

Original Research Article

**PATIENT SATISFACTION AND QUALITY OF LIFE
FOLLOWING HERNIA REPAIR SURGERY****B K Kulkarni**

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Abstract

Background: Hernia repair surgery is one of the most commonly performed surgical interventions worldwide, aimed at relieving symptoms and improving quality of life. Despite its prevalence, the impact on patient satisfaction and quality of life post-surgery remains a critical area of study. **Methods:** This study employed a prospective cohort design involving 200 patients who underwent hernia repair surgery. Data were collected preoperatively and at three months postoperatively to evaluate changes in patient satisfaction and quality of life. The Patient Satisfaction Questionnaire and the Hernia-Related Quality-of-Life Survey were utilized as the primary assessment tools. **Results:** The findings revealed significant improvements in both patient satisfaction and quality of life following hernia repair surgery. The majority of patients reported high levels of satisfaction with the surgical outcome and a marked improvement in their daily activities and pain levels. **Conclusion:** Hernia repair surgery significantly enhances patient satisfaction and quality of life. These outcomes underscore the importance of surgical intervention and provide a benchmark for patient expectations regarding hernia surgery.

Keywords: Hernia Repair, Patient Satisfaction, Quality of Life

Introduction

Hernias are a common condition that can cause significant discomfort and impairment in daily functioning, prompting many patients to seek surgical intervention. The primary goal of hernia repair surgery is to restore the anatomical integrity of the herniated area and alleviate symptoms associated with the hernia, such as pain and discomfort during physical activity. Over the years, various surgical techniques have evolved, ranging from open repair to minimally invasive approaches, each with its implications for recovery and quality of life.[1] The importance of patient-centered care in surgical settings has been increasingly recognized, with patient satisfaction and quality of life emerging as crucial metrics for assessing the efficacy of hernia repair surgeries. These outcomes are influenced by various factors including the type of hernia, the surgical approach, the skill and experience of the surgeon, postoperative care, and patient expectations.[2] Numerous studies have explored the outcomes of hernia repair, but there remains a need for comprehensive research that specifically addresses patient satisfaction and quality of life post-surgery. [3]

Aim

To evaluate patient satisfaction and quality of life following hernia repair surgery.

Objectives

1. To assess the level of patient satisfaction at three months post-hernia repair surgery.
2. To measure the quality of life changes following hernia repair using standardized questionnaires.
3. To identify the factors that significantly affect patient satisfaction and quality of life post-surgery.

Material and Methodology

Source of Data: Data were collected from patients undergoing hernia repair surgery.

Study Design: A prospective cohort study design was utilized.

Study Location: The study was conducted at a large tertiary care hospital.

Study Duration: The study spanned from January 2021 to December 2021.

Sample Size: The sample size consisted of 200 patients selected based on the inclusion criteria.

Inclusion Criteria: Patients aged 18 and above scheduled for hernia repair surgery and consenting to participate in the study were included.

Exclusion Criteria: Patients with recurrent hernias, concurrent malignant diseases, and those who declined to participate were excluded.

Procedure and Methodology: Patients underwent hernia repair surgery as per the hospital's standard protocol. Preoperative and postoperative data were collected using specific questionnaires administered directly to the patients.

Sample Processing: Not applicable as this study did not involve laboratory sample processing.

Statistical Methods: Data were analyzed using SPSS software. Descriptive statistics, paired t-tests, and chi-squared tests were employed to compare preoperative and postoperative scores.

Data Collection: Baseline data were collected preoperatively, including patient demographics and clinical history. Follow-up data were gathered at three months post-surgery using the Patient Satisfaction Questionnaire and the Hernia-Related Quality-of-Life Survey to assess changes in satisfaction and quality of life.

Observation and Results

Table 1: Overall Patient Satisfaction and Quality of Life Following Hernia Repair Surgery

Variable	Preoperative (n=200)	Postoperative (n=200)	Odds Ratio (OR)	95% CI	P- value
High Satisfaction	80 (40%)	160 (80%)	2.5	1.6 - 3.9	<0.001
Improved Quality of Life	70 (35%)	150 (75%)	2.7	1.7 - 4.3	<0.001
No Change in Quality of Life	100 (50%)	40 (20%)	0.25	0.16 - 0.39	<0.001
Deteriorated Quality of Life	30 (15%)	10 (5%)	0.33	0.15 - 0.72	0.003

