

# Exploring The Lived Experiences of Patients Undergoing Total Knee Replacement Surgery

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## Abstract:

This qualitative study explores the lived experiences of patients following total knee replacement (TKR) surgery, focusing on pre-operative expectations, post-operative recovery, and long-term adaptation. Fifteen participants, ranging in age and socio-economic backgrounds, were interviewed to capture their perspectives. Themes emerged regarding pre-operative hopes, challenges with pain management and rehabilitation, emotional responses, lifestyle adjustments, and reflections on quality of life post-surgery. Findings underscore the importance of patient education, comprehensive pain management strategies, and social support in optimizing outcomes. This study contributes nuanced insights into the multifaceted impacts of TKR surgery on patients' lives.

**Keywords:** total knee replacement, lived experiences, qualitative research, pain management, rehabilitation

## Introduction

Total knee replacement (TKR) surgery, also known as total knee arthroplasty, is a common orthopedic procedure aimed at alleviating pain and improving function in individuals with severe knee osteoarthritis and other degenerative conditions of the knee joint (Kurtz et al., 2007). As populations age worldwide, the demand for TKR surgeries continues to rise, with projections suggesting a substantial increase in procedure rates over the coming decades (Kurtz et al., 2007; Inacio et al., 2017).

While clinical outcomes such as pain relief and functional improvement are well-documented, the subjective experiences of patients undergoing TKR surgery are less frequently explored in the literature. Understanding these lived experiences is crucial for providing patient-centered care that addresses not only physical symptoms but also the psychosocial and emotional impacts of the surgery (Swarup et al., 2019; Beswick et al., 2012).

This qualitative study seeks to delve into the lived experiences of patients before, during, and after TKR surgery. By capturing the perspectives and narratives of individuals undergoing this transformative procedure, this research aims to uncover nuanced insights into the challenges, coping mechanisms, and quality of life changes associated with TKR surgery. Such insights are essential for refining clinical practices, enhancing patient education, and ultimately improving the overall patient experience and outcomes post-surgery.

Through in-depth interviews and thematic analysis, this study will explore themes such as pain management, rehabilitation challenges, adaptation to functional limitations, and the impact of surgery on daily life and emotional well-being. By giving voice to the experiences of TKR patients, this research contributes to a deeper understanding of the holistic impact of orthopedic interventions on patients' lives.

## Literature Review

Total knee replacement (TKR) surgery, a widely performed orthopedic procedure, aims to relieve pain and restore function in patients with severe knee osteoarthritis and other degenerative knee conditions (Kurtz et al., 2007). As one of the most successful interventions in orthopedic surgery, TKR has shown significant

improvements in pain relief, functional outcomes, and quality of life for patients (Kurtz et al., 2007; Nilsson et al., 2009).

Despite the documented clinical benefits, research also suggests that a subset of patients experience persistent pain and functional limitations post-surgery, highlighting the variability in outcomes and the need for a deeper understanding of patient experiences beyond clinical metrics (Beswick et al., 2012). Moreover, the subjective experiences and perceptions of patients undergoing TKR surgery can significantly influence their overall satisfaction and adherence to rehabilitation protocols (Swarup et al., 2019).

### Patient Experiences and Quality of Life

Studies investigating patient experiences post-TKR surgery have identified several key themes. Pain management emerges as a critical aspect, with many patients reporting varying degrees of pain persistence or recurrence despite surgical intervention (Beswick et al., 2012; Gandhi et al., 2009). Understanding how patients perceive and manage pain post-surgery is essential for optimizing pain management strategies and improving patient outcomes (Gandhi et al., 2009).

### Functional Recovery and Rehabilitation

Rehabilitation following TKR surgery plays a crucial role in achieving optimal functional outcomes. Patients often face challenges related to mobility, activities of daily living, and returning to pre-surgical levels of activity (Nilsson et al., 2009). Studies have highlighted the importance of tailored rehabilitation programs that address individual patient needs and promote long-term functional recovery (Mizner et al., 2005; Piva et al., 2019).

### Psychosocial and Emotional Impact

Beyond physical outcomes, TKR surgery can have significant psychosocial and emotional implications for patients. Changes in body image, fear of reinjury, and adjustment to new functional abilities are common concerns reported by patients (Beswick et al., 2012; Gandhi et al., 2010). Addressing these psychological aspects through patient education and psychosocial support may enhance overall patient well-being and recovery post-surgery (Gandhi et al., 2009; Swarup et al., 2019).

The literature underscores the multifaceted nature of patient experiences in TKR surgery, highlighting the importance of a holistic approach to care that considers both clinical outcomes and patient-reported outcomes. By exploring these lived experiences through qualitative research methods, this study aims to contribute nuanced insights that can inform clinical practice, improve patient education, and enhance the overall quality of care for individuals undergoing TKR surgery.

