

Determinants of patient satisfaction after total knee arthroplasty (TKA): a literature review



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ABSTRACT

Background: The most common form of degenerative joint disease is osteoarthritis. Concomitant with the increased prevalence of osteoarthritis, the incidence of total knee arthroplasty (TKA) also rises. Total knee arthroplasty (TKA) is a surgical procedure for replacing an abnormal knee joint with artificial materials. Total knee arthroplasty (TKA) is a cost-effective orthopedic surgery with good patient outcomes. This literature review aimed to elaborate on the determinants of patient satisfaction after TKA surgery.

Methods: This literature review was carried out by searching studies in three online databases consisting of Google Scholar, PubMed, and Wiley Online Library using the keywords "total knee arthroplasty", "total knee replacement", "osteoarthritis", "satisfaction", and "determinants" to specify our study results. Appropriate studies were then carried out through a narrative synthesis analysis.

Results: The satisfaction of patients after two broad components determines TKA. Internal and external. The internal component consists of the patient's age, gender, personality, expectations, comorbidity, the severity of the disease, and other factors such as BMI, economic and educational class. While the external component consists of anesthesia and pain management, surgery technique, implant or prosthesis type, post-operative rehabilitation and length of hospital stay. Therefore, the surgical technique, including its indications, alternatives, prospective results, and risk of issues, must be fully discussed between doctors and patients to maintain patient satisfaction following TKA.

Conclusion: The determinant of patient satisfaction following TKA surgery can be classified into internal components (patient-related factor) and external components (surgery-related factor). Although important, patient satisfaction shouldn't be the determining factor for evaluating the efficacy of surgical treatments and patient care.

Keywords: Osteoarthritis, Total Knee Arthroplasty, Total Knee Replacement, Patient Satisfaction.

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INTRODUCTION

The aging process has increased the prevalence of degenerative joint disease in the older population in the world. The most common form of degenerative joint disease is osteoarthritis.¹ Osteoarthritis is a disease that occurs in the protective cartilage, which is part of the bone that is often used for movement. The underlying factor in this condition is often chronic repetitive motion, which causes joint injury and inflammation. Pain, redness, and swelling are all signs of inflammation. Inflammation is brought on by even little trauma as the body works to repair or shield injured tissue. The cartilage that provides the joints with a cushion and a smooth surface for gliding breaks

down due to this cycle of joint damage and inflammation. The knee is the most frequently affected joint by this chronic ailment, characterized by a gradual loss of articular cartilage and cartilage degradation.² According to estimates, 240 symptomatic knee OA cases are for every 100,000 patients yearly, and the US average for primary TKA procedures is around 400,000. Primary OA is the most frequent clinical diagnosis related to TKA.³

Concomitant with the increased prevalence of osteoarthritis, the incidence of total knee arthroplasty (TKA) also rises. Total knee arthroplasty (TKA) or total knee replacement (TKR) is a procedure of replacing the surface of the knee joint that is inflamed with a new joint. The main

goal of TKA is to relieve pain in the knee, restore mobility, and improve the patient's quality of life. Total knee arthroplasty (TKA) is a cost-effective orthopedic surgery with good patient outcomes. This action is indicated for people with chronic osteoarthritis and other arthropathy, such as rheumatoid arthritis.⁴

As it turns out, numerous studies have reported on the results of TKA, most of which have focused on outcomes assessed from the surgeon's viewpoint, such as implant survival, postoperative range of motion (ROM), and radiographic improvement. However, it happens frequently that a therapy the surgeon considers successful doesn't leave the patient satisfied. Numerous studies show

that approximately 82% to 89% of patients were satisfied with their primary total knee arthroplasty, despite significant improvements in patient selection for primary TKA, surgical technique, and implant design. According to these data, some patients may not experience the pain relief and function restoration that TKA is supposed to provide. Given the well-documented difference between doctor and patient assessments of health state, patient satisfaction is a crucial outcome metric.⁵⁻⁷

Compared to total hip arthroplasty (THA), up to 20% of patients report long-term pain after TKA. Nashi et al.'s study found that at 1 and 2 years following TKA, 31.1% and 28.9% of patients still have knee pain. Additionally, the functional prognosis following TKA is less satisfactory compared to THA.⁸ The crucial elements affecting patient satisfaction following TKA are still debatable despite these investigations. The level of patient satisfaction following TKA is influenced by many distinct factors, conflicting or outside of the surgeon's area of expertise or control. Thus, this study explores some key elements and determinants linked to patient satisfaction following TKA.

