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Nonpharmacological Management of Postpartum Pain After Cesarean and Vaginal Delivery: A Systematic Review

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Abstract

Postpartum pain is a common and clinically significant issue following both cesarean and vaginal deliveries, affecting maternal comfort, mobility, breastfeeding, and early mother-infant bonding. While pharmacological analgesics are effective, they carry risks such as gastrointestinal disturbances, sedation, and interference with lactation, prompting interest in nonpharmacological alternatives. This systematic review evaluated randomized controlled trials (RCTs) published between 2015 and 2025 that assessed nonpharmacological interventions for postpartum pain including acupressure, transcutaneous electrical nerve stimulation (TENS), hand and back massage, abdominal binders, cryotherapy, and photobiomodulation. Ten studies were included, comprising 7 cesarean and 3 vaginal delivery trials. Acupressure, TENS, and massage consistently reduced pain scores, enhanced functional recovery, and improved maternal comfort without significant adverse effects, whereas abdominal binder use showed limited benefit. For vaginal deliveries, cryotherapy and photobiomodulation effectively decreased perineal pain and edema. Overall, nonpharmacological interventions were safe, low-cost, and patient-centered, offering meaningful reductions in postpartum pain and improvements in functional outcomes. However, variability in intervention protocols, dosing, and outcome measures limits direct comparisons, highlighting the need for further research to establish standardized approaches and optimize clinical application. These findings support incorporating nonpharmacological strategies as adjuncts or alternatives to pharmacological pain management in postpartum care.

Keywords: Postpartum Pain, Nonpharmacological Management, Vaginal Delivery, Cesarean Section

1. Introduction

Postpartum pain is a prevalent and clinically significant concern for women following childbirth, regardless of delivery mode, whether vaginal or cesarean.[1] Globally, persistent postpartum pain affects approximately 10% of women after childbirth, with reported incidences ranging from 2–10% after vaginal delivery and 11–18% after cesarean delivery, depending on study definitions and populations.[2] Pain experienced in the immediate and early postpartum period may arise from perineal trauma, uterine involution, surgical incisions, and musculoskeletal adaptations associated with pregnancy.[3,4] Uncontrolled postpartum pain can negatively impact maternal mobility, delay initiation of breastfeeding, disrupt sleep, and reduce overall quality of life, highlighting the necessity for effective pain management strategies to facilitate recovery and optimize postpartum functioning.[3,5]

Pharmacological interventions including nonsteroidal anti-inflammatory drugs (NSAIDs) and opioids remain the primary approach for postpartum analgesia. However, these agents carry potential adverse effects such as gastrointestinal disturbances, sedation, and interference with lactation, which may limit their safety and acceptability.[6,7] These constraints have prompted increasing attention toward nonpharmacological interventions which offer potentially safer, cost-effective, and patient-centered approaches for pain management in the postpartum period.

Nonpharmacological strategies encompass a diverse range of techniques including physical modalities (e.g., cold or ice therapy, photobiomodulation), manual therapies (e.g., massage, acupressure, reflexology) and complementary approaches (e.g., aromatherapy, auricular acupressure, transcutaneous electrical nerve stimulation).[8–13] Empirical evidence suggests that these interventions can reduce pain intensity, enhance functional recovery, and improve maternal comfort, without the pharmacological risks associated with conventional analgesics.

Previous studies by Dutra et al.[14] and Zuarez-Easton et al.[15] have explored nonpharmacological methods for managing labor and immediate postpartum pain. However, they offer limited and outdated evidence with insufficient clinical integration, and their narrow methodological scope restricts the applicability of findings in contemporary practice. Despite growing interest, the current literature remains heterogeneous in study designs, intervention types, timing, frequency, and outcome measures, complicating evidence synthesis and interpretation. Therefore, a systematic evaluation of the existing literature is warranted to determine the efficacy of nonpharmacological interventions, identify optimal approaches, and provide evidence-based guidance for clinical practice. This systematic review aims to critically evaluate the effectiveness of nonpharmacological interventions for postpartum pain, focusing on pain outcomes to highlight interventions that demonstrate clinically meaningful benefits while minimizing pharmacological risks.

