

# Knowledge Regarding Osteoporosis among Women Menopausal of City Faisalabad, Punjab

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**Abstract**—Osteoporosis is one of the key public health problems from which more and more people within the world are suffering. About 200 million people are affected by osteoporosis nine million fractures annually are reported. Osteoporosis fractures accounts for more hospitalization days thanks other disease like breast cancer, myocardial infraction diabetes and others. About 80% of the people with an osteoporotic fracture are not assessed or treated for osteoporosis. Osteoporosis is a worldwide problem facing both males and females in Pakistan its level is very high. In this research we known about osteoporosis. We must know the symptoms and factors which leads to this disease. We also know preventions and treatment of this disease. Awareness is essential about this disease. Its ratio is very high in women especially in elderly women. The present study was descriptive type in its nature and quantitative approach. A Sample of 200 Women was drawn using multiage cluster random sampling techniques and Pearson product moment correlation coefficient (r) was used to analyze data.

**Keywords**—Osteoporosis, Risk of osteoporosis, knowledge level, females, Faisalabad

## I. INTRODUCTION

Osteoporosis is a metabolic disease of the bones that causes a decrease in bone density. As the density of the affected bones decreases, they become more fragile and this increases the risk of bone fractures. Osteoporosis can occur in people of any age or gender, but it most often occurs in postmenopausal women. The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) estimates that 10 million people in the United States have osteoporosis, and another 34 million people call bone mass osteopenia, which puts them at risk for osteoporosis. Twice as many women as men suffer from osteoporosis.

According to the United Nations World Health Organization, osteoporosis is the second most common cause of heart disease worldwide, after heart disease. The disease causes the bones to lose their elasticity and suffer from problems such as fullness and softening.

Bone is a living tissue, which grows permanently and the old parts of it are destroyed. Bone is in its full state between the ages of 30 and 40, and then, as it ages, the bones begin to melt. Now the question is, what are the cells that make and break bones? Let me tell you that cells called osteoclasts break bones, replacing old cells with new ones. This process is known in medicine as osteoblast. In this way, there is a balance in the process of breaking and forming bones within our body.

One million people in the United States suffer from the disease each year, and the majority are over 55 years of age. And because of this, 1.5 million people suffer from fractures every year. People with osteoporosis break their bones in different ways. Scientists also say that people with weak bones take longer to heal after a fracture.

The disease is more common in women than men. Women develop the disease after the age of 45, while men develop osteoporosis at the age of 50. The disease is 40% more common in women than in men. If we talk about Pakistan, according to unofficial statistics, 97% of women between the ages of 75 and 84 in Pakistan, while 55% of women between the ages of 45 and 54 suffer from osteoporosis. The disease affects the bones of the whole body, but it affects the spine, knees, hips and wrists more. Bone strength is also related to sunlight.

That is why the disease is more prevalent in cities than rural Pakistan. Usually people living in our cities who do not have to go out in the sun, do not drink milk and do not eat fish, they have bone problems. In contrast, women living in rural areas who work in the fields have a lower rate of osteoporosis. In other words, as much as we have adopted a modern lifestyle, such as sleeping in an air conditioner, not going out in the sun and not eating properly for fear of obesity, all these factors result in osteoporosis.

## II. RELATED WORK

Emc Lacu et al., (2002) In Asian countries the hip fracture increase and it also related to their life styles which increase the osteoporosis.

According to a study by the University of Kansas, 2% of college-going girls suffer from osteoporosis, and another 15% are more likely to develop osteoporosis. If they do not pay attention to this disease, their disease will become dangerous in the near future.

Another report states that out of 300,000 people, 24% of people with hip fractures die within a year. This is because the bones are weak. If the bones are weak, the risk of breaking them increases. In addition, people with weak bones suffer from severe depression. And they are cut off from society because they fear that their bones will be damaged.

According to the O. Cernelev (2021), Excessive salt intake can lead to many complications, including physical, mental and social effects. Excessive salt intake can lead to many disease such as kidney, stomach, cancer and osteoporosis, stroke, hypertension and heart disease.

Sara Habib et al., (2011) Osteoporosis is spreading rapidly in Pakistan due to lack of information, there is still data on the prevalence of osteoporosis in Pakistan. In city of Karachi 7% of women suffer from osteoporosis, compared to 32.4 % suffer from osteopenia. As in Lahore, 19% suffer from osteoporosis and 64% suffer from osteopenia.

