

Patient Satisfaction with Anaesthesia Care at a Tertiary Hospital: Elective vs. Emergency Cases – A Cross-Sectional Study

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Abstract

Background

Patient satisfaction is a crucial measure of perioperative care quality, reflecting clinical outcomes and experiences, particularly in resource-constrained public hospitals. This study examined satisfaction levels among patients undergoing elective and emergency surgery at a South African tertiary hospital, addressing a gap in comparative data.

Methods

We conducted a cross-sectional study of 124 elective and 124 emergency surgical patients. We evaluated satisfaction with anaesthesia care 12–24 hours postoperatively using the Leiden Perioperative Patient Satisfaction questionnaire in English and isiZulu. Statistical analyses included one-sample t-tests and Mann-Whitney U tests to compare satisfaction levels.

Results

We included 248 patients: 124 elective and 124 emergency surgical patients. The mean age was 44.8 years (SD 15.3); 63.7% were male, and 87.5% were Black African. Overall satisfaction with information was high, with all information items scoring above 4 on a 5-point scale. Elective patients reported higher satisfaction with information than emergency patients (mean composite score 4.50 [SD 0.50] vs 4.03 [SD 0.82]). Most participants reported little or no postoperative pain (70.2%), sore throat (87.5%), back pain (91.9%), or vomiting (96.0%). Emergency patients reported significantly greater cold ($p=0.009$), hunger ($p=0.049$), and thirst ($p=0.005$) and had higher discomfort-and-needs scores than elective patients (mean rank 135.58 vs 113.42; $p=0.015$). Satisfaction with general and personal care was high in both groups; however, elective patients reported higher satisfaction with general care (mean 4.41 [SD 0.48] vs 4.27 [SD 0.38]; $p=0.02$) and personal care (mean 3.94 [SD 0.67] vs 3.69 [SD 0.71]; $p=0.021$) than emergency patients.

Conclusion

The study found high patient satisfaction with anaesthesia care and highlighted the need to improve communication and attention to basic comfort needs for emergency patients.

Recommendation

Structured perioperative communication and protocols to address warmth, hydration, and nutritional needs should be implemented, particularly for emergency surgical patients, to reduce discomfort and improve patient-centred anaesthesia.

Key words: anaesthesia; elective; emergency; patient satisfaction; perioperative care

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Introduction

Patient satisfaction is an important measure of healthcare quality and a key goal in perioperative care, especially in busy public sector settings. Following patient-centred care principles, the evaluation of anaesthesia services must consider not only clinical outcomes but also patients' experiences, expectations, and perceptions of the care they receive.¹⁻³ Satisfaction with anaesthesia is a crucial element in quality improvement efforts. Although global satisfaction scores in anaesthesia studies are

generally high, specific issues such as postoperative pain, nausea, anxiety, lack of information, poor communication, and unmet basic needs can significantly affect how patients rate their care.^{4,5} Many factors affect satisfaction with anaesthesia care, including patient traits, provider actions, and system limitations. Demographic factors such as age, gender, education level, health status, and prior exposure to anaesthesia are associated with differences in satisfaction ratings.^{2,6,7} Provider-related factors, especially the quality of

communication, clarity of preoperative information, shared decision-making, empathy, and professionalism, play a major role in shaping patient experiences.^{5,8,9} Elements related to care processes, like case urgency (elective versus emergency), theatre workload, delays, and the ability to address discomfort and basic needs (pain, thirst, cold, hunger), also significantly influence patients' overall evaluations of anaesthesia care.^{4,5,10}

International data show that, while high-income countries (HICs) often report satisfaction levels of 80 – 90%, low- and middle-income countries (LMICs) exhibit more varied, and often lower, satisfaction rates.^{2,11-13} In LMICs, issues with information delivery, postoperative symptom control, and communication are frequently noted. These challenges may worsen in resource-limited public hospitals.^{2,12,14} In South Africa, existing studies focus on specific patient groups and elective procedures, reporting generally high satisfaction but consistently pointing out weaknesses in preoperative information, postoperative pain management, and continuity of care.^{15,16} However, there is a lack of data directly comparing satisfaction between elective and emergency surgery in the anaesthesia context.

