction:** Osteoporosis is a silent illness with many negative consequences that can decrease women's quality of life and daily life activities and even cause death. The aim of this study was to examine the lifestyle and preventive behaviors related to osteoporosis among women of reproductive age in Qazvin city, Iran. **Methods:** In this cross-sectional study, 300 women (mean age =  $30.75 \pm 7.47$  years) were selected using the stratified cluster sampling method. A researcher-made questionnaire consisting of 15 questions on the patterns of nutrition, physical activity, and specific preventive behaviors related to osteoporosis and demographic factors was used for data collection. Data were analyzed using Chi-square with Fisher's exact test and logistic regression model. **Results:** The study results showed that most women (73.3%) had a positive family history of osteoporosis and 65.3% of them consumed carbonated beverages at least twice a week. Furthermore, 46.7% of them used coffee twice a week. There was a statistically significant relationship between their age ( $P < 0.0001$ ) and positive family history of osteoporosis ( $P = 0.05$ ) with knowledge about osteoporosis. According to the logistic regression model, a statistically significant relationship was found between age and awareness of osteoporosis ( $P = 0.001$ ). **Conclusion:** Women should be encouraged to change their lifestyle in order to prevent osteoporosis. Educational programs should be held, and educational posters should be installed in gathering areas in the city and health centers with regard to risk factors and preventive behaviors of osteoporosis among women of reproductive age.

**Keywords:** Osteoporosis, lifestyle, reproductive age, preventive behaviors

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### Introduction

Osteoporosis is a silent illness.<sup>[1,2]</sup> Nearly 61 million people across the world suffer from bone loss or osteoporosis by 2020.<sup>[3]</sup> According to a meta-analysis study in Iran, the overall prevalence of osteoporosis in the lumbar spine was 0.17% and the prevalence of osteopenia was 0.35%.<sup>[4]</sup> In addition, approximately 6 million people in Iran had osteoporosis.<sup>[5]</sup>

Women are eight times more likely to be at the risk of osteoporosis than men, which indicates that around 200 million women suffer from osteoporosis worldwide. The peak of bone mass density is up to the age of 30 years. With the increase of age, bone density gradually decreases.<sup>[4]</sup> Women are at a higher risk of osteoporosis because the protective effect of estrogen produced at the reproductive age stops at menopause and bone mass erosion increases.

The risk of osteoporosis increases with irregular menstruation and amenorrhea. Therefore, young women need to be aware of menopause risk factors and should be encouraged to maintain the bone mass density through performing appropriate measures such as exercise and consumption of calcium and Vitamin D tablets.<sup>[6]</sup>

The negative consequences of this disease can lead to a reduction of women's quality of life, social interaction due to low self-esteem, and pain in daily life activities. This disease can lead to emotional suffering, anxiety about the fear of fractures, and incidence of depression, paralysis, and even death.<sup>[7]</sup>

Osteoporosis involves several controllable and uncontrollable risk factors. Controllable risk factors include a lack of physical activity, positive family history of osteoporosis, low body mass index (BMI), sedentary lifestyle, smoking, alcohol consumption, and unbalanced diet.

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