
Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

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Abstract

Background: This review aimed to assess patient satisfaction with post-hemorrhoidectomy pain management and compare the effectiveness of stapled hemorrhoidopexy and conventional Milligan Morgan procedure in treating hemorrhoids and associated pain management factors among elective surgical patients. A systematic search of English-language literature published between November 2016 and November 2022 was conducted using major biomedical databases. Twenty-five studies met the inclusion criteria, including observational, qualitative, experimental, and literature review studies. Patient satisfaction with post-hemorrhoidectomy pain management was generally low, emphasizing the need to improve the perceived quality of care. Factors influencing satisfaction included the type of analgesia, pain relief methods, access to information on pain treatment, and ability to request additional pain relief. The use of electrothermal bipolar vessel sealer hemorrhoidectomy and stapled hemorrhoidectomy showed advantages over conventional open hemorrhoidectomy in terms of decreased operating time, lower pain scores, shorter hospital stay, and faster return to work. However, variations in study quality and sample sizes made it challenging to compare treatment effects among interventions. The study concluded that hospitals should regularly measure and evaluate patient satisfaction levels to identify specific dynamics and improve performance. Future research should consider factors specific to hospital culture, specialty, demographic variables, and economic status.

Key Word: Patient Satisfaction, Hemorrhoidectomy, Psychsocial aspects, postoperative pain

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I. Introduction

Postsurgical pain management is the outcome of satisfaction with the care process and care effect which include waiting time, provision of information, access and adequacy of care (Bozimowski G. 2012). Pain management generally involves both psychosocial and practical aspects of care, that strongly associated with effective pain management (Lee S., Smith, M.L., Dahlke D.V., Pardo, N., & Ory, M.G., 2020). Satisfaction could be explained as psychological condition that could be because of individual surrounding expectation in addition with the prior feeling of client experience (S. L. Beck, G. L. Towsley, P. H. Berry, K. Lindau, R. B. Field., & S. Jensen, S., 2010). Client's satisfaction in pain management is one of the factors that determine the outcomes of post operative pain management pain management is influenced by good communication and information transfer, appropriate pain management and an empathic presence throughout. Now day assessment of patient satisfaction becomes an important tool for the health care services to measure outcomes management. The American Pain Society has developed the newly modified „Revised American Pain Society Patient Outcome Questionnaires“ in to measure pain management outcomes and patient satisfaction as tools for quality improvement guidelines (Gordon DB, Polomano JT et. 2010).

II. Materials And Methods

Materials and Methods

This review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement. Literature published in English language with full text and indexed in Ovid MEDLINE, PubMed and GOOGLE SCHOLAR from 2016 November 2022 was independently searched. The following search terms were used: (“hemorrhoidectomy” (Title) OR “haemorrhoidectomy” (Title)) AND (“postoperative pain” (All Fields) OR “posthemorrhoidectomy pain” (Title/Abstract) OR “post haemorrhoidectomy pain” (Title/Abstract)). Satisfaction and Pain (Title/abstract). Synonyms of each of the terms were also used in the search.

