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Chronic Low Back Pain Post-Caesarean Delivery: A Physiotherapist's Perspective

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ABSTRACT

This short review investigated the connection between neuraxial anaesthesia and chronic low back pain (CLBP) following caesarean sections, highlighting an important area of concern as the prevalence of such surgeries increases. Several risk factors for developing CLBP were identified, including needle size and patient posture during the procedure. Emphasis was placed on the crucial role of physiotherapists in distinguishing between pregnancy-related back pain and pain resulting from anaesthesia, as well as monitoring postoperative symptoms. Effective physiotherapy interventions were discussed, focusing on improving posture, enhancing mobility, and addressing psychosocial factors that may impact recovery. By advocating for a multidisciplinary approach, the review highlighted the necessity for comprehensive strategies that consider both physical and psychological aspects of recovery, ultimately aiming to optimise outcomes for women after caesarean delivery.

Key words: Chronic low back pain, Neuraxial anaesthesia, Caesarean section, Physiotherapy interventions, Risk factors, Multidisciplinary approach

INTRODUCTION

A caesarean section (C-Section or CS) is a surgical procedure that involves delivering a foetus through incisions made in the abdominal wall (laparotomy) and the uterine wall (hysterotomy), and it ranks among the most commonly performed obstetric surgeries globally. [(1)] Indications for a planned caesarean section include maternal preference, which may arise from anxiety about vaginal delivery or be made without any accompanying medical justification at a standard gestational age. [(2)] Indications have also been classified into maternal, anatomical/uterine and foetal. Maternal indications for a caesarean section include a history of previous caesarean delivery, pelvic abnormalities or cephalopelvic disproportion, infections like herpes simplex or HIV, and existing cardiac or pulmonary conditions. Uterine or anatomic indications for a caesarean section encompass conditions such as abnormal placentation, placental abruption, previous uterine surgeries, invasive cervical cancer, and obstructive masses in the genital tract. Lastly, foetal indications include conditions such as abnormal heart patterns, umbilical cord prolapse, unsuccessful operative vaginal delivery, malpresentation, macrosomia, congenital anomalies, thrombocytopenia, and history of neonatal birth trauma. [(3)] A recent report by the World Health Organization (WHO) reveals that caesarean section rates have surpassed 21% of all childbirths worldwide and are expected to rise to nearly 29% by 2030, indicating a substantial increase from about 7% in 1990, with notable differences across various regions. [(4)]

There are 2 main types of anaesthesia used for C-section deliveries. The first type is

regional anaesthesia (RA) or specifically, neuraxial anaesthesia, which includes spinal (subarachnoid), epidural (extradural) and combined (spinal-epidural anaesthesia). The second type is general anaesthesia which describes to loss of pain perception in conjunction with loss of consciousness brought on by intravenous or inhaled anaesthetic agents.

Neuraxial Anaesthesia:

- **Epidural Anaesthesia:** Epidural anaesthesia is a method of pain management that employs a neuraxial technique, where anaesthetic medications are injected into the epidural space. This approach successfully blocks both sensory and motor nerve roots in the thoracic, abdominal, pelvic, and lower limb areas. [(5)]
- **Spinal Anaesthesia:** A kind of neuraxial anaesthesia called spinal anaesthesia is administered into the cerebrospinal fluid in the lumbar spine to numb the emerging nerves. [(6)] During this procedure, anaesthetic agents such as bupivacaine are injected into the subarachnoid space. [(7)]
- **Combined Spinal-Epidural (CSE):** Combination of spinal and epidural anaesthesia.

General Anaesthesia: This usually entails a combination of drugs that alter the state of consciousness characterised by absence of recollection of the surrounding environments, a limitation of the stress response to nociception and muscle relaxation. [(8)]

Anaesthetic choices for a C-section encompass neuraxial techniques as well as the option of general anaesthesia. [(9)] The choice between general and regional anaesthesia is influenced by a number of factors such as the anaesthesiologist's judgement, urgency of the C-section and maternal preferences. With regards to anaesthesia, this review will primarily focus on neuraxial anaesthesia rather than general anaesthesia, as the use of general anaesthesia for caesarean deliveries has declined over the past few decades. This decline is largely due to the increasing recognition that neuraxial anaesthesia can be effectively administered even in urgent situations, ensuring both maternal safety and optimal neonatal outcomes. Neuraxial techniques have established themselves as the gold standard for caesarean delivery, with significant advantages, particularly the avoidance of airway manipulation risks - such as aspiration and the potential for "cannot intubate, cannot ventilate, cannot oxygenate" scenarios - contributing to their widespread adoption. The objectives of anaesthesia during a C-section are centred on ensuring the comfort of the mother while prioritising the well-being of the foetus. This involves implementing strategies aimed at reducing morbidity and mortality for both the mother and child. [(10)]

