Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol. 6 No. 3 (2025): March 2025 Issue
https://doi.org/10.51168/sjhrafrica.v6i3.1526
Original Article

THE EFFECTIVENESS OF POST-OPERATIVE ANALGESIA IN CAESAREAN SECTION PATIENTS AT KING DINUZULU HOSPITAL COMPLEX: A PROSPECTIVEQUALITATIVE DESCRIPTIVE ANALYTICAL STUDY AT A DISTRICT LEVEL HOSPITAL IN SOUTH AFRICA.

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ABSTRACT

Background
Post-operative pain management in cesarean section (C-section) patients is crucial for optimal recovery. However, pain control in district-level hospitals, such as King Dinuzulu Hospital Complex in KwaZulu-Natal, often faces challenges due to resource limitations and variability in clinical practices. The study aimed to assess post-operative pain management following spinal anesthesia in women receiving a cesarean section. The main objective was to assess a patient's pain level at specified time intervals post-operatively – therefore evaluating the adequacy of the post-operative analgesia prescribed and administered in decreasing a patient's pain level.

Methods
This prospective qualitative descriptive-analytical study included 157 women undergoing elective C-sections under spinal anesthesia. Pain management effectiveness was assessed using patient questionnaires and visual analog scales (VAS) at multiple time points post-operation.

Results
The participants ranged in age from 18 to 44 years with a mean age of 30.5 years (SD = 5.54) and most of the participants were African (96.1%). The study revealed significant variability in analgesic prescriptions and administration, with many patients experiencing suboptimal pain relief. Despite a standard protocol, *29.9% of patients reported increased pain 24 hours post-surgery, highlighting inconsistencies in pain management practices.*

Conclusion
The findings underscore the need for standardized pain management protocols and improved training for healthcare providers to enhance patient outcomes.

Recommendations
The Authors recommend that healthcare workers should be trained on the latest postoperative analgesia guidelines for women coming for cesarean section. Pain should be regularly assessed in the postnatal ward and analgesia administered timeously.

Keywords: *Post-operative pain, Cesarean section, Analgesia, Spinal anesthesia, Pain management, Pain scores, District hospital, King Dinuzulu Hospital*
Submitted: 2025-01-21 **Accepted:** 2025-02-15 **Published:** 2025-03-04

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BACKGROUND

A cesarean section is a surgical procedure performed in many district-level hospitals around the country and provides an important service to women in labor in South Africa. Post-operative pain plays an important part in a patient's recovery after surgery. Pain is a biopsychosocial experience and is largely influenced by culture, previous pain experience, and the ability to cope (11). Inadequate management of acute pain can lead to reduced quality of

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life, impaired sleep, impaired physical function, high rates of re-admission to hospital, and the risk of developing chronic pain (5,6,13).

The literature regarding the effectiveness of post-operative pain management in the obstetric population is unclear and contextual. Inadequate pain relief in the obstetric patient in the postoperative period can result in a decrease in breast milk production, as well as respiratory, dietary intake, and ambulation impairment that leads to complications such as thromboembolism, ileus, atelectasis, and pneumonia (5,6,13).

The South African Acute Pain Guidelines, which classify post-caesarean section pain as moderate to severe, together with other abdominal procedures (14), recommend the use of a combination of simple analgesics, non-steroidal anti-inflammatory drugs, and weak opioids. This is by international guidelines (9).

Within public healthcare environments, including district-level hospitals, the Essential Drugs List (EDL) offers a structure for the availability of drugs in South Africa (12). The EDL seeks to guarantee that necessary drugs—including analgesics—are regularly accessible and available. However, there is usually a notable discrepancy between these advised behaviors and the real implementation of pain management techniques, which causes patients to get different results (1). Logistically, limited healthcare resources and differences in healthcare practitioner training and adherence to standards help to explain this disparity (7). For instance, even if the EDL might designate some analgesics as necessary, inadequate pain management can result from stock shortages or lack of knowledge of some drugs among healthcare personnel.

