



EVALUATION OF PATIENT SATISFACTION IN DELHI- NCR POPULATION AFTER TOTAL KNEE REPLACEMENT

Dev Reshi Kumar Pandey¹, Ripudaman Sharma², Suhail Wani³, Jay Prakash Singh Rajput^{4*}

¹Associate Professor, Department of Orthopedics, GS Medical College & Hospital Pilkhuwa, Hapur- 245304 (U.P.) India, Email- drdev6951@gmail.com

²Assistant Professor, Department of Orthopedics, GS Medical College & Hospital Pilkhuwa, Hapur- 245304 (U.P.) India, Email- dr.ripudamansharma@hotmail.com

³Senior Resident, Department of Orthopedics, GS Medical College & Hospital Pilkhuwa, Hapur- 245304 (U.P.) India, Email- shlwn@outlook.com

^{4*}Assistant Professor, Department of Physiology, GS Medical College & Hospital Pilkhuwa, Hapur- 245304 (U.P.) India, Email – jpsrajput50@gmail.com, Contact No- 7895398975

***Corresponding Author:** Jay Prakash Singh Rajput

*Assistant Professor, Department of Physiology, GS Medical College & Hospital Pilkhuwa, Hapur- 245304 (U.P.) India, Email – jpsrajput50@gmail.com, Contact No- 7895398975

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Abstract

Introduction: This study was aimed to assess the overall satisfaction among the patients who undergone for total Knee replacement Surgery in Delhi- NCR. The total knee arthroplasty is the successful orthopedic procedures and also considered as economical surgery. TKA offers reliable outcomes for individuals with degenerative, end-stage and tri-compartmental osteoarthritis (OA). Although huge number of people are impacted by OA, The most frequently impacted joint is the knee. The most frequent clinical finding in TKA patients is OA, however there are additional underlying conditions that could be present, such as Inflammatory-Arthritis, Fracture, Dysplasia, and Malignancy.

Material and Methods: This longitudinal study was conducted in patients having a complete knee replacement at the Department of Orthopedics, GS Medical College and Hospital. After knee surgery, they were assessed for post-operative satisfaction at OPD follow-up or telephone interview and postoperative satisfaction score using questionnaires were obtained.

Results: 86% patients were considered satisfied unsatisfied due to uneventful complication that could have happened during or after surgery, while 14% patients were rated as unsatisfied. Patients who received a total score of 15 or less are considered as unsatisfied.

Conclusion: Some of the many factors affecting patient satisfaction are manageable through specialist and should be enhanced by continued research. In the present study, we worked to eliminate other causes of dissatisfaction, including the cleanliness of the ward, hospital management and patient-staff communication. Total knee arthroplasty is recommended for patients with advanced arthritis because it improves postoperative pain and work more efficiently for the patients.

Keywords: Total Knee Arthroplasty, Osteoarthritis, Post Surgery Satisfaction Score.

INTRODUCTION

Total knee replacement is a popular orthopaedic operation that is most affordable and frequently successful. Patient-reported results have demonstrated considerably improve in terms of pain relief, functional recovery, & enhanced life quality. TKA offers consistent results for individuals with degenerative, end-stage and Tri-compartmental osteoarthritis (OA). Although huge number of people are impacted by OA, the most frequently impacted joint is the knee. As the situation worsens, articular cartilage gradually deteriorates and wears away. Estimation of researchers indicate that primary TKA surgeries in the US average roughly 400,000 per year, and there are 240 symptomatic knee OA cases for every 100,000 patients. The most common and frequent clinical analysis related to total knee replacement is primary OA; however, additional underlying conditions, including fracture (post-Traumatic OA and Deformity), Inflammatory Arthritis, Dysplasia, and Malignancy, may also be present [1-3]. The first TKA prosthesis designed to resurface all compartments of the knee was the full condylar prosthesis (TCP), which was introduced in the early 1970s. The TCP was built using a posterior-stabilized design. Since Walldius created the first hinged-knee replacement in the 1950s, TKA prosthesis designs have evolved [4]. A joint illness called osteoarthritis is characterized by cartilage deterioration in the joints. By 2030, it is anticipated that 25% of people would have knee arthritis, one of the most common kinds of the condition [5]. Total knee arthroplasty is a surgical technique that relieves pain and functional impairment by replacing the weight-bearing surfaces of the knee joint. 17% of patients who had total knee replacement surgery were either inappropriate or doubtful of the results, according to Robertson et al [6]. Numerous other patient groups have been studied, and it was shown that the rate of satisfaction is the same in several other nations. Only four out of five patients say they are happy with the results of their TKR [7,8]. Presently, the majority of physical testing in studies on the unhappy population is limited to survey results. Reduced patient satisfaction has been interrelated to a number of factors, including incomplete preoperative X-ray information on the knee (especially in young, active patients), inflated patient expectations prior to surgery, co-morbid conditions like depression and diabetes, and worse preoperative pain areas [9,10,11].