Chronic pain is typically characterised as pain that continues beyond the anticipated duration for healing or pain linked to a progressive, non-cancerous condition. [(11)] Low back pain (LBP) is described as acute, subacute, or chronic discomfort situated in the anatomical region below the lower ribs and above the upper edges of the buttocks. LBP continues to be the primary cause of years lived with disability (YLDs) around the world. In 2020, it was estimated that 619 million people (with a 95% uncertainty interval of 554 to 694 million) were affected by this condition. Looking ahead, projections suggest that the number of individuals experiencing low back pain could rise to 843 million (ranging from 759 to 933 million) by 2050. [(12)] When chronic, this LBP persists for at least three months, and becomes a significant health concern that can result in disability and impose a considerable social and economic burden on the community. [(13)]

The choice of anaesthetic technique significantly influences the likelihood of developing back pain; those receiving spinal anaesthesia are more prone to postoperative back pain than those given general anaesthesia. The likelihood of back pain development contributes to patients'

apprehensions about receiving spinal anaesthesia, with around 13.4% citing it as a primary reason for their reluctance. Despite its prevalence, our understanding of the mechanisms behind persistent LBP after spinal anaesthesia, particularly in patients who have undergone a caesarean section, remains limited. This chronic pain poses considerable challenges for effective clinical management. (14,15)

The rationale behind this short review is to briefly address the pressing need to understand the relationship between neuraxial anaesthesia and chronic low back pain (CLBP) following caesarean sections. Given the significant number of women undergoing C-sections with neuraxial anaesthesia, it is essential to investigate factors that may contribute to the onset of CLBP. This review also provides evidence-based insights into key areas, including risk factors for developing LBP due to neuraxial anaesthesia, differentiating between post pregnancy-related back pain and anaesthesia-induced pain, and highlighting effective physiotherapy interventions. It aims to equip physiotherapists and other healthcare providers with the knowledge necessary to better manage this condition. Additionally, the study emphasises the importance of monitoring specific symptoms and understanding psychosocial factors that may contribute to CLBP development post-caesarean delivery. By advocating for a multidisciplinary approach, this review underscores the need for comprehensive strategies that address the various aspects of recovery.

1. OVERVIEW OF ANAESTHESIA-RELATED MANIFESTATIONS, RISK FACTORS FOR LOW BACK PAIN DEVELOPMENT, AND PAIN DYNAMICS

i. What are the key risk factors associated with the development of low back pain in women following neuraxial anaesthesia during caesarean sections?

The development of low back pain (LBP) in women after during caesarean sections can be influenced by several key risk factors. Understanding these factors is essential for healthcare professionals to mitigate the risk and improve patient outcomes.

Evidence Summary:

A recent study highlights a rising concern about the relationship between spinal anaesthesia and the onset of low back pain following caesarean sections. Whether spinal anaesthesia contributes to an increased risk of persistent LBP after CS is a matter of ongoing debate. Identifying the potential risk factors for developing LBP in patients who receive spinal anaesthesia during CS is essential, particularly given the absence of a definitive treatment. Understanding these factors may aid in preventing the development of this condition. (15)

One study suggests that having a caesarean delivery with epidural anaesthesia may increase the risk of developing CLBP later on. This is thought to be linked to postural problems that can occur during labour, which may be exacerbated by the muscle relaxation and pain relief from the epidural. The non-selective nerve block can lead to immobility and prolonged awkward positions, often requiring assistance for movement. Consequently, the loss of normal protective reflexes due to anaesthesia may result in sustained poor posture during labour, contributing to CLBP. (16)

Other researchers identified factors associated with Post-Spinal Back Pain (PSBP) after spinal anaesthesia in general. They found that the size of the spinal needle, the number of insertion attempts, and the number of times the needle touched bone were significantly linked to PSBP. Specifically, patients with two attempts were four times more likely to develop PSBP, and those with more than three attempts were five times more likely to develop this condition. A single bone contact increased the risk by three times, while more than two contacts raised it to eight times. Additionally, larger spinal needle gauges increased the likelihood of PSBP by six times. These findings can help improve postoperative pain

management. [17] While this particular study wasn't explicitly focused on low back pain post-C-section, it provides valuable insights into factors associated with Post-Spinal Back Pain (PSBP) that can inform understanding of pain in women after a C-section.

ii. How can physiotherapists differentiate between pregnancy-related low back pain and low back pain that may have developed due to anaesthetic technique?

