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Original Research Article

Knowledge, attitude and preventive practice of women concerning osteoporosis above 45 years women

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ABSTRACT

Background: The objective is to determine the knowledge, attitude and preventive practice of women above 45 years old.

Methods: It is a cross-sectional analytical study of 100 women above 45 years of upper class women. The interview schedule consisted of 4 parts including questions about knowledge, attitude and practice (KAP) and also demographic questions.

Results: A significant relationship between the score of preventive practice and all the following parameters was found: level of education, hearing about osteoporosis, knowledge score, perceived barrier to preventive actions and perceived seriousness of osteoporosis.

Conclusions: Inaccurate or insufficient knowledge and their negative attitude to the preventive actions and their weak practice in case of prevention, it is the responsibility of health policymakers and medical associations to plan for osteoporosis education and prevention initiatives.

Keywords: Attitude, Knowledge, Osteoporosis

INTRODUCTION

Osteoporosis is a “silent killer” that millions of people around the world suffer from, and it is important due to its morbidity, mortality, adverse effects on the quality of life and the extra costs imposed to the patient and the society.^{1,2} The increase of life expectancy and so the old age of the society in developing countries such as the Middle East has led to an increase in the prevalence of osteoporosis and its following fractures in the area, so that 70% of the cases with hip fracture will happen in these countries in 2050.^{3,4} Despite emerging therapies to treat osteoporosis, prevention is still preferable for controlling the disease.³ In order to plan for the prevention of osteoporosis, sufficient information about people’s health beliefs and knowledge is necessary, and to change the health behaviors related to modifiable risk

factors of osteoporosis, it is necessary to be familiar with the individuals’ practice in case of prevention and also their cultural and socio-economical features.^{5,6} Although the incidence of hip fracture as one of the potentially high risk complications of osteoporosis is higher in the Middle East countries comparing to other parts of Asia and the rate of bone loss in Iran is similar to that of countries with a high prevalence of osteoporosis such as America and Europe, yet no studies have been performed to evaluate the Iranian women’s knowledge, attitude and practice (KAP) about osteoporosis.^{3,7} It should be also indicated that despite several studies done in developed countries on the knowledge of the society about osteoporosis, the authorities still emphasize on doing such studies.⁸

It is a serious public health problem. By 2025 osteoporosis alone will be responsible for 3 million

deaths. In India 25 million people are estimated to be stricken.⁹ Scopus has indexed 90488 documents and we contribute only 1.02%. Sharp contrast between proposed strategy and actual participation.¹⁰ There is a felt need of community specific studies to decrease risk factors.¹¹ The objective of the present study was to describe postmenopausal women knowledge, beliefs and attitude towards osteoporosis, to examine the relationship between women age, education, employment to knowledge and to examine relationship between, attitude and practices.

METHODS

Study design

It is a cross-sectional analytical study

Study population

It involved 100 women in upper class community above 45 years irrespective of any symptoms

Sampling technique

The women were chosen by simple random sampling

Study instrument.

It consists of four parts

- Demographic details
- Question related to knowledge
- Question related to attitude
- Question related to practices

The interview schedule consisted of 4 parts including questions about KAP and also background questions. The content validity of the questionnaire was established by an extensive literature review and an expert panel. Background questions covered demographic, social, and economical status as well as asking whether they had heard about osteoporosis before. There were 21 questions on knowledge consisted of 2 parts for general questions and the ones about risk factors of osteoporosis. A total score for knowledge was obtained by adding the points given for each answer. For each correct answer 1 point, "I don't know" and any incorrect answer zero points were assigned. The questions on attitude included 4 fields as follows: perceived advantages (6 questions), perceived susceptibility (5 questions), perceived seriousness (4 questions) and perceived barriers (4 questions). These questions were scored according to Likert scale, from "5" as "completely agree" to "1" as "completely disagree". Alpha coefficients of the knowledge and attitude scales were .92 and .70, respectively. The questions on practice included 6 domains: taking foods containing calcium, weight bearing exercises, checking bone density, taking estrogen pills daily, and reading about osteoporosis and exposure to sunlight. Dietary calcium intake was assessed

utilizing a modification of Kasper et al.¹² We asked about common foods containing calcium and the total amount of received calcium would be calculated according to the meal size, the frequency of consumption and the amount of calcium for each meal.¹³ The total amount of calcium intake was categorized into 2 classes: over 1200 mg which meant adequate calcium intake and below 1200 mg i.e. inadequate calcium intake.¹⁴ To evaluate the physical activities, we interviewed the women about doing weight bearing exercises such as running, jumping, jogging, playing volleyball and etc during a week. Then they were categorized into 2 classes: above 90 min of activity and below it in a week.¹⁵ Studies done based on similar criteria, have confirmed the validity of sport self-report.¹⁶ Considering the climate of the area and the geographical latitude, exposure to sunlight for 15 min at least twice a week was considered as enough vitamin D receipt.¹⁷ We tested our hypotheses about the effects of background variables, women's knowledge, and attitudes on their practice score using multivariable analysis. A multiple regression analysis (based on the stepwise variable selection method) was carried out. A probability value (P) of less than 0.05 ($P < 0.05$) was considered to be significant.