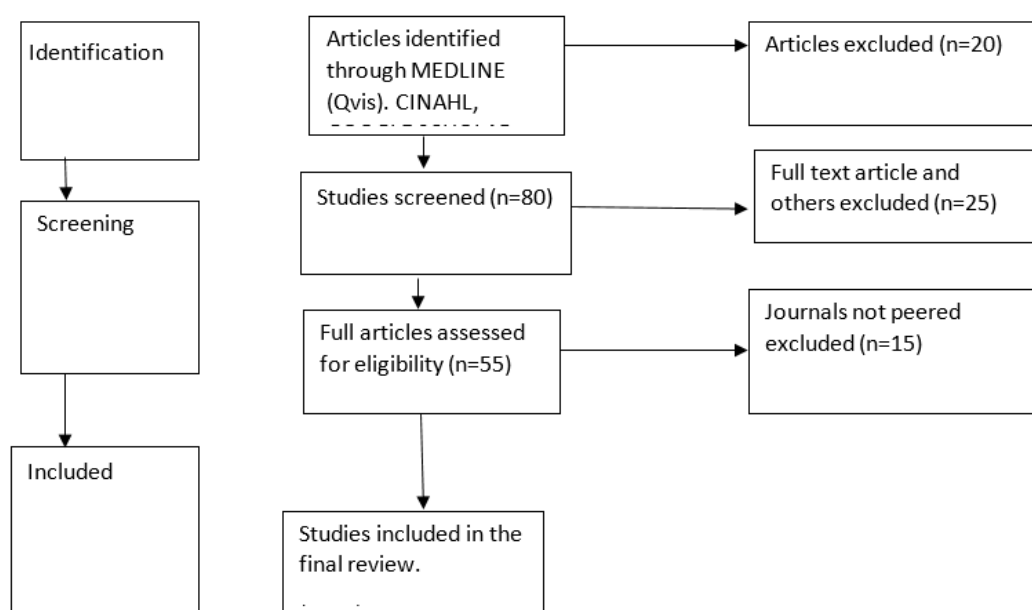


Figure 1. PRISMA flow chart.

NUMBER	TOPIC	AUTHOR	MAIN PURPOSE	THEORETICAL PERSPECTIVES	RESEARCH METHODOLOGY	INTENDED AUDIENCE	FINDINGS	IDENTIFIED GAPS	CONTRIBUTION TO MY PROJECT
1	Satisfaction of surgical patients with perioperative nursing care	Amalia Sillero and Adelaide Zabelegu i (2018)	To assess satisfaction of surgical patient with perioperative care	Not described	Descriptive cross sectional survey method	Surgical Patients	Nursing care provider to improve patient satisfaction and to develop strategies to prevent patient dissatisfaction	Nursing care provider factors was not considered	The methodology and the audience will be adopted
2	Patient satisfaction with perioperative surgical services and associated factors	Endale Gebremedhn, Girmay Fitiwi Lemma (2017)	To assess the level of patient satisfaction with perioperative surgical services, and associated factors	Not described	Cross sectional method	Surgical patients	Level of patient satisfaction was high	Perioperative information and response to preoperative questions by health provider level was low, the associated factors were not explicit enough	Need to emphasize more on associated factors
3.	Patient satisfaction and associated factors during Covid 19	Berhanu Senbena DeribaTinsae Abeya Geleta, Rebik Shukure Beyane, Ahmed	To assess satisfaction and associated factors among chronic patient		Institutional cross-sectional method	Chronically ill patients	The level of patient satisfaction was very low during Covid19 pandemic, associated factors were consumables	Health care provider and surgical care of Covid 19 patients was not mentioned	Co factors contributing to surgical patients' satisfaction

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

		Moham med, Mengistu Tesema & Kemal(2020)					used for control of infection		will be included in my project
4	Patient satisfaction with postoperative pain management and its associated factors in adult patients undergoing elective surgery	Nura Kedir(2021)	Assess level of patients` satisfaction and its associated factors in adult patients who underwent elective surgery		An institution-based cross-sectional study	Post operative patients	Satisfaction of patients with postoperative pain management was substantially low in this study.	A huge gap in information provision regarding patients` pain management was also observed.	Preoperative information given to patients
5	Assessment of Patient Satisfaction and Associated Factors in Postoperative Pain Management	Girmay Fitwi Lema, Demeke Yilkal Fentie, Yophtah Woldegerima Berhe & Henos Enyew Ashagrie (2020)	To assess the level of patient`s satisfaction and associated factors in post-operative pain management .		An institutional based cross-sectional study	Post operative patients	Regular based analgesia before patient request increase the level of satisfaction. disease status has association with level of satisfaction,	Patients discharged before 24 hours and post 24 hours level of satisfaction was not assessed.	
6	Pain management in hospitals: patients` satisfaction and related barriers	Samah Tawil, Katia Iskandar, Pascale Salameh	Assessment of patients` satisfaction regarding pain therapy and defining patient-related barriers for its implication		Cross-sectional study	Inpatient adults with pain of any origin during their hospital stay	Pain intensity documentation by healthcare professionals was found inadequate	Participation of patients in their care is low	
7	Is Patient Satisfaction a Legitimate Outcome of Pain Management?	John Carlson, MS Richard Youngblood, MA (2003)	Assessment of outcome of pain management	^^	Cross sectional study	Postoperative patient	Satisfaction was influenced by effectiveness of medication, independent of pain intensity,	Standard measure of patient satisfaction has not been established	
8	Pain management and patient satisfaction	D. caristi, I. miotto, m. piva	To assess any association between different pre- and postoperative factors,		Cross sectional study	Post operative patients	Most patients do not receive any information on pain and its possible methods of treatment,	Under-treatment of pain relates to fear of narcotic addiction, poor communication among staff,	
9	Management of Pain After	Ernest max, m.d., f.a.c.s.	The principles of pharmacologic and		Cross sectional survey	Post operative patients	Most patients were satisfied with pharmacolog		