Physiotherapists can distinguish between low back pain associated with pregnancy and chronic low back pain that may have developed due to anaesthetic technique by understanding the aetiology and carefully evaluating the patient's history, symptoms and physical examination findings.

Evidence Summary:

- **Pregnancy-Related LBP:** Studies show that while chronic low back pain may persist postpartum, pregnancy-related low back pain can be present throughout the pregnancy. [18,19] Pregnancy-related LBP appears to be remarkably similar to low back pain reported by women who are not pregnant. It usually manifests as pain over and around the lumbar spine and above the sacrum. [20]

  The exact aetiology of pregnancy-related low back pain is not well understood. However, from a biomechanical perspective, the increase in mass around the abdomen and breasts causes a forward shift in the centre of gravity which leads to postural changes that in turn lead to an increase in the lumbar lordosis and as a result, tension in the paraspinal muscles. The postural changes include pelvic anteversion, reduced medial longitudinal arch and hyperextension at the knees. [21]

  Pregnancy causes an increase in relaxin, progesterone and oestrogen levels. Relaxin starts to rise in the early stages of pregnancy, peaks around the end of the first trimester and then keeps rising steadily until late pregnancy. Oestrogen increases the sensitivity of the relaxin receptor, enhancing its effect on joints. This leads to joint laxity (which could result in instability in the lumbar region and increase risk of injury and pain). Another cause theorised is that the growing gravid uterus weakens and stretches the abdominal muscles. This places additional strain on the paraspinal muscles that compensate for the loss of tone and strength of the abdominal muscles. Additionally, the gravid uterus can compress the vena cava and aorta when a woman is in supine position. These vascular changes may result in reduced metabolic activity of the neural structures, causing low back pain. [22]

- **Anaesthetic Technique-Induced LBP:** One reason why patients refuse spinal anaesthesia is a fear of experiencing back pain following the injection. [23] A study reported that up to 90% of women who have had a C-section under spinal anaesthesia develop back pain. The cause is believed to be needle-induced tears in the ligaments, fascia or bone. The anaesthesia induces relaxation of the paraspinal muscles, causing the normal lumbar lordosis to flatten in the process, especially if the surgery is over 40 minutes. This stretches and strains the lumbosacral ligaments and joint capsules, leading to pain. [6] The type of needle used, number of punctures and the anaesthesiologist's experience can influence low back pain. [15] In terms of epidural anaesthesia, the causes of low back pain are similar to those of spinal anaesthesia. However, in the former, an epidural catheter is used for continuous analgesia. The presence of the catheter can lead to irritation of the surrounding tissues and contribute to pain and discomfort in the lower back. [24] Needle puncture of an intervertebral disc and inflammation of the ligaments can lead to back pain after an epidural block. [25] Another possible explanation for the development of LBP is the occurrence of an epidural haematoma, which may arise spontaneously or as a complication of

spinal or epidural procedures. Specifically, small haematomas resulting from the insertion of the epidural needle can activate nociceptors in the surrounding tissues, contributing to pain. [16]

Any addition to the corpus of knowledge in physiotherapy about the aetiology of lower back pain resulting from a neuraxial anaesthetic technique will always be highly appreciated.

iii. What common signs and symptoms should physiotherapists monitor postoperatively?

Physiotherapists play a crucial role in monitoring postoperative patients, including those who have undergone neuraxial anaesthesia during caesarean sections.