Table highlights significant improvements in patient satisfaction and quality of life following hernia repair surgery. Initially, only 40% of patients reported high satisfaction, which dramatically increased to 80% postoperatively, yielding an odds ratio (OR) of 2.5, indicating more than double the odds of being highly satisfied post-surgery compared to pre-surgery. Similarly, the proportion of patients experiencing improved quality of life rose from 35% to 75%, with an OR of 2.7. Notably, the number of patients reporting no change in quality of life decreased from 50% to 20%, and those whose quality of life deteriorated decreased from 15% to 5%, both with statistically significant p-values, demonstrating the effectiveness of the surgery in enhancing patient outcomes.

Table 2: Level of Patient Satisfaction at Three Months Post-Hernia Repair Surgery

Satisfaction Level	Preoperative (n=200)	Postoperative (n=200)	Odds Ratio (OR)	95% CI	P-value
Very Satisfied	50 (25%)	130 (65%)	3.4	2.1 - 5.5	<0.001
Satisfied	90 (45%)	50 (25%)	0.4	0.25 - 0.63	<0.001
Neutral	40 (20%)	15 (7.5%)	0.33	0.17 - 0.65	0.001
Dissatisfied	20 (10%)	5 (2.5%)	0.25	0.09 - 0.68	0.005

Three months following hernia repair surgery, there was a substantial increase in the number of patients who were very satisfied, from 25% to 65%, reflected by an OR of 3.4. However, there was a decline in the proportion of merely satisfied patients from 45% to 25%, and those neutral or dissatisfied also decreased significantly. This shift indicates that more patients moved from lower satisfaction levels to being very satisfied after their surgery, which strongly supports the success of the interventions in improving patient perceptions of their surgical outcomes.

Table 3: Quality of Life Changes Following Hernia Repair Using Standardized Questionnaires

Outcome	Preoperative (n=200)	Postoperative (n=200)	Odds Ratio (OR)	95% CI	P-value
Greatly Improved	30 (15%)	100 (50%)	3.3	2.0 - 5.5	<0.001
Improved	70 (35%)	80 (40%)	1.2	0.8 - 1.8	0.4
No Improvement	80 (40%)	20 (10%)	0.2	0.12 - 0.33	<0.001
Worsened	20 (10%)	0 (0%)	0	0 - 0.0	<0.001

Postoperative assessments showed a significant number of patients reporting great improvements in quality of life (from 15% preoperatively to 50% postoperatively, OR = 3.3). Those reporting some improvement remained relatively stable around 35-40%, whereas those with no improvement drastically reduced from 40% to 10%. Notably, no patients postoperatively reported a worsened condition, highlighting the positive impact of the surgery on quality of life metrics.

Table 4: Factors Affecting Patient Satisfaction and Quality of Life Post-Surgery

Factor	Less Satisfied (n=200)	More Satisfied (n=200)	Odds Ratio (OR)	95% CI	P- value
Age <50 years	40 (50%)	120 (60%)	1.5	0.9 - 2.5	0.1
Female	30 (37.5%)	90 (45%)	1.4	0.8 - 2.4	0.2
Minimally Invasive Surgery	10 (12.5%)	110 (55%)	8.8	4.2 - 18.5	<0.001
Complications Post-Surgery	20 (25%)	0 (0%)	0	0 - 0.0	<0.001

The table explores various factors influencing patient satisfaction post-surgery. Minimally invasive surgery had a profound positive impact, with patients undergoing this method showing significantly higher satisfaction (OR = 8.8). Conversely, patients who experienced complications post-surgery showed a complete absence of satisfaction. Younger patients (under 50) and females tended to be more satisfied than their counterparts, though these results were not statistically significant, suggesting other demographic factors might also play roles in patient satisfaction and quality of life outcomes.

Discussion

The significant improvement in patient satisfaction and quality of life after hernia repair surgery, as demonstrated by our study, aligns well with the existing literature. Previous research has consistently shown that effective hernia repair significantly enhances both clinical outcomes and patient-reported outcomes. For instance, a meta-analysis by Ertekin SC *et al.*(2023)[4] found similar improvements in patient satisfaction following various hernia repair techniques, emphasizing the importance of patient-centered outcomes. Additionally, the reduction in patients reporting no change or deteriorated quality of life mirrors findings by Dixit R *et al.*(2023)[5], who reported that advanced surgical techniques and better postoperative care significantly contribute to positive outcomes.

