



LESS SYMPTOMS, LESS AWARENESS-A DEEP VIEW ON OSTEOPOROSIS

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ABSTRACT

Osteoporosis increases the risk of breaking a bone. About one half of all women over the age of 50 will have a fracture of the hip, wrist, or vertebra (bones of the spine) during their lifetime. Osteoporosis itself has no symptoms; its main consequence is the increased risk of bone fractures. The aim of our study was to assess the knowledge of osteoporosis symptoms, treatment, diagnosis in the population. A prevalence study was carried out to evaluate the knowledge of osteoporosis among the medical and paramedical students of in various designation Tamilnadu, India. We used the online survey tool (Google form). A total of 217 participants completed the online questionnaire. A semi structure questionnaire was adopted from previous studies with minor changes to suit the study population and the questionnaire. We found that their knowledge was not as adequate and sufficient so should be recommended to increase the level of knowledge on osteoporosis among healthcare profession

KEYWORDS: Osteoporosis, knowledge assessment, pharmacy, awareness, cross sectional studies

INTRODUCTION

- Osteoporosis is a disease which makes bones weak and fragile. This greatly increases the risk of breaking a bone even after a minor fall or bump. The disease has no obvious symptoms, so many people don't know they have osteoporosis until they suffer a fracture. Fractures can be life-altering, causing pain, disability and loss of independence.^[1]
- Osteoporosis is the major cause of fractures in postmenopausal women and in older men. Fractures can occur in any bone but happen most often in bones of the hip, vertebrae in the spine, and wrist.^[2]
- Data of 2013, sources estimate that 50 million people in India are either osteoporotic (T-score lower than -2.5) or have low bone mass (T-score between -1.0 and -2.5).^[3]

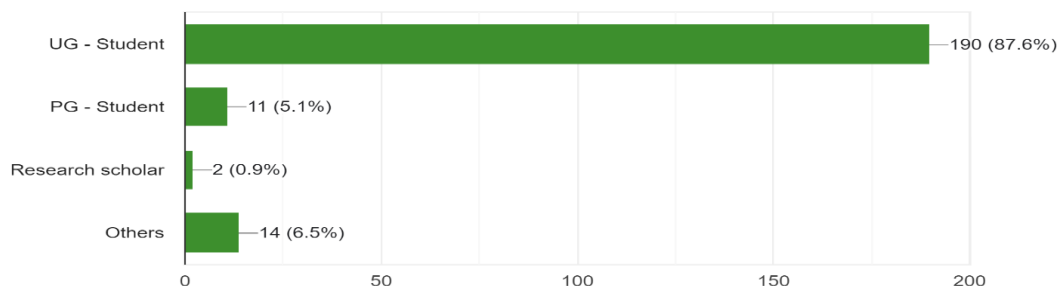
by faculties(no7-10) of SS Institute of Pharmacy, Sankari.^[4] It consists of 10 questions on knowledge of Osteoporosis (yes/no type questions). All the 10 questions were compulsory, Restrictions were set, only one response can be submitted by an individual student. The responses were collected and the data were analyzed in a statistical manner.^[5]

MATERIAL AND METHOD

The Cross-sectional study was conducted for month between 15th oct to 15th nov (one month) of 2022 among medical and paramedical students nearly 15 medical college in Tamilnadu We used the online survey tool (Google form). A total of 217 participants completed the online questionnaire. A semi structure questionnaire was adopted from previous studies with minor changes to suit the study population and the questionnaire was validated

Designation

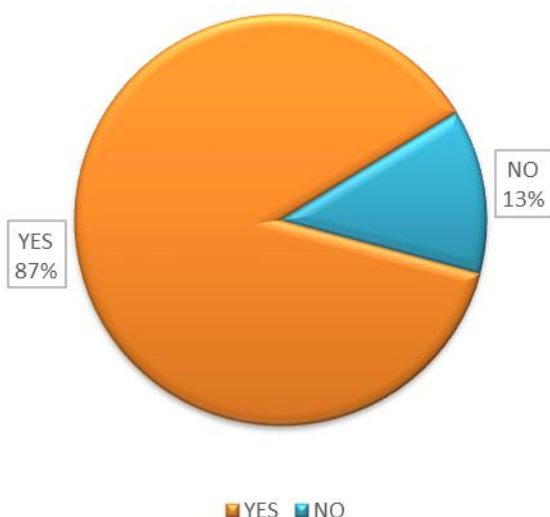
217 responses



In this 217 respondents there are n=190(87.1%) UG Students, n=11(5.2%) PG Students, n=2(1%) Research Scholar and n=14(6.5%) Others.