Evidence Summary:

- **Pain Levels:** Pain intensity scales play a crucial role in evaluating the effectiveness of interventions across different pain populations and serve as a primary outcome measure in both clinical and research contexts. The most frequently utilised pain intensity measures include the Numeric Pain Rating Scale (NPRS), Visual Analogue Scale (VAS), Verbal Rating Scale (VRS), and Faces Pain Scale-Revised (FPS-R). A suitable pain scale should be valid, reliable, sensitive, comprehensible, easy to use, and favoured by both patients and professionals. [26] Monitoring pain post-Caesarean Section helps determine the effectiveness of analgesic interventions and guides therapeutic exercises.
- **Signs of Infection:** Health care-associated infections (HAIs) encompass several types, including central line-associated bloodstream infections, catheter-associated urinary tract infections (UTIs), surgical site infections, and ventilator-associated pneumonia. [27] Physiotherapists can look out for postpartum endometritis (a uterine infection) and skin incision infections, as these are both types of surgical site infections (SSIs). Early identification of infections can lead to timely medical intervention, preventing further complications.
- **Complications of Prolonged Bed Rest:** Inactivity following a C-section can significantly reduce physical activity and is a prevalent factor contributing to the loss of independent mobility among women recovering from this procedure. Prolonged bed rest is linked to various postoperative complications, including pain, postpartum bleeding, deep vein thrombosis (DVT), UTIs, pulmonary embolism, shock, respiratory infections, back pain, fatigue, and an extended hospital stay. These complications highlight the importance of early mobilisation and physical rehabilitation in post-caesarean care to enhance recovery and mitigate risks associated with prolonged immobility. [28] Physiotherapists should monitor for several key factors postoperatively to ensure a comprehensive recovery plan tailored to the patient's needs.

iv. Is there a difference between the common side effects or complications of neuraxial anaesthesia and general anaesthesia?

Neuraxial anaesthesia and general anaesthesia each have distinct common side effects and complications, reflecting their different mechanisms of action and applications in surgical settings.

Evidence Summary:

- **Neuraxial Anaesthesia:** The limited number of reports pertaining to differences in side-effects between spinal and epidural anaesthesia has left it unclear. Both these regional anaesthesia techniques produce similar side effects such as post-dural puncture headache, nausea and vomiting, and postoperative complications requiring anaesthetic interventions. [7] Complications such as back pain, hypotension (especially with spinal anaesthesia), bradycardia, breathing difficulties, shivering, high

spinal block, loss of consciousness, infective complications such as meningitis, if strict aseptic techniques are not followed, can occur with regional anaesthesia. [29]

- **General Anaesthesia:** Has been associated with higher blood loss, extubation failure, venous thromboembolism, maternal morbidity and mortality. [10,30] Others include higher blood pressure and raised heart rate. [31]

v. Apart from low back pain, what other types of pain and pain dynamics may occur following neuraxial anaesthesia administered during a C-section delivery?
Pain distribution patterns following C-sections can be a complex landscape of postoperative pain syndromes, postoperative pain scores and recovery trajectories.
Evidence Summary:

- **Postoperative Pain Syndromes:** A case study reported a 29-year-old woman who presented five days after her caesarean delivery with sudden pain in her left buttock and hip, radiating to the back of her knee, accompanied by a fever. She was subsequently diagnosed with piriformis syndrome. Although back pain radiating to the buttocks following spinal anaesthesia is often attributed to the procedure itself, prolonged sitting and weight-bearing after a caesarean can lead to compression of the sciatic nerve at the sacroiliac joint. This compression can cause irritation, inflammation, and spasms of the piriformis muscle. [32]
- **Postoperative Pain Scores for Pain at Incision Site:** A study followed 333 women who had caesarean sections using spinal anaesthesia to understand their pain levels and satisfaction with pain management. Pain was measured using a Visual Analogue Scale (0 to 100) at three points: right after surgery (T0), 6 hours later, (T6) and 24 hours later (T24). In the study, participants were divided into six groups based on the type of pain medication they received after their caesarean sections. The groups included those who received only diclofenac, only pethidine, only intrathecal opioids (like morphine), only tramadol, a combination of multiple pain medications, and those who received no pain medication at all. At T0, the lowest pain scores were found in the group that received pethidine only and those who received a combination of medications. In contrast, the group that received only tramadol had the highest pain scores. After 6 hours (T6), the lowest pain scores were reported by the tramadol-only group, while those receiving intrathecal morphine had the highest pain scores. By 24 hours (T24), the group receiving intrathecal morphine again reported the lowest pain scores, whereas those on tramadol alone had higher pain scores. The most severe pain was reported at T6, likely attributable to the wearing off of spinal anaesthesia without further analgesic administration. These results indicate that different types of pain medications can have varying levels of effectiveness at different times after surgery and consequently varying levels of pain scores. [33]
- **Long-term Pain Trajectories:** The purpose of one study was to examine how often chronic pain occurs and what factors may contribute to this pain in women after caesarean delivery, with assessments made at 3, 6, and 12-months post-surgery. The incidence of chronic pain was found to be 18.3% at 3 months, decreasing to 11.3% at 6 months, and further to 6.8% at 12 months. Most women experiencing chronic pain reported it as mild when at rest; however, many reported moderate to severe pain during movement at 3 months, with a significant reduction in pain levels observed by 6 and 12 months. The most common locations for chronic pain were the incision site and the pelvic area. Several factors were identified as predictors of chronic pain at 3 months, including higher pain intensity during movement within the first 24 hours after