The Leiden Perioperative Patient Satisfaction questionnaire (LPPSq) provides a thorough, validated method for measuring patient satisfaction with perioperative care from the patient's viewpoint.^{12,17,18} It evaluates important areas such as information, discomfort and needs, fear and concern, professionalism, and the staff–patient relationship.^{12,17,18} This tool has been used in various settings, including LMICs.^{6,11,12}

This study aimed to assess patient satisfaction with anaesthesia care at a tertiary hospital and compare satisfaction between elective and emergency surgical patients across several areas. Understanding these patterns is vital to identify targeted ways to improve perioperative communication, symptom management, and the overall quality of anaesthesia care in a resource-limited, high-demand setting.

Methods

Study design and setting

This descriptive cross-sectional study was conducted at Chris Hani Baragwanath Academic Hospital (CHBAH), a public academic tertiary hospital in Soweto, Johannesburg, Gauteng, South Africa. CHBAH is affiliated with the University of the Witwatersrand and serves as a major teaching, referral and specialist-care centre for Soweto and surrounding areas, as well as for patients referred from other facilities in Gauteng, North West Province and neighbouring regions. The hospital provides a broad range of medical, surgical, trauma, critical-care and specialist services and manages both high-volume elective and emergency surgical workloads. Its large, resource-constrained public-sector setting, with a substantial emergency surgical caseload, provided an appropriate setting in which to compare patient satisfaction with perioperative anaesthesia care between elective and emergency surgery.

Study population and sampling

Adult patients (≥ 18 years) undergoing elective or emergency surgery from Sunday to Thursday were eligible if they provided informed consent and completed the questionnaire 12 to 24 hours after surgery. Patients who were admitted to the Intensive Care Unit (ICU), had day-case surgery, were undergoing obstetric or ophthalmic procedures, received repeat anaesthesia during the same admission, or had cognitive or speech impairments were excluded. Obstetric and ophthalmology patients were excluded due to their remote location from the main hospital and the difficulty of follow-up. A sample size of 248 patients (124 elective, 124 emergency) was calculated using Stata 18, assuming a 50% prevalence, 17% precision, 95% confidence level, and 80% power. Anaesthetic charts from the previous day were screened for eligibility, and a random sample was drawn from the elective and emergency groups using an online randomiser.²⁷

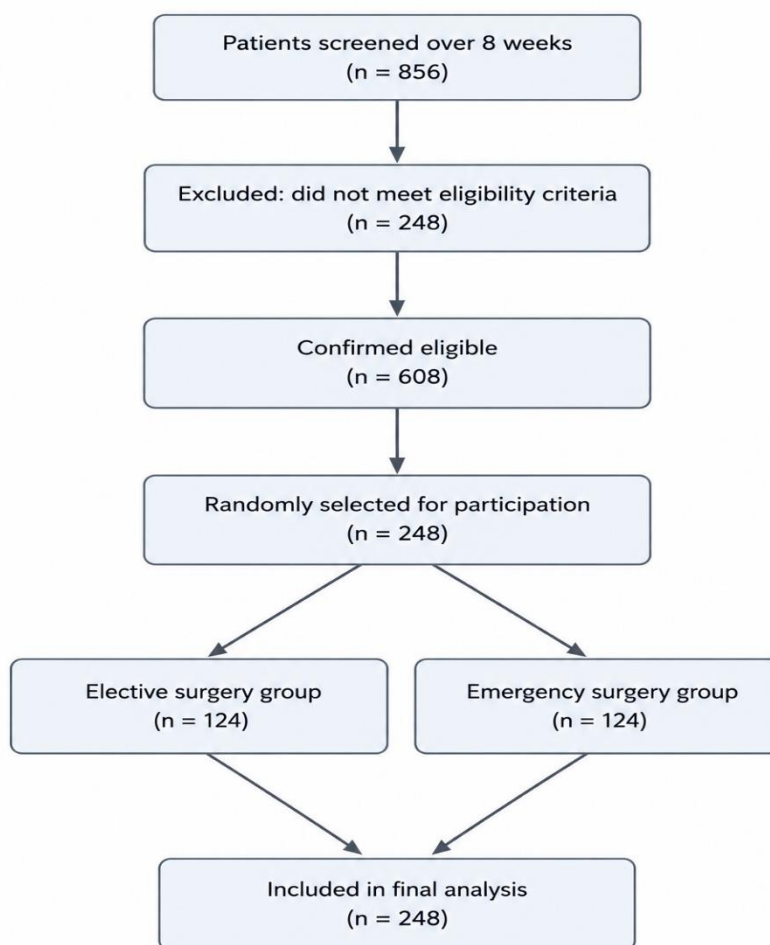


Figure 1: Flow of Participants

Data collection

Data were collected using the modified LPPSq. The questionnaire was available in English and isiZulu; the isiZulu version followed standard translation and pre-testing procedures stipulated by Beaton et al.³⁷ The investigator approached patients 12–24 hours after surgery, provided standardised information about the study, obtained verbal consent, and allowed participants to self-complete the questionnaire privately where possible; assistance was provided only when required because of literacy, language or physical limitations.