2. Method

This systematic review was conducted in adherence to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 reporting guideline.

2.1. Study Eligibility

This systematic review included original research articles published between 2015-2025 that evaluated nonpharmacological interventions for postpartum pain. Studies were eligible if they enrolled postpartum women, either following vaginal delivery (VD) or cesarean section (CS), and reported pain outcomes using the Visual Analog Scale (VAS). Studies involving women with major obstetric complications such as postpartum hemorrhage, preeclampsia, or infection were excluded to ensure sample homogeneity and reduce confounding factors related to high-risk pregnancies or surgical complications. Publications in languages other than English, conference abstracts, review articles, letters, editorials, case reports, and animal studies were also excluded. Duplicate publications and studies with overlapping cohorts were carefully screened with the most complete or recent data retained.

2.2. Search Strategies

A comprehensive literature search was conducted on PubMed, ScienceDirect, and Scopus on November 10, 2025, using the search terms presented in Table 1. All identified articles were evaluated according to predefined inclusion and exclusion criteria. One reviewer (NCA) assisted the author in screening the articles. Any disagreements during the screening process were resolved through discussion to reach a consensus.

2.3. Risk of Bias Assesment

The risk of bias assessment will be performed according to the respective study designs. For randomized controlled trials (RCTs), the RoB 2.0 tool (revised

Cochrane Risk of Bias tool for randomized trials) will be used to evaluate key domains including the randomization process, deviations from intended interventions, missing outcome data, measurement of outcomes, and selection of reported results.[16] For non-randomized interventional studies, the ROBINS-I tool (Risk of Bias in Non-randomized Studies of Interventions) will be applied, assessing domains such as confounding, participant selection, classification of interventions, deviations from intended interventions, missing data, outcome measurement, and selective reporting.[17] Risk-of-bias results will be summarized visually using traffic-light or summary plots to provide an overview of methodological quality across studies.

2.4. Data extraction and synthesis

Relevant data from each included study were systematically extracted using a predesigned data collection form. Extracted information included first author, year of publication, country, study design, sample size, type of nonpharmacological intervention, control or comparator, VAS scores, other findings, and additional comments. Due to the heterogeneity of interventions, differences in outcome measurement timing, and variation in control groups, a quantitative meta-analysis was not feasible, and a qualitative synthesis was conducted instead. The synthesis provided a descriptive summary of the results, highlighting trends in intervention effects, differences between delivery modes, and clinically relevant outcomes. This approach allowed for a comprehensive overview of the evidence while accounting for variability in interventions, outcome measures, and study designs.

3. Results

3.1. Study selection

A total of 335 articles were identified from three databases (PubMed = 39; Scopus = 24; ScienceDirect = 272). Six duplicates were removed prior to screening. During the title and abstract screening, 313 articles were excluded. Of these, 310 were removed due to populations that did not meet the study criteria and incomplete outcome data. An additional three articles were excluded because the full reports could not be retrieved. Full-text assessment was conducted on 16 articles, of which 6 were further excluded due to incomplete outcome data and inappropriate study designs. Ultimately, 10 studies met the eligibility criteria and were included in the qualitative synthesis, as shown in Figure 1.

Table 1. Summary of Reviewed Studies By Intervention Type

Databases	Search Terms
PubMed and Scopus	("postpartum" OR "postpartum pain" OR "labor recovery") AND ("non-pharmacology" OR "nonpharmacology" OR "non-pharmacological" OR "non-drug therapy" OR "pain management" OR "complementary therapy") AND "treatment" AND "pain"
ScienceDirect	("postpartum" OR "postpartum pain") AND ("non-pharmacology" OR "non-pharmacological") AND "treatment" AND "pain"