This study is to evaluate at King Dinuzulu Hospital Complex the efficacy of postoperative analgesia especially for caesarean section patients. Examining the effectiveness of the prescribed medication and following recommended pain management techniques is the primary goal. Understanding these dynamics is essential given the great number of cesarean sections carried out at district hospitals and the urgent need for efficient post-operative pain management in this patient population. This study aims to highlight areas of present practices and provide suggestions for development by analyzing the pharmacological and pragmatic sides of pain management. Improving the quality of treatment and patient outcomes is the ultimate aim so that every woman having a cesarean section gets the pain relief required for a quick and seamless recovery.

METHODS

Study Design

We conducted a Prospective qualitative descriptive-analytical study at King Dinuzulu Hospital Complex (KDHC) in Durban, South Africa.

Study Setting

King Dinuzulu Hospital Complex (KDHC) is a district-level hospital. This district hospital provides family medicine services to the surrounding community. The Hospital also provides specific services that include a psychiatric unit, a Tuberculosis (TB) complex for the treatment of Multi-drug resistant (MDR) and Extensively drug-resistant (XDR) TB, and a dental clinic. The theatre complex provides both district-level obstetrics and gynecological services, as well as tertiary-level thoracics and spinal surgery.

The study was initiated in the King Dinuzulu Hospital theatre complex and followed up with pain score assessments in the postnatal ward over 24 hours between August 2023 to January 2024.

Study Population

The study population consisted of pregnant women scheduled for elective cesarean section under spinal anesthesia at King Dinuzulu Hospital Complex. The inclusion criteria were female patients aged 18-44 years, classified as ASA II-III, and receiving spinal anesthesia. Exclusion criteria included emergency cesarean sections, women who receive a spinal anesthetic and are converted to a general anesthetic intra-operatively, elective general anesthesia cases, and combined spinal-epidural or epidural anesthesia.

Bias

To minimize bias all patients coming for an elective cesarean section were considered for the study unless they did not meet the inclusion criteria. When taking informed consent, it was made certain that the patients' understood the reason for the study in their home language. Information bias was addressed by using a standardized data collection tool and ensuring consistency in data entry.

Sampling

All pregnant women coming to the theatre for cesarean section (elective surgery), who received a regional technique (spinal) for analgesia were included in the study.

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Patients were included in the study from Monday to Friday between 8 am and 4 pm for 6 months. The original sample size calculated was 200 to estimate the proportion of women with a reduced pain score after post-op analgesia to within +/- 10% with a probability of 95%. The sample size was calculated using Stata v15 statistical software. The sample size inputs were a precision of 10% with 95% probability and a baseline estimate of 50%.

The sample size was then adjusted to 157 women due to the reduced number of women booked for elective cesarean sections and the increased burden of emergency cesarean sections. A study was due to be conducted in which the main inferential analysis will consider a Chi-Square test for the independent association of two categorical variables of which we anticipate a maximum of two categories within each variable. The null hypothesis (H0) to be tested was that there would be no independent association between the two categorical variables against the alternative hypothesis (H1) that there would be an independent association between the two categorical variables. It was then assumed that the most complex contingency table for the Chi-Square test would have a 2x2 structure resulting in (2-1)(2-1) = 1 degrees of freedom (df). In the application of the Chi-Square test, sample sizes usually detect effect sizes between 0.1 and 0.5 with 0.1 considered small and desirable, 0.3(medium), and 0.5(large). Hence, we wished to estimate a sample size that will be capable of detecting small to medium effect sizes. Should the test reject the null hypothesis (or detect the effect size) when it is indeed true, the error is set not to exceed 5% (Type I of α=0.05), translating to a 95% confidence level with the reached conclusion. On the other hand, if the test fails to reject the null hypothesis when it is not true, such a chance is wished not to exceed 10% (Type II error of β=0.1) implying that the estimated sample size will consistently detect the desired effect size about 90% of the time (power of test). Given the α=0.05, β=0.1 and df = 1 and using GPower 3.1.9.7 sample size calculation software, it was estimated that a minimum sample size of 156 will be required to detect small to medium effect sizes of at least 0.26 about 90% of the time (have 90% power of test) with 95% confidence.

There were 157 total participants in the study, carefully chosen to offer a holistic picture of the population having elective cesarean sections at King Dinuzulu Hospital Complex. Data collection ran from August 2023 to January 2024, guaranteeing a substantial temporal range to consider any possible changes in clinical practices or patient demographics.

