



Midwives' and mothers' experiences with non-pharmacological interventions for labour pain relief: A systematic review of evidence generated from qualitative research

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Abstract

Background: Labour pain relief is a crucial aspect of childbirth, and non-pharmacological interventions play a significant role in managing the pain. Understanding the experiences of midwives and mothers with these interventions is essential for optimizing maternal care during childbirth.

Objective: This qualitative systematic review synthesized the experiences of midwives and mothers regarding non-pharmacological interventions for labour pain relief.

Methods: To identify relevant qualitative studies, a systematic search of databases, including PubMed (MEDLINE) and Science-Direct (Scopus), was conducted. African studies on midwives' and mothers' experiences with non-pharmacological interventions for labour pain relief were included. Data extraction and synthesis were performed following established methods.

Results: Five (5) studies were identified using the inclusion criteria. Six themes emerged from data analysis: Psychological preparation, support/participation in labour, coping mechanisms, pain management, the efficacy of pain relief methods, and varying pain thresholds. The data synthesis revealed information on the non-pharmacological interventions used by the midwives (Sacral massage and deep breathing), their benefits (Relaxation/comfort, distraction from pain and anxiety, enhancement of the mother-midwife relationship, ease of administration of intervention, and absence of side effects), their uses (For psychological birth preparation, support/participation, pain management, and relaxation promotion), their efficacy (They can reduce the intensity but not eliminate the labour pain), barriers to their use (poor participation from mothers and perceived lower efficacy compared to pharmacological approaches by midwives), and facilitators (Skill of midwives and mother's acceptance).

Conclusion: Midwives' and mothers' experiences were generally positive. A tailored approach to pain management during childbirth is recommended.

Keywords: Labor Pain, Massage, Midwife, Mother, Pain Management

Introduction

Midwives assist around 10-12% of births in developed nations and 49-57% of births in Africa (Avery et al., 2023; Aziato et al., 2017; Mbogori & Muriuki, 2023). Midwives bear the responsibility of managing labour pain, even in cases where analgesic medication may not be suitable, such as

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hypersensitivity syndrome (Bishaw et al., 2020). Therefore, midwives undergo training in non-pharmacological techniques to address labour pain during childbirth (Eyeberu et al., 2022). Understanding midwives' experiences with non-pharmacological methods of labour pain alleviation is important as there are documented cases of inadequate pain alleviation during childbirth in Africa (Aziato et al., 2017; Mwakawanga et al., 2022; Wassihun et al., 2022).

Non-pharmacological methods of relieving labour pain among Mothers may have different outcomes from positive to negative. The interventions are intended to give mothers empowerment and control during labour (Konlan et al., 2021). While some mothers may consider the interventions as employed to reduce physical discomfort during labour and as a weapon to exert control over the psychological aspects of labour, other mothers are likely to have different views on the effectiveness of the interventions (Esan et al., 2023). Therefore, accurate understanding of the mothers' experiences with non-pharmacological interventions' is deemed crucial, especially within the African setting of childbirth.

Labour is the process of vaginal birth and involves painful contractions and rhythmic muscle movements. It progresses through three stages: include cervical dilation and effacement, birthing process, and placental delivery (Thomson et al., 2019). The transition phase, which involves a fully dilated cervix, can be a very painful one (Alhafez & Berghella, 2020). The second stage involves pushing the baby through the birth canal with the help of contractions (Hofmeyr & Singata-Madliki, 2020). Childbirth can occur in hospitals, birthing centres, or homes, depending on the mother's preferences and health considerations (Dado et al., 2022). In In all birth settings, midwives utilize non-pharmacological interventions to improve the childbirth experience (Baljon et al., 2020).

Pain management is a crucial element in the care of women in labour. Labour pain is inherently subjective and manifests uniquely for each individual and ranges from sensations of pleasure to those of anguish (Thomson et al., 2019). Mothers' interpretations of pain are affected by physiological factors such as birth position, psychological factors like fear/anxiety, and the skill of the care provider (Boateng et al., 2019). While some mothers are able to manage labour pain without additional help, others may use strategies without drug therapy.