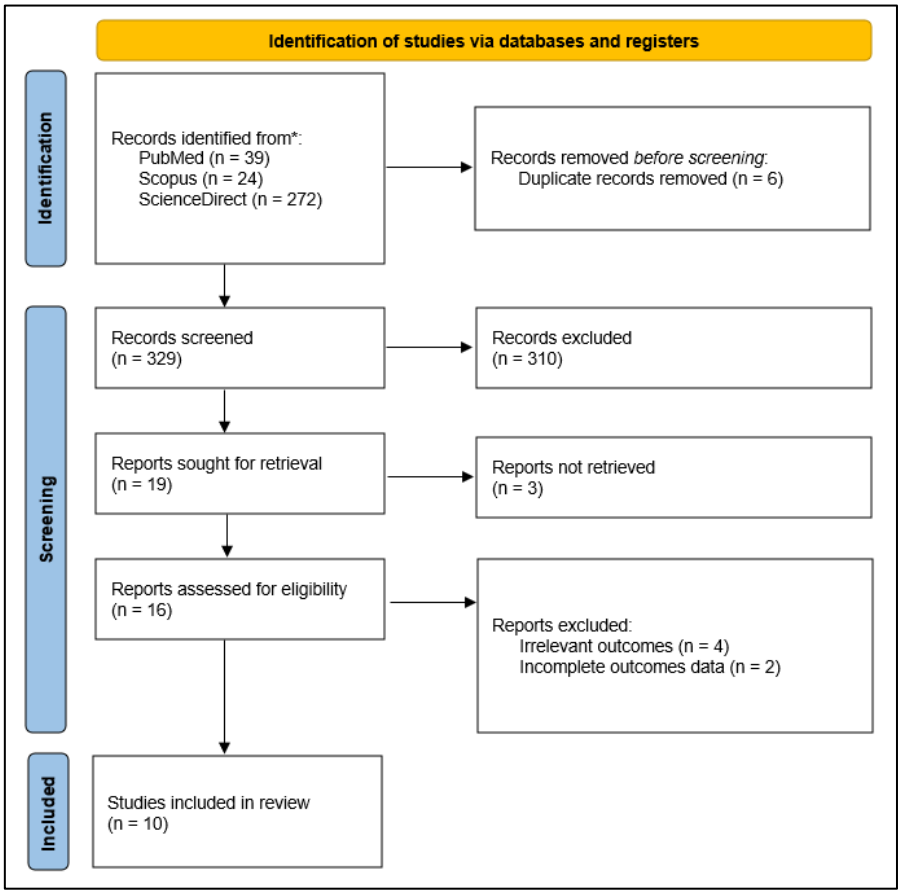

Figure 1. PRISMA flow diagram for study selection

3.2. Risk of Bias

The risk of bias in the 10 included RCTs was assessed using the RoB2 tool. Out of the 10 studies, 4 were judged to have a low risk of bias, while 6 studies raised some concerns, primarily due to the selection of the reported results. Most of these studies did not provide a pre-specified analysis plan finalized before unblinded outcome data were available, which increases the potential for selective reporting. No studies were judged to be at high risk of bias (Figure 2 and Figure 3).

