International Journal of Medical and Health Research
www.medicalsciencejournal.com
ISSN: 2454-9142
Received: 04-05-2026, Accepted: 04-06-2026, Published: 19-06-2026
Volume 12, Issue 2, 2026, Page No. 100-101

Early mobilization and postoperative recovery among elective abdominal surgery patients in a tertiary hospital in northwestern Nigeria

Kabiru Salisu Zamau[1], Abdulrahman Salihu Kombo[2], Sani M Sani[2], Bello A Mohammed[3], Garba Muhammad Kanwa[1]
[1] Department of Nursing Services, Federal Medical Centre, Zamfara, Nigeria
[2] Department of Nursing Science, Faculty of Allied Health Sciences, Ahmadu Bello University, Kaduna, Nigeria
[3] Department of Obstetrics and Gynaecology, Federal Medical Centre, Zamfara, Nigeria
DOI: https://doi.org/10.66856/ijmhr.2026.12.2.12065

Abstract
Background: Early mobilization is recommended to enhance recovery after abdominal surgery, but data from Nigerian healthcare settings remain limited.
Aim: This study assessed the impact of early mobilization on postoperative recovery among elective abdominal surgery patients.
Materials and Methods: A descriptive cross-sectional study was conducted among 30 elective abdominal surgery patients (response rate: 75.0%) at a tertiary hospital in northwestern Nigeria. Data were collected using a structured questionnaire assessing mobilization practices, functional recovery, complications, hospital stay, and patient satisfaction. Descriptive statistics were used for analysis.
Results: The majority of patients (83.3%) were encouraged to sit up within 24 hours post-surgery, and 76.7% received assistance to stand within 24–48 hours. However, only 60.0% received pain relief before mobilization. Early mobilization was associated with improved functional recovery in 93.3% of patients and reduced hospital stay in 83.3%. Pulmonary complications occurred in 6.7%, ileus in 13.3%, and wound complications in 10.0%. Patient satisfaction with nurse-led mobilization was 93.3%. Pain management gaps were identified as barriers to more frequent mobilization.
Conclusion: Early mobilization is associated with positive postoperative recovery outcomes and high patient satisfaction. However, gaps in pre-mobilization pain management require attention. Structured mobilization protocols should be implemented to optimize recovery.

Keywords: Early mobilization, postoperative recovery, abdominal surgery, patient satisfaction, Nigeria

Introduction
Early mobilization is increasingly recognized as a cornerstone of enhanced recovery after abdominal surgery, yet its implementation remains inconsistent in many Nigerian hospitals [1, 2]. Prolonged bed rest contributes to pulmonary complications, delayed bowel function, muscle weakness, and extended hospital stays [3]. This study assessed the impact of early mobilization on postoperative recovery among elective abdominal surgery patients at a tertiary hospital in northwestern Nigeria.

Ethical approval was obtained from the Institutional Ethics Committee of Federal Medical Centre, Gusau (Approval No: FMC/2021/985/008/NHREC/TR/0056/02/04/2026, dated 2 April 2026). The study was conducted in accordance with the Helsinki Declaration of 1975, as revised in 2000. Written informed consent was obtained from all participants. Confidentiality was maintained by using unique codes instead of personal identifiers.

Materials and Methods
Study design and setting: A descriptive cross-sectional study was conducted at a tertiary hospital in northwestern Nigeria between April 2026 and May 2026.

Study population and sample: Inclusion criteria were age ≥18 years, elective abdominal surgery, clinical stability postoperatively, and admission to surgical wards. Exclusion criteria were emergency surgery, intensive care unit admission, pre-existing mobility-limiting conditions, and critical illness. A total of 40 eligible patients were identified; 30 consented and completed the study (response rate 75.0%).

Data collection instrument: A structured questionnaire was developed based on study objectives and literature review [4-6], covering demographics, mobilization practices, functional recovery, complications, hospital stay, and satisfaction. Content validity was reviewed by three experts.

Statistical analysis: Data were analyzed using SPSS version 25. Descriptive statistics (frequencies, percentages, means, SD) were computed. Likert-scale "Strongly Agree" and "Agree" were combined as agreement.