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

	Anorectal Surgery		nonpharmacologic pain control				ical pain control		
10	Pain management and patient satisfaction	D. caristi, I. miotto, m. piva	To assess any association between different pre- and postoperative factors, particularly patient information, expected pain, and actual pain experienced, and overall patient satisfaction with pain management .		Mixed descriptive Cross-sectional survey	Post operative patients	Postoperative period is a key component in minimizing the incidence and severity of acute postoperative pain, as well as improving patient safety and satisfaction.	The study will contribute to the perceptiveness of patients' experiences on pain assessments ,	
11	Magnitude of patient satisfaction with postoperative pain management and associated factors among surgical patients	Bekele buli	Assessing magnitude of patient satisfaction with postoperative pain management and its associated factors among elective surgical patients postoperatively		Cross sectional study	Post operative patients	The study shows that patient satisfaction with postoperative pain management was low need to improve perceived quality of postoperative pain management services at study area	Further research on factors influencing patient satisfaction of pain postoperatively	
12	Predicting factors that determine patients' satisfaction with postoperative pain management following abdominal surgeries	Priscilla Felicia TanoID, Felix ApiribuI, Emile Kouakou Tano.)	Assessing the factors that may predict the satisfaction of patients with early postoperative pain management following abdominal surgeries		Descriptive cross-sectional study	The study was conducted among patients who had undergone abdominal surgeries	This study found out that patients were generally satisfied with the postoperative pain management offered by their healthcare providers although the degree of satisfaction depended largely on the type of analgesia and pain relief methods, the ability to request for more pain relief, and access to information		

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

							on pain treatment.		
13	The problem of pain after day-surgery haemorrhoidectomy	Francesco Gabrielli, co-Chiarelli, Adwoa Bemah Boamah Mensah, Veronica Millicent Dzomeku, Isaac Boateng (2019) Angelo Guttadauro, Luca Poggi (1997)	To assess pain control effectiveness		Descriptive cross-sectional study	Post operative patients following hemorrhoidectomy	Most patients expressed full satisfaction with their treatment 30 days after surgery.	No mention of factors that promote patient satisfaction	
14	Is the severe pain after Milligan-Morgan hemorrhoidectomy still currently remaining a major postoperative problem despite being one of the oldest surgical techniques described?	Drian Medina-Gallard Yuhamy Curbelopena Xavier De Castro Pere Roura-Poch Josep Roca-Closa Enric De Caralt-Mestres (2015)			A case series of 117 consecutive patients	Post operated hemorrhoidectomy patients	The big problem remains the postoperative pain.		
15	Ligature Hemorrhoidectomy versus Open hemorrhoidectomy	Andre Heiner Campus & Per Olov Gunnar Oliason (2018)	To analyze and compare the long-term effects of ligature hemorrhoidectomy and open hemorrhoidectomy on hemorrhoidal symptoms	Not described	Randomized clinical Trial design	Male or female age 18 to 85 presenting with grade II, III & IV hemorrhoids	There seems to be less post operative pain after ligature hemorrhoidectomy		
16	Efficacy of Mesoglycan in Pain Control after Excisional Hemorrhoidectomy:	Gaetano Gallo et al. (2021)	To determine whether mesoglycan (30 mg two vials i.m. once/day for the first 5 days postoperative, followed by 50 mg 1 oral tablet twice/day for 30 days) would reduce the edema of the	Not described	Prospective observational multicenter study,	101 patients undergoing excisional diathermy hemorrhoidectomy for III-IV degree hemorrhoidal disease were enrolled at 5 colorectal referral centers.	The administration of mesoglycan after an open diathermy excisional hemorrhoidectomy can reduce postoperative thrombosis and pain at 7–10 days after surgery, permitting a faster relief of pain	Mesoglycan therapy can reduce postoperative thrombosis and edema after an open diathermy excisional hemorrhoidectomy, with decreased postoperative pain symptoms, statistically	

