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Patient-Reported Quality of Care among Osteoarthritis Patients

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ABSTRACT

Background: Osteoarthritis is a joint disease characterized by pain, disability, and impaired quality of life. Old age, female gender, overweight and obesity, knee injury, repetitive use of joints, bone density, muscle weakness, and joint laxity plays roles in development and risk factors of Osteoarthritis. Knee Osteoarthritis is more important not only for its high prevalence rate compared with other types of Osteoarthritis but also its presentation at earlier age groups particularly in younger age groups of obese women. In order to determine, monitor and improve quality of care, quality indicators based on standards of care may be used. The quality indicators can be used to evaluate whether the patient's care is consistent with the indicators, and at population levels. This could also be used by healthcare providers to capture individual patient's need.
Methodology: The study design is questionnaire survey, Self-made and pre assessed questionnaire was made. Questions were involved on awareness and knowledge of the disease, physiotherapy treatment, assessment of obesity and its management, assessment and management of external aids, pain assessment and management. 50 participants have participated in survey. Data analysis was done by using Microsoft excel 2019.
Result: Data from 50 participants were included for final analysis. The majority of study participants were females (n = 71%, 36). The mean age of participants was 58.3. Quality of care in terms of Knowledge and awareness (Related to Osteoarthritis of knee) Physiotherapy treatment, Assessment and management of obesity, Assessment and management of obesity, Assessment and management of external aids, Assessment and management of pain among osteoarthritis of knee patients regarding was assessed.
Conclusion: The study shows fair knowledge and awareness among osteoarthritis of knee patients regarding quality of care.

Keywords: Quality of care, Osteoarthritis, Questionnaire.

INTRODUCTION

Osteoarthritis is defined as "A heterogeneous group of conditions that lead to joint symptoms and signs that are associated with defective integrity of articular cartilage in addition to related changes in the underlying bone at the joint margins." (1)

Osteoarthritis also known as Osteoarthrosis/ Degenerative joint disease is a chronic joint disorder in which there is progressive softening and disintegration of articular cartilage accompanied by new growth of cartilage and bone at the joint margins (osteophytes) and capsular fibrosis. (2)

Clinically the osteoarthritis reflects symptoms such as joint pain, tenderness, limitation of movements (stiffness), crepitus, occasional effusion, limitation in

the ADL activities like stair climbing, walking and household chores. [3]

Osteoarthritis is the second most common rheumatological condition and is the most frequent joint disease with prevalence of 22% to 39% in India. Osteoarthritis is one of the major causes of morbidity, limitation of physical activity and health care utilization especially in people aged 45 and above. [4, 5]

High-quality primary care is of clear importance for such a prevalent condition that has both major personal and social impact. [6]

Among subjects with the knee Osteoarthritis, primary knee osteoarthritis, primary knee osteoarthritis tends to affect a single compartment at the onset most commonly the medial tibiofemoral compartment with a prevalence rate of medial to lateral compartment of roughly 5:1 in women and 8-9:1 in men. [7]

Obesity leads to increase load on the weight bearing joint, which may be the most important mechanical contribution. Knee adduction moment may be an important mechanical variable associated with the development of knee OA. [8, 9]

People with obesity have grater absolute knee adduction moments due to increased body mass and engage in compensatory gait patterns such as slower walking velocity and increased toe-out angle. [10, 11]

The evidences suggest that in obese people, articular cartilage may not be able to respond to the higher level of absolute knee adduction moment during gait compared to normal weight individuals. [12]

Increased joint loading by normal weight individuals has not consistently been shown to be associated with OA: for instance, a longitudinal study of elderly (>60yr) runners and non-runners showed that the presence of radiographic hip OA and the progression of radiographic knee OA were similar in both groups. [13]

BMI is a risk factor for OA. The various modifiable risk factors are repetitive movement of joints, obesity, infection, and injuries. The occupational physical activities include monotonous motions and great forces such as kneeling, squatting on joints, climbing, and heavy weightlifting. [14]