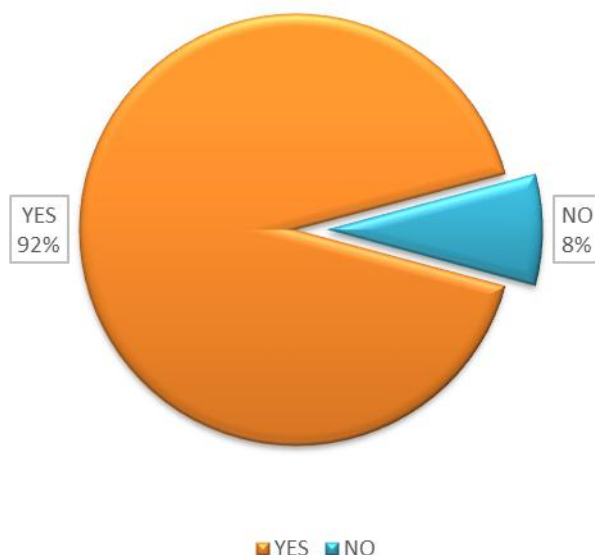
RESULTS

Totally 217 responses were received from this survey. Among 10 questions, 6 questions were set related to assess the general knowledge about osteoporosis and left 4 questions were set related to assess the depth knowledge about osteoporosis.

1. Have you heard about Osteoporosis**Question 1**

Have you heard about Osteoporosis, out 217 responses 189 students (87.10%) of them answered Yes and 28 students (12.90%) of them answered No. It shows most of the students have an idea about the disease OSTEOPOROSIS.

