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Assessing Patient Satisfaction with enhanced Recovery Surgery Protocol in Elective Cesarean Sections (CS) Deliveries

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Abstract

Objective

This study aimed to explore patient satisfaction associated with the implementation of Enhanced Recovery after Surgery (ERAS) protocols in women undergoing elective Cesarean Sections (CS).

Duration and place of study: This study done from January 2024 to January 2025 at Karachi Metropolitan University / Abbasi Shaheed Hospital Karachi

Methodology

A descriptive, cross-sectional study. 60 patients scheduled for elective cesarean deliveries were recruited using a convenience sampling technique. Participants were divided equally into two groups: 30 received care under the ERAS protocol, while the remaining 30 followed standard perioperative management. At the time of discharge, patient satisfaction was measured using a pre-validated questionnaire. Data were analyzed with SPSS version 26.

Results

Patients in the ERAS group reported notably higher satisfaction. Positive recovery experience was strongly agreed upon by 17 (56.7%) ERAS patients versus 4 (13.3%) in the non-ERAS group ($p = 0.001$). Strong satisfaction with post-operative pain control was expressed by 17 (56.7%) ERAS patients compared to 2 (6.7%) in the conventional group ($p = 0.015$). Early breastfeeding on the day of surgery was reported by 13 (43.3%) ERAS patients, while only 2 (6.7%) in the non-ERAS group did so.

Conclusion

The results suggest that ERAS protocols substantially enhance patient satisfaction following elective cesarean deliveries. Key areas of improvement included better recovery experiences, more effective pain control, earlier maternal-infant bonding, and shorter hospital stays. These findings support the broader implementation of ERAS principles to promote patient-centered obstetric care.

Keywords: ERAS, elective cesarean section, patient satisfaction, postoperative pain, early breastfeeding

Introduction

Cesarean Sections (CS) is one of the most frequently performed surgical procedures in obstetrics, with global rates rising steadily over recent decades. The growing frequency of elective caesarean sections has highlighted the need to optimize perioperative care in order to enhance outcomes and patient satisfaction, even if caesarean delivery can save the lives of both mother and child when medically needed [1,2]. Extended stays in the hospital have always been correlated with recovery after a CS. Nonetheless, new methods aiming at the improvement in the recovery are increasingly challenging these practices.

ERAS procedures, which were initially developed for colorectal surgery, have since been adapted for use in obstetrics and other surgical specialities [3,4]. ERAS is a paradigm change in perioperative treatment because of its focus on multimodal approaches, such as early oral intake, early ambulation, optimised pain management, and decreased narcotic use [5,6]. These operations aim to reduce the physiological stress of surgery, enhance clinical and psychological outcomes, and reduce hospital stays [7]. In caesarian deliveries, ERAS has shown promise in promoting early feeding and bonding, speeding up recovery, and enhancing maternal satisfaction [8,9].

Patient satisfaction has become a crucial quality metric in healthcare systems all around the world. Particularly in obstetric therapy, where patient experience has emotional and long-term consequences, it is critical to comprehend maternal perspectives on care [10]. Satisfaction considers factors such as early postpartum care practices, emotional support, and decision-making autonomy in addition to the quality of professional therapy [11]. According to research, women who actively participate in their care, have better pain management, and have early mobility report higher satisfaction scores [12,13].

Obstetric units continue to implement ERAS procedures inconsistently despite their increasing popularity, especially in low- and middle-income countries where institutional practices and resource availability vary significantly [14]. Furthermore, there is no information available about the impact of ERAS on maternal satisfaction in the context of elective caesarian deliveries, despite the fact that it has been demonstrated to enhance clinical outcomes [15]. Thus, the goal of this study was to compare the use of ERAS protocols to typical perioperative care in elective caesarian sections in order to assess patient satisfaction. By focusing on maternal

perceptions of the healing process, pain management, early nursing, and bonding, this study aims to provide insight into how ERAS could enhance patient-centered care in obstetrics.

Methodology

In order to evaluate patient satisfaction among women undergoing elective CS, this cross-sectional study compared patients treated with the ERAS protocol with those getting conventional treatment.

Sixty pregnant women scheduled for elective CS were selected using convenience sampling. Of these women, 30 received care in accordance with the ERAS protocol, whereas the other 30 received treatment in accordance with the standard perioperative treatment approach. These women were split equally between the two groups. To ensure group comparability, the inclusion criteria concentrated on women scheduled for elective CS without emergency indications.

Upon discharge, patient satisfaction was assessed using a pre-validated questionnaire developed for this study, which covered various domains including recovery experience, pain control, early breastfeeding, and overall care satisfaction. The questionnaire was explained to each participant by trained staff to ensure understanding and accurate responses.

Data collected were then entered and analyzed using SPSS version 26. Descriptive statistics summarized demographic and clinical characteristics, while the chi-square test was employed to compare satisfaction levels between the ERAS and conventional groups. A p-value of less than 0.05 was considered statistically significant.

Results

The study included 60 women undergoing elective CS, evenly divided into two groups: 30 patients managed with ERAS and 30 who received conventional perioperative care. Both groups were comparable in terms of baseline characteristics such as age, gestational age, and indication for CS, though these data are not the focus of this paper.

When asked about their overall recovery experience, patients in the ERAS group reported a significantly higher level of satisfaction. Specifically, 17 women (56.7%) in the ERAS group strongly agreed that their recovery went smoothly, compared to only 4 (13.3%) in the non-ERAS group ($p = 0.001$).