Bias

Several measures were implemented to minimise potential bias. To reduce selection bias, eligible patients were

identified from the previous day's anaesthetic records and randomly selected separately from elective and emergency surgery lists using an online randomiser. We recruited equal numbers of elective and emergency patients to enable balanced group comparisons. We collected data within a standardised postoperative period of 12–24 hours to minimise variation related to assessment timing. A validated patient-reported outcome measure, the LPPSq, was used in English and isiZulu; the isiZulu version was translated and pre-tested using standard procedures. Participants self-completed the questionnaire where possible, and assistance was provided only when required, to minimise interviewer influence. Participation was voluntary, confidentiality was assured, and patients were informed that participation or

refusal would not affect their care, thereby reducing the risk of social-desirability bias.

Outcomes and analysis

The primary outcomes were domain scores for information, discomfort and needs, fear and concern, professionalism, and the staff-patient relationship. Composite scores were developed after confirming internal consistency with Cronbach's alpha. Descriptive statistics summarised demographic and clinical data. One-sample t-tests compared mean domain scores with the neutral value of 3 to determine whether satisfaction or dissatisfaction was significant. We used independent-samples t-tests for normally distributed continuous or composite LPPSq domain scores and Mann-Whitney U tests when distributional assumptions were not met. The Mann-Whitney U test was used to compare elective and emergency groups for the information, discomfort and needs, fear and concern, general care, and personal care domain scores. Categorical demographic and clinical variables were summarised as frequencies and percentages. Pearson's chi-square test was used to assess associations between categorical variables when the expected cell frequencies were adequate; Fisher's exact test was used when expected cell counts were less than 5. Chi-square goodness-of-fit tests were used to assess whether the distribution of responses to postoperative discomfort items differed significantly across the five Likert-scale response categories. For example, response distributions for postoperative pain, sore throat, back pain, and vomiting were significantly skewed toward "not at all" or "a little bit" (all $p < 0.001$). All tests were two-sided, and a p-value of less than 0.05 was considered statistically significant.

Ethics

Ethical approval was obtained from the University of the Witwatersrand Human Research Ethics Committee (Medical) (M25/07/36), and institutional permission was granted. Participation was voluntary, and verbal consent was required, with assurance that refusal would not affect care. Data were anonymised and stored securely.

Results

Patient Demographics

Altogether, 248 patients were included in the analysis, with equal numbers in the elective ($n = 124$) and emergency ($n = 124$) groups. The mean age was 44.81 years (SD 15.28; range 19–82 years), with elective patients slightly older than emergency patients (46.98 vs 42.65 years). Most participants were male (63.71%, $n = 158$) and Black African (87.50%, $n = 217$), with similar distributions across elective and emergency groups. Just over half of the sample was single (53.63%), and 45.56% were married. (Table 1) Approximately half of patients were classified as ASA II (50.40%), with 22.58% ASA I, 26.61% ASA III, and 0.40% ASA IV. General anaesthesia was the most common technique (57.7%), followed by regional anaesthesia (31.9%) and combined general-regional anaesthesia (9.700%), with broadly similar distributions between elective and emergency surgery. (Table 1)

Information provided about anaesthesia and surgery

For the total sample, mean scores for all four information items (explanation about the surgery, amount of information about the surgery, explanation about the stay in theatre, and information about the stay in theatre) were above 4 on a 5-point scale. All differed significantly from the neutral value of 3 (one-sample t-tests; all $p < 0.001$), indicating high overall satisfaction with the information provided. (Table 2) While both groups were satisfied with the information they received, the elective group was significantly more satisfied with all four items. A composite "information" score (INFO) showed excellent internal consistency in both groups (Cronbach's alpha: elective 0.87, emergency 0.95). The elective group had a higher INFO mean (4.5, SD 0.50) than the emergency group (4.02, SD 0.81), and both groups remained significantly above the neutral value ($p < 0.001$). (Figure 1)

