

# Treatment-seeking Behavior of Knee Osteoarthritis Patients in Northern India

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## ABSTRACT

**Introduction:** Knee osteoarthritis (KOA) is a chronic condition leading to pain, stiffness, and long-term disability. In the search of relief from symptoms, KOA patients visit various health agencies. This study was conducted to assess the treatment-seeking behavior of KOA patients in northern India.

**Materials and methods:** One hundred twenty-three KOA patients, who attended the outpatient department (OPD) of orthopedics of a premier institute of northern India during 2012–2014, were enrolled in the study. They were diagnosed KOA cases as per Kellgren–Lawrence radiological criteria by an orthopedic surgeon.

**Results:** Patients (58%) had sought treatment from other agencies before visiting the tertiary care hospital. Ninety eight (79%) had not visited any other health agency but had tried home remedies. Relatives (43%) were the most common source of referral for treatment. The consultation lag varied from 1 month to 3 years. Poor adherence to therapy results in worsening of their condition over time. Moreover, asking a patient who has not been accustomed to exercise, to do so involves a significant behavior change. Apart from this, good dialog in clinics has a major influence on the doctor and patient satisfaction. In the current study, 10% of the patients expressed their dissatisfaction regarding consultation. It is also a major determinant of treatment compliance.

**Conclusion:** Many factors affect the doctor–patient relationship, e.g., accessibility of doctors and their courtesy level help patients feel important and respected. Good hospitals adopt these strategies to keenly promote a patient-centered culture for better results.

**Keywords:** Health behavior, Knee osteoarthritis, Treatment-seeking behavior.

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## INTRODUCTION

Knee osteoarthritis (KOA) is a chronic condition leading to pain, stiffness, and long-term disability.<sup>1</sup> Knee osteoarthritis is a major public health issue related to age. The prevalence of KOA has been estimated to be 17–61% among people aged above 50 years in India.<sup>2</sup> Quality of life (QoL) of KOA patients is diminished because of pain and functional impairment.<sup>3</sup>

There is no definite cure for KOA. Treatment is aimed primarily at symptom relief.<sup>4</sup> The focus is on optimizing the QoL through improvement in joint mobility and function.

The management of KOA involves both pharmacological and nonpharmacological interventions. The management of long-term effects of KOA can be through nonsurgical interventions.<sup>5</sup> Surgical options, viz., tibial osteotomy and arthroplasty are costly option and are mainly for people with severe KOA who are unresponsive to nonsurgical management.<sup>6</sup>

In the search of relief from symptoms, patients suffering from mild/moderate KOA visit various health agencies. Studies have reported that the health-seeking behavior is influenced by culture, religion, education, and socioeconomic status.<sup>7</sup> Adherence to the prescribed treatment is also influenced by health belief of the patient.<sup>5,7</sup> But there are very few studies conducted in India exploring the health-seeking behaviors of KOA patients to indicate unmet needs. Therefore, this study was conducted to assess the treatment-seeking behavior of KOA patients in northern India.

## MATERIALS AND METHODS

The data were collected in the OPD by the authors while conducting a randomized controlled trial (RCT) on KOA (2012–2015)

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in the tertiary care hospital was considered. A semistructured interview schedule was used to interview the diagnosed cases of KOA. Details on duration of disease, type of treatment taken, and compliance with treatment were sought. Treatment regimens, e.g., allopathic medicines, selfmedication, home remedy, complementary alternative medicine (CAM), number and sequence of agencies consulted, were documented. Informed written consent was taken from the enrolled KOA patients. The study was duly approved by the Institute Ethics Committee. Excel was used for data analysis.

**RESULTS**

One hundred twenty-three KOA patients, who attended the OPD of orthopaedics of a premier institute of northern India during 2012–2014, were enrolled in the study. They were diagnosed KOA cases as per Kellgren–Lawrence radiological criteria by an orthopedic surgeon. The mean age and BMI of the patients were 52.5 (6.8) and 27.5 (3.2), respectively. Two-thirds of the enrolled patients were females. Forty-seven (38%) of the KOA patients were from Chandigarh and its adjoining areas (Table 1).