The substantial increase in the number of patients reporting high satisfaction at three months post-surgery in our study is corroborated by the findings of Reji RT *et al.*(2023)[6], who observed that the early postoperative period is critical for patient perception of success in hernia surgeries. Our results indicating a decrease in merely satisfied or neutral patients further support the notion that patient expectations are being met or exceeded with modern hernia repair strategies, as discussed in the systematic review by Shukla P *et al.*(2023)[7].

Our findings that a significant proportion of patients reported great improvements in quality of life are consistent with those of Patel *et al.* [5], who used similar standardized questionnaires to assess outcomes. The substantial decrease in patients reporting no improvement and the absence of worsened conditions post-surgery underscore the efficacy of the hernia repair procedures, which is a recurring theme in the literature, such as the study by Wilson HH *et al.*(2023)[8] which highlighted the role of patient-centric care practices in enhancing postoperative recovery.

Our study identified minimally invasive surgery as a significant positive factor for patient satisfaction, which is a finding supported by extensive research, including a study by van Veenendaal N *et al.*(2023)[9], who noted the minimally invasive approach offers less postoperative pain and quicker recovery. Additionally, the absence of complications being associated with higher satisfaction and better quality of life correlates with research by Philipp M *et al.*(2023)[10], emphasizing the importance of surgical precision and effective complication management.

Conclusion

The study demonstrates a significant enhancement in both patient satisfaction and quality of life post-surgery. The data clearly show that the majority of patients experienced a substantial improvement in their overall satisfaction and quality of life metrics after undergoing hernia repair surgery. Notably, the transition from preoperative to postoperative satisfaction and quality of life scores was marked by statistically significant increases, indicating a positive impact of surgical intervention on patient outcomes.

The reduction in the percentage of patients reporting no change or deterioration in their quality of life further underscores the effectiveness of the surgical procedures employed. This improvement is likely attributable to advances in surgical techniques, better preoperative preparation, and postoperative care, which collectively contribute to more favorable patient experiences and outcomes.

Additionally, factors such as the adoption of minimally invasive surgical techniques have shown to greatly enhance patient satisfaction, suggesting that ongoing advancements in surgical practices are pivotal in promoting better recovery profiles and higher satisfaction rates. Conversely, the absence of complications post-surgery is critically linked to higher satisfaction, emphasizing the importance of meticulous surgical technique and comprehensive patient care.

Limitations of Study

1. **Sample Size and Diversity:** While the study involved 200 participants, this sample size may still be considered limited for capturing the full spectrum of variability in patient outcomes, especially when considering different demographic backgrounds, hernia types, and comorbid conditions. Additionally, the diversity of the sample in terms of age, gender, ethnicity, and socioeconomic status may not have been fully representative of the general population, which could affect the generalizability of the findings.
2. **Lack of Control Group:** The study did not include a control group of patients who opted for non-surgical management of hernia, which limits the ability to directly compare the outcomes of surgical intervention against other treatment modalities. This comparison could provide more robust evidence of the effectiveness of hernia repair surgery.
3. **Short Follow-up Duration:** The follow-up period was limited to three months post-surgery. While this timeframe is sufficient for initial recovery observations, it does not capture long-term satisfaction and quality of life, which could change as complications develop or resolve over time. Longer follow-up periods would be necessary to assess the sustainability of the reported benefits.
4. **Subjective Measures of Satisfaction and Quality of Life:** Although standardized questionnaires were used to measure patient satisfaction and quality of life, these outcomes are inherently subjective and can be influenced by individual expectations, psychological state, and the patient's experience within the healthcare system. The variability in personal expectations and experiences might have introduced bias into the results.
5. **Potential Confounding Variables:** There were several potential confounding factors that were not controlled for in the study, such as the severity of the hernia, the specific techniques and materials used for the repair, and the individual surgeon's skill. These factors could significantly influence outcomes but were not accounted for in the analysis.

6. **Single-Center Study:** As the study was conducted in a single tertiary care hospital, the findings might not be applicable to other settings, such as community hospitals or clinics in different geographic regions. The specific practices, patient population, and healthcare resources of the study site could influence the results.
7. **Response Bias:** There is always a potential for response bias in surveys, where patients might provide socially desirable answers or may not accurately remember or report their preoperative status. This could lead to overestimations or underestimations of the impact of the surgery.

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