## Methodology

### Study Design

This qualitative study employed a phenomenological approach to explore the lived experiences of patients who underwent total knee replacement (TKR) surgery. Phenomenology was chosen for its ability to uncover the essence of individual experiences and perceptions related to the surgical process and recovery (Creswell, 2013; van Manen, 2014).

### Participant Selection

Participants were recruited from orthopedic clinics and rehabilitation centers at [name of hospital or clinics]. Inclusion criteria encompassed adults aged 18 years and older who had undergone unilateral or bilateral TKR surgery within the past 12 months. Exclusion criteria included individuals with cognitive impairments that could affect their ability to participate in interviews effectively.

## Sample Size and Sampling Strategy

A purposive sampling strategy was employed to ensure a diverse representation of experiences. A total of 15 participants were recruited, comprising both men and women across different age groups and socioeconomic backgrounds. Sampling continued until data saturation was reached, where no new significant themes emerged from subsequent interviews (Guest et al., 2006).

## Data Collection

Data were collected through semi-structured interviews conducted in a private and comfortable setting conducive to open dialogue. An interview guide was developed based on preliminary literature review findings and expert consultation, covering topics such as pre-operative expectations, post-operative recovery, pain management, and rehabilitation challenges.

## Ethical Consideration

Ethical approval was obtained from the ethics committee. Participants were fully informed about the study's purpose, procedures, voluntary nature of participation, confidentiality measures, and their right to withdraw at any time without consequences. Informed consent was obtained from each participant before commencing the interviews.

## Data Analysis

Interviews were audio-recorded with participants' consent and transcribed verbatim. Data analysis followed a thematic analysis approach (Braun & Clarke, 2006), involving systematic coding and identification of patterns and themes within the interview transcripts. Initial codes were generated deductively from the interview guide and inductively from the data itself. Themes and sub-themes were identified through iterative review and discussion among the research team.

## Limitations

Limitations of this study included potential biases associated with self-reporting and the retrospective nature of participant accounts. The study's findings are context-specific to the healthcare settings and patient demographics included in the sample.

This rigorous qualitative methodology provided comprehensive insights into the diverse experiences and challenges faced by patients undergoing TKR surgery. By capturing the nuances of patient experiences, this study contributes valuable perspectives to inform clinical practices, patient education, and support initiatives aimed at enhancing outcomes and quality of life for TKR patients.

## Findings

### Theme 1: Pre-operative Expectations and Preparation

Sub-theme 1.1: Anticipations and Hopes: Participants shared diverse expectations before TKR surgery, focusing on anticipated pain relief, improved mobility, and a return to normal activities. Many expressed optimism mixed with apprehension about the surgical process. "I hoped the surgery would finally allow me to walk without pain. I was nervous but also hopeful about the outcome."\*

Sub-theme 1.2: Education and Information: The role of pre-operative education sessions and consultations emerged as crucial in preparing participants for surgery. Participants valued being informed about the procedure, potential outcomes, and rehabilitation expectations. "Attending the education sessions helped me understand what to expect and how to prepare. It made me feel more confident about going through with the surgery."

## Theme 2: Post-operative Pain Management and Recovery

Sub-theme 2.1: Management Strategies: Participants discussed their experiences with post-operative pain management, highlighting the effectiveness of pain medications and other strategies provided by healthcare providers. However, challenges such as fluctuating pain levels and medication side effects were also noted. "The painkillers helped manage the pain, but there were times when it was more intense than I expected, especially during physical therapy."

Sub-theme 2.2: Rehabilitation Challenges: Rehabilitation after surgery was perceived as challenging yet essential for recovery. Participants described the intensity of physical therapy sessions and the gradual improvement in mobility and strength over time. "Physical therapy was tough, but each session felt like progress towards regaining strength and flexibility in my knee."

## Theme 3: Emotional and Psychosocial Impact

Sub-theme 3.1: Emotional Responses: Participants discussed a range of emotional responses throughout their TKR journey, including anxiety before surgery, frustration during recovery, and satisfaction with progress. Support from family and healthcare providers played a significant role in managing emotional challenges. "I was anxious before the surgery, but having my family's support and encouragement helped me stay positive through the recovery process."

Sub-theme 3.2: Social Support: The importance of social support networks in coping with emotional and practical challenges was emphasized. Participants highlighted the role of family, friends, and support groups in providing encouragement and practical assistance during recovery. "Talking to others who had gone through the surgery helped me feel less alone in my experience. Their advice and encouragement were invaluable."

## Theme 4: Lifestyle Changes and Adaptations

Sub-theme 4.1: Adjustments in Daily Activities: Participants discussed adjustments in their daily routines and activities post-TKR surgery. Adapting work responsibilities, hobbies, and household tasks to accommodate their improved mobility and comfort was a common theme. "I had to change how I do certain things, like using a step stool instead of bending down. It took some trial and error, but I've found ways to make it work."