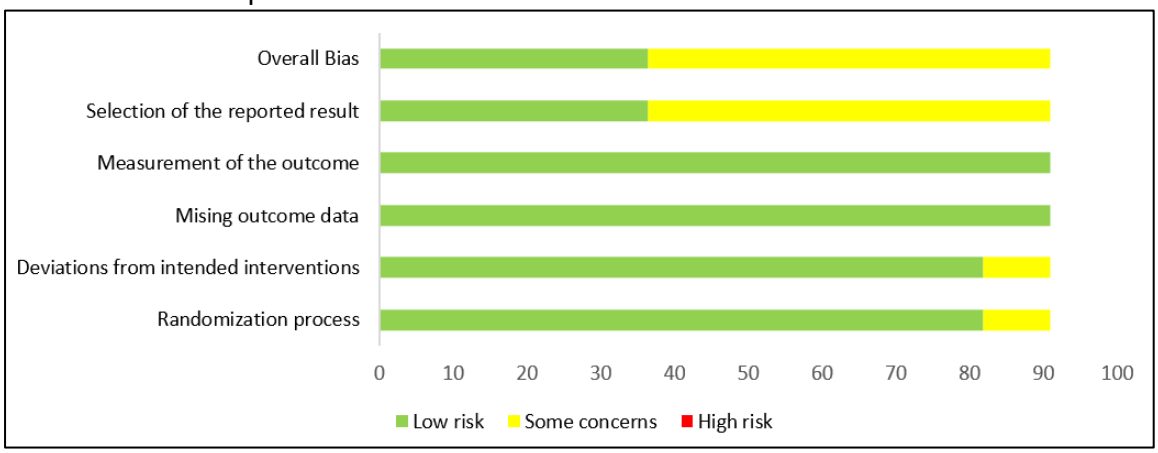

Figure 2. Summary of Risk of Bias Assessment Results.

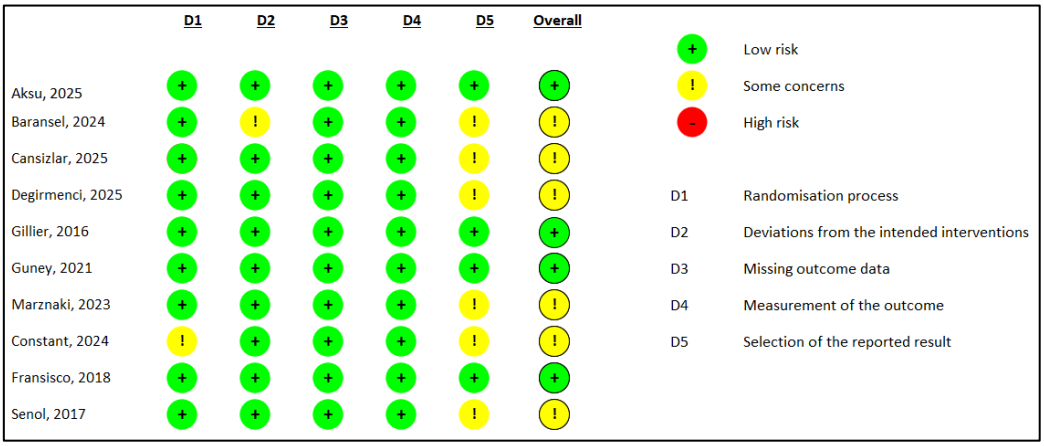

Figure 3. Individual Risk of Bias for Each Study Included in The Review

3.3. Study characteristics

This systematic review included 10 studies, comprising 7 CS studies and 3 VD studies. All studies were RCTs conducted between 2016 and 2025. Most study originating from Turkey (n=6),[9–12,18,19] followed by Brazil (n=2),[13,20] Iran (n=1),[8] and the United States (n=1).[21] Table 2 provides detailed information about the characteristics of the included studies.

3.4. Study results:

3.4.1.Cesarean section

Seven RCTs evaluated nonpharmacological interventions for postpartum pain following cesarean delivery.[8–11,18,19,21] Interventions included acupressure,[8,18] Transcutaneous Electrical Nerve Stimulation (TENS) therapy,[11] hand and back massage,[9,10,19] and abdominal binder use.[21] Sample sizes ranged from 32 to 182 participants. Most studies demonstrated significant reductions in VAS scores immediately after intervention and at follow-up. For example, acupressure reduced VAS from 7.81±1.83 to 4.34±1.92 immediately, and 5.56±2.03 at 4 hours post-intervention ($p < 0.001$).[18] TENS therapy significantly improved postoperative recovery, wound healing, and maternal comfort compared to placebo and standard care ($p < 0.001$).[11] Hand and back massage interventions also decreased VAS scores ($p < 0.001$) and improved functional outcomes such as earlier ambulation and higher postnatal comfort scores.[10] Abdominal binder application showed no significant differences in pain scores or analgesic use.[21] Across studies, no major adverse events were reported. Overall, manual and acupressure-based interventions consistently reduced postoperative pain and improved comfort after cesarean delivery.