Physiotherapists play an integral role in providing non-pharmacological management for knee OA. A systematic review of patient's perceived health service needs for OA showed that patients generally perceive physiotherapists to be important to assist them in managing their condition and prescribing exercises. [15]

Despite international OA guidelines recommending exercise and weight loss as first line treatments for OA, their uptake is suboptimal in physiotherapy practice Quality indicators (QIs) can be used to assess physiotherapist's adherence to clinical guidelines recommendations and are accepted tools for assessing OA care. [16]

Quality indicators (QI) are 'specific and measurable elements that can be used to assess the quality of care' [17]. They are used to assess care quality of osteoarthritis patient and treatment and lifestyle modification advice given according to defined standards of care (e.g., weight management, physiotherapy treatment, use of assistive device etc.).

As a part of to improve quality of care and modify lifestyle of the patient quality indicators in form of 17 self made questions for Osteoarthritis patients has been developed including aspects of Physiotherapy treatment, assessment and management of weight, advice for assistive devices.

METHODS AND METHODOLOGY

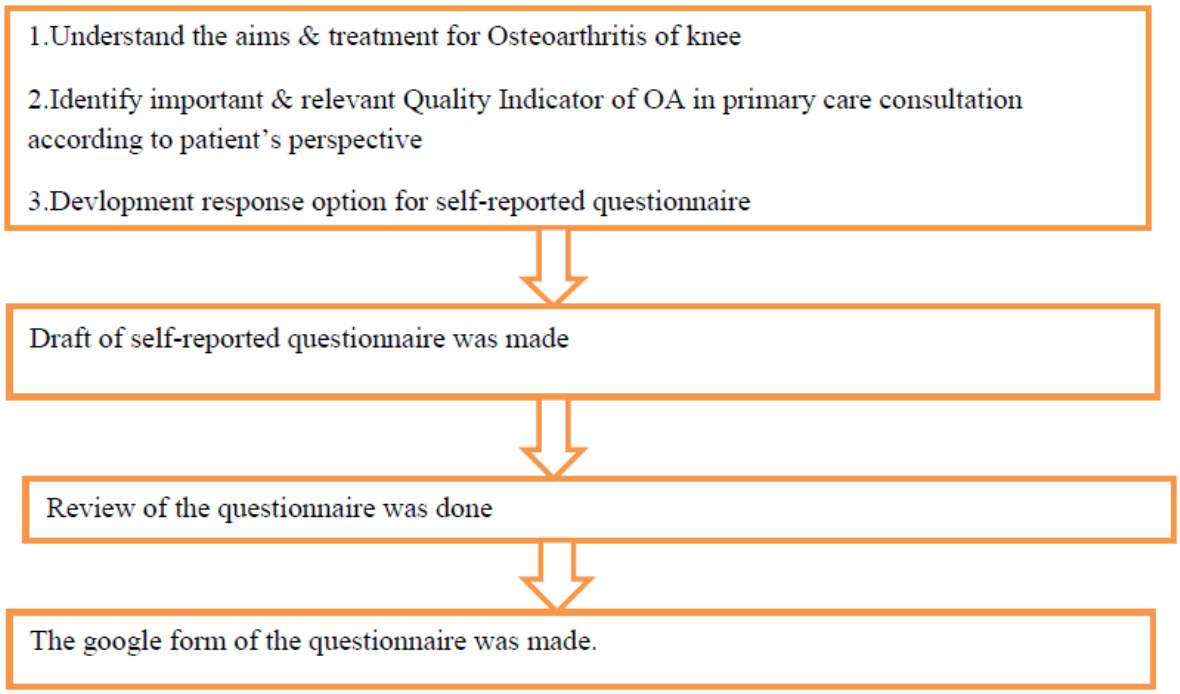
Data of 50 patients who were having Osteoarthritis of knee was collected from various clinics and hospitals of Ahmedabad city. This was cross-sectional observational study and purposive sampling was used. A self-administered questionnaire was developed and circulated through Google forms. The link of the same was forwarded to the patients. After they accepted and willingness to participate, they filled the

demographic details and several questions related to osteoarthritis of knee.