METHODS

We did a literature review using three electronic databases as data sources: Google Scholar, PubMed, and Wiley Online Library. We used some keywords, namely, "total knee arthroplasty," "total knee replacement," "osteoarthritis," "satisfaction," and "determinants," to specify our study results. We also carried out a study search using the following PICO criteria:

P (Population) = post-total knee arthroplasty patient

I (Intervention) = total knee arthroplasty surgery

C (Comparison/Control) = none.

O (Result) = determinants of patient satisfaction

The results of the studies that match the search criteria are then analyzed using a narrative synthesis to conclude.

DISCUSSION

Anatomy of the knee joint and pathophysiology of osteoarthritis

The knee joint is one of the body's largest and most intricate joints. Each movement, including walking, sprinting, and squatting, is aided by knee joint bending and straightening. The knee is made up of the patella (knee cap), the upper end of the tibia (shinbone), and the lower end of the femur (thighbone). These three bones' ends are coated in articular cartilage, a supple material that protects the bones and allows them to move freely inside the joint. The femur and tibia are where the menisci are situated. These C-shaped wedges cushion the joint by acting as shock absorbers. The femur and tibia are stabilized and held together by large ligaments. The knee's strength comes from the lengthy thigh muscles.⁹

The knee comprises 2 separate joints, namely, the tibiofemoral and patellofemoral. The patellofemoral joint (PFJ) works to lengthen the extensor mechanism's lever arm. The patella transfers the quadriceps tendon's tensile forces to the patellar tendon. At 45 degrees

of knee flexion, the patella and femoral trochlea experience their greatest contact force, and deep squatting positions result in joint reaction forces that are seven times the body weight. The synovial membrane, a thin lining, covers all of the knee's remaining surfaces. In a healthy knee, this membrane lets out a fluid that lubricates the cartilage and reduces friction to almost nothing.^{1,2,9}

The tibiofemoral articulation transfers body weight from the femur to the tibia, producing joint reaction forces during walking and climbing 3 and 4 times the body weight, respectively. From 10 degrees of hyperextension to around 140–150 degrees of hyperflexion, there is motion in the sagittal plane. Extremes of flexion are frequently restricted due to direct contact between the calf and the posterior thigh. To maximize knee flexion prior to impingement, the tibiofemoral contact point and femoral center of rotation migrate posteriorly with increasing degrees of flexion. Only a range of motion (ROM) from 0 to 75 degrees is needed for normal gait.^{1,2}