3.4.2.Vaginal delivery

Three RCTs examined interventions for postpartum perineal pain following vaginal delivery.[12,13,20] All studies evaluated cryotherapy/ice packs[12,13,20] with one study comparing them to photobiomodulation therapy.[13] Sample sizes ranged from 28 to 200 participants. Cryotherapy and gel pad application significantly reduced VAS scores compared to standard care. For instance, ice packs lowered VAS from 5.1±1.7 to 1.1±2.0 immediately post-intervention and 1.1±2.3 at 2 hours ($p < 0.0001$), with higher proportions of participants achieving ≥30% pain reduction and reporting comfort and satisfaction.[20] Photobiomodulation reduced VAS from 4.7±2.1 to 3.2±1.8 immediately and 2.5±1.6 at 24 hours ($p = 0.008$–<0.001), and also improved REEDA

Table 2. Study Characteristics.

First Author, Year	Country	Study Design, Sample Size	Non-Pharmacological Intervention	Control / Comparator	VAS Score			Other Findings	Level of Evidence
					Baseline	Immediately After Treatment Completed	Last Follow-Up		
Cesarean Section									
Aksu, 2025[18]	Turkey	RCT 32 IG 32 CG	Acupressure on SP6, LI4 and P6 point 2h after CS	Pressure 1.5 cm around acupressure point	IG: 7.81±1.83 CG: 7.03±1.97	IG: 4.34±1.92 CG: 6.78±1.64 p < 0.001	4h post CS IG: 5.56±2.03 CG: 7.53±1.58 p < 0.001	First Mobilitization distance (cm): IG: 1180 (977.50–1947.50) CG: 425 (305.0–636.25) (p < .001)	II
Baransel, 2024[11]	Turkey	RCT 46 IG 46 PG 46 CG	TENS 2x for 30 min each, at 10-12 and 14-16h after SC. 2 pairs of TENS electrodes on the upper and lower border of CS incision line.	**PG:** TENS placement similar to IG without electrical current. **CG:** NSAID 30 min after CS followed every 8h.	All groups mean: 9.04	IG: 7.63 PG: 8.5 CG: 9.02 P<0.001	No data	TENS significantly improved postoperative recovery, wound healing, and postpartum comfort compared to placebo and control (p < .001, large effect sizes).	II
Cansizlar, 2025[19]	Turkey	RCT 30 IG1 30 IG2 60 CG	IG1: 10-min essential oil back massage at 8 h post-op, then twice daily on Days 1–2. IG2: Essential oil inhalation 4×/day	Standard clinical care only.	IG1: 7.770±1.736 IG2: 7930±1596 CG: 7.670±2.014	IG1: 3.870±1.953 IG2: 1.670±0.922 CG: 1.730±1.081 P<0.001	No data	Both inhalation and massage significantly improved Postnatal Comfort Scale scores (F(2,117)=54.265; p<0.05) and reduced State Anxiety Scale scores (F(2,117)=55.583; p<0.05), but had no significant	II