The Age of the participants were 40 to 75 years, able to understand English, both male and female, who are currently taking physiotherapy treatment for the Osteoarthritis of knee. Patients having any Neurological or psychological conditions were excluded from the study.

The online self-administered questionnaire was developed by the investigator. The data collection was initiated on July 15th, 2021. Total 17 questions were included. In which the questions were related to awareness and knowledge of the disease, physiotherapy treatment, assessment of obesity and its management, assessment and management of external aids, pain assessment and management for osteoarthritis. Options such as 'YES','NO', 'NOT HAVING PAIN'/ 'NOT HAVING ANY DIFFICULTY'/ 'NOT OVERWEIGHT' were given to each question.

DEVLOPMENT OF QUESTIONNAIRE:



STATISTICAL ANALYSIS:

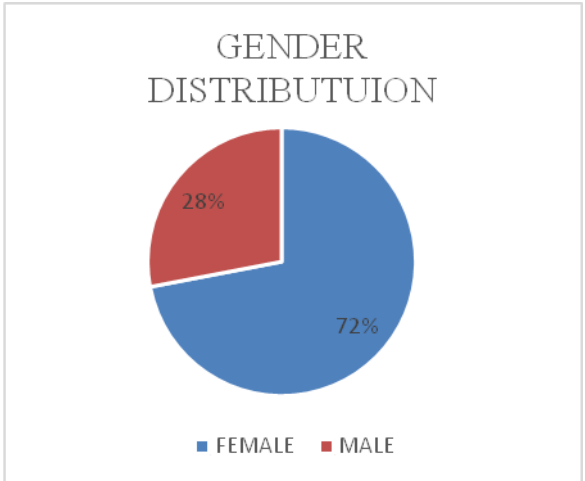
Statistical analysis was done using Microsoft Excel-2019.

RESULT

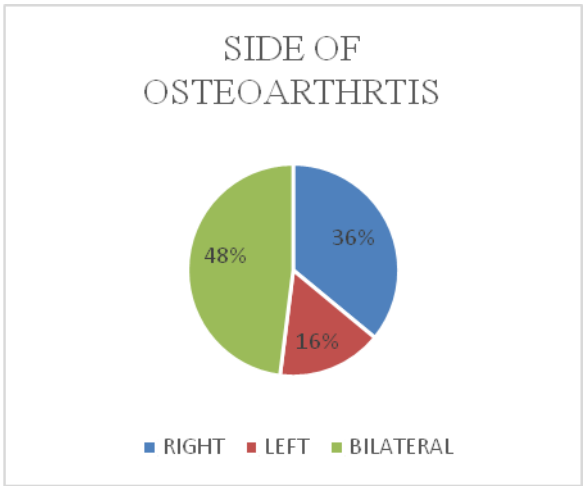
A total of 50 patient's data were analyzed. The mean age group of the participants were 58.3.

In which 72% (n = 36) participants were female.

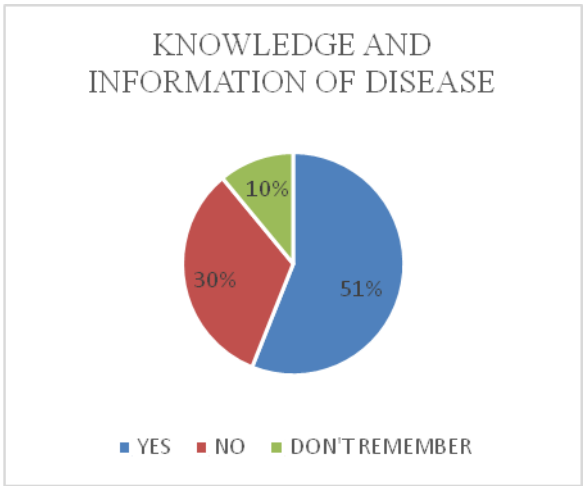
In which 48% (n=24) patients were having osteoarthritis of knee bilaterally and 36% (n= 18) were having osteoarthritis on right side whereas 16% (n=8) were having osteoarthritis of knee on left side.



