

KNOWLEDGE, ATTITUDE AND PRACTICE SURVEY RELATED TO OSTEOPOROSIS AMONG FEMALES WITH REPRODUCTIVE AGE

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Abstract: Osteoporosis is a chronic illness, and because of this, its clinical effects are sometimes not noticed until after a fracture has already happened. It also progresses silently. It is a major public health issue worldwide, and its prevalence, particularly among women, is rapidly increasing.

Objective: This study's primary goal is to evaluate the knowledge, attitude and practices among females of reproductive age regarding to osteoporosis.

Methodology: This is a descriptive, cross-sectional study conducted in Gujranwala district of Pakistan from August to November 2022. Females with age between 15-49 years were included in this study. Data were collected from 378 females of reproductive age. A self-administered questionnaire was used to collect the information about knowledge, attitude and practice related to osteoporosis. Any ambiguities or concerns students had about the questions were clarified and addressed prior to the start of any data gathering activities.

Results: In this study, the average age was 31.83 ± 9.055 . There were 210 married women and 168 single women (44.4% and 55.6%, respectively). 319 people, or 84.4%, were educated, while 59 people, or 15.6%, were not. There were 287 people (75.9%) who live in cities, and 91 people (24.1%) who live in rural areas. Sources of information for the 378 participants included magazines (8.466%), the internet (33.60%), television (11.90%), family/friends (30.42%), and health professionals (15.61%). A positive attitude, good practice level, and overall good knowledge were all present among 138 (36.5%), 148 (39.2%), and 186 (49.2%), respectively. Age, marital status, place of residence, and education all significantly correlated with knowledge ($p < 0.05$). Age, marital status, place of residence, and education all significantly correlated with attitude ($p < 0.05$). Additionally, there was no discernible connection between practice and age, marital status, education, or place of residence.

Conclusion: Women of reproductive age had average attitudes, average levels of knowledge, and good practices when it came to osteoporosis. Knowledge and practise differed significantly from attitude and practise significantly from knowledge, while attitude and practise differed little from each other.

Index Terms- Knowledge, Attitude, Practice, Osteoporosis, Reproductive age, KAP survey.

I. INTRODUCTION

A common metabolic bone disorder called osteoporosis is connected to ageing. It affects females more frequently than males.¹ It is an irreversible skeletal disorder that is commonly referred to as a "silent disease" because most people are unaware that their bones are weak, brittle, and easily fractured.² Osteoporosis is defined as "a disease characterized by low bone mass and micro-architectural deterioration of bone tissue, resulting in increased bone fragility and a consequent increase in fracture risk."³

Because of their lifestyle, certain medications, and certain diseases, it can happen to anyone at any age, including children, adults, and premenopausal women.⁴ Consuming caffeine can also result in osteoporosis. An individual is more likely to develop osteoporosis if they consume more than 2.5 units of caffeine.⁵ Osteoporosis risk factors include a positive family history, age, gender, BMI, smoking, and being overweight.⁶ Osteoporosis risk factors can be modifiable or non-modifiable. Modifiable risk factors include low calcium and vitamin D levels, a low body mass index (BMI), and prolonged immobilization, whereas nonmodifiable risk factors include age, family history, and menopause in women.⁷

The International Osteoporosis Foundation states that there are no obvious symptoms of osteoporosis until the first fracture occurs.⁸ When a fracture happens in an older female, it can lower

quality of life and raise mortality and morbidity. It is estimated that one in every three females and one in every five males over the age of 50 will develop osteoporosis at some point in their lives.⁹ Some children develop osteoporosis because of excessive consumption of carbonated beverages. Their bones become weak and fragile as a result of these drinks, and they are more likely to develop osteoporosis.¹⁰ Osteoporosis is the tenth most prevalent disease in the world, according to the WHO.¹¹ Even though osteoporosis is a risk for the entire population at any age, post-

menopausal women and the elderly are more likely to develop it.¹² Numerous KAP surveys have been conducted in Pakistan among various populations, but because there are few reliable epidemiological data on females, this study was done to find out what people know, think, and do about osteoporosis in women of reproductive age since they are more likely than men to develop it because of calcium deficiency.

