Section: Gynaecology

Original Research Article

# ASSESSING PATIENT SATISFACTION WITH ENHANCED RECOVERY AFTER SURGERY (ERAS) PROTOCOLS IN ELECTIVE CESAREAN

*Nahil Shams[1], Rasheeda Hingoro[2], Shafia Khan[3], Amna Aslam[4], Irum Naz[5], Sajida Munir Siddiqui[6]*

[1]*Assistant Professor Gynaecology and OBS, Indus Medical College Hospital Tando Muhammad Khan Pakistan.*
[2]*Assistant Professor Gynaecology and OBS, Suleman Roshan Medical College Tando Adam Pakistan.*
[3]*Assistant Professor Gynaecology and OBS, Ibn_E_Sina University Mirpurkhas Pakistan.*
[4]*Assistant Professor Gynaecology and OBS, Isra University Hyderabad Pakistan.*
[5]*Consultant Gynaecology and OBS, Principal Medical officer, Linar Hospital Larkana Pakistan.*
[6]*Assistant Professor Gynaecology and OBS, Indus Medical College Hospital Tando Muhammad Khan Pakistan.*

***Received*** *: 15/01/2026*
***Received in revised form*** *: 05/03/2026*
***Accepted*** *: 20/03/2026*

**Corresponding Author:**
**Dr.** ***Nahil Shams*****,**
Assistant Professor Gynaecology and Obs, Indus Medical College Hospital Tando Muhammad Khan Pakistan.
Email: dr.nahilshams@gmail.com

**DOI:** 10.70034/ijmedph.2026.1.555

**Source of Support:** Nil,
**Conflict of Interest:** None declared

**Int J Med Pub Health**
2026; 16 (1); 3239-3244

ABSTRACT

**Background:** Enhanced Recovery After Surgery (ERAS) is a multimodal and patient-centered perioperative treatment approach. It helps in providing improved surgical and clinical results in the short duration of hospital stay. The ERAS protocol was later adopted worldwide in different surgical specialties due to its positive results. Surgeons, nurses, anesthesiologists, and other healthcare workers follow a multidisciplinary team approach by implementing ERAS. They coordinate care throughout all the surgical phases from the first preoperative consultation till the time when the patient returns to normal daily activities. The main objectives of implementing ERAS is to achieve less hospital stays, reduce readmissions, improve patient satisfaction, and reduce surgical complications. **Objective:** Implementing Enhanced Recovery After Surgery (ERAS) protocol to assess the satisfaction of the females undergoing elective c-sections. **Study design:** A descriptive cross-sectional research. **Duration and place of study:** This study was conducted at Indus Medical College Hospital Tando Muhammad Khan from January 2025 to January 2026.

**Materials and Methods:** This research was conducted in the Department of Obstetrics and Gynaecology of the hospital. All the patients of this study (n=80) were women who were undergoing elective cesarean sections under spinal anaesthesia. All the patients were divided into 2 groups having equal number of patients in each group. Group A was the ERAS group and group B was the conventional (non-ERAS) group. Group A received a detailed leaflet explaining the ERAS protocols while group B received routine perioperative information during the antenatal visit. Patients in group A were admitted 8 hours before surgery while group B was admitted one day before the surgery. All the patients received spinal anaesthesia with 0.5% heavy bupivacaine along with standard monitoring. The infection was prevented using abdominal cleansing with 4% chlorhexidine followed by betadine. SPSS version 26 was used to analyse the data. A significant p-value was known to be less than 0.05.

**Results:** There were a total of 80 female patients involved in this study who were divided into 2 groups of equal number of patients (n=40 in each group). Significant difference was seen between both the groups in terms of hospital stay and pain scores. The majority of the patients in both the groups were from the age group of 20 to 25 years. 65% of the patients in group A achieved catheter removal within 6 to 9 hours of the surgery while it was only 5% in group B during this period. 22.5% of patients started breastfeeding within 6 hours of surgery in the ERAS group. A higher number of patients in group A were satisfied with their surgery as compared to group B.