Non-pharmacological interventions are strategies that employ relaxation and massage which fall under the mind-body interventions category (Aziato et al., 2017; Boateng et al., 2019). Others are Yoga, Music, deep breathing, sacral massage, and reflexology (Baljon et al., 2022; Mwakawanga et al., 2022; Wassihun et al., 2022). They are typically not invasive strategies. Their goal is to help a labouring mother stay calm and distract her from the pain of labour (Boateng et al., 2019). Studies reveal that relaxation techniques during labour have the potential to lower pain, improve satisfaction with pain management, and lower rates of assisted vaginal births with minimal adverse effects (Dado et al., 2022; Eyeberu et al., 2022; Getu et al., 2020). However, the lack of standardization and consistency in how the interventions are employed, have made it difficult to accurately determine their impact on labour pain using previously published studies.

Materials and methods

This review focussed on mothers' and midwives' experiences with massage and relaxation techniques of the non-pharmacological approach to labour pain relief. It involved reflexivity, electronic database search for related articles, article selection, quality appraisal of articles, data extraction, and data analysis utilizing thematic and meta-ethnographic methodologies.

Reflexivity is an integral aspect of quality standards in qualitative research and evidence synthesis. It entailed authors' introspection prior to and during the research process. Hence, the authors deliberated on their perspectives regarding pain relief methods from the viewpoint of the mothers and the midwives. The authors collectively believed in initiatives fostering positive birth



experiences for mothers and stressed the importance of tailoring non-pharmacological pain relief methods to individual needs during labour.

The search strategy was developed using the Subjects, Phenomenon of interest, Data collection method, Evaluation, and Research design (SPIDER) framework as thus: "(Women OR mother* OR maternal) AND (Massage OR reflexology OR "therapeutic touch" OR acupressure OR relaxation OR breathing exercise OR "breathing technique*" OR Yoga OR meditation OR visualization OR music OR "progressive muscle relaxation" NOT "needle acupuncture") AND (Interview OR "focus group") AND (Experiences OR views OR perspectives OR perceptions OR opinions OR beliefs) AND (Qualitative OR ethnography OR phenomenology OR "grounded theory")." Boolean operators such as AND, OR, and NOT were utilized to delineate search parameters, with quotation marks employed for matching exact phrases and truncations (*) employed for variant endings. This search string aimed to identify studies with a specific qualitative focus or mixed-methods studies with a substantial qualitative component.

PubMed (MEDLINE) and Science-Direct (Scopus) were systematically searched for African studies. Additionally, manual searches were done using ancestral (reference checking) and descendant (citation tracking) strategies. The search was limited to English language articles published between 2014 and 2024 (10 years). Inclusion criteria were set to incorporate articles with available full-texts, documenting the experiences of both healthy mothers and clinical midwives, and reporting narrative themes. Preprints, systematic review articles, and those focusing on the views and experiences of partners (spouses) were excluded from this review. The search was executed in February 2024.

Each author independently screened the titles, abstracts, and full-texts of the initial hits against the established inclusion criteria. The eligibility of articles for inclusion in this review was determined through consensus among the authors. The eligible articles underwent methodological quality assessment using the Walsh and Downe Scale (Walsh & Downe, 2006). This scale facilitated the evaluation of studies based on predefined inclusion criteria, assigning scores ranging from A to D. The A score indicated no or few flaws, suggesting high credibility, transferability, dependability, and confirmability of the study. The B score indicated some flaws unlikely to significantly affect these aspects. The C score indicated flaws that may moderately affect the results. The D score indicated significant flaws likely to grossly affect the results. Only studies scoring A, B, or C were considered for inclusion in this review.

This review employed a broad thematic approach alongside meta-ethnographic techniques. The authors initially conducted each analytical stage individually before collective deliberation. All decisions were collaborative and thoroughly discussed among the authors. Data were organized using Microsoft Excel and Nvivo version 12 software.

