ISSN: **2518-8631**

PERSPECTIVES OF ORTHOPEDIC PATIENTS ON POSTOPERATIVE PAIN MANAGEMENT IN A COUNTY REFERRAL HOSPITAL, KENYA: A CROSS-SECTIONAL STUDY

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Abstract

Introduction: Postoperative pain management is the process of alleviating pain following surgical operation. Global prevalence of postoperative pain as reported in studies ranges between 50% and 70%. The study's purpose was to understand the perspectives of orthopedics' patients on postoperative pain management in Thika County referral Hospital.

Methods: A descriptive qualitative study was conducted using purposively sampled eight patients in orthopedic wards. The participants' interviews were audiotaped and translated into English language. Thematic analysis was done using NVIVO software

Findings: The analysis yielded themes that included *individual response to POPM, satisfactory pain management, unstandardized pain assessment, delayed pain management, patient-initiated call to action to POPM and pain management therapies*.

Conclusion: Overall, patients' response to post-operative pain management in this study was individualized. Response to post-operative pain management varied from one patient to the other. Patients were satisfied with post-operative pain management interventions despite some experiencing delays in pain management.

Keywords: *postoperative, pain management, perspectives*

INTRODUCTION

Postoperative patients continue to experience pain rated either moderate or severe. Global prevalence of postoperative pain as reported in studies ranges between 50% and 70%. Moderate to severe postoperative pain prevalence is estimated to be on a range of 17% to 40% while it is up to 95.2% in Sub-Saharan Africa (Gao et al., 2023). A study conducted in Kenya revealed that 70% of operated patients experienced distressing pain compared to 26% of patients who reported having pain post-operatively (Mchungaji., et al, 2022).

In Africa, pain experiences among patients post-operatively is still rampart. A study conducted in Rwanda, indicated that majority (96.3%) of participants experienced pain postoperatively. The percentage of participants who rated overall pain management as inadequate was 60.5% and 61% dissatisfied with pain management. A similar study in Nigeria demonstrated that 95% of the patients experienced varying pain degrees after surgery (Dele et al., 2020). In another research, 88.2% of patients reported moderate to severe pain after surgery and it

was undertreated in 58.4% of these patients(Eshete et al., 2019).The study sought to establish the perspectives of orthopedics' patients on postoperative pain management in Thika County Referral Hospital

Post-operative pain management is still a challenge. Despite the numerous studies on prevalence of postoperative pain, effectiveness postoperative pain management, orthopedic patients' perspectives on postoperative pain management is unknown hence the need for the study.

METHODS

Studying is a descriptive qualitative cross-sectional study. The study was undertaken in Thika County referral hospital. It is a referral hospital with 300 beds capacity. The hospital has a catchment population of 3-5 million people on average. It is the major hospital located along the main highways like Thika superhighway and Nairobi Garissa Road and receives high number of accident victims most of whom require orthopedic surgery. The hospital receives an average of 203 accidents victims per month who are a combination of pedestrians, motorcycle users and bicycle users (according to 2019 statistics). This stipulates 17 accident victims per day which is a significant number. The population of this study was postoperative patients in orthopedic wards of Thika County referral Hospital. The participants were interviewed until saturation was reached at 8 patients. The study used purposeful sampling methods to recruit 8 patients. Patients who were 18 years and above were admitted in the ward and had at least 72 hours post-surgery were included in the study. The researcher used purposeful sampling to get participants who fitted in the study. The researcher used interview guide which was semi-structured and comprised of open-ended and closed-ended questions. The researcher was aware of her own preconceptions and biases that could influence decisions and actions throughout the study. The researcher had prolonged engagement with the participants in the study area during data collection. The researcher also kept a track record (audit trail) of data collection process to ensure the interview abided by an agreed upon protocol. Peer debriefing was also employed whereby the research supervisors were asked to cast their views on the analysis and key concepts identified and eventually the whole set of findings. The researcher explained the purpose of the study and ensured confidentiality by interviewing the patients individually in a room. The researcher collected data herself. All interviews were conducted in the hospital (orthopedic ward). Each participant was interviewed for a period of one hour. This was to give each participant ample time for the interview. The researcher maintained a non-judgmental approach and observed both verbal and non-verbal messages during the interviews. Interviews were conducted until data saturation was reached. Data recorded was handled with high confidentiality. Information from this research was only shared between panel members and hospital leaders. The researcher utilized NVivo that is a computer software package, for analyzing qualitative data. All taped interviews were transcribed verbatim. All transcripts were read several times to understand the content. Then, the whole text was re-read, and the meaning units were pinpointed and contracted. Texts were reread, analyzed guided by the objectives of the study. The contracted data that contained similar meanings were coded and then grouped as subthemes. The subthemes that

were similar were grouped into distinct themes.