**Conclusion:** Overall, 57.5% of the patients in the ERAS group strongly agreed to be satisfied regarding the surgical experiences and their recovery as compared to only 12.5% of the patients in the non-ERAS group.
**Keywords:** Enhanced Recovery After Surgery (ERAS), surgical and clinical results, c-section procedure, spinal anaesthesia.

## INTRODUCTION

Enhanced Recovery After Surgery (ERAS) is a multimodal and patient-centered perioperative treatment approach. It helps in providing improved surgical and clinical results in the short duration of hospital stay.[1] Henrik Kehlet was the pioneer of ERAS who thought about postoperative mobility restriction and prolonged fasting.[2] He classified the traditional protocol of surgery into various phases such as preoperative, intraoperative, and postoperative. This was done due to increasing surgical burden and it helped the patients as well as surgeons in terms of reduced hospital stays.[3]

The ERAS protocol was later adopted worldwide in different surgical specialties due to its positive results.[4] Although, according to each specialty, very little adjustments were made. Still, it showed effective results.[5] Surgeons, nurses, anaesthesiologists, and other healthcare workers follow a multidisciplinary team approach by implementing ERAS. They coordinate care throughout all the surgical phases from the first preoperative consultation till the time when the patient returns to normal daily activities. The rate of c-section is very high in the private and public hospitals of Pakistan as well as neighbouring countries.[6] Therefore, it is important to implement ERAS in c-section deliveries to achieve improved results, reduce hospital stay, and enhance peri-operative care. The main objectives of implementing ERAS is to achieve less hospital stays, reduce readmissions, improve patient satisfaction, and reduce surgical complications.[7]

The American College of Obstetricians and Gynaecologists also supports ERAS.[8] It has developed its own guidelines for obstetric care which include elements such as subcuticular suture use, delayed cord clamping, and early removal of the urinary catheter. The main components of the Enhanced Recovery After Cesarean (ERAC), which is ERAS principal applied for obstetric patients, are the following; preoperative patient counselling and education, patient medical optimisation, proper balance of diet and fluid, prevention of hypothermia and hypotension during spinal anaesthesia, prophylactic antibiotics during surgery, early mobilisation, multimodal analgesia, early catheter removal, venous thromboembolism prophylaxis, early bowel mobilisation, and planning for early discharge.[9]

Researchers successfully introduced an enhanced recovery strategy in an exploratory trial in their obstetric unit.[10] The observation was that the majority of the patients were discharged earlier along with better satisfaction care and there was no increase in readmission rate. Several changes to traditional care were required to implement this approach for women who underwent elective c-section procedure. Patients were given carbohydrate drinks 2 hours before the surgery instead of the usual overnight fasting. This was done to maintain energy levels. Rather than giving large amounts of intravenous fluids (causes bloating and discomfort after surgery), proper fluid balance was maintained to improve fluid management. These strategies help reduce surgical stress while maintaining anabolic homeostasis.

ERAS protocols are widely used worldwide in many surgical specialties.[11] However, the implementation of ERAS is still limited, especially in obstetrics and gynaecology. There is a gap that needs to be filled by conducting more studies on evaluating the effect of ERAS on maternal outcomes, patient satisfaction in c-sections and recovery time. Therefore, this study was performed on females who were undergoing elective c-sections and their satisfaction was evaluated by implementing ERAS protocol.

## MATERIALS AND METHODS

This research is a descriptive cross-sectional research which was conducted in the Department of Obstetrics and Gynaecology of the hospital. There were a total of 80 patients included in this study. All the patients of this study were women who were undergoing elective cesarean sections under spinal anaesthesia. Patients' informed written consent was obtained. The approval was taken from the Ethical Review Committee of the institute.