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

			mucocutaneous bridges and thus improve postoperative pain symptoms.					significant at T2 after rectal examination.	
								The pain in open hemorrhoidectomy is severe.	
17	Hemorrhoidectomy with Sphincterectomy. A useful method to relieve pain.	Sumaira Otho et al	To compare short term outcome of post operative pain in patients operated for haemorrhoidectomy alone and haemorrhoidectomy with internal sphincterectomy	Not described	Comparative observational study	One hundred and sixteen patients of 3rd or 4th degree hemorrhoids were enrolled in the study.	Lateral internal sphincterotomy combined with haemorrhoidectomy significantly reduces postoperative pain without increasing morbidity.	Open hemorrhoidectomy was not mentioned	
18	Assessment of Post-operative Complications, Recurrence Rate, and Patient Satisfaction After Undergoing Stapled Hemorrhoidopexy Intervention for Grades III and IV Hemorrhoids	Niraj Kumar ¹ , Bhumika Narang, Rabi Shankar Singh, Shakti Pratap Singh, Col M M R Shankar, Shankar Prasad Singh ⁶	To evaluate recurrence rate and patient overall satisfaction with SH procedure at a tertiary care center in North India.	Not described	This observational study was undertaken in the Department of General Surgery at Asian Institute of Medical Science at Faridabad	Grades III and IV Hemorrhoids among Adult Patients of North India	Study confirms that SH is associated with a high patient satisfaction and with a lesser post-operative complications. We conclude that SH is safe with many short-term benefit	SH is safe with many short-term benefits. It is a novel technique and has emerged as an alternative to open hemorrhoidectomy, long considered the "gold standard."	
19	Comparative study between conventional hemorrhoidectomy and electrothermal bipolar vessel sealer for Grade IV hemorrhoids	Devendra Chaudhary, Vijay Kumar Tekam, Sourabh Mishra, Priyanka Singh (2022)	To compare between electrothermal bipolar vessel sealer hemorrhoidectomy versus conventional hemorrhoidectomy in patient of Grade IV hemorrhoids.	Not described	A descriptive comparative study	Patient of Grade IV hemorrhoids	This study confirms ETBVS hemorrhoidectomy advantages over conventional hemorrhoidectomy. ETBVS has decreased operating time, low pain score, hospital stay, and duration of return to work as compared to conventional hemorrhoidectomy.	There is no significant difference found in terms of recurrence in both the procedures. Hence, ETBVS is better procedure in the treatment of Grade IV hemorrhoid in comparison to conventional hemorrhoidectomy.	

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

20	Management of intractable pain in patients treated with hemorrhoidectomy for mixed hemorrhoids	Jingjuan Feng, Jian Cheng, Feng Xian (2021)	To evaluate the efficacy of a combination injection containing local anesthesia and steroids for the treatment of intractable post-hemorrhoidectomy pain	Not described	Retrospective study	Five patients with intractable post-hemorrhoidectomy pain who were diagnosed at or referred to our hospital between July 2015 and November 2018	Local injection of ropivacaine and triamcinolone produced rapid and effective pain relief in patients with intractable post-hemorrhoidectomy pain	This treatment strategy may be beneficial for the treatment of intractable perianal pain in patients with similar clinical presentations	
21	The Surgical Management of Haemorrhoids – A review	A. Hardy C.L.H. Chan C.R.G. Coh (2016)	To review recent techniques in hemorrhoidectomy and establish their precise indications and long-term efficacy.	Not described	A review	Techniques in hemorrhoidectomy	With good technique and careful case selection, injection sclerotherapy may be an effective short-term treatment for bleeding first and early second-degree haemorrhoids	Multiple injections have not been shown to confer any benefit	
22	Pain management in hospitals: patients' satisfaction and related barriers	Samah TAWIL, Katia ISKAN DAR, Pascale (2017)	Assessment of patients' satisfaction regarding pain therapy and defining patient-related barriers for its implication.	Not described	A cross-sectional study was conducted in two tertiary care hospitals from April till July 2017	Both medical and post-surgical adult patients with all types of pain were eligible to participate	Results from 183 participants with a mean age of 49 (SD=17.33) revealed that pain was their main reason for hospitalization (71.6% of the cases).	Pain remains a prevalent problem that requires more efforts for improvement.	
23	Stapled Hemorrhoidopexy Versus Classical Hemorrhoidectomy – A Prospective Comparative Study with 3 Years Follow-up	Kasibhatla Lakshmi Narasimha Rao1, Samir Ranjan Nayak, Satveer Singh, Dillip Kumar Soren, Ganni Bhaskara Rao (2017)	To report experience on surgical treatment focusing on postoperative pain, complications and days to return normal activities after the procedure	Not described	A prospective randomized clinical trial to compare the results of using stapled hemorrhoidopexy versus classical hemorrhoid surgery for treatment of third and fourth degree hemorrhoids at department of surgery,	106 patients admitted for surgical treatment with class III/IV hemorrhoids from June 2011 to May 2013 were randomly assigned to classical (n=53) or stapled hemorrhoidopexy (n=53).	Stapled hemorrhoidopexy is an effective alternative treatment for third- and fourth-degree hemorrhoids with significant advantages for patients compared with traditional open hemorrhoidectomy.	The post procedure satisfaction was significantly higher in the stapled group as compared to classical Milligan - Morgan procedure [

