

DOES PREOPERATIVE COUNSELLING HELP IMPROVE PATIENTS' SATISFACTION WITH PAIN MANAGEMENT IN POSTOPERATIVE PERIOD

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Abstract: Postoperative pain management is a critical aspect of care in the postoperative unit. While various analgesic drugs are commonly used, the role of preoperative counseling regarding the procedure and its potential outcomes is gaining recognition for its importance. However, there is limited research exploring this aspect. **Objective:** To compare the mean pain scores after preoperative counseling versus no counseling in patients undergoing elective surgery. **Methods:** This randomized controlled trial was conducted in the Department of Anaesthesiology, Hameed Latif Hospital, Lahore, from 15th May 2019 to 15th November 2019. Sixty patients aged 20-50, of either gender, undergoing general surgery under general anesthesia with ASA class I/II, were included. Patients were divided into two groups: those who received preoperative counseling (group A) and those who did not (group B). Preoperative counseling included information on the type of surgery, duration, possible complications, degree of pain, and its management. Postoperative pain was assessed using the Visual Analogue Scale (VAS) 6 hours after surgery. Statistical analysis was performed to compare the mean pain scores between the two groups. **Results:** The study included 60 patients, 19 males in group A and 20 in group B. The mean age was 36.47±8.32 years in group A and 36.93±8.83 years in group B (p=0.79). The mean postoperative pain score on VAS was 3.43±1.07 in the group that received preoperative counseling (group A) and 5.03±1.61 in the group without counseling (group B) (p=0.03). Pain scores in males were 3.31±0.83 in group A and 4.97±1.47 in group B (p=0.01). In females, scores were 3.49±0.97 in group A and 5.53±1.73 in group B (p=0.03). In the 20-34 age group, the pain score was 3.38±0.97 in group A and 4.99±1.21 in group B (p=0.02), and in the 35-50 age group, the score was 3.44±1.05 in group A and 5.05±1.29 in group B (p=0.03). VAS scores were 3.46±1.07 in ASA class I and 3.27±0.95 in ASA class II in group A, compared to 5.03±1.63 and 5.03±1.45 in group B, respectively (p=0.03 each). Pain scores were also significantly better in group A across different educational statuses. **Conclusion:** Preoperative counseling substantially reduces postoperative pain scores as measured by the Visual Analogue Scale, compared to no counseling. This difference is statistically significant across various demographic and clinical subgroups.

Keywords: Anesthesia, Counseling, Elective Surgical Procedures, Pain Measurement, Patient Education, Postoperative Pain, Visual Analogue Scale.

Introduction

Pain management is critical to postoperative care, directly impacting patient satisfaction and overall recovery outcomes (1). Adequate pain control alleviates discomfort, enhances the healing process, and reduces the risk of complications (2). However, patient satisfaction with pain management can be influenced by various factors, including their expectations, understanding of the pain management plan, and the communication they receive from healthcare providers (3).

Preoperative counseling has emerged as a valuable intervention to address these factors, providing patients with essential information about what to expect regarding postoperative pain and the strategies available to manage it (4). This counseling aims to set realistic expectations, reduce anxiety, and empower patients to participate in their pain management plan actively.

This study explores the effectiveness of preoperative counseling in enhancing patient satisfaction with pain management in the postoperative period. By examining patient perceptions and outcomes, we aim to determine whether preoperative education can be a pivotal tool in

improving overall patient experience and satisfaction with pain control measures after surgery.

Methodology

The study was designed as a randomized control trial conducted at the Department of Anaesthesiology, Hameed Latif Hospital Lahore, over six months, from May 15, 2019, to November 15, 2019. The sample size comprised 60 cases, with 30 participants in each group, calculated using a 95% confidence interval and 95% power, anticipating mean pain scores of 3.21 ± 1.25 in the intervention group and 6.03 ± 1.29 in the control group based on prior studies. Participants were selected through non-probability consecutive sampling.

Eligible participants were aged 20 to 50 years, undergoing general surgery under general anesthesia, and classified as ASA I/II. Exclusion criteria included patients with underlying malignancies, end-stage renal failure, or liver failure. After obtaining informed consent, participants were randomized into two groups using the simple sealed envelope method. Group A received pre-operative

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counseling explaining the surgery type, duration, possible complications, expected pain, and management strategies. Group B did not receive any counseling related to pain management.

All participants received standard anesthesia with Propofol 200 mg, Atracurium 35 mg, and Tramadol 100 mg. Paracetamol 1g was administered 30 minutes before surgery completion, with Tramadol 30 mg provided for breakthrough analgesia. Pain was assessed using the Visual Analogue Scale (VAS) six hours post-surgery.

Data were analyzed using SPSS version 20, with quantitative variables presented as mean ± SD and frequencies for categorical variables. Effect modifiers were controlled through stratification of age, gender, ASA class, and educational status, using chi-square and independent sample t-tests for post-stratification analysis. A p-value of ≤0.05 was considered significant.

Results

The study included 60 participants, evenly divided into groups (A and B). Group A received preoperative counseling, while Group B did not. The primary outcome measured was postoperative pain, assessed using the Visual Analogue Scale (VAS).

The average age of participants was similar between the two groups, with Group A having a mean age of 36.47 ± 8.32 years and Group B having a mean age of 36.93 ± 8.83 years (p = 0.79). These details are summarized in Table 1.

The results indicated a significant difference in postoperative pain scores between the two groups. Group A reported a mean pain score of 3.43 ± 1.07, whereas Group

B reported a mean pain score of 5.03 ± 1.61 (p = 0.03), suggesting that preoperative counseling was associated with lower postoperative pain. The data is presented in Table 2.