**Exclusion Criteria:** Females who required emergency c-section were excluded. Moreover, women who had comorbid conditions such as heart disease, diabetes mellitus, preeclampsia, or obesity were also not a part of this study. Furthermore, women who experienced any immediate complications in the intraoperative or postoperative phase, who needed general anesthesia, and the ones who required longer hospital stays were also excluded.

All the patients were divided into 2 groups having equal number of patients in each group. Group A was the ERAS group (n=40) and group B was the conventional (non-ERAS) group (n=40). Group A received a detailed leaflet explaining the ERAS protocols including the preoperative, intraoperative, and postoperative care. On the other hand, group B received routine perioperative information during the antenatal visit. On the day of discharge, data was collected from the patients using interviews and a

structured questionnaire along with follow-up questions which were asked on the 7th postoperative day. Multiple references were used to develop the ERAS protocol.

Patients in group A were admitted 8 hours before surgery. They were instructed to shower on the day when they were admitted and re-briefed about the procedure. Their pre-anaesthesia evaluation was completed the day before surgery. They were instructed to have soft food for up to 6 hours and clear liquids up to 2 hours before surgery. This avoids prolonged fasting. For carbohydrate loading, 200 cc of black tea with 2 teaspoons of sugar was given 2 hours before the surgery, and metoclopramide was administered for nausea prevention. On the other hand, group B was admitted one day before the surgery and underwent routine laboratory tests and anaesthesia fitness evaluation. They remained nil per oral for 9 to 10 hours overnight before surgery.

All the patients received spinal anaesthesia with 0.5% heavy bupivacaine along with standard monitoring. The infection was prevented using abdominal cleansing with 4% chlorhexidine followed by betadine. Group A followed a minimal fluid policy by maintaining normothermia (20–24 °C) and receiving multimodal analgesia with NSAIDs, regional techniques, and paracetamol. Group B received paracetamol, NSAIDs, and narcotic analgesia. After the surgery, group A patients started enteral feeding after 2 hours. Their soft diet was started after 4 hours of surgery, and early mobilisation after 3 to 4 hours of surgery. Moreover, Foley catheter removal was done after 6 to 8 hours of surgery and their discharge was planned on the first postoperative day. Group B patients started feeding after 6 to 7 hours of surgery and the catheter removal was done after 8 to 10 hours of surgery, followed by mobilisation. The hospital stay was 2 days.

SPSS version 26 was used to analyse the data. The variables were calculated through t-test and chi-square test. A significant p-value was known to be less than 0.05.

## RESULTS

There were a total of 80 female patients involved in this study. All the patients were divided into 2 groups having equal number of patients in each group. Group A was the ERAS group (n=40) and group B was the conventional (non-ERAS) group (n=40). Table number 1 compares a few parameters between both the groups. There was a significant difference seen between both the groups in terms of hospital stay and pain scores at 10th and 20th hours. However, no significant difference was seen between both the groups in terms of BMI (p = 0.176).

**Table 1: ?**

| Parameters | Group A (ERAS group) | Group B (non-ERAS group) | p-value |
|---|---|---|---|
| **Duration of stay (hrs)** | 33.9 ± 8.2 | 61.6 ± 10.5 | <0.001 |
| **BMI** | 24.7 ± 3.48 | 25.7 ± 3.4 | 0.176 |
| **Pain at 10th hrs** | 5.03 ± 1.8 | 6.71 ± 1.7 | <0.001 |
| **Pain at 20th hrs** | 2.36 ± 1.1 | 4.41 ± 1.7 | <0.001 |

Table number 2 compares the demographic, clinical, and postoperative variables between both the groups. The majority of the patients in both the groups were from the age group of 20 to 25 years. The majority of the patients in group A achieved catheter removal within 6 to 9 hours of the surgery. However, it was done after 14 to 17 hours in group B (non-ERAS group). In the ERAS group, breastfeeding was started within 6 hours of surgery (22.5%) while only 1 patient started breastfeeding in the non-ERAS group within this period.