The lateral collateral ligament (LCL), which resists varus stresses, and the

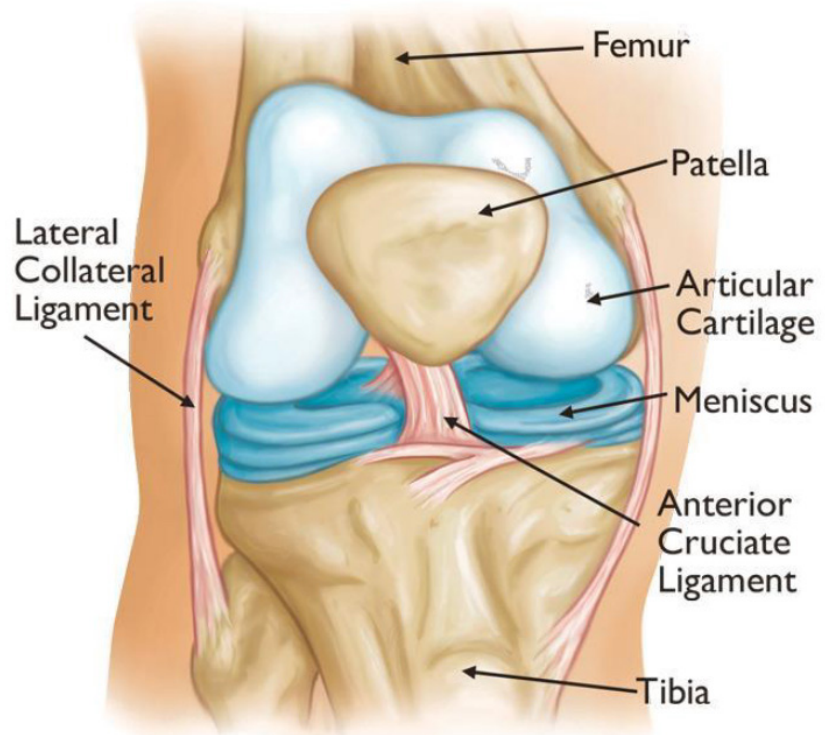


Figure 1. Anatomy of knee joint⁹

medial collateral ligament, which resists valgus stress forces, give knee stability in the coronal plane. Additionally, at the knee, the anterior cruciate ligament (ACL) and posterior cruciate ligament (PCL) offer resistance to stresses directed anteriorly and posteriorly, respectively. The posterolateral corner structures (PLC) give resistance to external rotatory pressures.^{10,11}

All of these elements typically operate together. However, injury or disease may disrupt this balance, leading to discomfort, weakened muscles, and decreased function; the disease is osteoarthritis. Osteoarthritis occurs on uneven joint cartilage, which is followed by ulceration and subsequent loss of joint cartilage, the development of a bone box with bone in the joint, inflammation of the membranes, synovial joint swelling, or thickening of the synovial membrane and capsule joints, and stretching of ligaments, all of which lead to instability and deformity. Due to muscle spasms on one side and synovial effusion on the other, the surrounding muscles deteriorate. Biomechanics and biochemistry are altered. The development of metalloproteinases, which break down proteoglycans and collagen and raise activity and collagen-p, disrupts matrix biochemistry due to abnormalities in chondrocyte metabolism, increasing nociceptors and resulting in pain.⁹⁻¹¹

Total knee arthroplasty surgery technique

Total knee arthroplasty (TKA) is a surgical procedure for replacing an abnormal knee joint with artificial materials. In 1968, the first knee arthroplasty procedure was carried out. Since then, surgical equipment and methods advancements have significantly boosted their efficacy.⁴ There is no universal agreement on the criteria for deciding who should get TKA; however, extreme pain, a higher level of disability, and extensive cartilage deterioration seem to be deciding factors. Total knee arthroplasty is recommended for some conditions, such as severe knee discomfort or stiffness, making it difficult to walk, climb stairs, or get in and out of seats. It could be difficult to walk more than a few blocks without experiencing

substantial discomfort, necessitating a cane or walker. Next is knee pain, either moderate or severe, when lying down, day or night, with chronic swelling and inflammation that don't decrease with rest or medicine. Third is knee malformation or a knee that bends in or out, and refusal to significantly improve with additional therapies such as painkillers, cortisone injections, lubricating injections, physical therapy, or other operations. Whereas the contraindications of TKA are sepsis or a localized knee infection, severe cases of vascular dysfunction, remote (extra-articular), active, persistent infection or bacteremia.^{12,13}

Prior to performing a TKA on any patient, a comprehensive history and physical examination are required. Next, a weight-bearing anteroposterior (AP) view of the preoperative radiographs is used to assess bone loss, deformity, and overall mechanical alignment. The clinical goals of knee arthroplasty surgery are to give the patient a stable, pain-free joint that will last a long time. The medial parapatellar, midvastus, and subvastus routes are often used for routine main TKA surgery. The medial parapatellar method, which is frequently used, involves proximal dissection into the quadriceps tendon's medial cuff to provide better tissue quality closure at the end of the treatment. Distally, the proximal tibial bone is intimately engaged throughout a thorough, continuous medial subperiosteal dissection sleeve. The predicted amount of deformity to be addressed frequently determines the extent of dissection. Generally speaking, this medial release is milder in cases of intermediate to advanced valgus knee deformity and vigorous in cases of severe varus deformity. With the help of this soft tissue sleeve, the medial meniscus is also removed.^{4,12}

The midvastus and subvastus methods are substitutes for the usual medial parapatellar arthrotomy. The midvastus approach protects the quadriceps tendon. The quadriceps tendon is likewise spared, and the muscle belly of the VMO is raised off the intermuscular septum using the subvastus technique. The subvastus technique protects the patella's vascularity but should be used cautiously since it

may limit exposure in difficult instances or extremely fat individuals. The precise sequence of bone resections and soft tissue releases will vary depending on the surgeon's discretion. A typical total knee arthroplasty would go the following way after thorough preoperative assessment and planning to ensure appropriate implant availability.^{4,12,13}