			for 5 min on Days 0–2.				effect on Trait Anxiety (p>0.05).	
Degirmenci, 2025[10]	Turkey	RCT 91 IG 91 CG	Two sessions of 30-minute hand massage at 6th and 12th hour post CS	Routine postpartum care only	No data	IG: 6.40±1.15 CG: 6.22±0.98 P=0.267	12h post CS IG: 3.36±1.65 CG: 5.14±1.69 P<0.001	Comfort: Higher PCS scores in intervention group (p = 0.001). Flatulence: Earlier gas passage in intervention group (p < 0.001). Analgesic use: No difference (p = 0.234).	II
Gillier, 2016[21]	United States of America	RCT 87 IG 68 CG	Abdominal binder placed low on the abdomen across the incision immediately after surgery all day long.	No abdominal binder placed	No data	1d post CS IG: 3.1±2.1 CG: 3.4±2.3 P=0.33	2d post CS IG: 3.0±1.9 CG: 3.8±2.2 P=0.16	SDS: No significant difference on days 1–2. Pain medication use: No significant difference. Hemoglobin change: 1.9 vs. 1.8 g/L, P = 0.280 (not significant).	II
Guney, 2021[9]	Turkey	RCT 81 IG 81 CG	DTM applied to the upper back region for 15–20 min, performed twice (10h and 22h post CS)	No DTM applied	IG: 72.92±10.41 CG: 64.40±10.38	IG: 17.51±6.15 CG: 56.16±9.53 P<0.001	No data	Comfort levels significantly improved in the experimental group (p < 0.001).	II
Marznaki, 2023[8]	Iran	RCT 60 IG 61 PG 59 CG	Auricular acupressure on specific ear points (Shen Men, Point Zero, Pelvic, Abdomen, Endocrine, Uterus) on both ears, 1 min per point at 3, 5, 7 hours post CS.	PG: Same ear points touched with cotton ball, no pressure, same timing. CG: Routine postoperative care only.	IG: 7.70±1.50 PG: 8.36±1.09 CG: 8.11±0.95	IG: 7.88±1.38 PG: 8.59±1.31 CG: 8.34±1.29	24h post intervention IG: 1.17±0.49 PG: 3.47±1.64 CG: 3.25±1.92 p < 0.001	No difference between groups in breastfeeding time on day 1. No difference in walking duration on day 1. No adverse effects reported in any group.	II

Vaginal Delivery									
Constant, 2024[13]	Brazil	RCT 28 IG 28 CG	Cryotherapy with a latex glove filled with crushed ice applied to the perineum for 20m within 12h after VD	Photobiomodulation used red light (3 J/cm², 30 s/point) and infrared light (6 J/cm², 60 s/point) applied at 2 cm intervals around the injury site.	IG: 4.7±2.1 CG: 5.1±2.0	IG: 3.2±1.8 CG: 2.0±1.5 Photobiomodulation group showed greater VAS reduction than cryotherapy (p = 0.008)	24h post intervention IG: 2.5±1.6 CG: 0.7±0.7 Photobiomodulation remained superior (p < 0.001)	Photobiomodulation showed greater improvement in REEDA and McGill pain scores at 24 h (p < 0.05) with no adverse effects.	II
Francisco, 2018[20]	Brazil	RCT 35 IG 34 CG	Frozen Ice packs (250 ml water) wrapped in cotton gauze applied to the perineum for 10m at 6-24h post VD.	Standard oral analgesics every 6h.	IG: 5.1±1.7 CG: 5.1±1.6	IG: 1.1±2.0 CG: 4.4±2.2 p < 0.0001	2h post intervention IG: 1.1±2.3 CG: 3.5±2.9 p < 0.0001	≥30% pain reduction higher in ice group. Pain relief lasted ~1 h 45 min vs 1 h 56 min in control (p = 0.027). Most women reported comfort (77%) and satisfaction (83%); no adverse events.	II
Senol, 2017[12]	Turkey	RCT 100 IG 100 CG	ThermoJEL gel pad applied to perineum twice postpartum (~20 min/session) at 30m-1h post VD.	Standard maternity pad.	IG: 36.81±0.16 CG: 36.83±0.22	IG: 25.47±0.53 CG: 36.92±0.22 P<0.001	No data	Cold gel pad application lowered perineal temperature (p<0.001), improved comfort during daily activities (p<0.001), and increased overall postpartum comfort compared to control (p<0.05).	II

*Level of Evidence: Adapted from the Oxford Centre for Evidence-Based Medicine (2011):[22] Level I = Systematic reviews/RCTs, Level II = Well-designed RCTs/quasi-experimental, Level III = Observational studies, Level IV = Expert opinion. CG, control group; CI, confidence interval; CS, cesarean section; d, days; DTM, deep tissue massage; h, hours; IG, intervention group; m, minutes; MP, multiparous mother; PG, placebo group; PCS, postpartum comfort scale; PP, primiparous mother; RCT, randomized controlled trial; SDS, symptom distress scale; VAS, visual analog scale; VD, vaginal delivery.

and McGill pain scores.[13] No adverse events were reported. Overall, physical modalities such as cold therapy and photobiomodulation were effective in reducing postpartum perineal pain and enhancing maternal comfort.