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

24	An evaluation of Milligan-Morgan and Ferguson procedures for haemorrhoidectomy	Abdul Razaque Shaikh 1 , Abdul Ghafoor Dalwani , Nasarullah Soomro		Not described	A prospective, randomized clinical study c	A total of 213 patients who had Open hemorrhoidectomy) and (Closed hemorrhoidectomy).	The closed technique is more beneficial with respect to postoperative pain	Post operative pain scores were significantly low in the Group A than Group B during first 24 hours and at first bowel movements .	
25.	Procedure for prolapsed haemorrhoids versus excisional haemorrhoidectomy – a systematic review and meta-analysis	T E Madiba, T M Esterhuizen, S R Thomson (2019)	To assess the efficacy of both procedures to treat haemorrhoids.		Literature review using MEDLINE. Articles addressing PPH and EH were included.	RCTs comparing EH and PPH with ≥20 patients.	Compared with EH, PPH is associated with less postoperative pain, and a trend towards improved patient satisfaction.	The rate of recurrence appears higher with PPH.	
26	Preemptive Analgesia for Hemorrhoidectomy: Study Protocol for a Prospective, Randomized, Double-Blind Trial	Ekaterina Kazachenko (2021)	To show that the opioids intake in patients with preemptive analgesia is lower than without it.	Not described	a prospective, randomized, double-blind, unicenter, superiority, parallel group 2-arm study	All patients diagnosed with hemorrhoidectomy	Gabapentin can be considered as an alternative approach to pain control as NSAIDs have limitative adverse effects.		
27	Comparison of Postoperative Results after Hemorrhoidectomy Using Local and Spinal Anesthesia	Siripong Sirikurnpiboon MD*, Anusorn Siripattanakul MD (2017)	To compare perioperative results including pain, urinary retention, bleeding and other complications after hemorrhoidectomy performed using local anesthesia (LA) on an out-patient basis with those achieved after spinal anesthesia (SA) on in-patient cases.	Not described	A retrospective study	91 patients with third-degree internal hemorrhoids were recruited	Hemorrhoidectomy under local anesthesia proved to be safe and feasible for use with selected outpatients after proper preoperative education and counseling.		
28	Evidence-based management of pain after haemorrhoidectomy surgery	G. P. Joshi 1 and E. A. M. Neugebauer (2020)	To evaluate the available literature on the management of pain after hemorrhoidal surgery.	Not described	Randomized studies	A systematic review of the literature concerning analgesia	Local anaesthetic infiltration, either as a sole technique or as an adjunct to general or	Long-acting local anaesthetic infiltration is recommended for all patients	