(FIGURE 1: GENDER DISTRIBUTION OF THE PATIENTS)

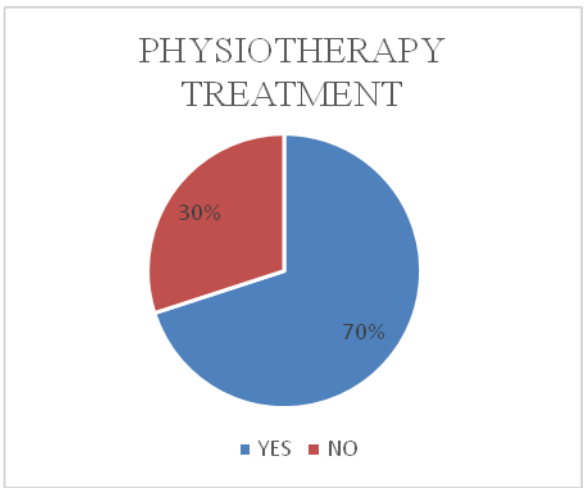


(FIGURE 2: INVOLVEMENT SIDE OF OSTEOARTHRITIS OF THE PATIENTS)



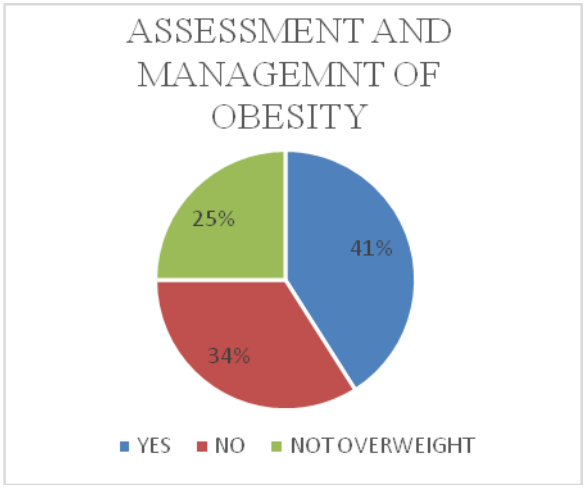
(FIGURE 3 : KNOWLEDGE AND INFORMATION OF THE DISEASE)

The knowledge and information of the patient regarding the disease and its progression was found 51% where 10% patients not remember.



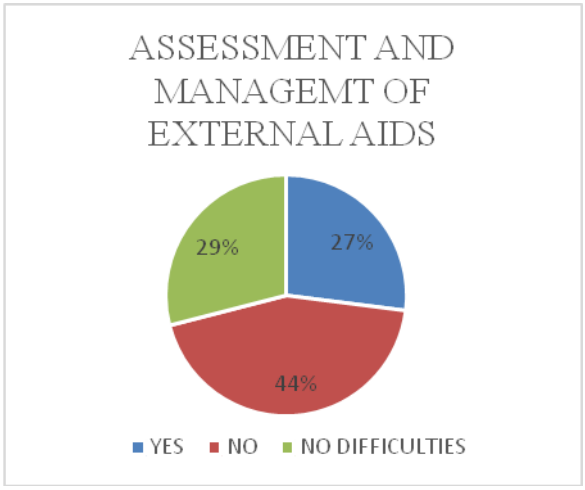
(FIGURE 4: PHYSIOTHERAPY TREATMENT)

Quality indicator for the patients who were taking physiotherapy treatment was found 70% where as 30% patients were not taking any physiotherapy treatment.