Table 2 shows that 58% of the patients had sought treatment from other agencies before visiting the tertiary care hospital. Ninety-eight (79%) had not visited any other health agency but had tried home remedies.

Relatives (43%) were the most common source of referral for treatment. Friends, neighbors, colleagues, and peers (31.8%) were the second most common referral source (Table 3).

Table 4 describes the various reasons given by these KOA patients (N = 70) for not following the prescribed treatment. The most common reason stated was unsatisfactory relief (54.2%) from the symptoms.

The consultation lag between appearance of symptoms and initiation of treatment of KOA from a medical practitioner (Allopathic—Govt./Private) varied from 1 month to 3 years (Table 5).

**DISCUSSION**

Knee osteoarthritis has a social, psychological, and economic impact on QOL of patients besides clinical symptoms.<sup>8,9</sup> The pattern

**Table 1:** Demographic characteristics of the KOA patients

Characteristics	N (%)
Education	
Matriculation or less	56 (45.5)
Senior secondary	31 (25.2)
Graduation	24 (19.5)
Postgraduation/higher education	12 (9.75)
Religion	
Hindu	75 (60.9)
Sikh	42 (34.1)
Christian	4 (3.3)
Muslim	2 (1.6)
Marital status	
Single	2 (1.6)
Married	120 (97.6)
Divorced/separated/widow	1 (0.8)
Area of residence	
Punjab	28 (22.7)
Haryana	13 (10.5)
Chandigarh and its adjoining areas	47 (38)
Himachal Pradesh	26 (21.1)
Others	9 (7.3)
Socioeconomic status	
High	3 (2.4)
Upper middle	31 (25.2)
Lower middle	63 (51.2)
Poor	19 (15.4)
Very poor	7 (5.7)

**Table 2:** Treatment regimens and agencies consulted by KOA patients before visiting the tertiary care hospital

Treatment regimens	N (%)
Sought treatment before visiting the tertiary care hospital	
No	52 (42)*
Yes	71 (58)
Treatment agencies**	
Dispensary/Allopathic Govt. Health Centre	55 (45)
Private practitioner	50 (41)
Natural/home remedies***	98 (79)
Ayurveda	21 (17)
Homeopathy	3 (2.4)
Yoga	18 (14.6)
Acupuncture	2 (1.6)
OTC/quacks/advertisements	12 (9.7)

\*Tried home remedies before

\*\*More than one agency were consulted

\*\*\*Natural/home remedies: applying warm sesame/mustard oil with turmeric on the knee joint, consuming flaxseeds/sesame seeds/walnut/overnight soaked methi (fenugreek seeds), home-made salve application

**Table 3:** Sources of referral for treatment

Referral source	N (%)
Relatives/siblings	53 (43)
Friends/neighbors/colleagues/peers/acquaintances	39 (31.8)
Family/spouse/children	15 (12.3)
Health personnel/doctors	5 (4.0)
Self	8 (6.5)
Others/previous patients	3 (2.4)

**Table 4:** Reasons for noncompliance with treatment regimes

Reasons for noncompliance	Multiple responses N = 70 n (%)
Non availability of medicine	2 (2.9)
High cost of treatment	5 (7.1)
No relief/temporary relief/no permanent cure	38 (54.2)
Side effects due to medicine	3 (4.3)
Not satisfied with consultation	7 (10)
Chronic nature of the disease/dependence on painkillers	5 (7.1)
Recommendation for surgery	6 (8.6)
Others (for 2nd opinion)	4 (5.7)

**Table 5:** Consultation lag for the treatment of KOA from a medical practitioner

Consultation lag	N (%)
1 month	29 (23.5)
1–6 months	40 (32.5)
6–12 months	19 (15.4)
1–2 years	28 (22.8)
3 years	7 (5.7)

of the pain varies as per patient’s condition and circumstances. Pain episodes may come and go. There can be a chronic low level of pain with intermittent flare-ups of more intense pain. The pain may be dull and aching or sharp and intense. It may worsen with



certain activities that place additional strain on the joint, such as when bending down or walking up/down stairs.