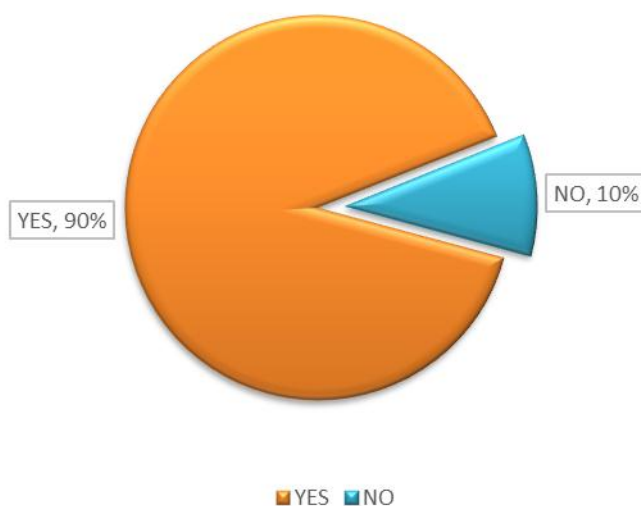
2.Osteoporosis leads to Fracture



QUESTION 2

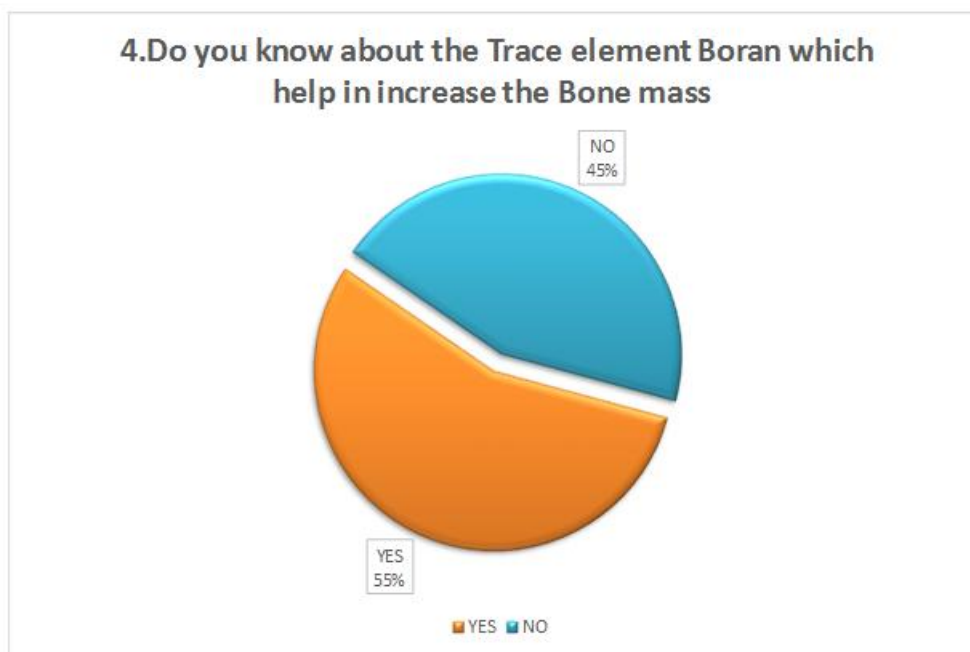
Osteoporosis leads to Fracture, out 217 responses 198 students (87.10%) of them answered Yes and 18 students (12.90%) of them answered No. It indicates most of the well knowledge is pathophysiology of Osteoporosis.