First, intravenous antibiotics are administered before inflating a tourniquet around the proximal thigh to 300 mm Hg. The skin is prepared and draped to access the knee joint to facilitate a sufficient midline longitudinal incision, typically by a medial parapatellar approach. The anterior cruciate ligament, a portion of the anterior fat pad, the medial and lateral menisci, the anterior cruciate ligament, and the PCL is excised (if a posterior stabilized implant is to be used). Then, osteophytes are removed, and the proximal medial soft tissues are loosened to make it possible to see the medial tibial plateau's edge and sublux the tibia forward while it is fully extended and in external rotation. At this point, more preliminary soft tissue releases are carried out as necessary. The tibia is cut at a 90-degree angle to its mechanical axis with an extra-medullary or intramedullary jig. The normal side of the joint has the same depth of tibial bone removed. The distal femur is cut in between 5 and 7 degrees of valgus concerning the anatomical axis by entering the femoral intramedullary canal and using the appropriate jig. In order to maintain the location of the original joint line, the same amount of femoral bone is removed. The extension gap is examined to ensure a 10-mm spacer can be fitted. The precise placement of the femoral cutting block in the sagittal, coronal, and axial planes is confirmed by measuring the femoral size—the final implantation of the remaining femoral bony incisions. They were cleansing the cancellous bone surface and using cement-containing antibiotics to bond the components.^{4,12,13} The illustration of the knee joint before and after TKA can be seen in [Figure 2](#).

Patient's satisfaction after post-total knee arthroplasty

Satisfaction is described as an attitude like judgment following an act based on a

series of product-consumer interactions, which is most frequently used in consumer marketing. It has been used as a healthcare performance metric for surgical services and cosmetic operations in the UK, Europe, and the USA. (Hamilton). In patients following the TKA procedure, there are several methods used to measure the patient's satisfaction, such as the satisfaction visual analog scale (VAS) and the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), the Knee Society scoring system, the Pain Visual Analog Scale.^{5,6,14,15}

The Satisfaction Analog Scale was a 100-mm-long horizontal line that ranged

from completely satisfied to completely dissatisfied. "Are you satisfied with your knee prosthesis?" was written at the top of the scale. In order to show satisfaction visually, facial expressions were used above the line. The WOMAC index is a self-administered questionnaire created especially for people with hip or knee osteoarthritis. It comprises 24 multiple-choice questions divided into the WOMAC pain, stiffness, and physical function categories. The Knee Society scoring system includes a functional score for evaluating walking and stair climbing, with deductions for walking assistance, and a knee score for discomfort, stability,

and range of motion, with deductions for flexion contracture, extension lag, and malalignment. Last is the Pain Visual Analog Scale, which assessed TKA-related discomfort during the follow-up. The scale is a horizontal line measuring 100 mm long that ranges in intensity from no pain to terrible pain. Patients were instructed to draw a mark on the line at the location of their pain.^{6,14,15}

Several studies have reported the rate of satisfaction in post-TKA patients. According to a study by Choi et al., patient satisfaction with TKA has been estimated to be between 75% and 92%.¹⁴ According to Dunbar et al.'s Swedish Knee Arthroplasty Registry analysis, 17% of the patients were dissatisfied with the results of TKA. A systematic evaluation of studies on patient satisfaction following TKA conducted between 1990 and 1999 and 2000 to 2012 found that patient satisfaction increased from 81.2% to 85% over the subsequent 13 years.¹⁶ According to Baker et al.'s data analysis from the National Joint Registry for England and Wales, 71% of patients felt their knee symptoms had improved, but 22% thought the results were excellent.⁷ Despite the obvious improvements after TKA in restoring daily living activities and reducing pain, Kim et al. noted that patient satisfaction levels were modest.¹⁴ According to Bourne et al., satisfaction with pain reduction ranged from 72 to 86%, while satisfaction with function for particular daily activities ranged from 70 to 84%. Only 81.8% of the 8095 patients surveyed in a study by Baker et al. reported being satisfied with the results of their TKA, while 18.2% were not (unsatisfied or unclear).¹⁵ Preoperatively in 89 TKA primary surgeries, Mahomed et al. evaluated patient expectations. Sixty-seven percent of patients anticipated no pain following surgery, while only forty percent anticipated no functional impairments.¹⁷