Table 1: Demographic Characteristics

Characteristic	Frequency (n)	Percentage (%)
Gender		
Male	158	63.709
Female	90	36.290
Race		
Black	217	87.500
White	2	0.806
Coloured	24	9.677
Indian	5	2.016
Highest level of education		
Degree	20	8.064
Diploma	31	12.500
Higher certificate	7	2.822
Matric	74	29.838
Less than matric	116	46.774
Marital status		
Single	133	53.629
Married	113	45.564
Divorced/Separated	1	0.403
Widowed	1	0.403
ASA status		
ASA I	56	22.580
ASA II	125	50.403
ASA III	66	26.612
ASA IV	1	0.403
ASA V	0	0.000

Table 2: Satisfaction with Information Received

Item	N	Mean(SD)	p-value
Explanation about surgery			
Elective	124	4.510(0.563)	<0.001
Emergency	124	4.100(0.905)	<0.001
Amount of information about the surgery			
Elective	124	4.560(0.560)	<0.001
Emergency	124	4.050(0.909)	<0.001
Explanation about staying in theatre			
Elective	124	4.490(0.563)	<0.001
Emergency	124	4.000(0.826)	<0.001
Amount of information about stay in theatre			
Elective	124	4.440(0.654)	<0.001
Emergency	124	3.960(0.869)	<0.001

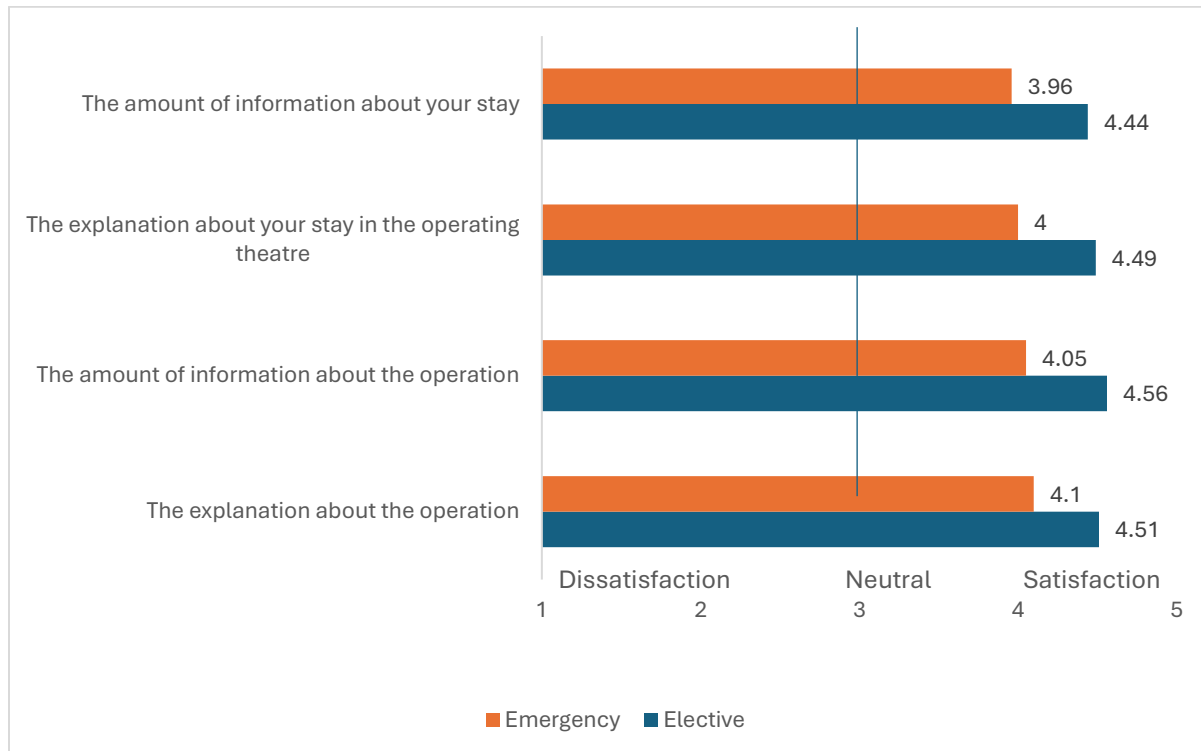


Figure 1: Satisfaction with information received

Discomfort and postoperative needs

Across the entire cohort, most patients reported little or no postoperative pain: 70.16% experienced 'not at all' or 'a little bit' of pain, with only 17.34% reporting 'quite a lot' or 'extremely'. For sore throat, 87.5% reported 'not at all' or 'a little bit', and only 6.05% reported 'quite a lot' or 'extremely'. Similarly, 91.93% reported 'not at all' or 'a little bit' of back pain, and 95.96% reported 'not at all' or 'a little bit' of vomiting. Significant chi-square goodness-of-fit tests showed that responses for pain, sore throat, back pain,

and vomiting were skewed towards the 'not at all' and 'a little bit' categories (all $p < 0.001$). (Table 3)