Ethical Approval

Ethical approval for the study was obtained from the University of Kwa-Zulu Natal Biomedical Research Ethical Committee (BREC/00005170/2023) on the 5th of May 2023. The study was approved by the Department of Health (Ref. No. KZ_202303_027). Site approval for the study at King Dinuzulu Hospital Complex was obtained from the hospital's ethics committee and affirmed by the acting CEO.

Informed written consent, translated into English and IsiZulu was taken from each patient. An interpreter was provided if the patient had any further questions once reading the consent. Every participant received comprehensive knowledge of the goal of the study, methods used, possible hazards, and advantages. The consent was signed by the patient and the medical staff member obtaining the consent.

Study Procedure

All pregnant women booked for an elective cesarean section were, recruited for the study. Recruitment was done the day before surgery during the preoperative assessment. The total number of pregnant women recruited for the study was 157 over 6 months. Data was collected using a questionnaire and pain score charts. The questionnaire was divided into 4 parts whereby the 1st 3 parts of the questionnaire were filled by the anaesthetic doctor. The 4th part was filled by the nursing staff in the ward. The data was obtained by reviewing the patient's chart and assessing the patient both preoperatively and postoperatively in the immediate recovery period and thereafter in the postnatal ward. The 1st part included: the patient's identification using an allocated questionnaire number, the date and time of the spinal, the demographics of the patient, the indication for cesarean section, and the patient's surgical history. Demographics included: the patient's age, race, ASA status, gravidity, and parity. Understanding the patient population and spotting any elements influencing pain experience and therapy, depend on this demographic data (1). The 2nd part of the questionnaire focused on the intraoperative management of the patient, looking at the spinal dosing, the use of adjuncts, the sensory level, and the duration of the surgery. The postoperative pain management in the recovery period initiated the 3rd and 4th part of the questionnaire. The patient's arrival time into the recovery, a check to see if the postoperative pain prescription was written, any extra analgesia given was noted and the assessment of the patient's pain was performed. Pain levels were assessed at four points (recovery, 4hrs, 12hrs, and 24hrs) using a 10-centimeter visual analog pain scale (VAS). This was verbalized by a

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number between 0(no pain) and 10(worst pain). They were then asked to grade their pain on the visual analog pain scale, by placing a line where they felt their pain was on the 10-centimeter scale. At each review (4hr, 12hr, and 24hr), the date and time were documented, the treatment chart was checked to see if all analgesic doses prescribed were administered and any extra analgesia administered above what was prescribed was documented. Women were then questioned on whether their pain had increased, stayed the same, or decreased since the recovery period.

Variables and measurements

The primary outcome variable was the effectiveness of postoperative analgesia, measured by changes in VAS scores from recovery to 24 hours post-surgery. Secondary variables included the type of analgesia prescribed, timing of administration, and patient satisfaction.
The independent variable was the analgesic treatment group while the dependent variables were VAS scores at the different times of assessment.

Statistical Analysis

Software

The statistical data analysis was conducted in the R Statistical computing software of the R Core Team, 2020, version 3.6.3. The results were presented in the form of descriptive and inferential statistics.

Descriptive statistics

Where applicable, the descriptive statistics of numerical measurements were summarized as the minimum, maximum, quartiles, interquartile range, means, standard deviation, and coefficient of variation. On the other hand, the categorical variables were described as counts and percentage frequencies whereas pie, simple, and multiple bar charts were also used to visually display the categorical variables.

Two independent groups

Depending on the distribution of the numerical variables between two independent groups, mean or median differences were assessed using either a t-test or Wilcoxon respectively.

Test for independence

To determine the association between categorical variables, a Chi-Square Test was used, and when the distribution of the cross-tabulations contained an expected value of less than five, a Fisher's exact test was applied. In the case of a significant difference between the Chi-Square or Fisher exact test, a row-wise paired z-test was used as a post hoc analysis following the omnibus tests (Chi-Square or Fisher exact test).

Multidimensional

Correlation analysis was also applied to determine the association between different numerical measurements.

Significance level

All the inferential statistical analysis tests were conducted at 5% levels of significance.