surgery, preoperative depression, and longer surgical duration. [34]

OVERVIEW OF INTERVENTIONS

i. What physiotherapy interventions are effective for managing recovery after a Caesarean section performed under neuraxial anaesthesia?

Physiotherapy plays a vital role in enhancing recovery after a C-Section by addressing pain, improving mobility, and facilitating overall well-being.

Evidence Summary:

- **Continuum of Care:** Prolonged immobility can lead to muscle weakness and atrophy, particularly in the core and lumbar stabilising muscles, increasing the risk of low back pain. It is important to remember that physiotherapy training and education prior to a C-Section plays a crucial role in enhancing patient's understanding and behaviour, which in turn positively affects various aspects of health-related quality of life. Similarly, postnatal physiotherapy exercises administered during the early postpartum period contribute significantly to improving quality of life by fostering physical health and overall well-being. These benefits arise from better body mechanics, pain reduction, and enhanced blood circulation. [35]
- **Exercises, Posture and Diet:** Physical therapy offers a range of benefits, particularly in enhancing reproductive system function and reducing the risk of postnatal depression, which contributes to greater psychological stability and improved mood. Additionally, it supports cardiovascular health, strengthens weakened muscles, builds endurance, assists with weight management, and overall improves quality of life. Approaches include:

1. **Exercises:** The National Physical Activity Guidelines (NPAG) recommend that individuals engage in a total of 2 hours and 30 minutes of physical activity each week, [36] which can be distributed across various activities. This regimen should include exercises tailored to different post-surgical recovery stages, such as acute, sub-acute, and late phases of rehabilitation, along with Kegel, pelvic floor and functional exercises. [37]
2. **Postural Guidance:** After childbirth - whether through vaginal delivery or Caesarean section - maintaining correct body alignment is crucial because many postnatal complications arise from poor posture; this encompasses recommendations for bed mobility, carrying heavy loads and proper feeding positions. [37]
3. **Dietary Guidance:** Studies highlight the importance of physical therapists offering nutritional advice tailored to meet the dietary requirements of postpartum women. [37]

- **Wound Protection:** Another key objective of physiotherapy is to minimise complications associated with wound healing. This can be achieved through various interventions aimed at alleviating pain related to surgical incisions. Strategies may include enhancing bed mobility and facilitating safe transfers, providing support to the incision site during activities such as coughing, moving, or breastfeeding, and reducing tension on the surgical wound. [38]
- **Pain Management:** Pain from the surgical incision can lead to compensatory movement patterns. When patients experience discomfort at the incision site, they may unconsciously alter their posture or movement to avoid pain, which can strain the lumbar spine and lead to chronic low back pain. Therefore, effective pain management is essential for alleviating distress, enhancing satisfaction, and improving the quality of life for postpartum women. In this regard, electrotherapy, particularly through Transcutaneous Electrical Nerve Stimulation (TENS), serves as a valuable tool. It can address various conditions during the postpartum period by promoting analgesia, enhancing local blood circulation,

facilitating fluid drainage, and aiding in muscle toning or relaxation. [39]

- **Manual Therapy:** A randomised clinical trial revealed that both soft tissue mobilisation (STM) and myofascial release therapy (MFR) significantly alleviated low back pain and disability in postpartum women following a caesarean section. Notably, MFR was found to have a greater effect on pain relief and functional improvement compared to STM. [40]

ii. What role do psychosocial factors play in the experience of chronic low back pain following caesarean delivery?

CLBP following caesarean delivery can be significantly influenced by various psychosocial factors. These can include social isolation and lack of support, anxiety, post-partum depression and maladaptive beliefs about prolonged bed rest.