The authors independently scrutinized the full texts of each article to extract relevant quotes, constituting the primary constructs. These constructs were then clustered into descriptive second-order constructs. Throughout this process, meta-ethnographic techniques were employed to identify similarities (Supporting data) and contradictions (Contrasting data) among the included studies. Second-order constructs were subsequently reframed into themes, accounting for both supporting and contrasting data. These themes were further synthesized into key themes, revealing significant convergence and divergence in the experiences of midwives and mothers regarding non-pharmacological pain relief interventions.

To ensure confidence, credibility, and trustworthiness, a basic thematic approach was applied to reanalyze all the primary and secondary constructs into themes and key themes, comparing and contrasting mothers' and midwives' accounts of different pain relief methods. The analysis was conducted collaboratively by all authors and decisions were made by consensus.



Results

Figure 1 summarizes the study selection process using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram. The literature search retrieved an initial 208 records. During screening, 9 duplicates were removed. The remaining 199 records underwent title and abstract screening, resulting in the exclusion of 194 quantitative records. The full text of the remaining 5 articles was subjected to eligibility checks. All 5 studies met the established inclusion criteria and were included in the review.

Table 1 provides a summary of the characteristics of the selected studies and their corresponding quality ratings. The studies were conducted in Ghana (n = 3), Nigeria (n = 1), and Tanzania (n = 1). The studies involved 53 midwives and 47 puerperal women. The midwives were aged between 25 and 59 years, with professional midwifery experience ranging from 6 months to 25 years. The puerperal women were aged 18 to 41 years and had experienced 2 to 5 hospital-based births. Massage and relaxation-based techniques were applied by midwives in three of the studies, while puerperal women received similar interventions in two selected studies. All studies employed qualitative methods and used face-to-face in-depth interviews. Quality ratings of the studies ranged from C (n = 2) to B (n = 3).

Table 2 shows the qualitative findings from the studies and the emerging themes concerning the utilization and perceived effectiveness of non-pharmacological interventions for labour pain relief. Aziato et al. (2017) highlighted the importance of massage, deep breathing, and maintaining quietness during labour, as reported by various informants (Midwives).

"When women experience contractions during labour, I give them a massage on their lower back. I also encourage them to rub their own back if they are able to. This can help alleviate the pain of labour" (MW7).

"We tell them to take deep breaths" (MW11).

"We advise them to be quiet because if they make too much noise, they will get tired and won't be able to push" (MW1).

Boateng et al. (2019) further elucidated the benefits of non-pharmacological interventions, particularly in promoting relaxation and comfort for mothers during labour. Informants (Midwives) emphasize the role of distraction and emotional support in easing labor pain, with comments such as:

"It can be more beneficial than pethidine, which may impact the foetal heart rate" (Elizabeth, RM).

"The client feels relaxed. They usually stay calm and others feel comforted" (Rhoda, SM).

"Talking to the mother in labour can distract them from the pain of labour and make them more comfortable, less anxious, and help labour progress smoothly" (Elizabeth, RM).

"It provides the mother with comfort and relaxation during labour and can help the process go smoothly and alleviate pain" (Joyce, SM).

"It can make the client feel like you are close to them. As a result, they will naturally do whatever you ask them to do" (Lady, SMO).



"It provides relief, so the mother in labour would asked the midwife to come back and do it again" (Agartha, SNO).

"Non-pharmacological pain relief has few side effects and is easy to administer without invasive procedures or negative reactions. It is solely physical and not available for purchase" (Vicky, SSM).

"Sacral massage may provide temporary distraction from pain, but it does not eliminate it" (Joyce, SM)

"Although they it makes them feel relaxed, it does not stop the pain and the relief is incomparable to that obtained from medication" (Vicky, SSM).

"Pharmacological therapy is a more effective way to relieve labour pain compared to distracting the mother with breathing techniques" (Mary, SM).