### World Osteoporosis

World Osteoporosis day is celebrated every year on October, the purpose of this day is to create global awareness among the people about the prevention and diagnosis and treatment of osteoporosis bone disease. World osteoporosis was launched on October 20, 1996 by the United Kingdom osteoporosis society.

### Factors causing osteoporosis

- Osteoporosis is a disease of the bones in which the bones become weak and full. The disease causes the bones of the body to break easily. The diagnosis of the disease is often made when a minor injury causes a bone fracture. Mild pressure on the bone, bending or injury can cause a fracture.
- Weight loss, malnutrition, calcium and vitamin D deficiency, advancing age, steroid use and smoking are common causes. Women are more affected by this disease than men. Decreased amount of calcium in the body with increasing age and decrease in the ability of bones to absorb calcium causes bone weakness.
- With age, lack of exercise, lack of a balanced diet, and menopause in women, bone fractures accelerate. In osteoporosis, the bone-breaking cells in osteoporosis lose their function by accelerating their function. This means that the process of breaking bones is faster and the process of formation is slower, so the fullness of

bones begins. As a result of this process, the bones become thinner and weaker and then break even with a little pressure.

- Some of the other causes of osteoporosis include old age, pre-existing disease in the family, habit of not participating in physical activities, excessive caffeine consumption, calcium deficiency, thyroid hormone problem, and steroids use etc.
- Smoking also affect the bone badly, Obesity is the major problem of osteoporosis and Taking unhealthy nutrition.

### Prevention

“Prevention is better than cure prevention works on primary secondary and tertiary levels in osteoporosis to prevent osteoporosis take a healthy nutrition according to various stages of life including pregnancy, infancy, childhood, adolescence, postmenopausal period and senile age are some of the key to prevention. Taking sufficient calcium and vitamin D. Exercise regularly. For females over 50 and males over 70 years, 1200 mg calcium/day and 800 IU of vitamin D/day are recorded weight bearing an muscle strength exercise are important ways to prevent form osteoporosis. Balance training program like OTAGO and FAME in all elderly person as well as patients’ stroke, parkinson’s disease etc.

The best way to protect yourself from this disease is to adopt a healthy lifestyle in your youth so that you can avoid such problems in old age. Physical exertion and regular exercise are essential for strengthening bones. By keeping yourself active you can protect yourself from osteoporosis. Also it is very important to pay attention to diet. Regular consumption of healthy and calcium and vitamin D rich foods and dairy products can protect against this disease. Calcium and vitamin D supplements also play an important role in preventing osteoporosis.

### Osteoporosis in postmenopausal women

Estrogen deficiency and decreased calcium intake contribute to osteoporosis in women. However anorectic and part menopausal women differ in one determinant of bone mass, physical activity level, Anorectic women often maintain very high levels of physical activity. Despite their emaciation.

### Problem statement

An investigative study assess osteoporosis knowledge of women aged 40-60 years in selected city of Faisalabad.

### Objectives

1. Assessing the level of knowledge of menopausal women about osteoporosis.
2. Preparing an information booklet for menopausal women on osteoporosis.

## III. METHODOLOGY

Relevant details should be given including experimental Study Area

Faisalabad is one of the important district of Punjab with approximately 3,203,846 populations. The growing rate of Faisalabad is 2.23%, respectively. The area of the Faisalabad District is 6,500 square Kilometers.

**Data Collection**

It was a descriptive cross sectional study. The study was conducted at public places in Faisalabad City. A cross sectional survey was adopted to collect the data regarding knowledge level of menopausal women regarding osteoporosis. The data was collected from 200 females in Faisalabad city using convenient sampling technique and Menopausal Women Aged 40-60 year.

**Statistical Analysis Techniques**

Used for the analysis of the collected data, computerized data processing tools like SPSS version 20 was hired. Person product moment coefficient of correlation were used to analyze the result of the research from the sample.

**IV. RESULTS AND DISCUSSION**

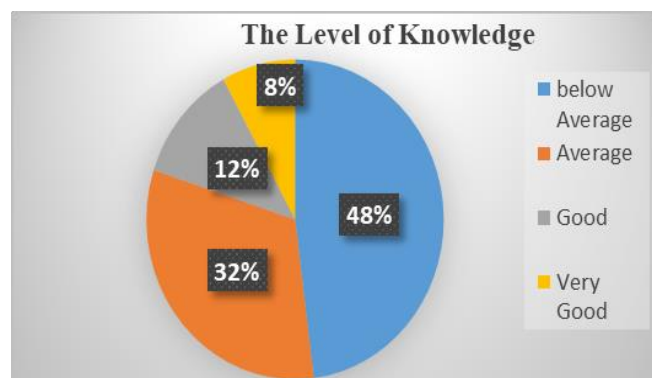


Table 1: Indication that the Knowledge level of menopausal women regarding osteoporosis