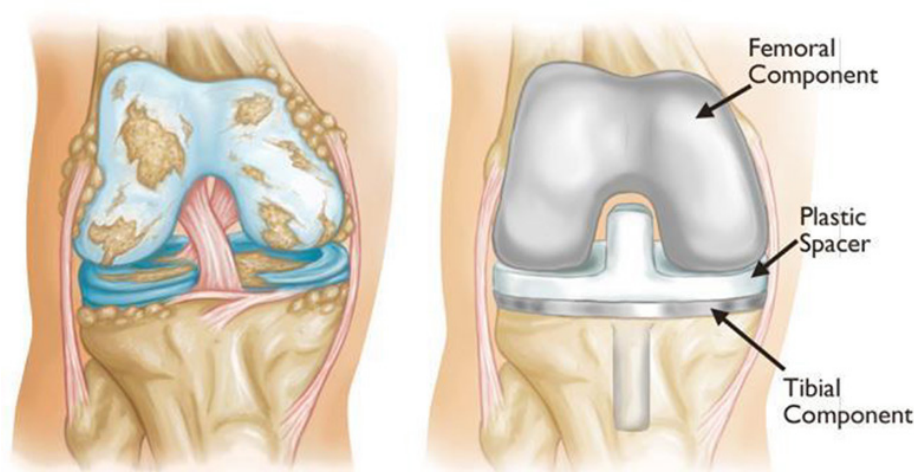


Figure 2. (Left) Severe osteoarthritis. (Right) Metal implants have been used to resurface the arthritic cartilage and underlying bone on the femur and tibia. A piece of plastic separates the implants. For clarity, the patellar component is not displayed.⁴

Table 1. Factors related to patient satisfaction following TKA surgery

Primary factors	Parameter	Effect on Satisfaction
Internal components	Age and Gender	Controversial
	Patient's comorbidity	Increasing dissatisfaction
	Patient's personality	Controversial
	Patient's expectation	Controversial
	Severity of arthropathy	Increasing dissatisfaction
	High BMI	Increasing dissatisfaction
	Prior knee surgery	Increasing dissatisfaction
	Lower economic and educational class	Increasing dissatisfaction
External components	Surgical approach or technique	Controversial
	Prosthesis or implant type	Controversial
	Efficient anesthesia and pain management	Increasing satisfaction
	Post-operative rehabilitation program	Increasing satisfaction
	Shorter LoS	Increasing satisfaction

Abbreviation: BMI: Body mass index; LoS: Length of stay

Determinants of satisfaction in post-total knee arthroplasty patient

Based on our literature review, several studies regarded the determinants of patient satisfaction following the TKA procedure. We can divide broadly into internal and external components of happiness. The inner components or

patient-related factors consist of age, gender, patient comorbidity, patient personality, patient expectations, and severity of the arthropathy. In comparison, the external components or surgical-related factors include anesthesia and postoperative pain management, surgical technique, implant type, postoperative rehabilitation and length of stay, as stated in [Table 1](#).

INTERNAL COMPONENTS

Age and gender

There is still no universal agreement regarding how patient satisfaction is impacted by age. According to a study by Noble et al., patients 60 years of age or younger were happier with the results of TKA.¹⁸ Younger patients tended to indicate that their expectations were satisfied following surgery, leading to higher satisfaction with the treatment results, according to Scott et al.¹⁹ However, Williams et al. found that patient satisfaction was noticeably poor among patients under the age of 55.²⁰ According to Parvizi et al., younger patients had more persistent symptoms and functional losses.²¹ According to Von Keudell et al. research, patients under 55 who underwent unicompartmental knee arthroplasty reported higher satisfaction with postoperative pain, range of motion, and kneeling than patients over 65 who underwent TKA. As a result, it is challenging to say whether age affects how TKA will turn out. Age, both chronological and biological, seems to play a smaller impact in functional recovery following TKA. Based on gender, female TKA patients are probably more likely to experience residual pain and stiffness. The relationship between gender and patient happiness hasn't been thoroughly proven, though.²²

Patient's comorbidity

In numerous research, comorbidities are a predictor of patient unhappiness following TKA. Preoperative back pain or pain in other joints was shown by Scott et al. to be significantly related to postoperative dissatisfaction. According to Singh and Lewallen, patients with psychosocial or medical comorbidities experienced

more severe postoperative pain.²³ Clement and Burnett found a connection between general physical health and patient happiness.²⁴ Patients with poor preoperative mental health, as measured by the SF-12 and SF36 scores, had poor results regarding pain alleviation and functional improvement, according to Vissers et al. Patients with medical comorbidities were more likely to experience pain or functional handicap after TKA, according to previous studies.^{25,26}