**Table 2: Descriptive Statistics of Demographic, Hormonal and Biochemical Parameters in Cases and Controls**

| Variables | Group A (ERAS group) | | Group B (non-ERAS group) | |
|---|---|---|---|---|
| | N | % | N | % |
| **Age (yrs)** | | | | |
| • **20 to 25** | 15 | 37.5 | 13 | 32.5 |
| • **26 to 30** | 13 | 32.5 | 13 | 32.5 |
| • **31 to 35** | 9 | 22.5 | 10 | 25.0 |
| • **36 to 40** | 2 | 5.0 | 4 | 10.0 |
| • **41 to 45** | 1 | 2.5 | 0 | 0.0 |
| **Indication** | | | | |
| • **Previous 1 scar** | 12 | 30.0 | 14 | 35.0 |
| • **Previous 2 scar** | 12 | 30.0 | 11 | 27.5 |
| • **Previous 3 scar** | 1 | 2.5 | 7 | 17.5 |
| • **Breech baby** | 8 | 20.0 | 2 | 5.0 |
| • **Wish for c-section** | 2 | 5.0 | 2 | 5.0 |
| • **Large size baby** | 3 | 7.5 | 3 | 7.5 |
| • **Intrauterine dead baby** | 2 | 5.0 | 1 | 2.5 |
| **Gravida Parity** | | | | |
| • **Multigravida** | 29 | 72.5 | 34 | 85.0 |
| • **Primigravida** | 11 | 27.5 | 6 | 15.0 |

| | | | | |
|---|---|---|---|---|
| **Breast Feeding (hrs)** | | | | |
| • **0 to 6** | 9 | 22.5 | 1 | 2.5 |
| • **7 to 12** | 24 | 60.0 | 16 | 40.0 |
| • **13 to 18** | 6 | 15.0 | 14 | 35.0 |
| • **>18** | 1 | 2.5 | 9 | 22.5 |
| **Catheter Removal (hrs)** | | | | |
| • **6 to 9** | 26 | 65.0 | 2 | 5.0 |
| • **10 to 13** | 13 | 32.5 | 3 | 7.5 |
| • **14 to 17** | 1 | 2.5 | 23 | 57.5 |
| • **>17** | 0 | 0.0 | 12 | 30.0 |
| **Nausea at 10th hrs** | | | | |
| • **Mild** | 3 | 7.5 | 10 | 25.0 |
| • **None** | 37 | 92.5 | 30 | 75.0 |
| **Nausea at 10th hrs** | | | | |
| • **Mild** | 1 | 2.5 | 2 | 5.0 |
| • **None** | 39 | 97.5 | 38 | 95.0 |
| **Gestational Age (weeks)** | | | | |
| • **37** | 7 | 17.5 | 1 | 2.5 |
| • **38** | 33 | 82.5 | 35 | 87.5 |
| • **39** | 0 | 0.0 | 4 | 10.0 |
| **Temperature at 20th hrs** | | | | |
| • **Mild** | 0 | 0.0 | 1 | 2.5 |
| • **None** | 40 | 100.0 | 39 | 97.5 |
| **Urine problems at 20th hrs** | | | | |
| • **Mild** | 0 | 0.0 | 7 | 17.5 |
| • **None** | 40 | 100.0 | 33 | 82.5 |

Table number 3 shows the patient satisfaction and postoperative experiences. A higher number of patients in group A were satisfied with their surgery as compared to group B.