Sr.	Frequency	Percent
below Average	96	48
Average	64	32
Good	24	12
Very Good	16	8
Total	200	100

Total 200 menopausal women 48% of them had below average knowledge, 32% women have knowledge of average Osteoporosis, 12% have better good knowledge and 8% have very good knowledge about osteoporosis. Females also showed a below average knowledge towards. According to study, 8% of women aware of good knowledge regarding osteoporosis as 48% of women are unaware of good knowledge regarding osteoporosis, which are a serious condition. The health department should think about this and run an awareness campaign about good knowledge regarding osteoporosis.

Table 2: Descriptive Statistics on A Level of Knowledge regarding osteoporosis

Variables	N	M	SD
Level of Knowledge regarding osteoporosis	200	1.80	0.943

Table 2 show that, the mean value of knowledge score of women is 1.80 and the standard deviation of menopausal women is 0.943

Table 3: Indication that Association between Level of Knowledge and Demographic Variables of women.

Sr. No.	Demographic Variables	Below Average Knowledge	Average Knowledge	Good Knowledge	Very Good Knowledge	Chi square
1	Dietary Pattern 1. Vegetarian 2. Nonvegetarian	10% 38%	2% 30%	5% 7%	3% 5%	X <sup>2</sup> = 8.854 DF = 2 S* P < 0.01
2	Family income 1. < 10,000 2. 10,001 – 20,000 3. 20,001 – 30,000 4. 30,001 – 40,000	24% 16% 8%	16% 11% 5%	6% 4% 2%	2% 2% 1%	X <sup>2</sup> =14.483 DF = 8 S* P < 0.01

Table 3 indications that amongst all the demographic variables, dietary pattern and family income taken significant association with knowledge level at P<0.05 level.

Table 4 Indication that Relationship between A Level of Knowledge regarding osteoporosis and Dietary Pattern

Variables	N	r	p
Level of Knowledge regarding osteoporosis & dietary pattern	200	- 0.59	0.000

\*\*\*p < .001 df =198

The Pearson product moment coefficient of correlation was used to explore relationship between Level of Knowledge regarding osteoporosis and Dietary Pattern. The above table demonstrates a moderate negative relationship Level

of Knowledge regarding osteoporosis and Dietary Pattern:  $r(198) = -0.59, p < .001$ . Therefore, it found that there is a statistically significant negative relationship among Level of Knowledge regarding osteoporosis and Dietary Pattern.

## V. CONCLUSION AND FUTURE SCOPE

In addition, men and especially women must get calcium through diet. It can be obtained from milk and other products, green vegetables and fish. In contrast, excessive daily intake of phosphorus, protein and salt causes osteoporosis, as foods high in protein and phosphorus are thought to increase urinary calcium excretion. Refined sugar also increases calcium deficiency in the body.

Many cases of bone fractures are reported in Pakistan every year and the biggest cause is osteoporosis. In order to overcome this situation, in addition to precaution, it is very important to pay attention to physical activity and diet.

Research shows that in our society, there is almost no awareness of osteoporosis. Women have very little knowledge about this disease. In this regard, an awareness campaign should be launched at the governmental and community level. Electronic media and social media need to play a greater role in this regard, so that this silent killer disease can be avoided.

In addition, our education needs to pay attention to this. Furthermore, adopting a healthy lifestyle can significantly control this disease.

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## AUTHORS PROFILE

**Mr. Naeem Shahzad** was born in Faisalabad, Pakistan.

I received my Bachelor of Science [4- Years Programme] degree in Statistics from the College of Statistical and Actuarial Sciences, University of the Punjab, Lahore, Pakistan. After that, I pursued my Bachelor of Education [B.ED 1.5 Year] from the AIOU, Islamabad, Pakistan. I am now working as ESE Teacher in School education department Govt. of the Faisalabad, Punjab, Pakistan. One Year Teaching Experience as CTI Lecturer in Govt. Commerce College Samundri. Being a Teacher I am Proficient to give Lectures, Training, and Syllabus Completion within TIME, Managing Guest Speaker Session, and Give Training to Sub Ordinates etc. Additionally I was outstanding performer throughout Academics from SSC till BS [Hons]; I have firmly believe on Hardworking as for succession planning.

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