RESULTS

Patient Demographics and Surgical History

The study comprised 157 women at King Dinuzulu Hospital Complex undergoing elective cesarean sections (C-sections) under spinal anesthesia. The study originally included 177 women, but due to incomplete or no consent forms, missing or incomplete forms, and the burden of emergency caesars, the final number of participants included in the data analysis and confirmed by the statistician was 157. The participants ranged in age from 18 to 44 years; their mean age was 30.5 years (SD = 5.54). While 25% were 35 or older, the vast majority (75%), were under the age of 35.
With minor percentages from other ethnic groupings, Coloured (1.9%), African/Indian (0.6%), Indian (0.6%), and other (0.6%), most of the participants were African (96.1%). The patient count of the hospital is shown in the demographic dispersion.
42.3% of women were of multiple gestational ages, with a gravidity of 3. Previous surgical history showed that most women had a previous cesarean section, suggesting a similarity in this patient group regarding repeated cesarean sections. Other previous surgeries included laparotomies, elective tonsillectomies, and open-reduction internal fixations.
There were many indications why women presented for elective cesarean section, the most common indications being bilateral tubal ligation (31.3%), insertion of an IUCD (11.3%), big baby (6.3%), failed induction of labor (6.3%), patient declining vaginal delivery after cesarean section (3.8%), hypertensive disorders (gestational hypertension

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and preeclampsia) (3.8%), and meconium stained liquor (2.5%).

Table 1: Patient Demographics and surgical history

Patient Demographics	Overall (n=157)
Age (years)	
Mean±SD	30.5 ± 5.54
Median	30.5 (26.0-34.30
Range	18-44
Age Distribution	
< 35 years	117 (75.0%)
≥ 35 years	39 (25.0%)
Race	
African	149 (96.1%)
Colored	3 (1.9%)
African/Indian	1 (0.6%)
Indian	1 (0.6%)
Other	1 (0.6%)
ASA	
ASA I	41 (28.9%)
ASA II	97 (68.3%)
ASA III	4 (2.8%)
Previous Surgical History	
Cesarean Section	111 (97.4%)
Laparotomy	1 (0.9%)
Tonsillectomy	1 (0.9%)
Open Reduction internal fixation	1 (0.9%)

Analgesic prescriptions and Pain management in the recovery period

Multiple different analgesic regimens were prescribed for patients for the postoperative period. 96% of patients had their prescription charts written up on arrival to the recovery. The most commonly prescribed combinations are: pethidine and paracetamol (43,8%), pethidine, paracetamol, and ibuprofen (29.2%), and morphine and paracetamol (16.8%).

Table 2: Analgesic Prescriptions

Analgesic Prescriptions	Overall (N=157)
Pethidine; Paracetamol	60 (43.8%)
Pethidine; Paracetamol; Ibuprofen	40 (29.2%)
Morphine; Paracetamol	23 (16.8%)
Morphine; Paracetamol; Ibuprofen	6 (4.4%)
Pethidine	3 (2.2%)
Paracetamol; Ibuprofen	2 (1.5%)
Pethidine; Ibuprofen	2 (1.5%)
Morphine; Pethidine	1 (0.7%)

97.3% of women received no pain medication in the recovery period and 89.3% of women reported a pain score of 0 on leaving the recovery room.

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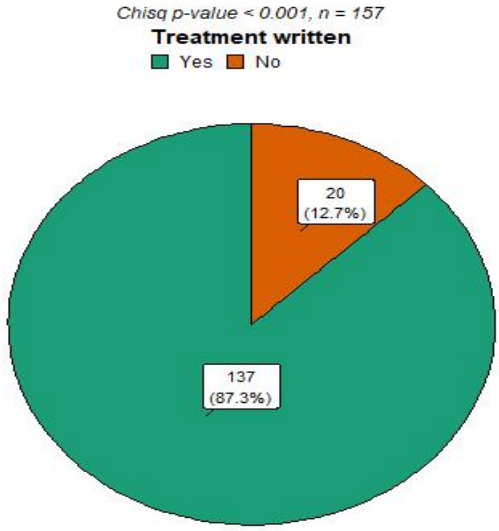
Figure 1. Treatment was written up



Pain Relief Outcomes

The efficacy of the prescribed analgesia was assessed at 4hrs, 12hrs, and 24hrs following surgery using the Visual Analogue Scale (VAS) pain tool. In the recovery room (immediately postoperatively), the median VAS score was 0, suggesting for most patients the analgesia provided by the neuraxial technique (spinal), was sufficient. 97% of women did not have any extra analgesia administered in the recovery period.