Cold, hunger, and thirst were more frequently reported and showed important differences between groups. Compared with elective patients, emergency patients had higher frequencies of feeling cold, hungry, and thirsty postoperatively. Mann-Whitney tests indicated that the emergency group experienced cold, hunger, and thirst significantly more ($p = 0.009$, 0.049 , and 0.005 , respectively). (Table 3)

Table 3: Discomfort and Postoperative Needs

	Not at all	A little bit	Moderately	Quite a bit	Extremely	p-value
Postoperative pain						
Elective	63 (50.806)	27 (21.774)	17 (13.709)	9 (7.258)	8 (6.451)	< 0.001
Emergency	57 (45.967)	27 (21.774)	14 (11.290)	14 (11.290)	12 (9.677)	< 0.001
Sore throat						
Elective	71 (57.258)	35 (28.225)	10 (8.064)	6 (4.838)	2 (1.612)	< 0.001
Emergency	74 (59.677)	37 (29.838)	6 (4.838)	3 (2.419)	4 (3.225)	< 0.001
Back pain						
Elective	86 (69.354)	26 (20.967)	5 (4.032)	6 (4.838)	1 (0.806)	< 0.001
Emergency	97 (78.225)	19 (15.322)	3 (2.419)	1 (0.806)	4 (3.225)	< 0.001
Vomiting						
Elective	108 (87.096)	10 (8.064)	4 (3.225)	2 (1.612)	0 (0.000)	< 0.001
Emergency	102 (82.258)	18 (14.516)	1 (0.806)	2 (1.612)	1 (0.806)	< 0.001
Cold						
Elective	81 (65.322)	20 (16.129)	9 (7.258)	10 (8.064)	4 (3.225)	< 0.001
Emergency	57 (45.967)	35 (28.225)	19 (15.322)	9 (7.258)	4 (3.225)	< 0.001
Hunger						
Elective	43 (34.677)	24 (19.354)	21 (16.935)	21 (16.935)	15 (12.096)	0.001
Emergency	32 (25.806)	19 (15.322)	27 (21.774)	23 (18.548)	23 (18.548)	0.419
Thirst						
Elective	36 (29.032)	21 (16.935)	16 (12.903)	25 (20.161)	26 (20.967)	0.066
Emergency	22 (17.741)	10 (8.064)	25 (20.161)	27 (21.774)	40 (32.258)	0.001

A total “discomfort and needs” score (DN) was created by summing the seven discomfort and needs items on a scale of 1–5, where 1 equals ‘not at all,’ and 5 equals ‘extremely’. This score ranges from 7–35, with higher values indicating worsening discomfort. The mean DN score was 13.35 (SD 4.07) in elective patients and 14.64 (SD 4.84) in emergency patients, indicating overall low to moderate discomfort in both groups, with a tendency towards higher discomfort in emergency cases. (Table 3)

Fear and Concern

A fear and concern score (FC) was created using a similar scale as for discomfort and needs of 1–5, where 1 equals ‘not at all’ and 5 equals ‘extremely’. The mean FC score was 11.67 (SD 5.15) in elective patients and 12.23 (SD 5.07) in emergency patients, indicating an overall low-to-moderate FC in both groups. Mann-Whitney tests showed no significant differences between the two groups for any item. (Table 4)

Table 4: Fear and Concern

Fear and concern	Group	n	Mean rank	p-value
Not waking up after the operation	Elective	124	124.440	0.988
	Emergency	124	124.560	
Waking up during the operation	Elective	124	129.010	0.181
	Emergency	124	119.990	
Seeing the operating theatre	Elective	124	120.910	0.402
	Emergency	124	128.090	
Pain due to the surgeon	Elective	124	118.600	0.163
	Emergency	124	130.400	
Mistakes by the surgeon	Elective	124	123.490	0.799
	Emergency	124	125.510	
Pain due to the anaesthetist	Elective	124	118.540	0.128
	Emergency	124	130.460	
Mistakes by the anaesthetist	Elective	124	122.040	0.537
	Emergency	124	126.960	

General and Personal Care

Factor analysis of the 14 staff-patient relationship items yielded two latent factors, general care (GEN) and personal care (PER), accounting for 51.9% of the variance, with a Kaiser-Meyer-Olkin value of 0.90 and a significant Bartlett's test, confirming suitability for factor extraction. Internal consistency was high for both GEN (Cronbach's alpha 0.89) and PER (0.85).