Further analysis revealed that male participants in Group A reported a mean pain score of 3.31 ± 0.83, compared to 4.97 ± 1.47 in Group B (p = 0.01). Female participants in Group A reported a mean pain score of 3.49 ± 0.97, compared to 5.53 ± 1.73 in Group B (p = 0.03). This gender-based comparison is shown in Table 3.

Age stratification showed that participants aged 20-34 years in Group A had a mean pain score of 3.38 ± 0.97, compared to 4.99 ± 1.21 in Group B (p = 0.02). Participants aged 35-50 in Group A had a mean pain score of 3.44 ± 1.05, compared to 5.05 ± 1.29 in Group B (p = 0.03). These findings are detailed in Table 4.

Participants were also stratified by their ASA class. Those in ASA class I had a mean pain score of 3.46 ± 1.07 in Group A and 5.03 ± 1.63 in Group B (p = 0.03). Similarly, participants in ASA class II had a mean pain score of 3.27 ± 0.95 in Group A and 5.03 ± 1.45 in Group B (p = 0.03). This comparison is provided in Table 5.

Regarding educational status, participants with a higher level of education (matric or higher) in Group A reported a mean pain score of 3.51 ± 1.07, compared to 4.97 ± 1.31 in Group B (p = 0.05). Those with middle school education or lower also reported lower pain scores in Group A compared to Group B. The educational status-based results are summarized in Table 6.

These results suggest that preoperative counseling significantly reduces postoperative pain across various demographics and clinical classifications.

Table 1: Participant Demographics

Group	Mean Age (Years)	Standard Deviation
A	36.47	8.32
B	36.93	8.83
p-value	0.79	

Table 2: Postoperative Pain Scores on VAS

Group	Mean Pain Score	Standard Deviation	p-value
A	3.43	1.07	0.03
B	5.03	1.61	

Table 3: Pain Scores by Gender

Gender	Group A Mean Pain Score ± SD	Group B Mean Pain Score ± SD	p-value
Male	3.31 ± 0.83	4.97 ± 1.47	0.01
Female	3.49 ± 0.97	5.53 ± 1.73	0.03

Table 4: Pain Scores by Age Group

Age Group	Group A Mean Pain Score ± SD	Group B Mean Pain Score ± SD	p-value
20-34	3.38 ± 0.97	4.99 ± 1.21	0.02
35-50	3.44 ± 1.05	5.05 ± 1.29	0.03

Table 5: Pain Scores by ASA Class

ASA Class	Group A Mean Pain Score ± SD	Group B Mean Pain Score ± SD	p-value
I	3.46 ± 1.07	5.03 ± 1.63	0.03
II	3.27 ± 0.95	5.03 ± 1.45	0.03

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Table 6: Pain Scores by Educational Status

Educational Status	Group A Mean Pain Score \pm SD	Group B Mean Pain Score \pm SD	p-value
Illiterate	3.73 \pm 1.29	5.67 \pm 1.73	0.02
Middle	3.37 \pm 1.04	5.34 \pm 1.45	0.02
Matric or higher	3.51 \pm 1.07	4.97 \pm 1.31	0.05

Discussion

The need for surgical procedures remains significant despite advancements in medical technology. Annually, approximately 234 million major surgeries are performed worldwide, with postoperative complications occurring in at least seven million cases, resulting in up to one million deaths (5). This data underscores the substantial socio-economic burden associated with postoperative morbidity and mortality, highlighting the critical importance of preventing such complications.

Research has identified that inadequate preparation for surgery, postoperative pain, anxiety, and negative beliefs are significantly associated with psychiatric comorbidities (6-8). Additionally, the literature suggests that healthcare professionals should provide comprehensive information before and after surgery (9, 10). However, doctors often show reluctance or lack interest in engaging in such detailed communication with patients and their families regarding the surgical process and postoperative care.

Counseling, a therapeutic conversation typically conducted by a doctor or specially trained staff, has been shown to significantly impact patient outcomes (11). Despite being time-consuming and requiring substantial resources, data indicates that counseling services—preoperative, postoperative, and pre-discharge—can dramatically improve patient outcomes (12).

In the present study, mean postoperative pain on the Visual Analogue Scale (VAS) was significantly lower in the group that received preoperative counseling (3.43 \pm 1.07) compared to the group that did not (5.03 \pm 1.61), with a p-value of 0.03. These findings align with previous studies indicating that preoperative counseling improves outcomes for patients undergoing various surgical procedures, reducing anxiety, pain scores, and the need for additional analgesic medication.

Further analysis revealed that preoperative counseling was effective across different demographics, including gender, age groups, ASA class, and educational status. Notably, patients with higher educational levels showed the most significant benefit, indicating that understanding and engagement in the treatment process may enhance the efficacy of preoperative counseling.

These results suggest that preoperative counseling should be considered a standard part of surgical care, as it helps manage patient expectations and significantly improves postoperative pain management and overall patient satisfaction. Future studies could explore the most effective counseling elements, as well as the long-term benefits of such interventions on patient outcomes.

Conclusion

The study concludes that preoperative counseling significantly improves postoperative pain management, as shown by lower pain scores in patients who received

counseling compared to those who did not. Counseling helps patients understand the surgical process and pain management strategies, leading to better pain control and increased patient satisfaction. Integrating preoperative counseling into standard surgical care can improve clinical outcomes and patient experiences. Future research should focus on the long-term benefits of such interventions and identify the most effective elements of preoperative counseling.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate.

Approved by the department concerned. (IRB-IEE-93772/20)

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Conflict of interest

The authors declared an absence of conflict of interest.

Authors Contribution

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