						after haemorrhoidectomy was conducted according the protocol recommended by the Embase and MEDLINE databases.	regional anaesthesia, and combinations of analgesics (non-steroidal anti-inflammatory drugs, paracetamol and opiates) are recommended.	undergoing haemorrhoidal surgery (grade A).	
29	Postoperative Pain as a Decision-Making Tool in Treating Hemorrhoids on an In- or Out-Patient Basis After Stapled Mucosectomy (Longo Procedure)	D. Kovacevic, G. Gubler, M. Turina, M. K. Muller, A. Nocito, N. Attigah, M (2019)	To examine patient satisfaction based on the operative setting (outpatient versus inpatient treatment) in patients undergoing the Longo operation for Grade III or IV hemorrhoids.		Retrospectively and comparative study.	213 patients with stapled mucosectomies, datasets of 144 patients (67.6%) were available for full analysis	Patient satisfaction was not associated with the operative setting (inpatient vs. out-patient setting). Postoperative pain increased the willingness to be hospitalized overnight (r ¼ 0.227, P, 0.01).	Patient satisfaction after stapled mucosectomy is mainly related to postoperative pain and recurrence of hemorrhoidal symptoms regardless of inpatient or outpatient treatment.	
30	Strategies to Reduce Post-Hemorrhoidectomy Pain: A Systematic Review	Varut Lohsirivat, and Romyen Jitmongngan (2022)	To identify pharmacological and non-pharmacological interventions for reducing post-hemorrhoidectomy pain	Not described	A systematic review and network meta-analysis	The databases of Ovid MEDLINE, PubMed and EMBASE were systematically searched for randomized controlled trials	Postoperative pain remains an unsolved and disturbing problem after excisional hemorrhoidectomy.	The effect of surgeon's experience on pain after hemorrhoidectomy remains unknown	
31	How we can improve patients' comfort after Milligan-Morgan open haemorrhoidectomy	Ma-Mu-Ti-Jiang et al (2018)	To demonstrate the value of Diosmin (flavonoid fraction) in the management of post-haemorrhoidectomy symptoms.	Not described	An observer-blinded, randomized trial was conducted to compare post-haemorrhoidectomy symptoms with use of Diosmin flavonoid fraction vs placebo.	Eighty-six consecutive patients with grades III and IV acute mixed hemorrhoids	Diosmin is effective in alleviating post-operative symptoms of haemorrhoids.	Further prospective randomized trials are needed to confirm the findings of this study.	
32	A Comparison between Stapled Hemorrhoidopexy	Shafiqzaman H. N, et al (2022)	To compare the effectiveness and outcomes of stapled	Not described	Comparative observational study	100 patients with grade 3 or 4 hemorrhoids who	Patient satisfaction score was found extremely significantly	More studies in several places with larger-sized sample	

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

	and Conventional Milligan Morgan Procedure in the Treatment of Hemorrhoids		hemorrhoid opexy and conventional Milligan Morgan procedure in treating hemorrhoids			fulfilled the criteria were included in the study subjects.	higher in stapled hemorrhoidectomy group A (4.13 ± 0.61) than open hemorrhoidectomy group B (3.27 ± 0.57) where the P-value was <0.0001 .		
33	Evidence-based review of methods used to reduce pain after excisional hemorrhoidectomy	Sameh Hany Emile (2018)	To search the current literature for the existing evidence on how to avoid or minimize the severity of post-hemorrhoidectomy pain.	Not prescribed	Electronic databases including PubMed/Medline and Google Scholar service	Different methods for pain relief after excisional hemorrhoidectomy.	Application of topical glyceryl trinitrate ointment contributed to remarkable relief of postoperative pain after excisional hemorrhoidectomy according to the highest level of evidence.	There is no consensus or guidelines on how to prevent or at least minimize the severity of pain after HE	
34	Short- And Long-Term Results Of Stapled Hemorrhoidectomy	Bülent KAYA et al (2017)	To study the early and long-term results of stapled hemorrhoidectomy.	Not described	A retrospective study	44 patients (33 men and 11 women) with an average age of 43 years (range 25 to 72) underwent stapled hemorrhoidectomy for third- or fourth-degree hemorrhoids.	Stapled hemorrhoidectomy is safe, effective surgical technique with low complication rates	Although the benefits of short-term results of stapled hemorrhoidectomy is clear, the long term results are debated.	
35	Efficacy of metronidazole versus placebo in pain control after hemorrhoidectomy. Results of a controlled clinical trial	Sergio Solorio-López (2015)	To evaluate the effect of oral metronidazole versus placebo and to assess postoperative pain following hemorrhoidectomy.	Not described	Controlled clinical trial.	Adult patients who underwent elective hemorrhoidectomy for grade III/IV hemorrhoids	Oral administration of metronidazole is effective in pain management after hemorrhoidectomy.	Systemic inflammatory response underlying postoperative pain in patients after hemorrhoidectomy was ignored.	
36	Efficacy of paracetamol versus tramadol plus ketorolac for pain	F Marino, E Novelli, G Manca (2016)	Efficacy of paracetamol versus tramadol plus ketorolac for pain control	Not described	A prospective 1:1 randomized controlled clinical trial,	50 consecutive patients (pts) with grades III and IV hemorrhoids	Pain after hemorrhoidectomy is more likely to be controlled by constant-	lacking literature in support of this finding, randomized studies on larger	