At the 4-hour review, after leaving the recovery room, the majority (79.3%) of patients had not received their prescribed medication, reporting an increase in pain scores compared to recovery. More than 90% of women had not received any extra analgesia for pain and had a mean pain scale score of 7.

At the 12hr review, 51.6% of women had not received all their treatment doses, with 69.9% of women receiving extra analgesia above what was prescribed. 60.6% of women had a decrease in their pain level compared to the recovery period with a mean pain scale score of 5.4.

The 24hr review revealed that 61.8% of women had received all their treatment doses, with only 28% of women requiring any extra analgesia. Pain levels compared to the recovery period had decreased in 61.5% of women, with 8.5% of women reporting no change in their pain level compared to the recovery period and 29.9% of women complaining that their pain level had increased. Most women had a mean pain scale score of 5.00.

Table 3. Pain Relief Assessment

Pain Relief Assessment	VAS Score
Recovery Room	
Median (Q1-Q3)	0 (0-0)
Range	0-10.0
4 Hours Post-op	
Median (Q1-Q3)	2 (0-4)
Range	0-10.0
12 Hours Post-op	
Median (Q1-Q3)	4.00 (2-6)
Range	0-10.0
24 Hours Post-op	
Median (Q1-Q3)	5.00 (3-7)
Range	0-10.0

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Patient Satisfaction

Overall, 68% of participants were satisfied with their pain management, although many did not receive the prescribed analgesics. This discrepancy suggests issues with drug availability and administration, as well as possible gaps in protocol adherence.

These findings emphasize the need for a more consistent application of pain management protocols and that improvements in immediate and ongoing post-operative care are necessary to enhance patient outcomes and satisfaction.

DISCUSSION

The results of this study highlight several important issues regarding post-operative pain control at King Dinuzulu Hospital Complex. The variation in analgesic prescriptions and administration of analgesia were the main problems found which; reflects a more general problem and discrepancy in the treatment administered to women post caesarean section at a district-level hospital.

This discrepancy is especially alarming since it implies a lack of consistency in treatment approaches, therefore influencing postoperative pain management satisfaction in patients. Particularly in important areas like pain control (1), the literature has long proven the need for consistent and effective patient treatment using standardized care protocols. The discrepancy seen in this study is consistent with comparable results in other low-resource environments, where the availability of drugs and the degree of training level of healthcare professionals usually differ greatly, therefore influencing the quality of treatment given (2).

The inconsistent administration of analgesia noted in this study reflects the results of studies done in low-income countries and resource-limited facilities. Studies such as those done by Kintu et al. (2019) (10), have underlined how drastically patient care can be impacted by elements including drug shortages and inadequate training of healthcare personnel. In settings with limited resources, healthcare professionals do not always have access to the whole spectrum of prescribed drugs required for optimal pain control. Inappropriate training of healthcare providers on the latest pain management guidelines can aggravate this condition by leaving clinicians unclear on how to manage pain appropriately, especially with less often used analgesics or advanced approaches.

Results showed that postoperative medication was prescribed on arrival into the recovery in 96% of women. Prescribed analgesia was in keeping with the EDL (Essential Drug List) recommendations (12). The most common analgesia combination prescribed was pethidine and paracetamol (43.8%), with morphine being prescribed in less than 22% of patients. Dependency on a narrow pharmacological toolset helps to avoid customizing pain management strategies to individual patient demands, but doing so fails to address the different degrees of pain tolerance and response across individuals. This situation not only draws attention to a flaw in the healthcare system but also emphasizes the great need for thorough training and efficient use of resources.

The needs and benefits of using multimodal analgesia are unfounded. By greatly lowering the dependence on any one drug, this method might greatly minimize any negative side effects of a drug and enhance general pain management. The results of the study revealed a general use of pethidine and paracetamol together with minimal use of other analgesics including long-acting opioids or non-steroidal anti-inflammatory medications (NSAIDs). The multimodal approach has been proven to be more effective in controlling postoperative pain, especially in major surgery such as cesarean sections (8).