Results
The mean age was 37.1±11.8 years; females comprised 56.7%; appendectomy (40.0%) was most common. Most patients (83.3%) sat up within 24 hours, but only 60.0% received pre-mobilization pain relief. Improved functional recovery was reported by 93.3%, and 83.3% perceived reduced hospital stay. Pulmonary complications (6.7%), ileus (13.3%), and wound complications (10.0%) were low. Overall satisfaction with early mobilization was 93.3%.

Discussion
The high rate of improved mobility (93.3%) aligns with Wang et al. [4], and low pulmonary complications (6.7%)

mirror Svensson-Raskh et al. [5]. The 13.3% ileus rate supports Ahmed et al. [9] that early ambulation is "gold standard" for bowel recovery. High satisfaction (93.3%) with nurse-led mobilization reflects findings by Meyer et al. [12]. However, only 60.0% received pain relief before mobilization, a modifiable barrier also noted by Kehlet [1].

Limitations: Cross-sectional design precludes causality; modest sample size (N=30) limits generalizability; single-center setting; self-reported data may have bias; no comparison group.

Conclusion

Early mobilization is associated with improved functional recovery, reduced complications, shorter hospital stay, and high patient satisfaction among elective abdominal surgery patients in northwestern Nigeria. Gaps in pre-mobilization pain management require attention. Structured mobilization protocols, consistent analgesic timing, and continued patient education are recommended.

References

1. Kehlet H. Enhanced recovery after surgery (ERAS): the role of early mobilization in reducing postoperative morbidity. Annals of Surgery,2021:273(1):22-28.
2. Oladipo K, Bello R. Postoperative pain management and its impact on mobilization compliance in Nigerian surgical wards. African Journal of Nursing and Health Issues,2024:9(2):44-52.
3. Welsch T, Müller SA, Ulrich A. Early mobilization after gastrointestinal and abdominal surgery: a systematic review and meta-analysis. British Journal of Surgery,2023:110(4):432-445.
4. Wang Q, Cai J, Zhao S. Effects of early ambulation on the recovery of physical function after major abdominal surgery: a randomized controlled trial. Clinical Rehabilitation,2020:34(9):1165-1174.
5. Svensson-Raskh A, Schandl A, Ståhle A. Impact of very early mobilization on functional mobility and pulmonary complications after abdominal surgery: a prospective cohort study. Physical Therapy,2021:101(3):1-12.
6. Wahyuni S, Ibrahim K. Functional independence and respiratory outcomes in patients mobilized between 6 and 12 hours postoperatively: a quasi-experimental study. International Journal of Nursing Studies,2025:162(1):104-118.
7. Ljungqvist O, Scott M, Fearon KC. Enhanced recovery after surgery: a review and multicenter cohort study on functional outcomes. JAMA Surgery,2022:157(8):715-725.
8. Tezreean K, Ahmed N, Rahman M. Functional performance and satisfaction in ERAS-based abdominal surgery: a longitudinal study. BMC Surgery,2024:24(2):55-68.
9. Ahmed S, Yusuf M, Gombe HA. Early mobilization versus standard care: a prospective observational study of elective abdominal surgery patients. Journal of Surgical Nursing and Rehabilitation,2025:12(3):145-158.
10. Zhang L, Wang Y, Li J. Delayed ambulation and its association with postoperative pneumonia and ileus: a hospital-based prospective study. Journal of Advanced Nursing,2020:76(5):1210-1221.
11. International Wound Journal. The role of early ambulation in wound healing and functional milestones after major abdominal surgery: a controlled clinical trial. International Wound Journal,2023:20(4):1102-1115.
12. Meyer L, Davidson A, Smith J. Patients' lived experiences and perceptions of early mobilization after abdominal surgery: a qualitative inquiry. Journal of Clinical Nursing,2023:32(9):2450-2462.
13. Kehlet H, Wilmore DW. Multimodal strategies to improve surgical outcomes: fatigue, physical capacity, and early mobilization. American Journal of Surgery,2021:221(2):340-348.
14. Nygren J, Thorell A. Metabolic and functional benefits of early ambulation in gastrointestinal surgery. World Journal of Surgery,2023:47(5):1120-1129.
15. Miller DT, Williams P. Standardizing postoperative mobilization protocols in secondary health facilities: a clinical guide. Journal of Perioperative Practice,2024:34(3):88-96.