Permission to conduct the research was obtained from Kenyatta University research committee, Kenyatta University graduate school and National Commission for Science, Technology and Innovation (NACOSTI). Permission was also obtained from Thika county hospital research committee. Participants were informed about the purpose of the study and their role. Participants' rights and privacy were guaranteed during the process of study. Participants were given enough time to understand consent form and consider their participation as possible, then the researcher provided an informed consent form to approve an agreement of participation by their Signature. The researcher encountered language barrier. The researcher used language translators where it was necessary.

RESULTS

Table 1: Patients' Social-Demographic Factors

Variable	N	%
Sex		
Male	4	50
F4emale	4	50
Age (yrs.)		
19-28	3	37.5
29-38	2	25
39-48	2	25
49-58	1	12.5
Education level		
Primary	1	12.5
Secondary	6	75
College	1	12.5
Religion		
Christianity	8	100
Muslim	0	
Occupation		
Employed	3	37.5
Unemployed	1	12.5
Self-employed	4	50

Theme 1: Individualized Response to Pain Management

Analysis of the study participants' narratives revealed that patients experienced varying response to the prescribed pain management methods. Some patients reported controlled pain management following the administration of analgesics while others did not respond to the initial therapies, necessitating a change in their treatment plans. The variation in treatment response translated into the need for individualized pain management post-surgery for these patients. This is evident in the following narratives:

> Patient 008: *"... I was feeling so much pain…. the medicine I was given initially was not relieving the pain…the nurse gave me a stronger medicine than the one I had*."

> Patient 002: "*I experienced severe pain on Sunday…the injection medicine was not working…so they changed to oral drugs*." She added "*…I at times take double the medication to manage pain in the operated leg*"

> Patient 001: "*I used to call them (nurses) every time because of the pain that started shortly after being given medication…. the nurse would give me ketesse, which was effective for my pain*."

One of the patients expressed that nurses considered alternative pain management methods if the administered medications were ineffective. This was evident if a patient complained of pain before the scheduled time of medication administration. Patient 005 narrated, "*Sometimes you might be free from pain for 4-5 hours then the pain starts again*

and becomes severe. The nurses give you something else if the time of medication administration is not yet."

Despite the above participants not responding to the prescribed pain management methods, most of the patients reported controlled pain with the initial treatments. For instance, Patient 006 reported diminished pain following analgesic administration. He reported, "*The nurse injected me pain medication and pain diminished…. I was given oral medications thereafter*." Patient 007 felt well after being administered the prescribed analgesic. The patient expressed, "*I felt well after being injected a pain medication… this was after calling the nurse severally because I was in so much pain*." Patient 004 made similar assertion that the analgesic was effective against post-operative pain. The patient noted "*I felt pain shortly after being wheeled from theatre. I was injected a pain medication and pain ceased.*"

Theme 2: Satisfactory Pain Management

The theme of satisfactory pain management was developed from the patients' narratives. Most of the patients were satisfied with post-operative pain management interventions implemented by the healthcare providers. They felt that pain management aligned with their post-operation expectations. Patient 006 expressed that he was well attended by the nurses at the hospital. He narrated, "I *have been attended well…. If in pain, I call the nurse and they attend me well… pain treatment and management is to my expectation.*" Patient 006 attributed his positive experience with pain management to nurses being knowledgeable about pain management. He added, "*nurses here know their work. They do exactly what their patients need… nurses also listen to the patients and their pain experiences*." Other patients also expressed satisfaction with pain treatment post-surgically as seen in the following narratives:

> Patient 004: "*I am satisfied with my pain management. The nurses give good medications that relieve pain fast*."
>
> Patient 003: "*I am happy with how my pain has been managed…. Doctors and nurses here are good… they come immediately when called. They attend to you promptly after explaining how you feel. They make you feel like you are at home…. I am happy*."