Further reducing the effectiveness of pain management is the underuse of regional procedures including nerve blocks and epidurals. By offering focused relief and lowering systemic medication needs, regional techniques—which have been supported in many guidelines including the PROSPECT recommendation, can dramatically improve pain management (9).

The absence of prompt postoperative analgesia initiation reveals a crucial area for development. Patient comfort depends on immediate and continuous pain control, which greatly influences the whole healing process and infers potential complications down the line. Very few patients in the recovery room required postoperative analgesia, this could be an indication that the intraoperative regional technique(spinal), provides adequate pain relief into the recovery and postoperative period.

At the 4-hour review, 79.3% of patients had not received all doses of their prescribed analgesia, resulting in a pain score of more than 7 and a pain assessment from the patients of an increase in their pain compared to the recovery period. Even with increased pain scores, less than 9% of women received any extra analgesia from what was prescribed. This shows the need for early initiation of postoperative analgesia in the postnatal ward. Why analgesia was not administered timeously, could be due to potential pitfalls such as staff shortages, staff not being trained on assessing pain correctly, or medication shortages. This warrants further studies to assess these potential issues.

The 12-hour review showed more consistency in the administration of analgesia with 50% of women having

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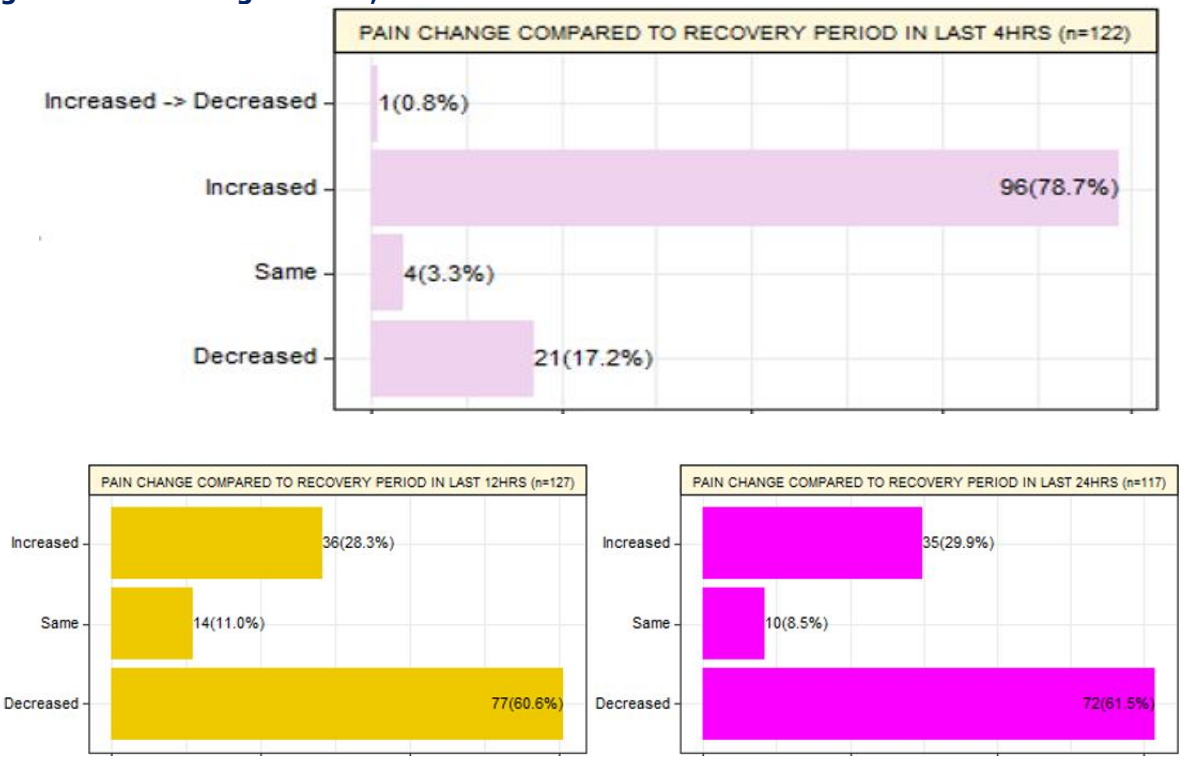
received their postoperative analgesia. More than 60% of women requested and received extra analgesia above what was prescribed for them, decreasing their mean pain scale score to 5 and women reported a decrease in their pain compared to recovery. The 24-hour review showed an improvement in drug administration (61.8%), which was reflected by the decreased administration of additional analgesia, a decreased pain scale score, and overall patient satisfaction in their pain management. The mobilization of patients could have contributed to the decreased pain scores and improvement in the administration of analgesia, with mobilizing patients being able to make nursing staff aware of their pain and the need for prescribed medication or extra analgesia. Most women were also breastfeeding or bottle feeding at the 12-hour and 24-hour reviews, which could have contributed to the decrease or increase in pain. All these factors warrant the need for more large and in-depth studies.