II. METHODOLOGY

A cross-sectional descriptive study was conducted. Data came from the Gujranwala district. Females between the ages of 15 and 49 were the subjects of the data collection. Potential volunteers were accepted if they fit the inclusion and exclusion requirements after providing their informed consent. Data were gathered using a nonprobability convenient sampling technique from (august2022-november2022). All females with reported osteoporosis are disqualified from this study. People were aware of the goals and the entire process of the study. A structured, pre-coded, self-administered questionnaire was used to collect the data. Prior to the main study's data collection, the questionnaire was tested on 30 participants in a pilot study. The questionnaire has 4 parts. 1. Demographic information which includes the name, gender, age, education and marital status. 2. Knowledge section consists of eight questions that showed the knowledge of participants about osteoporosis by using the five-point Likert scale. 3. The third section of this questionnaire included attitude-related questions that revealed participants' attitudes toward osteoporosis using a five-point Likert scale, and the final section of this questionnaire contained practice-related questions that revealed participants' preventive behaviors with regard to osteoporosis. The reliability rating for this survey was 0.718. In general, it took 5 to 10 minutes to complete the survey. In some cases, if a participant couldn't understand the questions, the research team member would explain them before writing the answers. The only purpose for which any information was used was statistical analysis. A non-probability convenient sampling technique was used to collect the data, with a sample size of 378. This investigation lasted for four months through software known as SPSS 20.

III. RESULTS

Demographic characteristics of participants are mentioned in table no1 which demonstrate that there were 168(44.4%) single females and 210(55.6%) were married females. There were 319(84.4%) educated and 59(15.6%) were uneducated. There were 287(75.9%) belongs to urban area and 91(24.1%) belongs to rural area.

Table no-1 Frequency Distribution of Sociodemographic Factors'

Variables	Frequency	Percent
single	168	44.4
married	210	55.6
Total	378	100
Educated	319	84.4
uneducated	59	15.6
Total	378	100
Urban	287	75.9
Rural	91	24.1
Total	378	100

Fig 1: shows that Among 378 participants source of knowledge were from television (11.90%), internet (33.60%), magazines (8.466%), health professionals (15.61%) and family/friends (30.42%).

Figure no-1of Source of Information

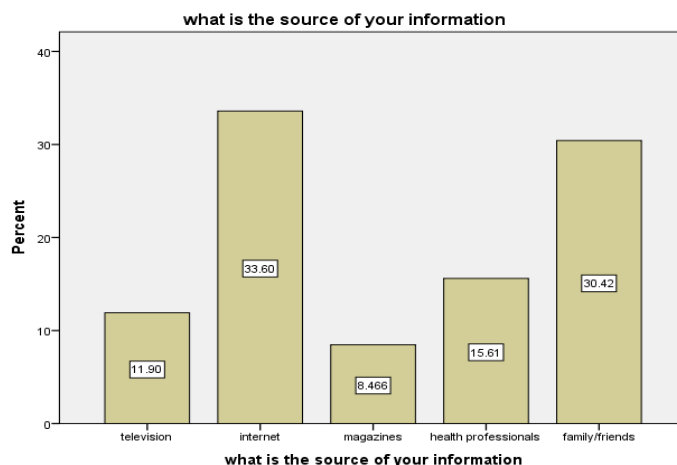


Table -2The overall good knowledge was present among 138(36.5%) participants while positive attitude was present among 148(39.2%) participants and good practice level was present among 186 (49.2%) participants.

Table – 2Level of Knowledge, Attitude and Practice

Variables		n(%)
knowledge level of participants	Good	138(36.5)
	average	237(6.7)
	poor	3(0.8)
	Total	378(100)
Attitude level of participants	Positive	148(39.2)
	average	227(60.1)
	negative	3(0.8)
	Total	378(100)
Practice level of participants	good	186(49.2)
	average	167(44.2)
	poor	256.6)
	Total	378(100)

Table 3:shows that there was significant relation between Attitude and Knowledge ($p < 0.048$), and the relation between Practice and knowledge was also significant ($p < 0.044$), and there was insignificant relation between attitude and practice ($p < 0.052$).