Mwakawanga et al. (2022) further reinforced the importance of hands-on techniques like massage and breathing exercises in reducing labour discomfort. With the following responses, the informants (Midwives) highlighted the practical application of these interventions, such as massaging women's backs and teaching mouth breathing to relieve pain:

"I massage women's backs to reduce pain and labour discomfort" (NM13)

"I teach women how to do mouth breathing to relieve pain and prevent tiredness. It has proven to be very helpful" (NM1)

"I prepare the mother psychologically for labour by assuring her of a safe delivery and I encourage her to endure the pain for a smoother experience" (NM10)

The qualitative findings from informants (mothers) shed light on the effectiveness of specific non-pharmacological interventions for labour pain relief. In Konlan et al. (2021), an informant (mother) recounted the guidance received from midwives during labour, emphasizing the importance of breathing techniques in managing pain as follows:

"The midwives at the ANC taught me to breathe through my nose and exhale slowly through my pursed lips during my first labour. They reminded me of this during the actual labour and it was actually very helpful" (Participant E).

In Esan et al. (2023), the informants (mothers) elucidated the beneficial effects of exercise and breathing exercises in alleviating labor discomfort. Participants reported engaging in breathing exercises and physical activity, such as walking, to cope with labour pain effectively as follows:

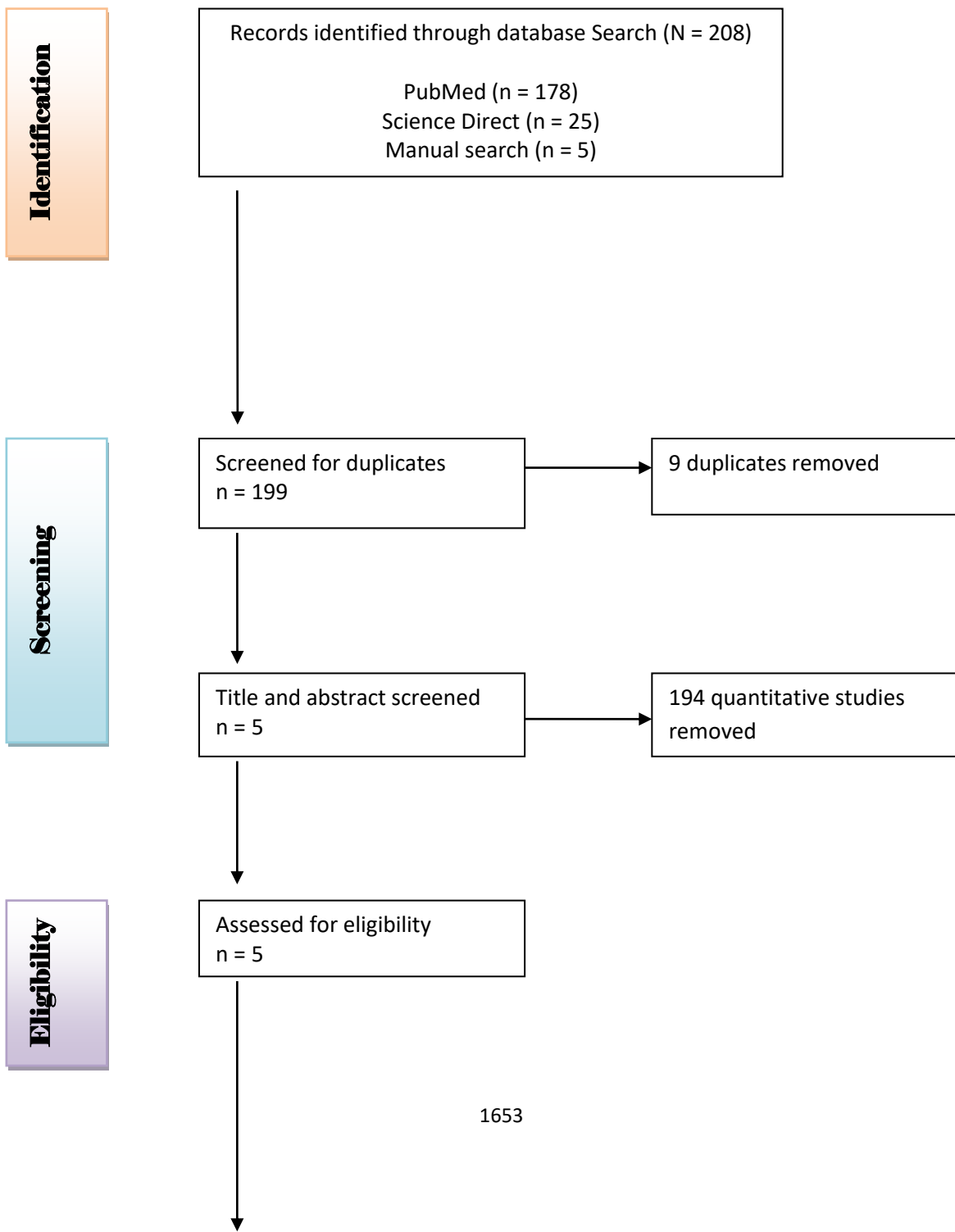
"During my first practical experience, the nurses advised me to exercise, which greatly relieved my labour discomfort" (P.25).