Pain Management Post Hemorrhoidectomy: A Rapid Literature Review and Synthesis

	control after hemorrhoidectomy: a prospective randomized trial		after hemorrhoidectomy:			ds were enrolled.	infusion pump of tramadol plus ketorolac than by interspersed infusion of paracetamol.	samples are needed to confirm our data.	
37	Stapled Hemorrhoidopexy Versus Open Hemorrhoidectomy: A Comparative Study of Short Term Results	Ankur Jain (2017)	To compare Stapled Hemorrhoidopexy Versus Open Hemorrhoidectomy	Not described	Comparative Study	(100)-Fifty patients having grade 3 or 4 hemorrhoids who underwent stapled hemorrhoidopexy and other fifty underwent open hemorrhoidectomy.	Stapled hemorrhoidopexy is a safer alternative to open hemorrhoidectomy with many short-term benefits.	Further studies on larger population	
38	Pain management after hemorrhoidectomy. Patient controlled analgesia versus conventional pain therapy	Hancke E., Lampinski M., & Volker K (2018)	To assess the pain management after hemorrhoidectomy using patient-controlled analgesia	Not described	Randomized non blinded study	38 patients who had Ferguson haemorrhoidectomy	Patient were significantly more satisfied with PCA than with standard medication	Pain management after 24 hours was not considered	
39	Predicting factors that determine patient's satisfaction with post operative pain management following abdominal surgery	Priscilla Felicia Tano et al. (2021)	To assess the factors that may predict the satisfaction of patients with early post operative pain management following abdominal surgeries.	Not described	A descriptive cross-sectional study	138 post operative patients who had abdominal surgeries	Satisfaction with post operative management was generally high among majority of patients.	No emphasis on preoperative management.	
40	Treatment of hemorrhoids with stapler, a new alternative to conventional methods.	Arnaud J. P., et al (2021)	To determine the efficacy and safety of a new procedure for surgical treatment of hemorrhoid disease.	Not described	A prospective study	140 men and women patients with had hemorrhoidectomy with stapler	Length of operation was short 8 to 60 minutes, and the patients were fully satisfied with the result of the	Competency of surgeon was not considered.	

								procedure		
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III. RESULTS

The data base searched yielded 40 articles after eliminating irrelevant and repeated articles, and 25 articles were kept. Moreover 15 articles were excluded because of quality criteria for its low quality. The literature search identified 25 studies which met the determinants for client satisfaction with post hemorrhoidectomy pain. Most of the studies were conducted between 2016 and 2019. Out of the studies 50% were observational (20), 25% were qualitative (10), 15% experimental while 10% were literature review (4)

III. DISCUSSIONS

The objective of the study is to assess the magnitude of patient satisfaction with post-hemorrhoidectomy and to compare the effectiveness and outcomes of stapled hemorrhoidopexy and conventional Milligan Morgan procedure in treating hemorrhoids pain management and its associated factors among elective surgical patients. Nursing care provider are to improve patient satisfaction and to develop strategies to prevent patient dissatisfaction.

Level of patient satisfaction

Nursing care provider are to improve patient satisfaction and to develop strategies to prevent patient dissatisfaction (Amalia Sillero and Adelaide Zabelegui (2018). because perioperative information and response to preoperative questions by health provider level was low. In another study, satisfaction of patients with postoperative pain management was substantially low (Nura, 2021). This review shows that patient satisfaction with post hemorrhoidectomy pain management was low, and the need to improve perceived quality of post hemorrhoidectomy pain management Although, Most patients expressed full satisfaction with their treatment 30 days after surgery. Francesco Gabrielli, Marco Chiarelli, Angelo Guttadauro, Luca Poggi (1997)

Factors associated with client satisfaction with post hemorrhoidectomy pain.

This review found out that patients were generally satisfied with the post-operative pain management offered by their healthcare providers although the degree of satisfaction depended largely on the type of analgesia and pain relief methods, the ability to request for more pain relief, and access to information on pain treatment. (Priscilla Felicia TanoID, Felix ApiribuI, Emile Kouakou Tano 2022,). In the study conducted by Ashagrie 2020, regular based analgesia before patient request increases the level of satisfaction. disease status has association with level of satisfaction. Also, administration of mesoglycan after an open diathermy excisional hemorrhoidectomy can reduce postoperative thrombosis and pain at 7–10 days after surgery, permitting a faster pain relief (Gaetano Gallo et al, 2021). This was supported by Ernest Max (2018) that ‘Most patients were satisfied with pharmacological pain control’ Another study found out that patients were generally satisfied with the post-operative pain management. Similarly, hemorrhoidectomy under local anesthesia proved to be safe and feasible for use withselected outpatients after proper preoperative education and counseling (Siripong Sirikurnpiboon ,Anusorn Siripattanakul, (2017)