4. Discussion

Postpartum pain represents a significant clinical concern for women following both cesarean and vaginal deliveries. In the case of CS birth, pain primarily results from postoperative inflammatory processes and is often moderate to severe, impairing maternal comfort and delaying early mobilization.[11] Although VD is generally associated with a faster postpartum recovery, it may involve perineal trauma such as lacerations or episiotomy which can induce perineal pain that negatively impacts physical, psychological, and social well-being. This pain can interfere with breastfeeding, infant care, routine daily activities, and may contribute to longer-term sequelae including depression, anxiety, dyspareunia, and urinary incontinence.[13] Effective pain management in the postpartum period is therefore essential to enhance maternal comfort, support functional recovery, and promote early mother-infant bonding. This systematic review synthesized evidence from 10 RCTs evaluating nonpharmacological interventions for postpartum pain following CS and VD.

4.1. Non-Pharmacological Management for Post CS Delivery

Acupressure

Acupressure has emerged as a safe, non-invasive, and effective method for managing pain after CS. The technique, grounded in traditional Chinese medicine, involves applying pressure to specific acupuncture points to modulate the transmission of pain signals via A delta and C fibers and to stimulate the release of endogenous analgesics such as endorphins and serotonin which promote relaxation and reduce pain perception.[8,18,23,24] In the study by Aksu *et al.* (2025), acupressure applied to SP6, P6, and LI4 points two hours post-CS significantly reduced VAS scores immediately after intervention and maintained lower pain levels at 4 hours. This reduction in pain was associated with improved functional outcomes including greater first mobilization distance, suggesting that effective pain control may facilitate early ambulation and enhance recovery.[18]

Auricular acupressure, as examined by Marznaki *et al.* (2023) also demonstrated significant analgesic effects for CS pain. Targeting Shen Men, Point Zero, Pelvic, Abdomen, Endocrine, and Uterus points, auricular acupressure reduced pain severity compared to both sham and routine care with moderate to significant effects observed 3–24 hours post-intervention.[8] The delayed onset of maximal effect may reflect the time required for activation of physiological responses via neural pathways associated with the auricle.[25] Importantly, auricular acupressure also decreased the need for analgesic medication, indicating a potential reduction in pharmacological exposure and related maternal or neonatal side effects.[8,18]

TENS Therapy

The use of TENS therapy has been evaluated as a nonpharmacological intervention for pain management after CS. Studi by Baransel *et al.* (2024) suggests that TENS applied to the upper and lower borders of the cesarean incision can significantly reduce postoperative pain, enhance maternal comfort, and promote wound healing in the early postpartum period.[11] The analgesic effect of TENS is

thought to be mediated through the gate control theory and activation of the endogenous opioid system, increasing endorphin levels and modulating sensory input at the incision site.[26,27] In addition to pain reduction, TENS may accelerate incision site recovery by improving blood flow, reducing edema, and supporting fibroblast proliferation and macrophage activity. Importantly, TENS can also enhance maternal comfort and satisfaction without causing adverse effects, suggesting it is a safe adjunct to standard postpartum care.[11]

Hand and Back Massage

Hand and back massage are effective nonpharmacological interventions for managing post-cesarean pain and enhancing maternal comfort. Three RCTs have evaluated this effect. Degirmenci and Aksoy (2025) reported that postpartum massage including hand massage stimulates blood and lymphatic circulation, reduces muscle tension, and promotes relaxation, collectively contributing to decreased pain perception and anxiety.[10] Guney and Ucar (2021) found that DTM applied to the upper back lowers VAS pain scores and improves comfort levels in women after cesarean delivery, likely due to enhanced tissue perfusion, accelerated metabolite clearance, and relaxation of tense musculature.[9] Similarly, Cansizlar and Sahin (2025) reported that back massage combined with aromatherapy using essential oils such as lavender, mandarin, and vetiver further reduces pain scores and improves postnatal comfort, likely through both cutaneous absorption and olfactory stimulation of the limbic system, enhancing neuroendocrine modulation.[19] Across studies, massage interventions were associated with reduced analgesic requirements, improved postnatal comfort scores, and positive psychological effects without reported adverse events.[9,10,19] These findings support the incorporation of hand and back massage into postoperative care protocols as safe, low-cost, and patient-centered strategies to manage pain and promote overall well-being after cesarean delivery.