"I also do breathing exercises. First, I open my mouth and breathe in and out. Then, I will endure the pain, but if it becomes too much, I will walk around" (P.14).

The six emerging themes were: Psychological preparation, support/participation in labour, coping mechanisms, pain management, efficacy of pain relief methods, and varying pain thresholds. The emerging themes were on non-pharmacological methods of pain relief such as massage (sacral massage and walking) and relaxation techniques (deep breathing exercises). These techniques



served as distractions from pain and anxiety, thus alleviating pain, and also contributed to the relaxation and comfort of expectant mothers during labour. Moreover, the non-pharmacological methods enhanced the client-midwife relationship by fostering trust and cooperation. The methods were noted to have ease of administration and minimal side effects, ensuring safety for both mother and newborn. Additionally, the methods play a crucial role in psychologically preparing mothers for labour, enabling them to cope better with the challenges of labour and childbirth. The emerging themes will be further elaborated upon in the discussion section.



Inclusion

Studies included in review
n = 5

Figure 1: PRISMA flow diagram of the study selection process

Table 1: Characteristics of the selected studies (n = 5)

Author & Year	Country	Sample	Type of pain relief	Design	Data collection method	Quality Rating
Aziato et al. (2017)	Ghana	20 midwives aged between 25 and 59 years with 3 to 25 years professional midwifery experience	Sacral massage and deep breathing (relaxation)	Qualitative	Face to face interviews	C
Boateng et al. (2019)	Ghana	15 midwives with 1-17 years professional midwifery experience	Massage and Relaxation techniques	Qualitative	Face to face interviews	B
Mwakawanga et al. (2022)	Tanzania	18 midwives aged between 25 and 53 years with 6months to 5 years` professional midwifery experience	Massage and Relaxation techniques	Exploratory qualitative study	In-depth interviews	B
Konlan et al. (2021)	Ghana	17 puerperal women aged 18 to 39 years with 2-5 hospital birth experiences	Relaxation techniques	Exploratory descriptive qualitative design	In-depth interviews	C
Esan et al. (2023)	Nigeria	30 puerperal women aged 18 to 41 years with at least 1 hospital birth experienced	Exercise (Massage) and breathing (Relaxation) techniques	Exploratory qualitative design	In-depth interviews	B

Table 2: Study findings and emerging themes (n = 5)

Study contributing to finding	First order constructs (informant)	Non-pharmacological methods	Second order constructs	Theme
Aziato et al. (2017)	<p>1. When women experience contractions during labour, I give them a massage on their lower back. I also encourage them to rub their own back if they are able to. This can help alleviate the pain of labour (MW7).</p> <p>2. We tell them to take deep breaths (MW11).</p> <p>3. We advise them to be quiet because if they make too much noise, they will get tired and won't be able to push (MW1).</p>	Massage and Relaxation techniques	<p>1. Alleviation of labour pain through massage techniques.</p> <p>2. Encouragement of deep breathing techniques.</p> <p>3. Importance of quietness in preserving energy for pushing.</p> <p>4. Variation in compliance with mouth breathing instructions</p>	<p>1. Pain management</p> <p>2. Support and participation in labour</p> <p>3. Coping mechanisms</p> <p>4. Varying pain thresholds</p>
Boateng et al. (2019)	<p>1. It can be more beneficial than pethidine, which may impact the foetal heart rate (Elizabeth, RM).</p> <p>2. The client feels relaxed. They usually stay calm and others feel comforted (Rhoda, SM).</p> <p>3. Talking to the mother in labour can distract them from the pain of labour and make them more comfortable, less anxious, and help labour progress smoothly (Elizabeth, RM).</p> <p>4. It provides the mother with comfort and relaxation during labour and can help the process go smoothly and alleviate pain (Joyce, SM).</p> <p>5. It can make the client feel like you are close to them. As a result, they will naturally do whatever you ask them to do (Lady, SMO).</p> <p>6. It provides relief, so the</p>	Massage and Relaxation techniques	<p>1. Benefits of non-pharmacological pain relief.</p> <p>2. Client relaxation and comfort.</p> <p>3. Distraction from pain and anxiety.</p> <p>4. Client-midwife relationship.</p> <p>5. Ease of administration</p> <p>6. No side effects</p>	<p>1. Pain management.</p> <p>2. Coping mechanisms.</p> <p>3. Efficacy of pain relief methods.</p>