RESULTS

Relation of their education with the awareness and practices of osteoporosis-30% of women were illiterate and have no awareness of osteoporosis 20% had elementary education, 12% had high school education, 14% had university or were graduate (Figure 1).

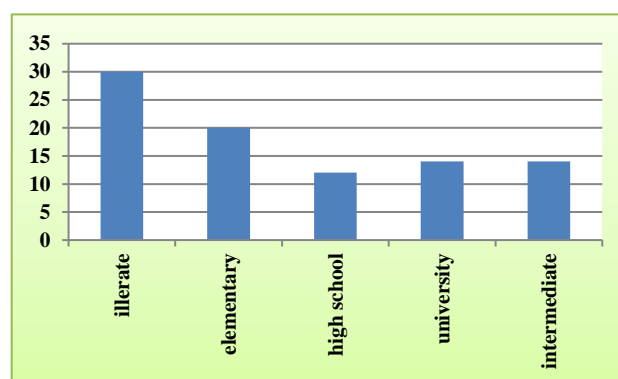


Figure 1: Relation of their education with the awareness and practices of osteoporosis-30% of women were illiterate and have no awareness of osteoporosis 20% had elementary education, 12% had high school education,14% had university or were graduate.

Level of literacy will decide their awareness and preventive practices. Thus, it is very well said that if a woman is educated whole family will be educated and aware. Frequency of the women who recognized the risk factors of osteoporosis correctly-lack of activity (14%), premature menopause (2%), old age (13%) and genetics (8%) were important risk factors (Figure 2). Old-age and

lack of activity are directly proportional to each other and premature menopause and genetics are directly proportional to each other.

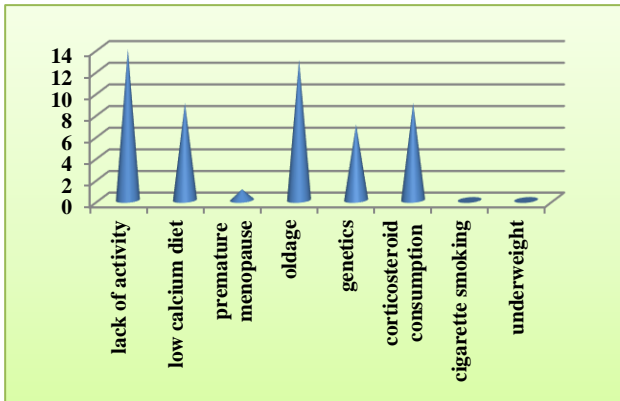


Figure 2: Frequency of the women who recognized the risk factors of osteoporosis correctly-lack of activity (14%), premature menopause (2%), old age (13%) and genetics (8%) were important risk factors.

Source of information for women who have heard about osteoporosis-main source of information was media (15%), next source of information was friends and relatives, 9% were from health staff and rest from other sources (Figure 3).

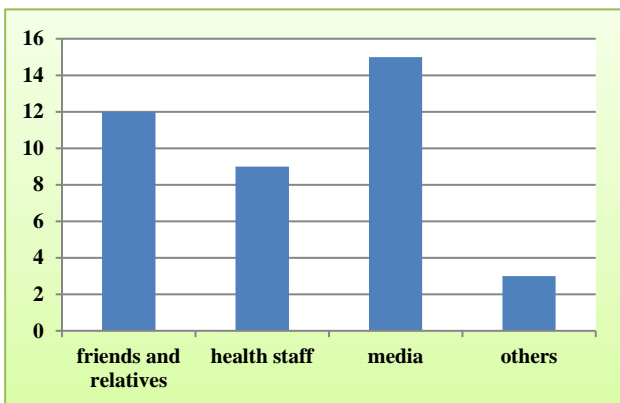


Figure 3: Source of information for women who have heard about osteoporosis-main source of information was media (15%), next source of information was friends and relatives, 9% were from health staff and rest from other sources.

Media plays a very vital role for awareness among women. Number of women who are practicing preventive activities-76% of women were not practicing preventive measures and only 24% were practicing preventive measures (Figure 4).

Practice and awareness are directly proportional to each other. Factors found to be related to osteoporosis preventive activity-50% were consuming calcium, 30% were exercising, 8% were having sun exposure and rest were having HRT and checking BMD (Figure 5).

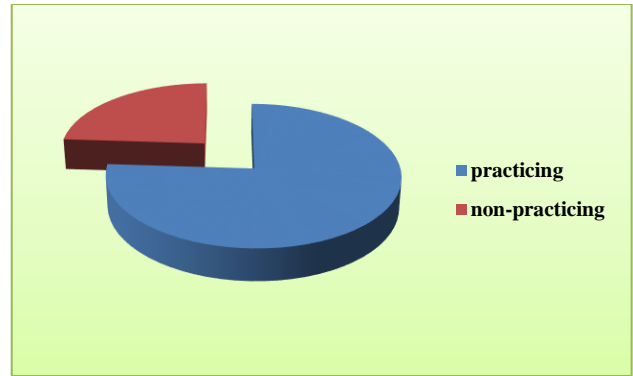


Figure 4: No. of women who are practicing preventive activities-76% of women were not practicing preventive measures and only 24% were practicing preventive measures.