(FIGURE 5: ASSESSMENT AND MANAGEMENT OF OBESITY)

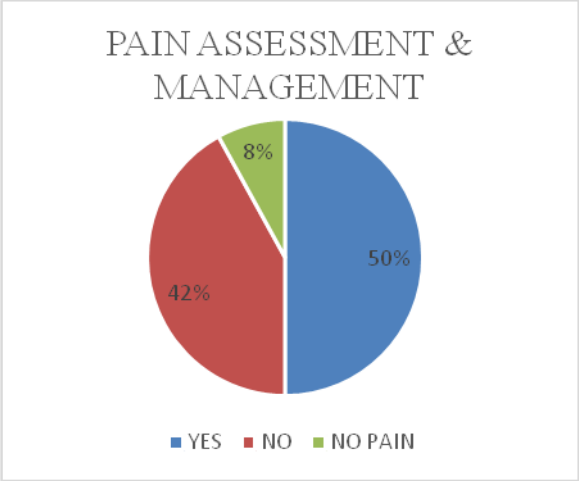
Quality indicator for assessment and management of obesity of the patient was found in 41% whereas 25% of the patients were not obese.



(FIGURE 6 : ASSESSMENT AND MANAGEMENT OF EXTERNAL AIDS)

Quality indicator for assessment and management of external aids for the patients who are having difficulty in walking, stair climbing was found 27% whereas 44% were not assessed and 29% patients were not having any difficulties.

Quality indicator for assessment of pain and management was found in 50% whereas 8% of patients were not having pain.



(FIGURE 7: PAIN ASSESSMENT AND MANAGEMENT)

DISCUSSION

The present study describes the development of patient-reported quality indicators questionnaire

For the primary care of osteoarthritis, and five quality of care indicator were used and measured in osteoarthritis patients.

OA indeterminately occurs in elderly age group and occurs in females above 45 years of age.

In the present study 48% patients were having Osteoarthritis of the knee joint bilaterally whereas 36% patients had involvement of the disease on the right side and 16% had involvement of disease on the left side.

The self-assessed questionnaire involved total 17 questions involving the quality indicators of awareness and knowledge of the disease, physiotherapy treatment, assessment of obesity and its management, assessment and management of external aids, pain assessment and management.

In this study 50% patients had knowledge and information 5 questions were asked to assess patients' knowledge and information regarding the disease and various treatment options 50% patients had knowledge and information. 50% patients had knowledge and information. Whereas 10% patients were not able to remember the information.

70% patients were taking physiotherapy treatment regularly for the Osteoarthritis of knee.

41% patients who were obese were assessed for the obesity and management options were given to the patients. Whereas 34% patients were not assessed and 25% patients were not having obesity.

The use of external aids in patients with Osteoarthritis of knee was 27% according to their need whereas 44% patients were not advised for the use of any external aids and 29% patients were not having any difficulty in this study.

Assessment of pain and management was done in 50% patients whereas 42% patients were not assessed, and 8% patients were not having pain.

However, at each level OA severity, the magnitude of outcome such as pain, functional impairments are different.

The use of such quality of care indicators in disease with high prevalence improve the quality of care and improve patient's condition.

The study can be incorporated into different age groups the study can be done in large number of patients.

This study has several limitations. The sample size of the study is small. The study is limited to the people who have a smartphone and people who are able to understand English. The proportions of male and female patients are not same. The other limitation is that the study did not control for the potential effects of comorbid conditions on the patient's perception of OA severity.

CONCLUSION

To improve the delivery of health care to patients with OA, quality indicators consistent with recommendations for management have been developed to direct the practitioner and, potentially, to evaluate the care delivered to patients with OA.

These indicators will improve the quality of life for patients with OA, not only by reducing the pain and functional impairment associated with OA, but also by reducing the occurrence of adverse events from treatments for OA and their associated morbidity and mortal.

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