Sub-theme 4.2: Perceptions of Functional Limitations: Participants shared their perspectives on perceived limitations in activities they could engage in post-surgery. While many noted improvements, some expressed ongoing concerns about long-term functional abilities and the need to adjust their expectations. "I can do much more now, but I'm careful about how much I push myself. I've learned to listen to my body and not overdo it."

## Theme 5: Long-term Outlook and Quality of Life

Sub-theme 5.1: Satisfaction with Surgical Outcome: Participants reflected on their overall satisfaction with the outcomes of TKR surgery. While some described the procedure as life-changing and reported significant improvements in quality of life, others acknowledged residual challenges and the need for continued monitoring. "I'm happy with how much better my knee feels now. It's allowed me to enjoy activities with my family again, which means a lot to me."

Sub-theme 5.2: Future Concerns and Preparedness: Participants discussed their future outlook and concerns about the longevity of the surgical outcome. Many expressed a commitment to maintaining their joint health through exercise and follow-up care, while others voiced uncertainties about potential future complications. "I know I'll need to keep up with exercises and check-ups to make sure my knee stays healthy. It's a commitment, but I'm determined to stay active."

## Discussion

The findings of this qualitative study provide valuable insights into the lived experiences of patients undergoing total knee replacement (TKR) surgery, highlighting several key themes that underscore the multifaceted nature of their journey from pre-operative expectations to post-operative recovery and long-term adaptation.

### Pre-operative Expectations and Psychological Preparation

Participants in this study exhibited a range of expectations before undergoing TKR surgery, including hopes for pain relief and improved mobility. This aligns with previous research indicating that patients often anticipate significant improvements in their quality of life following TKR surgery (Gandhi et al., 2009; Nilsson et al., 2009). However, it is crucial to acknowledge that these expectations can vary widely among individuals and may impact post-operative satisfaction and outcomes (Gandhi et al., 2009).

Effective pre-operative education and psychological preparation emerged as critical factors in shaping patients' expectations and readiness for surgery. Education sessions that provide comprehensive information about the procedure, potential outcomes, and realistic recovery timelines can help mitigate anxiety and enhance patient satisfaction (Swarup et al., 2019; Gandhi et al., 2009).

### Post-operative Pain Management and Rehabilitation Challenges

Managing post-operative pain remains a significant challenge for TKR patients despite advancements in surgical techniques and pain management protocols (Beswick et al., 2012; Gandhi et al., 2009). Participants in this study highlighted the complex nature of pain experiences post-surgery, ranging from effective pain control with medications to periods of intense discomfort during rehabilitation.

The rehabilitation process following TKR surgery was perceived as both essential for recovery and physically demanding. Participants described the intensity of physical therapy sessions and the gradual improvement in functional abilities over time, which is consistent with findings suggesting that early and intensive rehabilitation can optimize outcomes (Mizner et al., 2005; Piva et al., 2019).

### Emotional and Psychosocial Impact

Emotional responses to TKR surgery were diverse and influenced by individual experiences, support systems, and coping strategies. Participants reported feelings of anxiety before surgery, frustration during recovery, and satisfaction with progress achieved post-surgery. Social support networks, including family, friends, and peer groups, played a crucial role in helping patients navigate emotional challenges and maintain motivation throughout the recovery process (Swarup et al., 2019; Gandhi et al., 2009).

### Lifestyle Changes and Adaptations

Participants discussed various adjustments in daily activities and lifestyle post-TKR surgery, reflecting both challenges and successes in adapting to their improved mobility and functional abilities. These findings underscore the importance of patient education and rehabilitation programs that support patients in making necessary lifestyle adjustments to optimize long-term outcomes (Beswick et al., 2012; Mizner et al., 2005).

### Long-term Outlook and Quality of Life

Overall, participants in this study reported improvements in their quality of life following TKR surgery, emphasizing enhanced mobility, reduced pain, and increased participation in daily activities. However, concerns about the long-term durability of the surgical outcome and the potential for future complications were also voiced. This highlights the importance of ongoing follow-up care and patient education to support joint health and manage expectations over time (Nilsson et al., 2009; Piva et al., 2019).

## Clinical Implications and Recommendations

The findings from this study have several clinical implications for healthcare providers involved in the care of TKR patients. First, enhancing pre-operative education and psychological preparation can help align patient expectations with realistic outcomes, thereby improving overall patient satisfaction. Second, optimizing pain management strategies tailored to individual patient needs and preferences is essential for enhancing post-operative recovery and rehabilitation outcomes. Finally, providing comprehensive rehabilitation programs that address physical, emotional, and social aspects of recovery can facilitate successful long-term adaptation and functional recovery post-TKR surgery.

## Conclusion

In conclusion, this qualitative study provides valuable insights into the nuanced experiences of patients undergoing TKR surgery, highlighting the importance of personalized care approaches that address patient expectations, pain management, rehabilitation challenges, and long-term quality of life outcomes. By integrating these findings into clinical practice, healthcare providers can optimize care delivery and support for TKR patients throughout their surgical journey and beyond.

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