



# The Influence Of Evidence-Based Nursing Interventions On Postoperative Patient Recovery

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## Abstract

Evidence-based nursing (EBN) is increasingly recognized as a vital approach to improving clinical outcomes. This study evaluated the impact of EBN interventions on postoperative recovery, pain control, and complication rates among patients undergoing abdominal surgery. Using a quasi-experimental design, 60 patients were assigned to either an intervention group receiving EBN-guided care or a control group receiving standard care. Recovery was assessed through functional recovery scores, pain levels, and incidence of complications. Findings indicated that the intervention group experienced faster recovery, better pain management, and fewer postoperative complications. These results emphasize the importance of integrating evidence-based nursing practices into routine postoperative care to optimize patient outcomes.

**Keywords:** Evidence-Based Nursing, Postoperative Care, Patient Recovery, Pain Management, Nursing Interventions, Complication Prevention

## Background

Nurses play a central role in ensuring patient safety and facilitating recovery after surgery. Postoperative complications such as infections, limited mobility, and poorly managed pain can prolong hospitalization and adversely affect patient quality of life. Traditionally, nursing practices have relied heavily on experience rather than scientific evidence, leading to inconsistencies in patient outcomes. Evidence-based nursing combines current research findings with clinical expertise and patient preferences to provide structured, standardized care. Previous research has demonstrated that EBN improves recovery rates, reduces complications, and enhances patient satisfaction (Melnyk & Fineout-Overholt, 2019; Polit & Beck, 2021). Despite its proven benefits, consistent application of EBN in postoperative care is still limited, particularly in resource-limited healthcare settings.

## Introduction

Effective postoperative care is essential for ensuring optimal recovery after surgery. Nurses are responsible for monitoring patients' vital signs, managing pain, preventing complications, and providing education on self-care. Variability in nursing practices can influence recovery outcomes. Evidence-based nursing provides structured, research-supported interventions that standardize care and improve patient outcomes. This study aims to examine the effect of EBN interventions on postoperative recovery, pain management, and complication rates in patients undergoing abdominal surgery.

## Methodology

### Study Design

A quasi-experimental study was conducted over six months (October 2025 – March 2026) in a tertiary hospital.

### Sample and Setting

The study included 60 patients scheduled for elective abdominal surgery. Participants were purposively sampled and randomly assigned to either the intervention group (n=30) or control group (n=30).

### Inclusion Criteria:

- Patients aged 18–65 years
- Scheduled for elective abdominal surgery
- Free from severe comorbidities
- Willing to participate

### Exclusion Criteria:

- Emergency surgical cases
- Cognitive or communication impairments
- Chronic pain conditions

### Intervention

Patients in the intervention group received care guided by EBN principles, which included:

1. Regular pain assessment every 4 hours using the Visual Analogue Scale (VAS)
2. Early mobilization within 24 hours after surgery
3. Patient education on wound care, dietary management, and activity
4. Monitoring and prevention of postoperative complications such as infection and bleeding

The control group received standard postoperative care according to hospital routines without structured EBN protocols.

### Data Collection

Data were collected using:

- **Recovery Scores:** Assessed patients' mobility, wound healing, and functional status
- **VAS for Pain:** 0 (no pain) to 10 (severe pain)
- **Complication Incidence:** Frequency of infections, delayed wound healing, bleeding, and other adverse events

### Data Analysis

Data were analyzed using SPSS version 27. Independent t-tests and chi-square tests were employed to compare outcomes between groups. A significance level of  $p < 0.05$  was applied.

## Results

Outcome Measure	Intervention Group (n=30)	Control Group (n=30)	p-value
Recovery Score (mean ± SD)	88.2 ± 4.5	78.6 ± 5.3	<0.001
Pain (VAS, mean ± SD)	2.4 ± 0.8	4.1 ± 1.2	<0.001
Complications (%)	3.3%	16.7%	0.04

## Interpretation:

- Recovery was significantly faster in the intervention group.
- Pain levels were substantially lower for patients receiving EBN-guided care.
- The intervention group experienced fewer postoperative complications.

## Discussion

The findings indicate that structured evidence-based nursing interventions significantly improve postoperative recovery. Key components such as early mobilization, regular pain monitoring, and patient education were instrumental in achieving better outcomes. These results are consistent with prior studies highlighting the effectiveness of EBN in enhancing patient safety and recovery (Smith & Brown, 2020). Successful implementation of EBN requires adequate staff training and institutional support to ensure standardized postoperative care.

## Conclusion

Evidence-based nursing interventions substantially improve postoperative outcomes by promoting faster recovery, better pain management, and reduced complications. Incorporating EBN into routine nursing practice can enhance patient care and optimize hospital resources. Healthcare institutions should support continuous training and the implementation of evidence-based guidelines to standardize nursing care.

## References

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