**Table 3:**

| **Variables** | **Group A (ERAS group)** | | **Group B (non-ERAS group)** | |
|---|---|---|---|---|
| | **N** | **%** | **N** | **%** |
| **Proper education regarding the procedure was given before the surgery?** | | | | |
| • **Strongly agree** | 30 | 75.0 | 10 | 25.0 |
| • **Agree** | 9 | 22.5 | 0 | 0.0 |
| • **Uncertain** | 1 | 2.5 | 5 | 12.5 |
| • **Disagree** | 0 | 0.0 | 12 | 30.0 |
| • **Strongly disagree** | 0 | 0.0 | 13 | 32.5 |
| **Any urinary complaints after surgery?** | | | | |
| • **Strongly agree** | 1 | 2.5 | 2 | 5.0 |
| • **Agree** | 5 | 12.5 | 11 | 27.5 |
| • **Uncertain** | 6 | 15.0 | 0 | 0.0 |
| • **Disagree** | 17 | 42.5 | 9 | 22.5 |
| • **Strongly disagree** | 11 | 27.5 | 18 | 45.0 |
| **Postoperative nausea/vomiting?** | | | | |
| • **Strongly agree** | 2 | 5.0 | 3 | 7.5 |
| • **Agree** | 3 | 7.5 | 8 | 20.0 |
| • **Uncertain** | 7 | 17.5 | 1 | 2.5 |
| • **Disagree** | 16 | 40.0 | 21 | 52.5 |
| • **Strongly disagree** | 12 | 30.0 | 7 | 17.5 |
| **Satisfied with postoperative pain control?** | | | | |
| • **Strongly agree** | 14 | 35.0 | 3 | 7.5 |
| • **Agree** | 10 | 25.0 | 8 | 20.0 |
| • **Uncertain** | 5 | 12.5 | 11 | 27.5 |
| • **Disagree** | 6 | 15.0 | 14 | 35.0 |
| • **Strongly disagree** | 5 | 12.5 | 4 | 10.0 |
| **Satisfied with surgery experience?** | | | | |
| • **Strongly agree** | 23 | 57.5 | 5 | 12.5 |
| • **Agree** | 9 | 22.5 | 19 | 47.5 |
| • **Uncertain** | 6 | 15.0 | 8 | 20.0 |
| • **Disagree** | 0 | 0.0 | 2 | 5.0 |
| • **Strongly disagree** | 2 | 5.0 | 6 | 15.0 |
| **Visit to doctor** | | | | |
| • **Strongly agree** | 3 | 7.5 | 0 | 0.0 |
| • **Agree** | 5 | 12.5 | 5 | 12.5 |
| • **Uncertain** | 0 | 0.0 | 4 | 10.0 |
| • **Disagree** | 16 | 40.0 | 8 | 20.0 |
| • **Strongly disagree** | 16 | 40.0 | 23 | 57.7 |
| **Readmission** | | | | |
| • **Strongly agree** | 1 | 2.5 | 0 | 0.0 |

| | | | | |
|---|---|---|---|---|
| • **Agree** | 2 | 5.0 | 1 | 2.5 |
| • **Uncertain** | 3 | 7.5 | 0 | 0.0 |
| • **Disagree** | 16 | 40.0 | 9 | 22.5 |
| • **Strongly disagree** | 18 | 45.0 | 30 | 75.0 |

## DISCUSSION

The concept of Enhanced Recovery After Surgery (ERAS) was found in the 1990s. Yet, the implementation of ERAS is still limited, especially in obstetrics and gynaecology.[12] There is a gap that needs to be filled by conducting more studies on evaluating the effect of ERAS on maternal outcomes, patient satisfaction in c-sections and recovery time. To address this gap, we conducted this study on 80 female patients who underwent elective c-section by using ERAS protocol. They were divided into 2 groups of equal number of patients (n=40 in each group).

Over the past 10 years, a number of obstetrical units around the world have reported higher patient satisfaction, enhanced service quality, and significant cost savings. Cherot observed that this method helps patients get more ready surgically.[13] Researchers have conducted their study on assessing the level of satisfaction the patients are having after ERAS-compliant c-section deliveries.[14-17] Based on their study findings, the majority of the patients were satisfied with their c-section deliveries. An author observed that Pakistani surgeons find difficulty in the implementation of ERAS in different surgeries.[18] Our current study showed that if ERAS is implemented properly, it shows a higher rate of patient satisfaction after elective c-section delivery.