However, some patients expressed dissatisfaction with pain management they received from the healthcare staff. Participant 003 expressed that patients who did not report their pain suffered from severe post-operative pain. She expressed, "*I noticed that when you feel pain and report it you are given medicine and pain ceases…. You continue suffering if you keep quiet.*" The narrative revealed that patients are the ones who initiated pain assessment in the facility.

Another patient noted that nurses felt disturbed if patients called them frequently because of pain. The frequent pain complaints by patients would prompt nurses to administer analgesics for pain control. This can be seen in patient 007's response that, "*I had a lot of pain at night…I called the nurse and when they (nurses) noticed that I had disturbed them, they injected me pain medication*." The narrative demonstrated laxity on the nurses' side in managing post-operative pain among orthopaedic patients.

Theme 3: Unstandardized Pain Assessment

The theme of unstandardized pain assessment was developed. The narratives revealed that nurses did not use structured pain assessment approaches. Nurses relied on patient verbalization of pain. None of the patients rated their pain on a pain rating tool. The unstandardized pain assessment is evident in the narratives below:

> Patient 006: *"I was not asked to rate my pain…it is like the nurse knew just by my explanation that I was in pain. The nurse just injected me pain medication*."
>
> Patient 008: "*I was not asked to rate the pain. I am the one who told the nurse I was in so much pain….. the nurse gave me a stronger medicine than the one I had."*

Unlike the above participants, five patients were requested to rate their pain levels. The patients were told to classify their pain as either mild, moderate, severe, or much pain. Patient 003 was asked to identify the painful part of the limb and rate the pain. The patient narrated, "*she (the nurse) asked which part of the limb is painful……she also asked if I am feeling mild or much pain… she then administered medication for pain."* Patient 002 rated his pain as either much or moderate. He noted, "*the nurse asked if the pain was much or moderate…. I told her it was moderate and she told me to take some medicines."* Patient 005 was asked if the pain was severe. The patient reported it was *"much"* and was administered pain medication. Similarly, the nurse asked Patient 007 to describe how painful his limb was. Patient 007 responded, *"… I told the nurse the pain was excess… the nurse came with medicine and injected me with pain medication."* Patient 001 also reported that his pain was "*very severe*" when asked by the nurse to describe it.

Theme 4: Delayed Pain Management

The analysis revealed that patients experienced delayed treatment. They also reported that pain management levels depended on the patients' attitude towards healthcare providers. Patient 001 expressed that the staff would take long to treat her pain and give false promises. She narrates, *"They (staff) took long to treat me…. I would feel they were being unfair to me. They would come and say they would dress my wound and leave the dressing items and vanish…other patients were complaining of the delays in care provision. She continues, they also delayed taking me to theatre, yet I was in so much pain."* Patient 007 also recounted a similar experience of delayed care provision where he had to call the nurses severally for him to be attended. He expressed, *"At night I had pain and had to call the nurse severally……. the nurse notices that I had disturbed them…I was injected with pain medication…"*

Theme 5: Patient-Initiated Call to Action in Post-Operative Pain Management

Data analysis revealed that patients were the ones who initiated post-operative pain treatment actions. All the participants voiced that they were responsible for informing nurses they were in pain. None of the participants reported nurses taking the initiative of asking patients if they were in pain or not. Patient narratives consistently demonstrated this, as seen below:

> Patient 006: *"I told the nurse I was in pain and she give me pain medication"*

Patient 008: *"I reported to the nurse I was feeling pain…she gave different medicines from what I had to relieve pain."*

Patient 003: *"They (nurses) usually tell us to report whenever we are in pain…. I have reported many times and they attend to me."*

Patient 001: *"Hey I used to call them every time because of pain"*

Patient 005: *"I called the nurses and informed them I was in pain… the nurse injected pain medications and gave me oral painkillers"*

Patient 002: *"I reported to the nurse that I had very severe pain that I could not persevere"*

Theme 6: Pain Management Therapies

The patient's narratives revealed that healthcare providers used pharmacological therapies for post-operative pain management. Injectable and oral analgesics were reported as the most used for post-operative pain management. Pharmacotherapy alone as an approach to manage post-operative pain is evident in the following narratives:

Patient 006: *"The nurse injected me pain medications and later gave me oral medications"*

Patient 002: *"The nurse gave me an injection…. I later continued with oral drugs"*

Patient 005: *"The nurse injected pain medications and gave me oral painkillers"*