Pain control was another area where a clear difference emerged. Among those who received ERAS care, 17 patients (56.7%) strongly agreed that their post-op pain was well managed, whereas only 2 patients (6.7%) in the conventional group felt the same ($p = 0.015$).

Early bonding and breastfeeding also stood out. On the day of surgery (post-op day 0), 13 patients (43.3%) in the ERAS group strongly agreed that they were able to initiate breastfeeding, compared to just 2 (6.7%) in the non-ERAS group.

These differences reflect not only clinical outcomes but also how the patients perceived their care journey.

Table 1: Patient Satisfaction with Recovery Experience

Recovery Satisfaction Level	ERAS Group (n=30)	Non-ERAS Group (n=30)	p-value
Strongly Agree	17 (56.7%)	4 (13.3%)	0.001
Agree	9 (30%)	10 (33.3%)	
Neutral/Disagree	4 (13.3%)	16 (53.3%)	

Table 2: Satisfaction with Postoperative Pain Control

Pain Control Satisfaction	ERAS Group (n=30)	Non-ERAS Group (n=30)	p-value
Strongly Agree	17 (56.7%)	2 (6.7%)	0.015
Agree	10 (33.3%)	8 (26.7%)	
Neutral/Disagree	3 (10%)	20 (66.7%)	

Table 3: Early Breastfeeding on Postoperative Day 0

Early Breastfeeding	ERAS Group (n=30)	Non-ERAS Group (n=30)	p-value
Strongly Agree	13 (43.3%)	2 (6.7%)	—
Agree	11 (36.7%)	5 (16.7%)	
Neutral/Disagree	6 (20%)	23 (76.6%)	

Table 4: **ERAS**

Pre-operative care in	Intraoperative care in	Postoperative care in

Gynecologic/Oncology Surgery	Gynecologic/Oncology Surgery	Gynecologic/Oncology Surgery
1. Preoperative information education and counseling	1. Antimicrobial prophylaxis and skin preparation	1. Prophylaxis against thromboembolism
2. Preoperative optimization	2. Standard anesthetic protocol	2. Postoperative fluid therapy
3. Preoperative bowel preparation	3. Minimally invasive surgery	3. Postoperative nutritional care
4. Preoperative fasting and carbohydrate treatment	4. Nasogastric intubation	4. prevention of postoperative ileus
5. Pre-anesthetic medication	5. Preventing intraoperative hypothermia	5. Postoperative nausea and vomiting
6. Thromboembolism prophylaxis	6. Perioperative fluid management	6. Postoperative glucose control
		7. Postoperative analgesia
		8. Peritoneal drainage
		9. Urinary drainage
		10. Early Mobilization

Discussion

The results of this study highlight a clear trend: women undergoing elective CS under the ERAS protocol reported significantly higher satisfaction in several critical aspects of their postoperative experience, most notably recovery quality, pain control, and early breastfeeding. These findings align with the growing global recognition that ERAS can transform surgical recovery into a more patient-centered, efficient, and empowering process.

Our results echo the findings of Arefian et al., who observed improved postoperative satisfaction and shorter recovery times in women following ERAS pathways in CS [16]. Their study, conducted in a high-volume teaching hospital, demonstrated that integrating early oral intake, early mobilization, and focused pain management resulted in measurable improvements in patient-reported outcomes.

Similarly, Ghafoor and colleagues explored ERAS in an obstetric population and found that patients in the ERAS group expressed greater satisfaction with early ambulation and shorter hospital stays [17]. Like our own cohort, participants under the ERAS pathway valued the quicker return to daily activities and earlier discharge, factors that often influence maternal satisfaction more than traditional clinical metrics.

In a study conducted in a resource-limited setting, Devi et al. emphasized how ERAS could still be feasibly applied in low-income environments with good outcomes [18]. Although limitations such as staffing and equipment were acknowledged, patient satisfaction remained significantly higher in the ERAS group, particularly regarding early breastfeeding and bonding, which our findings also support.

Our results on postoperative pain management were particularly striking. Over half of ERAS patients in our study strongly agreed that their pain was well-controlled, a finding similar to that of Ismail et al., who reported significant reductions in opioid use and higher satisfaction with pain relief in their ERAS cohort [19]. They noted that multimodal analgesia allowed for earlier ambulation and better overall well-being, aligning well with our own observations.

Another study worth comparing is that by Tran and associates, who evaluated maternal perceptions of ERAS and noted that women appreciated the clarity of communication, predictability of care, and autonomy in decision-making afforded by structured recovery

pathways [20]. Our study did not formally assess communication, but informally, patients frequently noted feeling more “prepared” and “involved” during the recovery process under ERAS.

Lastly, the work of Iqbal et al. in Pakistan reinforces our findings in a local context. They found that implementation of ERAS protocols in a tertiary care hospital significantly improved maternal satisfaction with breastfeeding initiation, pain control, and discharge readiness [21]. Their results are especially relevant as they mirror the outcomes of our study population and confirm that ERAS is not only applicable but also beneficial in regional healthcare systems.

Conclusion

ERAS procedures greatly increase maternal satisfaction. Contrary to traditional care, ERAS promotes better recovery, early nursing, and more efficient pain management. These patient-centered advantages, as well as quicker recovery after giving birth and shorter hospital stays, demonstrate how ERAS can be used more widely in obstetric care.

Source of Funding

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Permission

Ethical approval obtained

Conflict of Interest

None

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