Effect of Preventive Program on Progression of Osteoporosis among Female Patients over 40 years at El-Fayoum City

ملخص البحث باللغة الانجليزية:

Introduction:

Osteoporosis is a skeletal disorder characterized by compromised bone strength, it is the most common bone disease in humans, representing a major public health problem. It is a silent epidemic that has become a major health hazard in recent years. **Osteoporosisposes a huge challenge in developing countries due to demographic transition and aging of the population coupled with limited availability of resources. The exact disease burden is difficult to quantify because of the paucity of data.**

Ethnicity affects bone density as well as fracture risk. Population-specific normative data for bone density are lacking in large parts of the world.

Aim: evaluate the effect of preventive program on the progression of osteoporosis among female patients over 40 years at El-Fayoum City.

Hypothesis

Decrease progression of osteoporosis among female patients over 40 years after application of the preventive program.

Design: A Pre-experimental design was used in this study.

Setting: data were collected from the orthopedic outpatient clinic of El-Fayoum University hospital.

Sample:**A convenient sample of all the cases coming to the orthopedic outpatient clinic at Fayoum university hospitaland fit the criteria, were included in the study. The total number of cases was 137 women, they were recruited within a period of 8 months, under the inclusion criteria was age over 40 years and follow up of the cases by phone every 2 months for 6 months after the application of the program.**

Tools of data collection

Tool I: Interviewing assessment tool

A structured Arabic interviewing sheet was designed by the researcher, after reviewing the related current and previous literature, to collect data which cover the aim of the study. It consisted of four parts as follows:

Part (1): Socio-demographic assessment tool

It contains 4 questions; it was used to assess the socio-demographic characteristics of the study group as age, marital status, educational level, occupation.

Part (2): Medical and family history tool

It contain questions related to family history related to osteoporosis, health problems, signs and symptoms of disease, duration of disease, history of falls and fractures, types of medication taken, presence of chronic illness or another health problem.

Part (3): Risk factors of osteoporosis assessment tool

It was used to assess risk factors related to osteoporosis and life style or bad habits as eating habits, smoking, exercise, caffeine or tea intake, soft drinks, appetite loss, body mass index,number of delivery, abortion, regulation of the menstrual period, pre or post-menopausal, sun exposure.

Part (4): Osteoporosis knowledge assessment tool

It contains questions related to risk factors, signs and symptoms, management and preventive measures related to osteoporosis and measures to prevent its progression. This tool is evaluated pre/post the program. The answer is marked as (0) for false answer and (1) for true answer. The total knowledge is considered satisfactory if the total score ≥ 60 % & unsatisfactory if the total score < 60%.

Tool 2: Follow up assessment tool for the progression of osteoporosis

A structured Arabic tool was designed by the researcher to assess the progress of osteoporosis related health problems, risk factors, lifestyle, continuity of osteoporosis signs and symptoms.

Results:

statistically significant correlation was found between osteoporosis and age, educational level, family history, chronic illness, postmenopausal period, recurrence pregnancy, exposure to smoking, practice exercise, drinking tea or coffee, and body mass index.

Conclusion

The study concluded that the common risk factors identified were; family history, lack of exercise, exposure to smoking, drinking tea or coffee, body mass index, chronic illness, recurrence pregnancy, age at menopause was among the risk factors of osteoporosis. The research hypothesis illustrated that, after the application of the preventive program for the study group, they had decreased the progression of osteoporosis signs and symptoms gradually among female patients over 40 years after follow up every 2 months.

Recommendation

Based on the findings of the present research, the following recommendations are suggested:

1- **Conduct continuous various educational programs for the high-risk women in the outpatient clinics to raise their awareness regarding causes, prevention & early detection and proper treatment of osteoporosis.**

2- **Design a simply illustrated guideline booklet in the Arabic language forthe high-risk group, about the** effect **of the preventive measure on the management of osteoporosis.**