Patient's personality

After TKA, patients with extroverted personalities reported higher satisfaction levels than those with introverted or nervous personalities, according to Gong and Dong's retrospective analysis of the association between TKA outcomes and patient personality, which was divided into four categories. However, from our perspective, it is difficult to categorize different human types, making it difficult to determine the impact of personality on the outcome of TKA.²⁷

Patient's expectations

How well patients' expectations are met can significantly predict patient satisfaction. Unmet expectations were the biggest predictor of dissatisfaction after TKA, according to Bourne et al. and Scott et al., who also found a strong link between patients' satisfaction and expectations. The patient's expectations, however, are typically higher than the surgeon's. Patients' primary concerns following TKA are pain alleviation. However, they anticipate long-term symptom-free function recovery for pursuits that are important to them individually. While surgeons understand the long-term objectives of their patients, they are also fully aware that these expectations might not be met. Therefore, the surgeon must let the patient know that their expectations might not be reached.^{15,19} Contrary to these findings, recent systemic analyses by Haanstra et al. and Culliton et al. revealed that there isn't a significant correlation between postoperative satisfaction and patient expectations, indicating the need for more impartial assessment methods.^{28,29}

Patients with diabetes or pulmonary illness had a higher prevalence of reduced

mobility after TKA, according to Fischer et al. Although postoperative anxiety and depression symptom prevalence is much lower in patients scheduled for TKA, they report less satisfaction with their recovery than individuals without prior comorbidities. However, several investigations have found that preoperative depression does not impact postoperative performance. Patients with preoperative depression, as opposed to those without, seem to experience higher levels of pleasure following TKA.^{5,6,14}

The severity of the arthropathy

According to Bourne et al., patients who complained of acute pain before surgery when resting, laying in bed, or sitting in a chair experienced low postoperative satisfaction.¹⁵ However, Maratt et al. found that patients with severe pain or dysfunction prior to surgery were more likely to report being satisfied with their recovery if the preoperative symptoms did not significantly impair their ability to lead a healthy lifestyle.³⁰ According to Kim et al., patients with end-stage arthritis are likely to have low satisfaction with TKA because poor preoperative WOMAC scores were linked to patients' unhappiness.³¹ However, Schnurr et al.'s recent research has demonstrated that TKA dissatisfaction is more likely to occur in patients with mild or moderate osteoarthritis.³² In research by Polkowski et al., patients with early-stage osteoarthritis before surgery had a greater frequency of unexplained pain following TKA.³³

Another factor

High body mass index, prior knee surgery, and impairments were listed by Fischer et al. as potential patient characteristics that could lower satisfaction following TKA. Low social support and poverty, living alone, and postoperative varus knee alignment are additional characteristics that may be linked to postoperative discontent.³⁴ When a revision TKA was carried out by a different surgeon from the primary TKA deemed unsuccessful, Mann et al. noticed improved outcome scores. They concluded that dissatisfaction with a prior TKA does not predispose to persistent dissatisfaction after revision.³⁵

EXTERNAL COMPONENTS

Anesthesia and pain management

According to several research, postoperative pain control and anesthesia are related to patient satisfaction. TKA is often carried out under either general or regional anesthesia. Regional anesthetic appears to lead to higher patient satisfaction following TKA, according to a review of the literature by Fischer et al.³⁴ The general anesthesia group, however, fared better than the spinal anesthesia group in a study by Harsten et al. that compared the outcomes of TKA among patients randomly assigned to receive either general anesthesia or spinal anesthesia during surgery. This was true for early recovery, pain relief, nausea or dizziness relief, and early ambulation. Numerous attempts have been made to reduce discomfort at first following TKA and ultimately increase patient satisfaction. Narcotic analgesics were previously used for pain management following TKA. However, they are now used less frequently because of the possibility of complications.³⁶ Andersen and Kehlet claim that intraoperative periarticular injections may help pain management and lessen the need for narcotic painkillers. Effective femoral nerve blocks for postoperative pain control may alleviate narcotic medication requirements. However, consensus on the effectiveness of sciatic nerve blocking is still uncertain.³⁷