Only a fraction of the comparatively high percentage of unhappy TKR patients can be attributed to these causes. In order to identify which patient groups are more prone to experience dissatisfaction, why they experience dissatisfaction, and how to enhance results, orthopaedic research has been working harder than ever. Researchers are focusing their attention more and more on attempting to comprehend functional output and working to create more precise procedures of measuring functional output in TK patients. We made the decision to research patient satisfaction in the Indian population following total knee replacement in light of the aforementioned facts and scientific evidence.

MATERIALS & METHODS

Study design

This longitudinal research of patients who had total knee replacements performed at the department of orthopaedics, GS Medical College & Hospital, a tertiary care hospital in Delhi NCR, was carried out after receiving approval from the institutional ethical committee. At the OPD follow-up or during a telephone chat after a knee replacement, patients were given questionnaires about their post-surgery satisfaction and rated. In this study, which lasted from July 2019 to June 2023. Before enlisting any patients in the study, informed consent was obtained from each one of them.

Inclusion criteria

Inclusion criteria were either gender with aged between 25 to 75 years and Patients who have had a total knee replacement are willing to telephonic conversation or regular follow-up appointments.

Exclusion criteria

Exclusion criteria were the age group less than 25 years and above 75 years, 'BMI > 40', revision TKR situations, and the patient is unwilling to have a follow-up and phone call conversation.

Methods

Utilising the post-surgery satisfaction score (PSS), patient satisfaction was evaluated in this study. Based on a questionnaire, a score is determined. The patients data were collected by asking post-surgery satisfaction score (PSS) questionnaire in orthopedics OPD and over telephonic conversation with the patients.

Statistical Analysis

To protect the subjects' privacy, data were entered into an Excel sheet and numerically coded. SPSS 20.0. The statistical software Package was employed to conduct the statistical analysis. The study's findings were statistically analyzed and expressed as mean, standard deviation, and percentage.

Table 1: Questionnaire for the Post-Surgery Satisfaction Score (PSS).

Questionnaire	Answer	Score
How happy are you with the pain relief after surgery?	Very satisfied	4
	Satisfied	3
	Unsatisfied	2
	Really dissatisfied	1
Are you able to perform your daily tasks?	Very easily	4
	Easily	3
	With difficulty	2
	Absolutely not	1
Would you undergo the procedure again if given a choice knowing what you know now?	Yes	3
	I'm not sure	2
	No	1
If the opposite limb was experiencing the same problems, would you undergo the same procedure?	Definitely, yes	3
	Not sure	2
	No	1
Would you suggest this procedure to other patients who have similar complaints?	Yes	3
	Not sure	2
	No	1
Have you felt more confident in yourself since your surgery?	Very confident	4
	Confident	3
	Not at all	2
	Low confident	1
Do you feel like you need help when you're walking?	Never	3
	Some time	2
	All time	1

After a total knee replacement, post-surgery satisfaction (PSS) scores were utilized to gauge patient happiness/satisfaction. There are seven separate questionnaires in this score. The total score of all seven questionnaires is 24. These include inquiries concerning pain relief, the capacity to perform daily tasks, the need for walking aids, etc. After a complete knee replacement, the percentage of patients who were satisfied was computed based on the overall score.

RESULTS

Total 50 patients either gender with aged between 25 to 75 years who undergone total knee replacement at GS Medical College & Hospital were included in this study. Selection of patient's were done on the basis of inclusion and exclusion criteria. Out of 50 patients there 32 (64%) men and 18 (36%) female. Male to female ratio was 1.77:1. In terms of gender distribution, our analysis indicated a little male predominance over females.

Table 2: Patient distribution according to gender.

Gender	Number of Patients	Percentage
Male	32	64%
Female	18	36%
Total	50	100%

Out of 50 patients, the age group of the majority was between 56 to 65 year old (N=22, 44%), followed by 46 to 55 years old (N=14, 28%), 66 to 75 years old (N=9, 18%). Whereas 0 cases were found in the age group of 25 to 35 and 5 cases (10%) were found in the age group of 36 to 45 years old. The oldest patient was a 72 years old male and the youngest patient was a 35 years old male. The mean age group of patients was 54.98 ± 7.89 years.