3.Calcium and Vitamin D deficiency leads to Osteoporosis

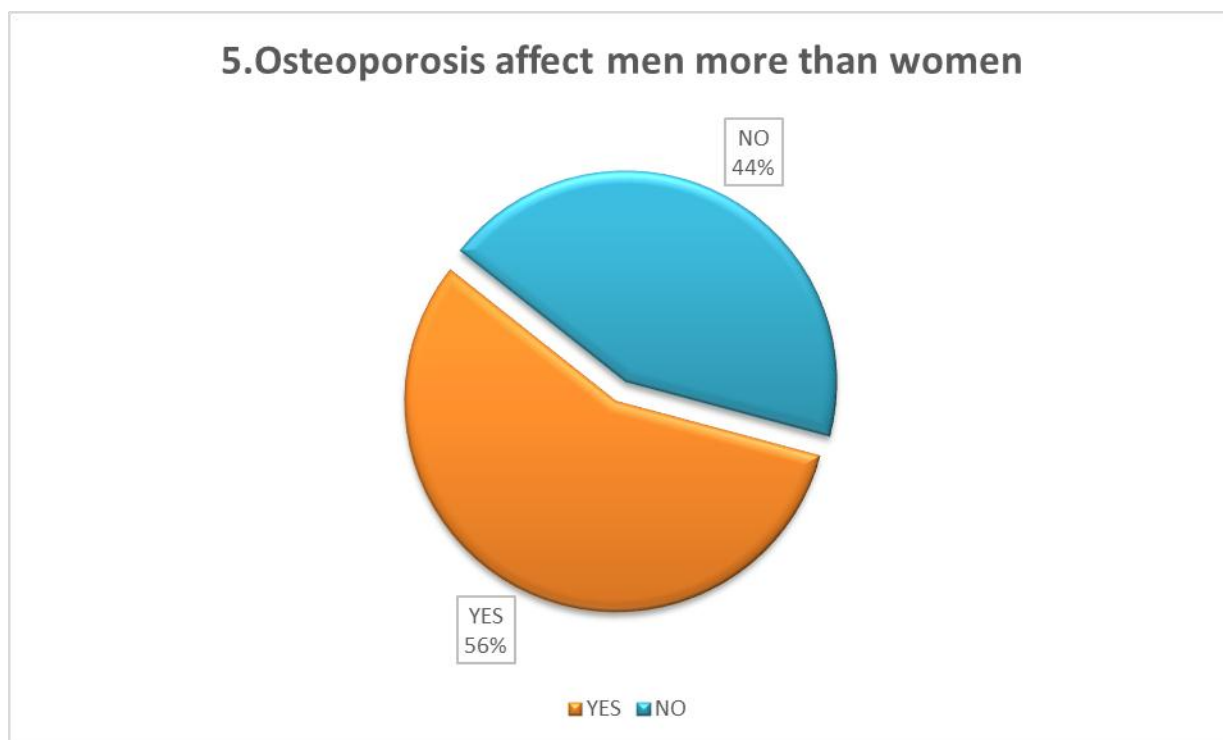


QUESTION 3

Calcium and Vitamin D deficiency leads to Osteoporosis, out 217 responses 194 students (89.80%) of them answered Yes and 22 students(10.20%) of them answered No. It show people have good idea in deficiency factor of osteoporosis

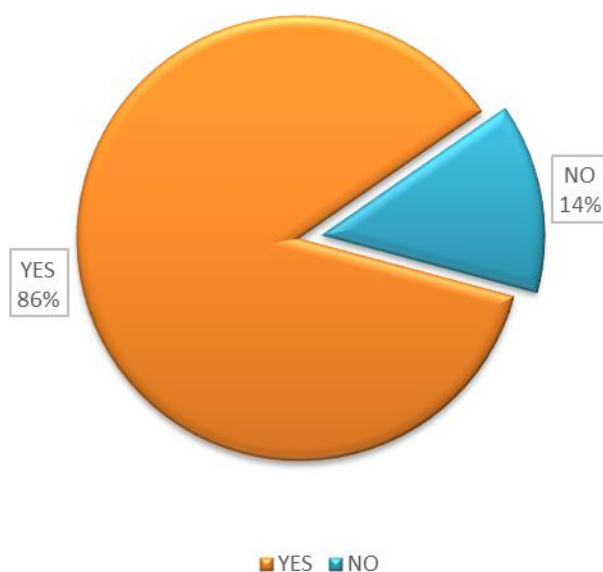
**QUESTION 4**

Do you know about the Trace element Boron which help in increase the Bone mass out 217 responses 118 students (55.40%) of them answered Yes and 99 students(44.60%) of them answered No. It show above 45% of people didn't have idea about the trace element boron. Boron is the important trace element which increases the bone mass and indirectly prevent the osteoporosis.

**QUESTION 5**

Osteoporosis affect men more than women, out 217 responses 122 students (56.50%) of them answered Yes and 95 students(43.50%) of them answered No. It show people didn't have adequate knowledge in this question. It is one of the wrong statement but 56.50%(122 students) accept this wrong statement.

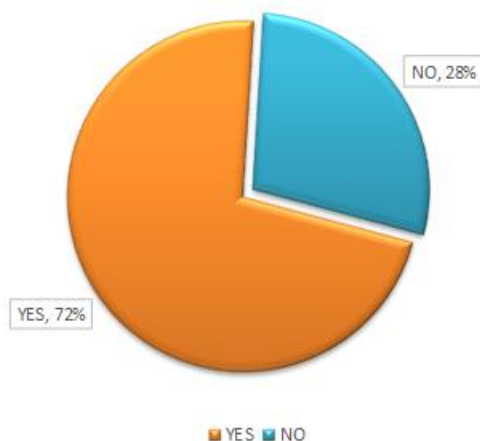
6.Age play a important factor in Osteoporosis



QUESTION 6

Age play a important factor in Osteoporosis, out 217 responses 187 students (86.20%) of them answered Yes and 30 students (13.80%) of them answered No. It show good knowledge in affecting factor(age) of osteoporosis.