Surgical technique

TKA that is minimally invasive and done through a little incision speeds up healing. As a result, it has been anticipated to increase patient satisfaction following TKA. Hernandez Vaquero et al. observed no appreciable variations in patient satisfaction between the minimally invasive technique and the conventional surgical procedure for TKA. Therefore, future studies should examine how surgical technique affects patient satisfaction.³⁸

Implant type

Despite being recognized as a successful surgical method, TKA has undergone constant refinement to better meet patients' needs for functional

enhancement. Numerous researchers have looked into how implant design affects TKA results, and some have shown a connection between implant type and postoperative satisfaction. A prospective, double-blind, randomized control experiment comparing Kinemax TKA with Triathlon TKA by Hamilton et al. demonstrated that the prosthesis design could impact the treatment's outcome.⁶ Comparing 6 different TKA implants, Baker et al. found that the NexGen implant (Zimmer, Warsaw, IN, USA) led to more improvement following TKA than the other 5 implant types.⁷ In contrast to these studies, Wylde et al.'s multi-center randomized controlled trial found no appreciable difference regarding patient satisfaction between the Kinemax fixed- and mobile-bearing TKAs.²⁶

Postoperative rehabilitation and length of hospital stay

According to Levine et al., neuromuscular electrical stimulation carried out at home unsupervised by a physical therapist did not improve patient functionality or satisfaction with their rehabilitation.³⁹ Regular passive ROM exercises did not provide TKA patients with further clinical advantages, according to Kim et al. But we think a physical therapist-led, methodical rehabilitation would make a faster return to regular daily activities possible.³¹ According to a study by Gibon et al., postoperative care is crucial to patient satisfaction during rehabilitation. According to one study, patient happiness rose when continuous passive motion devices were prepared for patient usage. As a result of the rehabilitation personnel receiving specialized training in caring for patients with joint replacements, patients were treated with a higher standard of care, raising their satisfaction level. Based on the hospital stay, although it is challenging to determine the precise reason for this unhappiness, patients who stayed in the hospital for a longer period after surgery were less satisfied.⁵

The TKA procedure is effective and safe for reducing pain and enhancing function. This procedure was initially planned for older patients with severe osteoarthritis or rheumatoid arthritis in its last stages. TKA has lately been made available to

younger, more active patients with higher lifestyle demands. Patients who undergo reconstructive procedures like TKA have great hopes of returning to their regular lives with little downtime, expenditure, pain, or suffering. To optimize patient satisfaction, healthcare professionals, hospitals, and payers strive to provide high-quality, economical, complication-free surgical operations.^{5,6,14}

It becomes clear why patient expectations following TKA aren't always met, given the complicated and competitive medical environment and the multifaceted nature of patient satisfaction. Many physical and psychological issues patients with this technique must deal with before surgery continue to exist after TKA. Patient expectations could be exaggerated, and surgical problems or other comorbidities could restrict the outcomes. The surgical procedure must therefore be openly discussed between doctors and patients, including its indications, alternatives, prospective results, and risk of problems. Both parties must be open and honest about their goals and deadlines. Before considering surgery, all effective conservative measures should be tried.^{6,7,15}

Next, patients need to be physically and mentally prepared for the procedure and have access to enough resources and additional support to help assure a successful outcome. Preoperative medical and mental health optimization helps to reduce postoperative problems.⁴⁰⁻⁴² To ensure a positive outcome, patients must also actively participate in their care. Lack of compliance may contribute to complications and unfavorable consequences, such as uncontrolled diabetes, unhealthy smoking habits, or skipped physical therapy appointments. In the end, although patient satisfaction is crucial, it shouldn't be the deciding element when assessing the success of surgical procedures and patient care.^{6,7,14}

CONCLUSION

Based on the literature review, we can conclude that patients' satisfaction after two broad components determines TKA. Internal and external. The internal component consists of the patient's age, gender, personality, expectations,

comorbidity, the severity of the disease, and other factors such as BMI, economic and educational class. While the external component consists of anesthesia and pain management, surgery technique, implant or prosthesis type, post-operative rehabilitation and length of hospital stay.

CONFLICT OF INTEREST

The author declares no conflict of interest in writing this literature review.

ETHICAL CONSIDERATIONS

This literature review doesn't state any ethical concerns.

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AUTHOR CONTRIBUTIONS

All authors have the same contribution, from preparing ideas and searching the literature to writing a literature review.

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