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Original Article

Assessing health beliefs about osteoporosis among women attending primary health care centres in Qatar

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الملخص

أهداف البحث: هشاشة العظام مشكلة صحية عالمية ويزداد انتشارها في جميع أنحاء العالم. لا يزال سوء الفهم حول هشاشة العظام وعدم وجود إجراءات وقائية بين النساء أمرا شائعا مما يؤكد الحاجة للوقاية الأولية في سن مبكر. إن عملية التخطيط لبرنامج فعال يهدف لمنع هشاشة العظام تتطلب معلومات كافية عن معتقدات النساء الصحية عن هشاشة العظام. وتهدف هذه الدراسة إلى تقييم المعتقدات الصحية لنساء عربيات، تتراوح أعمارهن بين ٢٠- ٤٤عاما عن هشاشة العظام في مراكز الرعاية الصحية الأولية في دولة قطر.

طرق البحث: استخدم الباحثون تصميم الدراسة المستعرضة، حيث تم اختيار عينة عنقودية مع توزيع متناسب لتسجيل ٧٦٦ سيدة مؤهلة تمت مقابلتهم باستخدام استبانة باللغة العربية.

النتائج: أظهرت غالبية النساء المشاركات وعيا منخفضا للإصابة بهشاشة العظام (٧١,٧٪)، في حين أظهر غالبيتهن وعيا مرتفعا بالفوائد المرجوة للممارسات الوقائية (٩١,٧٪).

الاستنتاجات: على الرغم من الوعي المنخفض للإصابة بهشاشة العظام، لدى النساء حافز قوي لرعاية صحتهم مع إيمانهن بفوائد الغذاء الغني بالكالسيوم والرياضة المنتظمة. نوصي بدمج الوقاية من هشاشة العظام ضمن برامج صحة المرأة على مستوى الرعاية الصحية الأولية بالإضافة إلى النشاط البدني وبرامج التغذية.

الكلمات المفتاحية: هشاشة العظام؛ الكالسيوم؛ الرياضة؛ المعتقدات الصحية؛ برنامج التغذية

Abstract

Objective: Osteoporosis is a global health problem, and its prevalence is rapidly increasing worldwide. Misconceptions about osteoporosis and the lack of preventive measures among women are still common, emphasizing the need for primary prevention at an early age. The process of planning an effective osteoporosis prevention programme requires sufficient information about women's osteoporosis health beliefs. The objective of this study is to assess the health beliefs of 20–44 year-old Arab women about osteoporosis at primary health care centres in the State of Qatar.

Methods: The researchers utilized a cross-sectional study design, where cluster sampling with proportionate allocation was employed to enrol 766 eligible women who were interviewed using a structured Arabic questionnaire.

Results: The majority of the participating women showed lower perceived susceptibility to osteoporosis (71.7%) but higher perceived benefits of preventive practices (91.7%).

Conclusion: Despite lower perception of susceptibility to osteoporosis, women were highly motivated to take care of their health and believed in the benefits of a calcium-rich diet and regular exercise. The integration of osteoporosis prevention into women's health programmes at the primary health care level, as well as physical activity and nutritional programs, are recommended.

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Introduction

Osteoporosis is a serious health concern that affects millions of people around the world. As the globe's population is ageing rapidly, osteoporosis is expected to become a major public health issue from a clinical, economic, and social point of view.[1] First of all, osteoporosis is a systemic skeletal disease characterized by low bone density and micro-architectural deterioration of the bone tissue, with a consequent increase in bone fragility as well as susceptibility to fracture.[2] Until recently, osteoporosis was an under-recognized disease and considered an inevitable ageing consequence. However, perceptions have changed, as epidemiological studies have highlighted the heavy burden of the disease and its costs on society and the health care system.[3,4] The International Osteoporosis Foundation (IOF) estimates that 200 million women suffer from osteoporosis around the world,[5] affecting more than 75 million people in Europe, Japan, Australia and North America.[6]

In the gulf region, multiple studies have sought to determine the prevalence of the disease as well as its burden on the community. A recent study was conducted in KSA during 2015 and revealed that 34% of females between the ages of 50 and 79 years suffer from osteoporosis.[7] Another study reported that the bone mineral density among Saudi women was lower than that of their American counterparts, possibly due to a higher prevalence of vitamin D deficiency as well as multiple pregnancies.[8]

Osteoporosis is a multi-factorial disease involving multiple risk factors. Some of these risk factors are non-modifiable, such as gender, advancing age, heredity, and race, while others are considered modifiable.[9] Modifiable factors, such as knowledge and health beliefs, offer an opportunity for women to engage in behaviours that delay the onset or progression of osteoporosis.[10]

In Qatar, there is a scarcity of information on women's health beliefs about osteoporosis. Furthermore, no research on the topic has been pursued in the primary health care setting which constitutes the first line of interaction between the community and the health care system in Qatar. Considering this gap of information, which is vital in any intervention to halt the rise in osteoporosis and raise community awareness about it, this study was devised to bridge this gap by utilizing the Osteoporosis Health Belief Scale (OHBS).

This scale is based on the Health belief Model (HBM), where the perception of the seriousness of osteoporosis and susceptibility to it must be high before an individual will engage in osteoporosis preventive behaviours. On the other hand, perceived benefits refer to the positive outcomes that individuals expect when engaging in a health-promoting behaviours. Moreover, perceived barriers refer to the negative aspects of participating in a health-promoting behaviour.[11]

The OHBS was established in 1991 by Kim et al. to evaluate the health beliefs related to osteoporosis and determine the relationship between osteoporosis preventive health behaviours and health beliefs. Since then, several studies have utilized the OHBS on men and women of variable age groups. Furthermore, a systematic review conducted on the OHBS by McLeod and Johnson in 2011 revealed the usefulness of tackling health beliefs when designing and implementing education interventions for osteoporosis prevention and management.[12]

Another study, by Sayed-Hassan and Bashour in 2013, assessed the reliability of the Arabic version of the OBHS tool by recruiting one hundred Syrian women. The results revealed that the tool in its Arabic version is both reliable and linguistically acceptable.[13] In addition, another study, by Abdulameer et al. in 2014, assessed the content validity and the internal consistency of the OHBS tool in its Malay version (OHBS-M). The study found the OHBS-M to be a valid and reliable instrument for measuring osteoporosis health beliefs among diabetics.[14]

Thus, there is a need for intensive action at both the international and national levels to develop a coordinated strategy to deal with osteoporosis and reduce its burden on society. However, there is also a need for information for action, especially in Qatar, to adequately plan an osteoporosis prevention and control strategy. Thus, the objective of this study is to assess the health beliefs of 20–44 year-old Arab women regarding osteoporosis at the primary health care centres in the State of Qatar in 2010.

Materials and Methods

The researchers utilized a cross-sectional study design, where cluster sampling with proportionate allocation was employed to enrol 766 eligible women who gave their consent to be interviewed using a structured interview-administered Arabic-version questionnaire. Simple random sampling using a random number generator programme was employed to include seven health care centres out of 15 available health care centres; then, each health care centre was considered as a cluster. After that, the sample distribution between the clusters was determined in proportion to the size of each cluster, based on the size of the registered population in each health care centre. Accordingly, the total sample size of eligible women was divided among seven clusters and all eligible participants were enrolled during the data collection period until the required sample size was fulfilled.

Sample size calculation

Sample size calculation took into consideration the known prevalence of osteoporosis (50%),[1] a 95% level of confidence (CI), an error rate of 5%, and a design effect equivalent to 2 for cluster design. The investigator calculated the sample size through Software Open Epi Version 2.3, using the following equation.[15]