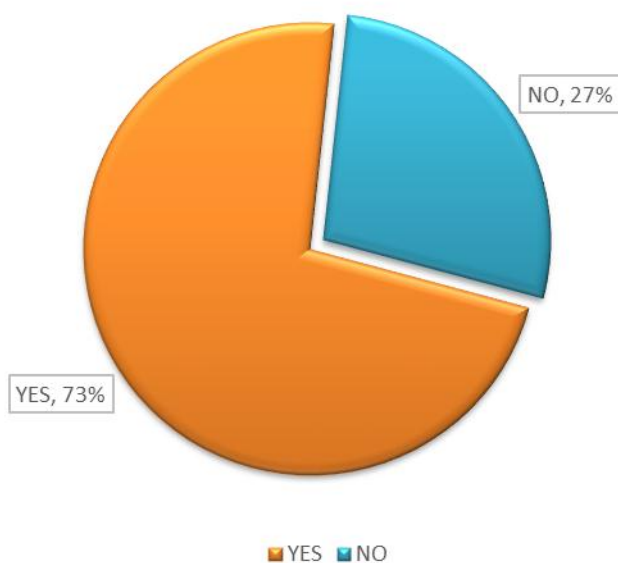
7.Did you know about the bone density test for Osteoporosis



QUESTION 7

Did you know about the bone density test for Osteoporosis, out 217 responses 189 students (71.80%) of them answered Yes and 28 students(28.20%) of them answered No. It show good knowledge in diagnosis of osteoporosis.

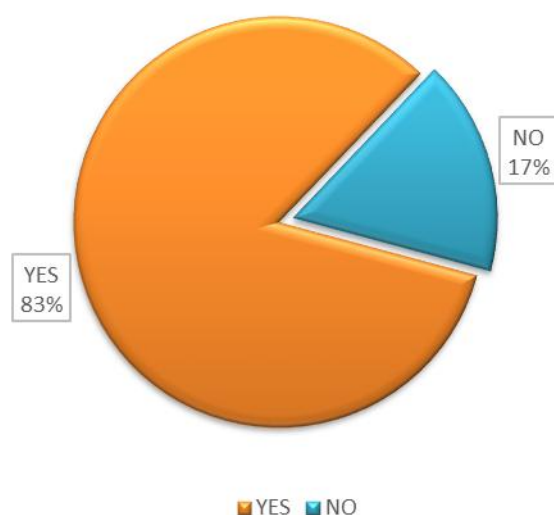
8. There are many symptoms (including pain) in the early stage of Osteoporosis



QUESTION 8

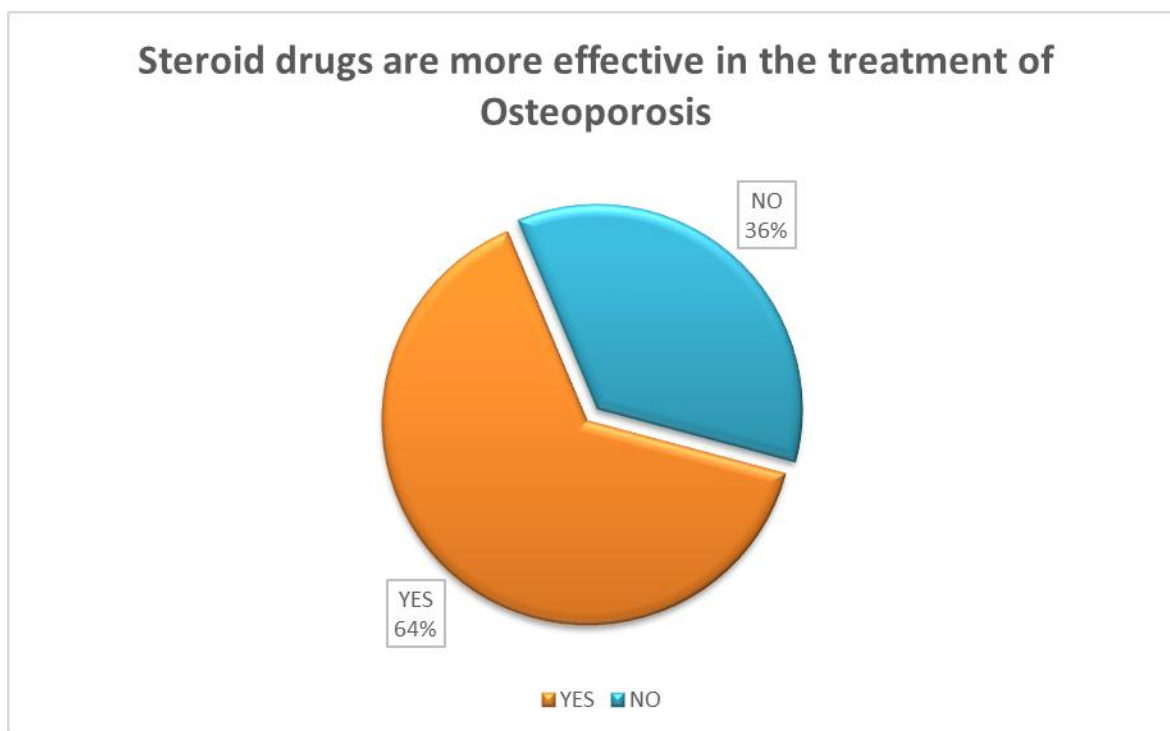
There are many symptoms (including pain) in the early stage of Osteoporosis, out 217 responses, 161 students (74.50%) of them answered Yes and 56 students (28.20%) of them answered No. It shows people didn't have adequate knowledge in this question. It is one of the wrong statements but 74.50% (161 students) accept this wrong statement.