The treatment-seeking behavior of the KOA patients is influenced by various factors. We found considerable consultation lag (6 months in 32.5% patients) in our study. Patients visited a physician only when they had severe pain which considerably interfered with their daily duties. Stack et al. reported that ignoring symptoms led people to delay in help-seeking.<sup>10</sup> However, when symptoms impacted on daily activities, help was usually sought. The Health Belief Model proposes that people are likely to engage in a given health-related behavior when they believe the problem or disease could have serious consequences on their daily living activities or when they believe the consultation with a physician or intervention would be effective.<sup>5</sup>

In the current study, KOA patients preferred to take home remedies prior to consultation with any physician. Most of the patients kept on trying different treatments with the expectation that it would reduce pain.<sup>7</sup> When the treatment outcomes did not fulfill the expectations of the KOA patients, they did not adhere to the prescribed treatment.<sup>11</sup>

It is well known that none of the treatment for KOA is 100% effective even if the instructions are followed rigorously. Symptoms may subside temporarily but the disease condition is not cured. When people adopt a particular regime, they may get some temporary relief which eventually plateaus off. As a result, they may stop following the regime or get back to their old habits. This may cause the symptoms to reappear. This distress forces them to try a new treatment option, and again, the same cycle repeats. Eventually, they lose faith in the treatment and doctors. Adherence is naturally affected.

It has also been observed that the rate of adherence for different components of the prescribed regimen is different. Patients are most adherent in taking medication and less so for the prescribed diet and exercise. The “pill for ill” mindset is deeply engraved in the minds of people.<sup>12</sup> Popping pills look far easier and convenient to patients than changing their lifestyle or daily routine. Generally, KOA is aggravated or is in part precipitated because people follow unhealthy habits. Most KOA patients find it hard to incorporate changes in their lifestyle as this requires a lot of efforts and commitment.<sup>5</sup>

Poor adherence to therapy results in worsening of their condition over time. As the pain and discomfort due to KOA increases, person's mobility gets restricted further. Occupational, social, and recreational activities are greatly hampered. This state of helplessness can also lead to stress, anxiety, tension, and even depression. In desperation to get relief, patients spend a lot of money on various therapies suggested by their acquaintances or advertised in popular media.<sup>7</sup>

Compliance with an exercise protocol and weight reduction advice in KOA management is probably the major challenge for clinicians as well as the patients.<sup>4</sup> But it is not a simple thing. To enable patients to comply with an exercise routine, they need to have successful/positive experiences. They need to see and feel some tangible benefit of doing exercises in a short span of time. Moreover, asking a patient who has not been accustomed to exercise, to do so involves a significant behavior change.

Apart from this, good dialog in clinics has a major influence on the doctor and patient satisfaction.<sup>9</sup> In the current study, 10% of the patients expressed their dissatisfaction regarding consultation. It is also a major determinant of treatment compliance. Research

data suggest that when patients are encouraged to ask questions for participation in their care, the outcomes are better.<sup>13</sup> Effective doctor–patient communication gives patients a sense that they have been heard and allowed to express their major concerns.<sup>14</sup> Patients welcome a hospital where they perceive respect, care, and empathy.<sup>15</sup> It allows them to express and reflect their feelings and relate their stories in their own words.

## CONCLUSION

Many factors affect the doctor–patient relationship, e.g., accessibility of doctors and their courtesy level help patients feel important and respected.<sup>16</sup> Less waiting times, attention to personal comfort, and caring nurses/doctors make patients feel secure.

Reminders and user-friendly educational materials create an atmosphere of caring and concern. Good hospitals adopt these strategies to keenly promote a patient-centered culture for better results.<sup>17</sup>

## STUDY HIGHLIGHTS

### What is Current Knowledge

Knee osteoarthritis is a chronic condition leading to pain, stiffness, and long-term disability. In the search of relief from symptoms, KOA patients visit various health agencies.

### What is New Here

There are very few studies conducted in India exploring the health-seeking behaviors of KOA patients to indicate unmet needs. Compliance with an exercise protocol and weight reduction advice in KOA management is probably the major challenge for clinicians as well as the patients. To enable patients to comply with an exercise routine, they need to have successful/positive experiences.

## ETHICAL ISSUES

Study was duly approved by the Institute Ethics Committee.

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