For the total sample, one-sample t-tests showed significant satisfaction with both general and personal care (GEN mean 4.34, SD 0.44; PER mean 3.81, SD 0.70; both $p < 0.001$ vs. 3). When stratified by group, elective patients reported GEN mean 4.410 (SD 0.48) and PER mean 3.940 (SD 0.67), while

emergency patients reported GEN mean 4.270 (SD 0.38) and PER mean 3.69 (SD 0.71); all values were significantly higher than 3 (all $p < 0.001$). Mann-Whitney tests showed that both GEN and PER scores were significantly higher in the elective than in the emergency group (GEN $Z = -3.05$, $p = 0.002$; PER $Z = -2.31$, $p = 0.021$).

At the individual-item level, elective patients consistently reported higher satisfaction than emergency patients for several aspects of the staff-patient relationship, including staff politeness, kindness, professionalism, understanding, respect, willingness to answer questions, attention to complaints, and attention to personal preferences and cultural background (all $p < 0.050$).

Overall Satisfaction Between Elective and Emergency

Table 5: Mean Rank Scores for Satisfaction Between Elective and Emergency

Category	Group	n	Mean rank	p-value
Information (INFO)	Elective	124	145.456	<0.001
	Emergency	124	103.540	
Discomfort and needs (DN)	Elective	124	113.420	0.015
	Emergency	124	135.580	
Fear and concern (FC)	Elective	124	119.690	0.286
	Emergency	124	129.310	
Patient-staff: general (GEN)	Elective	124	138.330	0.002
	Emergency	124	110.670	
Patient-staff: personal (PER)	Elective	124	134.870	0.021
	Emergency	124	114.130	

Influence of Demographics on Patient Satisfaction

Gender

Females showed significantly more fear and concern than males ($p = 0.010$).

Table 6: Satisfaction of Males vs Females

Category	Group	n	Mean Rank	p-value
Information (INFO)	Male	158	121.950	0.440
	Female	90	128.980	
Discomfort and needs (DN)	Male	158	120.640	0.260
	Female	90	131.270	
Fear and concern (FC)	Male	158	115.760	0.010
	Female	90	139.840	
Patient-staff: general (GEN)	Male	158	122.700	0.599
	Female	90	127.660	
Patient-staff: personal (PER)	Male	158	122.010	0.464
	Female	90	128.870	

Type of anaesthetic

INFO, FC, and GEN differed significantly by anaesthetic type.

Satisfaction with the information given differed significantly by anaesthetic type ($\chi^2 (4) = 9.8, p = 0.044$). Post hoc analysis showed that patients who had regional anaesthesia (RA) and general anaesthesia (GA) were significantly more satisfied than those who had GA only ($p = 0.007$).

There was a statistically significant difference in the degree of fear and concern depending on the anaesthetic they had ($\chi^2 (4) = 12.68, p = 0.013$). Post hoc analysis showed that those who had GA showed significantly more fear and concern than those who had RA ($p = 0.002$).

There was a statistically significant difference in satisfaction with the general care provided by theatre staff depending on the anaesthetic given ($\chi^2 (4) = 11.959, p = 0.018$). Post hoc analysis showed that those who had RA or RA and GA were significantly more satisfied than those who had GA ($p = 0.008, p = 0.046$, respectively).

Age, race, employment status, religion, marital status and ASA class showed no significant differences.

Discussion

This study found that adult surgical patients at a large public academic hospital in Johannesburg reported high satisfaction with perioperative anaesthesia care. They gave positive ratings for the information provided, overall care, and staff professionalism. These results are consistent with findings from both international and local studies, which show that satisfaction with anaesthesia is typically high, even when specific concerns arise. The results suggest that, despite limited resources and heavy workloads, anaesthesia teams in this environment largely meet patient expectations for communication, symptom management, and personal care.