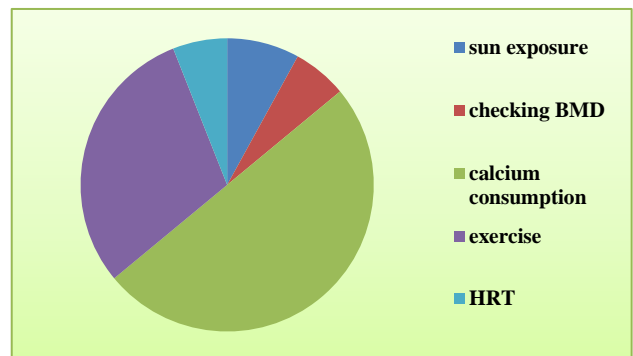


Figure 5: Factors found to be related to osteoporosis preventive activity -50% were consuming calcium, 30% were exercising, 8% were having sun exposure and rest were having HRT and checking BMD.

Frequency of osteoporosis according to the occupation-97% were housewife and 3% were working (Figure 6).

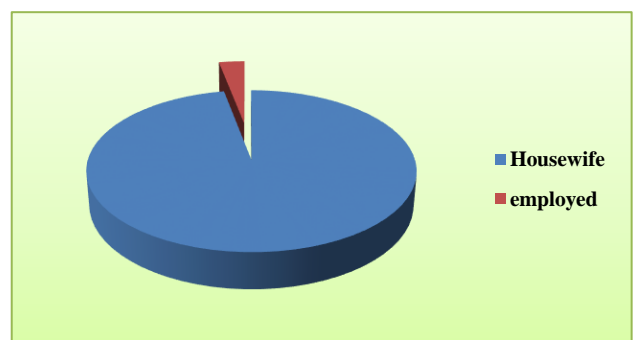


Figure 6: Frequency of osteoporosis according to the occupation 97% were housewife and 3% were working.

DISCUSSION

Out of 100 women 30 were illiterate rest literate,24 knew about osteoporosis and those who knew adopted prevention practices more than 75% didn't know about

osteoporosis. Relation of their education with the awareness and practices of osteoporosis-30% of women were illiterate and have no awareness of osteoporosis. Frequency of the women who recognized the risk factors of osteoporosis correctly-lack of activity, premature menopause, old age and genetics were important risk factors. Source of information for women who have heard about osteoporosis-main source of information was media i.e. 30%. No. Of women who are practicing preventive activities-76% of women were not practicing preventive measures. Commonest risk factor perceived was lack of activity and old age hence inevitable. They didn't know about other risk factors. When there is no knowledge one doesn't look for prevention.

One of the ways to prevent osteoporosis in the society is to use population-based interventional approaches in order to decrease the risk factors of osteoporosis. To do these approaches, it is necessary to have information about the knowledge, attitude, and practice of the society.¹⁷ This is a population-based study with a high participation rate, and the data have been collected through household interviews done by trained interviewers. A study of 447 Taiwanese women (aged 40 years and older) showed that the average score of their knowledge was 35% of the achievable score.¹⁰ This score was 61% for the 20-79-year-old Swedish women and 63% for the 21-60-year-old Turkish.^{18,19}

Considering the unacceptable knowledge of the studied individuals more attention should be devoted to Information, Education and Communication (IEC) programs concerning osteoporosis. More than 50% of the studied individuals recognized hereditary factors, low calcium consumption, old age, and lack of activities as risk factors. The above results show the necessity of education on the risk factors of osteoporosis; because when there is not enough knowledge about risk factors, one does not consider them as serious threats and so does not look for prevention and treatment.^{20,21} In a study conducted in Singapore, 86% indicated low-calcium diet as the risk factor, while 32% of the American women stated corticosteroid consumption. Instead, more than 68% of the Americans indicated low-calcium diet and lack of activities.^{22,23}

in a study conducted on 40-95-year-old women in Philadelphia, the perceived barriers showed fairly the lowest agreement and, in a study, performed in Taiwan, the lowest score of attitude was related to the perceived susceptibility.^{10,24} Such differences might be due to different cultures or statements. According to the health belief model, the subtraction of perceived barriers to preventive actions from perceived benefits of preventive actions is a source that potentially increases the probability of doing preventive acts.²⁴ The results of this study indicate that the women's beliefs are completely in contrary to the desired situation that means perceived benefits are stronger than perceived barriers. Therefore, it

seems that the resultant of these two beliefs might weaken the preventive practices.

CONCLUSION

There is need of targeted education and awareness programme for women of age group >45 for prevention of osteoporosis.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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