Apart from these practical and clinical difficulties, pain management depends on many cultural elements. Influenced by society standards, past experiences, and personal pain limits, pain perception, and reporting can vary greatly amongst people of different cultural backgrounds. According to the literature, these elements can influence a patient's expression of pain and expectation of pain treatment (3). These cultural differences were not taken into consideration in the study, which could have affected patient satisfaction and stated pain levels. Providing complete and patient-centered treatment depends on an awareness of and resolution of these cultural variations.

Figure 2. Pain Changes at 4hr, 12hr and 24hr review



The results of this study offer a clearer picture of the difficulties in postoperative pain management at a low-resource, district-level hospital. The variation in the prescribing and administering of analgesia, the limited application of a multimodal strategy, and the poor immediate post-operative pain management all indicate structural problems that need attention. The literature supports the need for consistent administration of drugs, improved training for healthcare personnel, and a more all-encompassing strategy of pain management including consideration of cultural elements and patient education. By tackling these issues, healthcare systems can raise general patient satisfaction with postoperative treatment, lower the likelihood of complications, and improve patient outcomes.

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GENERALIZABILITY

The study findings are limited to the obstetric population. The obstetric population is a unique subset of patients with a specific gender, age group and physiological changes. The generalizability of the study could be extended to patients coming for emergency caesarean sections and to a regional and tertiary hospital setting.

CONCLUSION

This study emphasizes the vital requirement of consistent pain treatment strategies and improved training for healthcare professionals. The discrepancies seen in analgesic prescriptions and dosages point to a more general problem that, if resolved, would greatly raise patient satisfaction with postoperative treatment and outcomes. Standardizing procedures guarantee that every patient gets consistent and efficient pain control, therefore lowering the risk of complications and accelerating recovery. Furthermore, giving healthcare professionals thorough training—relating to multimodal analgesia—may increase the spectrum of analgesic options, therefore optimizing patient treatment. The application of multimodal analgesia techniques and the success of instructional interventions in enhancing pain management techniques should be the main topics of future studies. Such research could offer insightful analysis of the best strategies for including cutting-edge pain management strategies in environments with limited resources, therefore improving the quality of treatment given to patients having surgical operations including cesarean sections. Dealing with these problems comprehensively would help to produce a more compassionate and efficient healthcare environment, therefore improving patient satisfaction and outcomes of health.

RECOMMENDATIONS

The Authors recommend that more similar studies are carried out with a larger sample size and should include women coming for both elective and emergency cesarean sections. Healthcare workers should be trained on the latest postoperative analgesia guidelines for women coming for cesarean section. Pain should be regularly assessed in the postnatal ward and analgesia administered timeously.

ACKNOWLEDGMENTS

I would like to thank Dr S Singaram for all her help and commitment towards the completion of this study.
A special thanks to EN Tina Rorke for assistance with the data collection process.

SOURCE OF FUNDING

The study had no funding.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

DATA AVAILABILITY

The data supporting the findings of this study can be provided by the authors on reasonable request.

AUTHOR CONTRIBUTIONS

Author 1: Study design, data collection, analysis, data interpretation, and manuscript writing.

Author 2: Study design, analysis, and oversight.

AUTHOR BIOGRAPHY

Tatum Curtis (MBChB) completed her medical degree in 2010 at the University of the Free State (UOVS). Her interest in Anaesthesia developed an internship, which led to her joining the Department of Anaesthesia in 2014. She has recently completed her fellowship at the College of Anaesthesia (2024) through the CMSA. Research is a compulsory component of Tatum's registrar program.