A key observation is that both elective and emergency patients felt satisfied with the amount and clarity of

information they received about their operations and perioperative experiences, with average information scores well above the neutral point. These findings differ from studies in several LMICs, where inadequate information and communication are often cited as reasons for dissatisfaction with anaesthesia care.^{11,12,14,19} In our study, preoperative explanations and consistent communication during the perioperative period may have eased some concerns and reduced anxiety. This aligns more with experiences seen in HICs, where sharing information and making joint decisions are crucial for patient satisfaction.^{9,20,21} Elective patients had higher information scores, whereas emergency patients had less time for detailed discussions and prioritised urgent clinical decisions over thorough counselling. Similar differences have been noted between elective and emergency contexts, where time pressure, patient distress, and uncertainty can limit chances for effective communication.^{22,23}

Regarding postoperative symptoms, most participants reported little or no pain, sore throat, back pain, or nausea. This is encouraging compared to earlier studies, which indicate that poorly managed pain and postoperative nausea significantly contribute to dissatisfaction with anaesthesia care.^{2,24,25} The relatively low symptom burden in this group suggests that pain relief and anti-nausea treatments generally worked well, even in a resource-limited setting. However, emergency patients reported slightly more pain than elective patients. The trend of higher discomfort in the emergency group highlights the ongoing challenge of managing symptoms effectively when patients arrive late, are unstable, or require expedited surgery.

Cold, hunger, and thirst were the most reported postoperative discomforts, particularly among emergency patients. This relates to basic needs such as warmth, relief from thirst, and timely access to food, even when pain and major complications are well managed. These issues may be related to systemic problems such as operating room scheduling, unnecessarily prolonged fasting, delays in postoperative access to food and fluids, and limited warming

measures. Addressing these basic comfort needs is important for the patient experience. Patients often weigh such immediate discomforts heavily when assessing their overall satisfaction.

The study showed that females had more fear and concern than males. The reason for this finding was not explored.

The analysis of aspects of the staff-patient relationship revealed two clear areas: general care (including professionalism, politeness, respect, and willingness to answer questions) and personal care (focusing on individual preferences and cultural backgrounds). Both areas showed high satisfaction overall, with elective patients again scoring higher than emergency patients. These findings support the idea that interpersonal aspects of anaesthesia care, such as communication style, empathy, respect, and responsiveness, greatly influence satisfaction. The lower scores among emergency patients, while still within a satisfied range, may reflect time constraints, higher acuity, staff fatigue, or less continuity of care in emergency pathways, as noted in studies from other LMICs and busy hospitals.^{12,26}

Studies from Ethiopia and Eritrea, for example, have shown more varied satisfaction levels, with concerns about information provision, communication, and pain control after surgery.^{6,11,12} In contrast, our findings align more closely with studies from some middle- and high-income settings, where overall satisfaction is high alongside specific areas for improvement. Emergency surgery patients, who are often more clinically vulnerable, seem to have a less favourable experience, particularly concerning comfort and personalised care.

These results emphasise the complexity of patient satisfaction during the perioperative period and support the continued use of reliable tools like the LPPSq in LMICs. High satisfaction regarding information and staff professionalism shows strengths in communication and personal care at this hospital. The discomfort and lower satisfaction scores among emergency patients, especially regarding basic needs and personal care, indicate areas for improvement.

Possible solutions could include communication protocols before and after surgery, better warming and hydration strategies, and workflow changes to address hunger and thirst quickly. Future research should also examine how organisational factors, such as staffing levels, operating room throughput, and handover processes, affect these areas and whether addressing them can help bridge the satisfaction gap between elective and emergency patients identified in this study.

This study contributes to the limited evidence on perioperative anaesthesia satisfaction in South Africa by comparing elective and emergency patients at a large public tertiary hospital. The findings suggest that while patient-centred perioperative care is possible in resource-challenged

settings, focused efforts are needed to ensure that patients needing emergency surgery receive the same level of communication, comfort, and personalised care as those undergoing elective procedures.

Generalisability

This study was conducted at a single large public tertiary academic hospital in Johannesburg, South Africa, and the findings should therefore be interpreted within this context. The hospital manages a high volume of elective and emergency surgical cases in a resource-constrained public-sector environment; consequently, the findings may be relevant to other large public tertiary hospitals in South Africa and similar LMICs with comparable patient populations, surgical workloads, staffing patterns and resource limitations. However, the findings may not be directly generalisable to private-sector hospitals, district or regional hospitals, rural facilities, or hospitals in other provinces and countries with different patient demographics, healthcare resources, perioperative pathways and models of anaesthesia care. In addition, excluding patients admitted to the intensive care unit, those undergoing day-case, obstetric, or ophthalmic procedures, and patients unable to complete the questionnaire limits the applicability of the findings to these groups. Assessing satisfaction 12–24 hours after surgery also means the results reflect early postoperative experiences and may not represent satisfaction later in recovery. Multicentre studies across different levels of care and geographic settings are needed to assess the consistency and wider applicability of these findings.