Patient 001: *"… I had taken paracetamol…. the nurse told me she would bring an injection (ketesse)"*

Patient 007: *"I was being injected and also given oral medications."*

Patient 003: *"I was given pain medication and pain reduced"*

Patient 008: *"The nurse gave me medicine to relieve pain"*

DISCUSSION

Perspectives of orthopaedic patients on post-operative pain management was the first objective of the study. The research revealed that patients experienced individualized response to pain management. For some, the initial therapies were effective for post-operative pain control while others required change in treatment plans because of poor pain management response. The findings by (Xu et al., 2025) agree with our study findings that patients experience varying response to post-operative pain management interventions. The authors found that some patients respond effectively to traditional post-operative pain management while others do not. Perhaps, the similarities in findings between this study and Xu et al. (2025)'s study is attributed to the multifaceted psychological and physiology of post-operative pain and its need of a multimodal approach to management.

Study participants were satisfied with pain management approaches. The pain management treatments aligned with their expectations. Patients in a study by (Buli et al., 2022) reported 74.5% satisfaction rate with post-operative pain management. The satisfaction score was less than the rates seen in similar studies. Patients in another study

were discreetly or wholly satisfied with pain treatment. This was despite them experiencing moderate to severe pain levels (Alema et al., 2023). Similarly, (Tano et al., 2021) found high patient satisfaction with pain treatment. Patient satisfaction with post-operative pain management seen in this study and other research could be attributed to factors such as analgesia type, pain treatment methods, request for more pain medication, and multimodal analgesics use for pain.

The study findings revealed that nurses did not use structured approaches to post-operative pain assessment. Nurses relied mainly on the patients' verbalization of pain. No patient was guided to rate their pain on pain- rating tool. Walton et al. (2023) found a low awareness level among patients on pain rating tools use or the existence of structured protocols. Samara et al. (2024) found low knowledge levels and poor attitude among nurses on pain assessment after surgery. Nurses also had poor attitude on issues related to pain management and assessment post-operatively. The overreliance on informal pain assessment methods such as facial expressions, body language, and verbal cues from patients has been shown to hinder the use of structured pain assessment tools in Africa (Gao et al., 2023). Consequently, factors such as patients' being unaware of standardized pain assessment and providers' lack of knowledge, skills, and positive attitude could have contributed to the unstructured post-operative pain assessment in our study.

The study findings also demonstrated delays in pain management among the patients. The participants also expressed that pain management depended on the patients' attitude towards healthcare providers. Gao et al. (2023) found that lack of regular pain assessments post-surgery and delayed management in Rwanda. They also discovered that sometimes, healthcare providers do not trust patients' reports of pain severity or underrate the degree of their pain. As a result, patients suffer from delayed post-operative pain management. Walton et al. (2023) found a positive association between patients' attitude and pain management after surgery. Accordingly, patients with previous poor post-operative pain management were likely to complain of under-managed pain. Patients also experienced negative anxiety and expectations, which affected their post-operative pain management.

Patients initiated post-operative pain management actions in this research. Patients informed nurses about their pain experiences. None of the participants reported nurses asking them if they were in pain or not. The finding aligns with those reported by (Gao et al., 2023) where healthcare providers did not conduct regular post-operative pain assessments. The authors also found that most healthcare providers in Africa rely on patients' verbal clues, facial expressions, and body language, which makes post-operative pain initiatives patient initiated.

The study participants expressed pharmacological therapies utilization for post-operative pain management. Injectable and oral painkillers were mostly utilized for pain control. The participants' experiences align with the clinical guidelines for post-operative pain management. For example, evidence-based guidelines recommend therapies such as the use of non-steroidal anti-inflammatory drugs (NSAIDS), acetaminophen, opioids, gabapentinoids, and adjunctive non-pharmacological treatments for pain treatment post-surgery (Podder et al., 2025

CONCLUSION

Overall, patients' response to pain management following surgery in this study was individualized. Patient satisfaction with pain interventions was noted. Patients informed nurses about their pain experiences prompting pain management interventions. Nurses' perspective on POPM is lacking hence research on this area should be carried in future

RECOMMENDATIONS

Healthcare providers are encouraged to provide patient education on surgery expectations and their role in post-operative assessment and management. Healthcare should perform regular post-operative assessments for timely identification and management of complications, including pain.

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