Level of satisfaction with open and stapler hemorrhoidectomy

The study conducted by Devendra Chaudhary, Vijay Kumar Tekam, Sourabh Mishra, Priyanka Singh (2022), confirms ETBVS (electrothermal bipolar vessel sealer) hemorrhoidectomy advantages over conventional hemorrhoidectomy. ETBVS has decreased operating time, low pain score, hospital stay, and duration of return to work as compared to conventional open hemorrhoidectomy. This was supported by Abdul Razaque Shaikh 1, Abdul Ghafoor Dalwani, Nasarullah Soomro (2013).. in his study that “the closed technique is more beneficial with respect to postoperative pain” T E Madiba, T M Esterhuizen, S R Thomson (2019) also Compared with EH Excision hemorrhoidectomy and, PPH (Procedure foor prolapse hemorrhoidectomy) is associated with less postoperative pain, and a trend towards improved patient satisfaction. Furthermore, patient satisfaction score was found extremely significantly higher in stapped hemorrhoidectomy group A (4.13 ± 0.61) than open hemorrhoidectomy group B (3.27 ± 0.57) where the P-value was <0.0001 . in a comparative study conducted by Shafiquzzaman H. N, et al (2022). Bulent Kaya et al (2017) also found out that Stapled hemorrhoidectomy is safe, effective surgical technique with low complication rates. Similarly, Ankur Jain, 2017 concluded in his stdy that stapled hemorrhoidopexy is a safer alternative to open hemorrhoidectomy with many short-term benefits. This was supported in the study carried out by Arnaud J.P. etal, which concluded with the view that, length of operation was short 8 to 60 minutes, and the patients were fully satisfied with the result of the procedure when stapler was used for hemorrhoidectomy procedure.

IV. LIMITATIONS

Although this review addressed strategies to reduce post-operative pain using a search of three major biomedical literature databases (Ovid MED- LINE, PubMed and EMBASE), it still has several limitations. First, other electronic sources such as Cochrane Review Library and Cumulative Index to Nursing and Allied Health Literature (CINAHL) are not included in this review. Second, only English-language articles with full text were included in this searching strategy. Third, although all studies included in this review were RCTs, their quality and number of sample size were various. Therefore, it is difficult to compare the treatment effects among these interventions. Fourth, detailed data are lacking for some interventions such as local anesthetic technique and intraoperative botulinum toxin injection.

V. CONCLUSION

Consumer satisfaction is a multidimensional concept, and the impact of each factor for each hospital is quite specific and dependent on culture, the specialty of hospitals, demographic variables, economic status and so on. Improvements should also be conducted when deemed necessary as a consequence of the obtained results. In order to improve their performance, hospital policy makers should raise the satisfaction level and identify the needs of their internal and external customers. It should be noted that the current study was conducted only in university and public hospitals and factors influencing patients' satisfaction may differ depending on the structures of the organizations. Thus, each hospital should measure and evaluate patient satisfaction levels regularly in order to determine its own dynamics. Consumer satisfaction is a multidimensional concept, and the impact of each factor for each hospital is quite specific and dependent on culture, the specialty of hospitals, demographic variables, economic status and so on. Improvements should also be conducted when deemed necessary as a consequence of the obtained results. In order to improve their performance, hospital policy makers should raise the satisfaction level and identify the needs of their internal and external customers. It should be noted that the current study was conducted only in university and public hospitals and factors influencing patients' satisfaction may differ depending on the structures of the organizations. Thus, each hospital should measure and evaluate patient satisfaction levels regularly in order to determine its own dynamics. Patient satisfaction is a multidimensional concept and the impacting factors on client demographic variables, economic status and so on is quite specific and dependent on culture and health facilities and method of surgical procedure on hemorrhoidectomy. In order to improve satisfaction on pain relief post hemorrhoidectomy, hospitals, surgeons and other health care providers should raise the level of client satisfaction. It should be noted that the current study is a literature review on past study on clients' satisfaction with pain relief post hemorrhoidectomy. Consumer satisfaction is a multidimensional concept, and the impact of each factor for each hospital is quite specific and dependent on culture, the specialty of hospitals, demographic variables, economic status and so on. Improvements should also be conducted when deemed necessary as a consequence of the obtained results. In order to improve their performance, hospital policy makers should raise the satisfaction level and identify the needs of their internal and external customers. It should be noted that the current study was conducted only in university and public hospitals and factors influencing patients' satisfaction may differ depending on the structures of the organizations. Thus, each hospital should measure and evaluate patient satisfaction levels regularly in order to determine its own dynamic

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