9. Osteoporosis also known as " Silent Disease "



QUESTION 9

Osteoporosis also known as " Silent Disease ", out 217 responses, 176 students (83%) of them answered Yes and 36 students (17%) of them answered No. It shows participants have well knowledge in this question.

**QUESTION 10**

Steroid drugs are more effective in the treatment of Osteoporosis, out 217 responses, 138 students (64.50%) of them answered Yes and 76 students (35.50%) of them answered No. It shows inadequate knowledge in the treatment of osteoporosis because 64.50% of participants accept the wrong statement. Steroid drugs are the drugs which induce the osteoporosis.

OVERALL RESULT

S.NO	QUESTIONS	YES(%)	NO(%)
1	Have you heard about Osteoporosis	87.10	12.90
2	Osteoporosis leads to Fracture	91.70	8.30
3	Calcium and Vitamin D deficiency leads to Osteoporosis	89.80	10.20
4	Do you know about the Trace element Boron which helps in increase the Bone mass	55.40	44.60
5	Osteoporosis affects men more than women	56.50	43.50
6	Age plays an important factor in Osteoporosis	86.20	13.80
7	Did you know about the bone density test for Osteoporosis	71.80	28.20
8	There are many symptoms (Including pain) in the early stage of Osteoporosis	74.50	25.50
9	Osteoporosis also known as " Silent Disease "	83	17
10	Steroid drugs are more effective in the treatment of Osteoporosis	64.50	35.50

DISCUSSION

The ultimate aim of our study is to create awareness about osteoporosis. An educational effort is needed to improve knowledge and the quality and reliability of information about osteoporosis; the present study was a questionnaire-based study which includes medical and paramedical students. Majority of the students have only a basic knowledge about the term osteoporosis; majority of them knew the definition of osteoporosis and similar related findings. Most of them have unaware knowledge in *symptoms, diagnosis, affecting factor* of osteoporosis as indicated by survey (overall result question no 5,6,7). Most of them don't have knowledge in *treatment* of osteoporosis as indicated by survey (overall result question no 10) and Indian society for bone and mineral research is organization in India (by assumption).

CONCLUSION

- Increased and improved osteoporosis education is clearly needed in the respected curriculums for students in the health professions, and in the continuing education for health professionals.
- We suggest that there are opportunities to increase osteoporosis knowledge across a broad spectrum of healthcare providers.
- We found that their knowledge was not as adequate and sufficient so should be recommended to increase the level of knowledge on osteoporosis among healthcare profession.
- The International Osteoporosis Foundation is the world's largest non-governmental organization dedicated to the prevention, diagnosis, and treatment of osteoporosis.



- The Bone Health & Osteoporosis Foundation (BHO^F) has been committed to preventing osteoporosis and promoting awareness about bone health.



- The Royal Osteoporosis Society – the UK's largest national charity dedicated to improving bone health and beating osteoporosis.



- Indian society for bone and mineral research is organization in **India** to promote research and disseminate knowledge about osteoporosis **but we suggest individual osteoporosis foundation in all states of India.**

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