Abdominal Binder Use

One RCT by Giller *et al*. (2016) reported that applying abdominal binders after cesarean delivery provided no meaningful reduction in postoperative pain or distress compared to patients who did not use the device.[21] Although abdominal binders carry minimal but possible risks, this evidence may influence clinicians' decisions regarding their routine use.

4.2. Non-pharmacological management for post VD

Cryotherapy

The current evidence from 3 RCTs supports the effectiveness of cryotherapy for reducing perineal pain following vaginal delivery. Constant *et al.* (2024) reported that cryotherapy using a latex glove filled with crushed ice significantly reduced pain immediately and up to 24 hours postpartum, although photobiomodulation showed superior improvements in pain and edema.[13] Francisco *et al.* (2017) found that a 10-minute application of an ice pack provided substantial immediate pain relief with a clinically significant reduction in perineal pain.[20] Senol and Aslan (2017) similarly demonstrated that cold gel pad application for 20 minutes effectively decreased perineal pain and improved maternal comfort during daily activities such as sitting, walking, breastfeeding, and urination with greater benefits observed in primiparous women. Across studies,

cryotherapy was associated with increased endorphin release, reduced edema, and enhanced functional recovery without reported adverse events.[13,28] However, heterogeneity in application methods, duration, frequency, and types of cooling devices limits direct comparison across studies. Overall, these findings indicate that cryotherapy is a safe, low-cost, and nonpharmacological intervention that can effectively alleviate postpartum perineal pain and improve maternal comfort, although standardized protocols regarding duration, frequency, and device type are needed to optimize clinical outcomes.

Photobiomodulation

The RCT by Constant *et al.* (2024) showed that photobiomodulation effectively reduced postpartum perineal pain and edema after vaginal delivery, performing better than cryotherapy.[13] The therapy using red and infrared lasers (3–6 J/cm²) is non-invasive, painless, and promotes tissue healing through anti-inflammatory and regenerative effects.[13] However, lack of standardization in dosing and application limits broader recommendations. Overall, photobiomodulation appears to be a promising nonpharmacological intervention for postpartum pain management, though further studies are needed to confirm optimal protocols and long-term benefits.

Study Limitations

This review has several important limitations. First, a meta-analysis was not conducted due to considerable heterogeneity across the included studies in terms of intervention types, outcome measures, study designs, and timing of assessments, preventing meaningful quantitative synthesis. Second, the findings may be influenced by publication bias, as studies with nonsignificant or negative results are less likely to be published and therefore may not have been captured in the search. Third, restricting the search to English-language publications introduces the possibility of language bias and may have led to the exclusion of relevant studies published in other languages. Lastly, the relatively small number of eligible studies, particularly within each intervention category, limits the generalizability of the findings and underscores the need for larger, methodologically robust randomized controlled trials to strengthen the evidence base.

5. Conclusion

Postpartum pain following cesarean and vaginal deliveries is a significant concern that can affect maternal comfort, functional recovery, and early mother-infant bonding. Nonpharmacological interventions such as acupressure, TENS, hand and back massage, cryotherapy, and photobiomodulation have been shown to effectively reduce pain, improve maternal comfort, and enhance functional outcomes without significant adverse effects. Evidence for abdominal binders, however, suggests limited benefit for post-cesarean pain. Overall, these interventions represent safe, low-cost, and patient-centered strategies for postpartum pain management, though further research is needed to standardize protocols and optimize outcomes.

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