Dr Shree Singaram is a specialist anaesthesiologist at the King Dinizulu Hospital Complex, Durban. She has a special interest in anesthesia for spinal surgery and thoracics. She is a committed teacher to her residents and is dedicated to treating her patients with evidence-based best practices.

REFERENCES

1. Munsaka EF, Van Dyk D, Parker R. A retrospective audit of pain assessment and management post-caesarean section at New Somerset Hospital in Cape Town, South Africa. S Afr Fam Pract (2004). 2021;63(1):e1-e6. https://doi.org/10.4102/safp.v63i1.5320 PMid:34636591 PMCid: PMC8517764
2. Prempeh ABA, Duys R, de Vaal A, Parker R. Pain assessment and management: An audit of practice at a tertiary hospital. Health SA. 2020; 25:1281. https://doi.org/10.4102/hsag.v25i0.1281 PMid:32161673 PMCid: PMC7059650
3. Ferreira-Valente MA, Pais-Ribeiro JL, Jensen MP. Validity of four pain intensity rating scales. Pain.

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Vol. 6 No. 3 (2025): March 2025 Issue
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2011;152(10):2399-404. https://doi.org/10.1016/j.pain.2011.07.005 PMid:21856077
4. Myles PS, Myles DB, Galagher W, Boyd D, Chew C, MacDonald N, et al. Measuring acute postoperative pain using the visual analog scale: the minimal clinically important difference and patient acceptable symptom state. Br J Anaesth. 2017;118(3):424-9. https://doi.org/10.1093/bja/aew466 PMid:28186223
5. Shahraki AD JM, Ghaedi S. Pain relief after cesarean section: Oral methadone vs. intramuscular pethidine. Journal of research in medical sciences. 2012;17(2):143-7.
6. QUINLAN JD MN. Cesarean Delivery: Counseling Issues and Complication Management. American Academy of Family Physicians. 2015;91(3):178-84.
7. M. Size, et al. Pain management in developing countries. The Association of Anesthetists of Great Britain and Ireland. 2007; 62:38-43. https://doi.org/10.1111/j.1365-2044.2007.05296.x PMid:17937712
8. Kerai S, Saxena KN, Taneja B. Post-caesarean analgesia: What is new? Indian J Anaesth. 2017;61(3):200-14. https://doi.org/10.4103/ija.IJA_313_16 PMid:28405033 PMCid: PMC5372400
9. Roofthooft E, Joshi GP, Rawal N, Van de Velde M, et al. PROSPECT guideline for elective cesarean section: updated systematic review and procedure-specific postoperative pain management recommendations. Anesthesia. 2021;76(5):665-80. https://doi.org/10.1111/anae.15339 PMid:33370462 PMCid: PMC8048441
10. Kintu A, Abdulla S, Lubikire A, Nabukenya MT, Igaga E, Bulamba F, et al. Postoperative pain after cesarean section: assessment and management in a tertiary hospital in a low-income country. BMC Health Serv Res. 2019;19(1):68. https://doi.org/10.1186/s12913-019-3911-x PMid:30683083 PMCid: PMC6347795
11. "Part III: Pain Terms, A Current List with Definitions and Notes on Usage" (pp 209-214). Classification of Chronic Pain, Second Edition, IASP Task Force on Taxonomy, edited by H. Merskey and N. Bogduk. ISAP Press, Seattle, 1994. http://www.iasp-pain.org.
12. The National Department of Health, South Africa: Essential Drugs Programme. Primary Health Care (PHC) Standard Treatment Guidelines and Essential Medicines List. 7th ed. South African National Department of Health;2020. Chapter 20.
13. Butterworth JF, Mackey DC, Wasnick JD. Morgan and Mikhail's Clinical Anaesthesiology; 2013; 5th ed. McGraw-Hill Education, LLC.
14. South African Society of Anaesthesiology Acute Pain Guidelines_2015, pg S3 https://painsa.org.za/wp-content/uploads/2016/07/SASA-Acute-Pain-Guidelines_2015.pdf

Publisher details

Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
(ISSN 3006-1059) Print
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256 775 434 261
Location: Scholar's Summit Nakigalala, P. O. Box 701432, Entebbe Uganda, East Africa