Conclusion

Adult surgical patients at this large public academic hospital expressed high satisfaction with perioperative anaesthesia care. They particularly appreciated the information provided, the general care, and staff professionalism. Both elective and emergency groups showed significant satisfaction across LPPSq domains. This suggests that, despite limited resources, anaesthesia teams generally meet patient expectations for communication, symptom control, and personal care. However, elective patients consistently reported higher satisfaction with information as well as general and personal care. In contrast, emergency patients experienced greater discomfort, especially regarding cold, hunger, and thirst. Targeted quality improvement efforts in these areas could help bridge the satisfaction gap and enhance patient-centred anaesthesia care in similar, busy public sector environments.

Limitations

This study had several limitations that affected the interpretation of the findings. The descriptive cross-

sectional design examined satisfaction 12 to 24 hours after surgery. This may not reveal how satisfaction with care changes over time, considering potential complications and recovery experiences. Data were collected at a single large public academic hospital and may not be representative of smaller regional hospitals, private institutions, or other provinces with different patient profiles and resources. Satisfaction was measured using a self-reported questionnaire administered within 24 hours of surgery. During this time, patients might have felt relief from completing surgery or experienced the lasting effects of anaesthesia, which might have increased satisfaction. The LPPSq is a validated tool and showed strong internal consistency in this sample. However, it may not have captured cultural differences or specific expectations for perioperative care in a diverse South Africa. We excluded patients admitted to the ICU, those undergoing day-case surgery, obstetric and ophthalmic cases, and those who were unable to consent or complete the questionnaire. As a result, we did not assess the experiences of more critically ill or vulnerable groups.

Recommendations

Based on this study's findings, perioperative quality-improvement initiatives should prioritise the needs of emergency surgical patients. These initiatives should include structured, time-efficient communication before and after surgery; routine assessment and prompt management of postoperative cold, hunger and thirst; and strengthened attention to patients' individual preferences and personal care needs. Simple measures such as providing warming interventions, minimising unnecessary preoperative fasting, facilitating timely postoperative access to oral fluids and nutrition when clinically appropriate, and using standardised perioperative communication checklists may improve the patient experience. Future multicentre studies should evaluate whether implementation of these interventions improves patient satisfaction and reduces the observed differences between elective and emergency surgical patients.

Abbreviations

1. ASA - American Society of Anaesthesiologists
2. CHBAH - Chris Hani Baragwanath Academic Hospital
3. GA – general anaesthesia
4. HICs - high-income settings
5. ISAS - Iowa Satisfaction with Anesthesia Scale
6. LMICs - low- and middle-income settings
7. PSQ - Patient Satisfaction Questionnaire
8. PACU - Post-Anaesthesia Care Unit
9. PONV - postoperative nausea and vomiting

10. RA – regional anaesthesia
11. SERVQUAL - Service Quality
12. LPPSq - The Leiden Perioperative Care Patient Satisfaction Questionnaire
13. WITS - University of Witwatersrand

Conflict of interest

The authors declare no conflict of interest.

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Data availability

Data will be made available upon reasonable request.

Author contribution

Both authors contributed equally to the concept, design, implementation, and writing of this manuscript.

Biographies

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2. **Dr. Dorinka Nel** has an MBChB from the University of Pretoria, as well as a Diploma and Fellowship in Anaesthesiology from the Colleges of Medicine of South Africa. She is currently a senior consultant at the Department of Anaesthesia at Chris Hani Baragwanath Academic Hospital and affiliated with the School of Clinical Medicine at the University of the Witwatersrand. She is an examiner for the College of Anaesthesia and has been an external examiner for the MMed(Anaes). She regularly supervises postgraduate students on their research projects for Master degrees in anaesthesia. She is an anaesthetic assessor for the National Committee on the Confidential Enquiry of Maternal Deaths (NCCEMD). Her interests include obstetric anaesthesia, patient safety, patient outcomes, and critical incident analysis.

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