Table 3: Patient distribution according to age group.

Age Group	Number	Percentage
25 – 35	0	0%
36 – 45	5	10%
46 – 55	14	28%
56 -65	22	44%
66 - 75	9	18%
Total	50	100%

Table 4: Distribution of patients based on side affected.

Side affected	Number	Percentage
Left	21	42%
Right	29	58%
Total	50	100%

It was observed that patients' right sides were most commonly afflicted than their left sides. Out of 50 patients, 29 (58%) had right side involvement while 21 (42%) had left side involvement. In most disorders, it is typically seen that the patient's right side is more severely affected than their left.

Table 5: Percentage of Patient Satisfaction

Parameters	Number	Percentage
Satisfied	43	86%
Dissatisfied	7	14%
Total	50	100%

The questionnaire was used to rate each patient's level of pain, their capacity for everyday activity, their confidence following surgery, their need for assistance when walking, their desire to have the same procedure done on the opposite leg, and other factors. Seven (14%) patients were considered unsatisfied due to uneventful complication that could have happened during or after surgery, while 43 (86%) patients were rated as satisfied. Patients who received a total score of 15 or less are considered as unsatisfied.

DISCUSSION

One of the most effective surgical procedures for pain relief and functional rehabilitation in those with severe rheumatoid arthritis or degenerative arthritis is total knee arthroplasty (TK) [12]. The ageing of the civilization has increased the frequency of arthritis and increased the use of TK for arthritis in its last stages. 20% or fewer patients are dissatisfied with the results of primary TKA, according to a number of studies, despite the procedure being widely performed and popular [7,13]. The linkage between post-TK patient satisfaction and different combinations of clinical and patient-reported

parameters assessed before and after surgery has been the subject of numerous studies. Multiple research have revealed the following factors to be linked to patient dissatisfaction: factors relating to the knee, such as discomfort, function, stiffness, and inflammation; factors relating to the patient, such as age, gender, and employment status; and factors relating to the patient's own health, encompassing overall health, mental health, and life quality [7,14-16]. Despite the significance of measuring the effectiveness of orthopaedic therapies via patient satisfaction, the tools used to measure patient satisfaction and the quantitative methods utilised after TKR are significantly heterogeneous [17]. Despite the lack of detailed investigation into the factors that contribute to this heterogeneity, a new study shows the importance of the way the satisfaction questions are formulated [18]. The question's focus, such as general satisfaction vs satisfaction with leisure activities, had a substantial impact on satisfaction ratings by as much as 10%, according to the authors [10]. Most of the information that has been disclosed about patient satisfaction has come from research conducted on Western people. But there is a lack of data from Asian communities. Therefore, the current study sought to assess patient satisfaction following TK in an Indian population. In addition, there are additional satisfaction metrics available which includes functional evaluation and other aspects, unrelated to surgery specifically, including hospital cleanliness, communication, etc. This study focuses solely on surgical procedure satisfaction while excluding all other criteria. Patient satisfaction were evaluated in this study using the satisfaction Score after surgery, a measurement derived from an experience-based questionnaire. In the present study, the right knee was also more severely affected than the left knee. In 43 patients, osteoarthritis was the cause of TKR, while rheumatoid arthritis was the culprit in seven patients. Limitation of this study is that the patient's satisfaction with regard to hospital amenities, staff - patient interaction, cleanliness of hospitals, etc. is not covered in this survey.

CONCLUSION

One effective treatment option for knee arthritis has been total knee replacement. that offers significantly higher patient satisfaction than other surgical options. However, it is common to see differences between patient and surgeon doctor satisfaction, and it is noticed that patients are frequently less satisfied than what the surgeons anticipate. This suggests the necessity for the development of more objectives method for measuring patient satisfaction. Some of the many factors affecting patient satisfaction are manageable by the surgeon and should be enhanced through continued research. In this study, we have made an effort to rule out additional causes of discontent, including hospital-ward cleanliness, hospital management, and patient staff communication and interaction. Patients' expectations before to surgery, low social support, living alone, hospital reception, etc. were all addressed in a satisfaction survey that placed more emphasis on the actual surgery surgical procedure done. In this study we have eliminated additional factors from the post-surgery satisfaction questionnaire, we found that patients were more satisfied.

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