In our findings, significant differences were seen between both the groups in terms of hospital stay and pain scores. The hospital stay of the ERAS group was 33.9 ± 8.2 hours while it was 61.6 ± 10.5 hours in the non-ERAS group. There was no significant difference seen between both the groups in terms of BMI ($p = 0.176$). According to Pan et al., the total hospital stay, anesthesia cost, and postoperative duration of stay were similar in both the groups.[19] This finding is in counter with our results. Overall, 60% of our patients in the ERAS group (group A) were satisfied with the postoperative pain control as compared to only 27.5% from group B. The majority of the patients were satisfied with the overall surgery experience in group A (57.5% strongly agreed) while only 12.5% of the patients strongly agreed in group B.

The study of Gupta S. observed post-operative pain control, length of stay, use of analgesia, and quality of life after c-section by comparing ERAS implementation with standard post-operative care.[20] They reported that the majority of the patients had excellent or very good pain management after the surgery.

There are a few limitations of this study. The first limitation is that non-probability sampling was used, which was ideal for our study sample and design. It was used because our exclusion and inclusion criteria were stringent. Secondly, it was a single center-based study which limits generalizability due to the use of non-probability sampling methods.

## CONCLUSION

Overall, 57.5% of the patients in the ERAS group strongly agreed to be satisfied regarding the surgical experiences and their recovery as compared to only 12.5% of the patients in the non-ERAS group.

**Funding source**

This study was conducted without receiving financial support from any external source.

**Conflict in the interest**

The authors had no conflict related to the interest in the execution of this study.

**Permission**

Prior to initiating the study, approval from the ethical committee was obtained to ensure adherence to ethical standards and guidelines.

## REFERENCES

1. Afreen U, Mumin TF, Khanum F, Chohan SF, Awan SM. Assessing Patient Satisfaction with Enhanced Recovery After Surgery (ERAS) Protocols in Elective Cesarean Deliveries. Journal of The Society of Obstetricians and Gynaecologists of Pakistan. 2025 Jan 26;15(1):22-7.
2. MOHARANA R, MANOGHNA G, DASH S, JENA P, RATH S. ENHANCED RECOVERY AFTER SURGERY (ERAS) A MULTIMODAL PERIOPERATIVE CARE PATHWAY IN CESAREAN DELIVERIES. INDIAN JOURNAL OF OBSTETRICS AND GYNECOLOGY RESEARCH Учредители: Innovative Education and Scientific Research Foundation. 2024;11(4):617-20.
3. Lashin ME, Mohamed Salem AA, Mohamed Basha AA, Abd Alkader AM. Enhanced Recovery after Elective Cesarean section Delivery Protocol: A Randomized Controlled Clinical Trial. Zagazig University Medical Journal. 2025 Jan 1;31(1).
4. Manoghna G, Moharana R, Dash S, Jena P, Rath SK. Enhanced recovery after surgery (eras) a multimodal perioperative care pathway in cesarean deliveries.
5. Karki D, Saha R. Assessment of patient satisfaction after implementing an Enhanced Recovery After Surgery (ERAS) protocol for elective Caesarean sections. Journal of Kathmandu Medical College. 2021 Dec 31:188-93.
6. Nagib Easa AF, Ahmed Swidan KH, Gomaa Ali IA, Eltaieb EM. Enhanced Recovery after Elective Cesarean Delivery at Ain Shams University Maternity Hospital: A Randomized Controlled Trial. QJM: An International Journal of Medicine. 2024 Oct;117(Supplement_2):hcae175-579.
7. Emile Gohar I, Saied Ibrahim Ali H, Saad Mahmoud Shoukhba N. Effect of Implementing Enhanced Recovery After Surgery Pathway for Women Undergoing Cesarean Section on Maternal Outcomes and Satisfaction. Egyptian Journal of Health Care. 2023 Dec 1;14(4):1561-80.
8. Doshi NR, Upadhye JV, Upadhye AJ, Upadhye JJ. Enhanced Recovery After Cesarean Delivery: A Comparative Study.
9. Klangprapan N, Narkwichean A, Luanpholcharoenchai J, Laosooksathit W. Effectiveness of the Enhanced Recovery after Surgery (ERAS) protocol following elective cesarean section: A single-center randomized controlled trial. Thai