Evidence Summary:

A recent review highlighted the significant role of psychological factors in postoperative pain, identifying state anxiety as the most prominent predictor. Fear associated with surgery is recognised as a major risk factor for both acute and chronic postoperative pain. Such fear can lead to increased disability, slower recovery, and lower adherence to analgesic protocols following surgery. Consequently, accurately assessing surgery-related fear is crucial for identifying at-risk patients and can inform tailored educational or therapeutic strategies prior to surgery. Other notable psychological predictors of acute postoperative pain include pain catastrophising, optimism, pain expectations, neuroticism, negative emotions, and depression. The authors emphasised the importance of understanding both risk and protective factors in managing postoperative pain effectively. [41]

iii. A multi-disciplinary approach towards chronic low back pain: Where are we now?

Chronic low back pain following a C-section is a multifaceted issue that often requires a multi-disciplinary approach for effective management. This approach integrates various healthcare professionals to address the physical, psychological, and social aspects of pain experienced by postpartum women. The evidence presented here is applicable to the general population suffering from low back pain (LBP) and can also be extended to various women who experience LBP following a caesarean section. However, it is crucial to recognise that the aetiologies of LBP can vary significantly among individuals. Therefore, a tailored assessment of each patient is essential to avoid a one-size-fits-all approach. This personalised evaluation will help identify specific contributing factors and guide the development of effective, individualised treatment plans that address the unique needs of postpartum women experiencing chronic low back pain.

Evidence Summary:

- **Multidisciplinary Pain Management Programmes (MPMPs):** MPMPs for chronic back pain incorporate various treatment strategies that address both physical and psychosocial aspects of pain. Based on the biopsychosocial model, these programmes involve a collaborative team of specialists - including physicians, psychologists, physiotherapists, and occupational therapists - who work together towards common goals and coordinated treatment plans. This integrated approach helps patients improve emotional and physical functioning, reduce pain, and enhance coping strategies. Research indicates that intensive multidisciplinary biopsychosocial rehabilitation significantly decreases pain and improves function compared to standard or non-multidisciplinary treatments. [42]
- **Simultaneous Multidisciplinary Care:** A recent study advocates for a simultaneous multidisciplinary care approach to managing low back pain, highlighting that while the multidisciplinary model is widely

endorsed, it is often implemented in a fragmented manner, with each healthcare provider addressing only one aspect of the patient's condition at a time. This disjointed approach fails to provide a comprehensive understanding of the complexities of low back pain and does not adequately respond to the evolving needs of patients. In response to these challenges, the authors developed a "simultaneous multidisciplinary care" programme specifically for low back pain patients. This initiative aims to comprehensively evaluate and address all factors contributing to and associated with low back pain, ensuring that all patients' needs are met. To enhance treatment efficacy, they advocate for distinct pathways tailored for acute and chronic pain, along with clinical differentiation between patients at low versus high risk for developing chronic pain. Under this model, a physician - be it a neurosurgeon, physiatrist, or pain therapist - will assess each patient and develop a tailored programme aimed at alleviating LBP through two key strategies: a continuous rehabilitation programme and simultaneous evaluations by various specialists, allowing for real-time adjustments to treatment based on the patient's dynamic condition. The programme unfolds in three phases: first, identifying the most appropriate physician for the initial consultation based on the patient's specific needs; second, implementing simultaneous multidisciplinary care to address either acute or chronic low back issues; and third, providing a tailored rehabilitation programme that remains under continuous evaluation by physiatrists and pain therapists throughout the rehabilitation process. [(43)]

CONCLUSION AND RECOMMENDATIONS

This short review addresses the relationship between neuraxial anaesthesia and chronic low back pain (CLBP) following caesarean sections, highlighting the pressing need for clarity in this area due to the increasing rates of such surgeries. Despite the common use of spinal anaesthesia, its potential role in developing CLBP remains uncertain, with various risk factors identified, including needle size and patient posture during surgery. The review underscores the importance of physiotherapists in differentiating between pregnancy-related back pain and pain induced by anaesthesia, as well as monitoring specific symptoms postoperatively. Effective physiotherapy interventions are crucial for managing recovery, focusing on improving posture, enhancing mobility, and addressing psychosocial factors that may contribute to pain. By advocating for a multidisciplinary approach, the review emphasises the necessity of comprehensive strategies that encompass both physical and psychological aspects of recovery to optimise outcomes for women after caesarean delivery.

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