Table 3:Association of Knowledge and Attitude among students

Association	Pearson ®	Approx. Sig.
Attitude vs knowledge	0.258	0.048
Practice vs knowledge	0.365	0.044
Attitude vs Practice	0.268	0.052

IV. DISCUSSION:

In present study, there were 210 married women and 168 single women (44.4% and 55.6%, respectively). 319 people, or 84.4%, were educated, while 59 people, or 15.6%, were not. There were 287 people (75.9%) who live in cities, and 91 people (24.1%) who live in rural areas. Sources of information for the 378 participants included magazines (8.466%), the internet (33.60%), television (11.90%), family/friends (30.42%), and health professionals (15.61%). A positive attitude, good practice level, and overall good knowledge were all present among 138 (36.5%), 148 (39.2%), and 186 (49.2%), respectively. Age, marital status, place of residence, and education all significantly correlated with knowledge ($p < 0.05$). Age, marital status, place of residence, and education all significantly correlated with attitude ($p < 0.05$). Additionally, there was no discernible connection

between practice and age, marital status, education, or place of residence.

An investigation into the knowledge and practices of females in Pakistan regarding osteoporosis revealed that books and teachers (34.60%) were the primary information sources, followed by television and radio (22.40%). The mean scores for the knowledge and attitude sections were 5.12 and 1.11, 3.79 and 2.61, respectively, and for the practice section. Women with higher educational status performed significantly better across all three dimensions (graduate or more). Women with higher levels of education showed more expertise, a more positive attitude, and healthier habits than those with lower levels of education.³

In Saudi Arabia, a study was carried out to determine the knowledge, attitude, and practice of women. The results revealed that women had fair to good levels of knowledge about osteoporosis (50%) and attitudes (55%) as well as practice (60%) in this area. Women cited media as their primary source of information about osteoporosis (57.69%). Age and osteoporosis knowledge, attitude, and practice were significantly different ($p = 0.004$), with younger populations having higher levels of knowledge and attitude but middle-aged populations having better preventive practice strategies. Participants were occasionally exposed to sunlight (37.4%), consumed foods high in vitamins and calcium (50.8%), but rarely engaged in physical activity (35.4%).¹

The results of a survey to gauge community awareness of osteoporosis revealed that the majority of participants were young, female, and college-educated. Only 17% of the participants said they had osteoporosis. The majority of participants (52%) have good general knowledge overall, but only 42% and 21%, respectively, had good knowledge regarding calcium recommendations and the significance of physical activity in osteoporosis prevention. 60% of the subjects had good knowledge of the osteoporosis risk factors, and 75% had good knowledge of the signs and radiological tests. While the majority of Abha City residents had adequate knowledge of risk factors, symptoms, and radiological investigations, knowledge of preventive measures was only good overall in 52% of the subjects.²

RECOMMENDATION(S):

- Patients should be educated about osteoporosis by healthcare professionals.
- Nongovernmental organizations and the media should work harder to promote preventive programs.
- Raising people's awareness of osteoporosis management

LIMITATION(S):

- It was not possible to generalize the findings of this study to the entire nation because it was only conducted in the Gujranwala district.
- It is possible that knowledge, attitude, and practices were undervalued.

V. CONCLUSION

Among women of reproductive age, there was average knowledge of osteoporosis present, along with average attitude and good practice. The participants' primary sources of information about osteoporosis were the internet and family. Knowledge and practice differed significantly from attitude, knowledge and practice from attitude significantly, and practice significantly from attitude.

Conflict of Interest

There was no conflict of interest.

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Data availability

Data will be provided on the demand by corresponding author.

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Running Title: Knowledge, Attitude and Practice related to osteoporosis among females with reproductive age.

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