Journal of Obstetrics and Gynaecology. 2022 Nov 1:393-402.
10. Macones GA, Caughey AB, Wood SL, Wrench IJ, Huang J, Norman M, et al. Guidelines for postoperative care in cesarean delivery: Enhanced Recovery After Surgery (ERAS) Society recommendations (part 3). Am J Obstet Gynecol. 2019;221(3):247.e1-247.e9. https://doi.org/10.1016/j.ajog.2019.04.012
11. Bollag L, Lim G, Sultan P, Habib A, Landau R, Zakowski M, et al. Society of Obstetric Anesthesia and Perinatology (SOAP) enhanced recovery after cesarean (ERAC) consensus statement. Anesth Analg. 2021;132(6):1362-77. https://doi.org/10.1213/ANE.0000000000005257
12. Singh P, Hashmi G, Swain PK. High prevalence of cesarean section births in private sector health facilities-analysis of district level household survey-4 (DLHS-4) of India. BMC Public Health. 2018;18(1):553. https://doi.org/10.1186/s12889-018-5533-3
13. Cherot E. ERAS: Improved outcomes post-cesarean. 2018; 64(7):21- 22. https://www.contemporaryobgyn.net/view/eras-improvedoutcomes-post-cesarean
14. Caughey AB, Wood SL, Macones GA, Wrench IJ, Huang J, Norman M, et al. Guidelines for intraoperative care in cesarean delivery: Enhanced Recovery After Surgery Society. 2021
15. Bisch S, Wells T, Gramlich L, Faris P, Wang X, Tran D, et al. Enhanced recovery after surgery (ERAS) in gynecologic oncology: System-wide implementation and audit leads to improved value and patient outcomes. Gynecol Oncol. 2018;151(1):117-23. https://doi.org/10.1016/j.ygyno.2018.08.007
16. Shinnick JK, Ruhotina M, Has P, Kelly BJ, Brousseau EC, O'Brien J, et al. Enhanced recovery after surgery for cesarean delivery decreases length of hospital stay and opioid consumption: A quality improvement initiative. Am J Perinatol. 2021;38(Suppl 1):e215-e23. https://doi.org/10.1055/s-0040-1709456
17. Mundhra R, Gupta DK, Bahadur A, Kumar A, Kumar R. Effect of enhanced recovery after surgery (ERAS) protocol on maternal outcomes following emergency cesarean delivery: A randomized controlled trial. Eur J Obstet Gynecol Reprod Biol X. 2024;22:100295. https://doi.org/10.1016/j.eurox.2024.100295
18. Ituk U, Habib AS. Enhanced recovery after cesarean delivery. F1000Res. 2018;7:13895. https://doi.org/10.12688/f1000research.13895.1
19. Pan J, Hei Z, Li L, Zhu D, Hou H, Wu H, et al. The advantage of implementation of enhanced recovery after surgery (ERAS) in acute pain management during elective cesarean delivery: A prospective randomized controlled trial. Ther Clin Risk Manag. 2020;16:369-78. https://doi.org/10.2147/TCRM.S244039
20. Gupta S, Gupta A, Baghel AS, Sharma K, Choudhary S, Choudhary V. Enhanced recovery after cesarean protocol versus traditional protocol in elective cesarean section: A prospective observational study. J Obstet Anaesth Crit Care. 2022;12(1):28-33. https://doi.org/10.4103/JOACC.JOACC_16_22.