	<p>mother in labour would asked the midwife to come back and do it again (Agartha, SNO).</p> <p>7. Non-pharmacological pain relief has few side effects and is easy to administer without invasive procedures or negative reactions. It is solely physical and not available for purchase (Vicky, SSM).</p> <p>8. Sacral massage may provide temporary distraction from pain, but it does not eliminate it (Joyce, SM)</p> <p>9. Although they it makes them feel relaxed, it does not stop the pain and the relief is incomparable to that obtained from medication (Vicky, SSM).</p> <p>10. Pharmacological therapy is a more effective way to relieve labour pain compared to distracting the mother with breathing techniques (Mary, SM).</p>			
<p>Mwakawanga et al. (2022)</p>	<p>1. I massage women's backs to reduce pain and labour discomfort (NM13)</p> <p>2. I teach women how to do mouth breathing to relieve pain and prevent tiredness. It has proven to be very helpful (NM1)</p> <p>3. I prepare the mother psychologically for labour by assuring her of a safe delivery and I encourage her to endure the pain for a smoother experience (NM10)</p>	<p>Massage and Relaxation techniques</p>	<p>1. Back massage for pain reduction</p> <p>2. Instruction in mouth breathing for pain relief</p> <p>3. Psychological preparation for labour</p>	<p>1. Pain management.</p> <p>2. Coping mechanisms.</p> <p>3. Psychological preparation</p>
<p>Konlan et al. (2021)</p>	<p>1. The midwives at the ANC taught me to breathe through my nose and exhale slowly through my pursed lips during my first labour. They reminded me of this during the actual labour and it was actually very</p>	<p>Relaxation techniques</p>	<p>1. Instruction in mouth breathing for pain relief</p>	<p>1. Pain management.</p> <p>2. Coping mechanisms.</p>

	helpful (Participant E).			
Esan et al. (2023)	<p>1. During my first practical experience, the nurses advised me to exercise, which greatly relieved my labour discomfort (P.25).</p> <p>2. I also do breathing exercises. First, I open my mouth and breathe in and out. Then, I will endure the pain, but if it becomes too much, I will walk around (P.14).</p>	Exercise (Massage) and breathing (Relaxation) techniques	<p>1. Walking exercise for pain management.</p> <p>2. Breathing exercises for pain management</p>	<p>1. Pain management.</p> <p>2. Coping mechanisms.</p>

Table 3 synthesized evidence from the selected studies and highlighted several key points regarding non-pharmacological methods for labour pain relief in Africa. The methods primarily used include massage (Sacral massage, walking) and relaxation techniques (deep breathing exercises). The benefits of these methods encompass client relaxation and comfort, distraction from pain and anxiety, enhancement of the client-midwife relationship, ease of administration, and absence of side effects. They are utilized for psychological preparation for birth, support and participation during labour, pain management, and relaxation promotion. On efficacy, while they can reduce the intensity of perceived pain, they may not eliminate it entirely. Barriers to their use include poor participation from expectant mothers and perceived lower efficacy compared to pharmacological approaches, while facilitators include the skill of midwives and the acceptance of mothers.

Table 3: Synthesis of Evidence from the selected studies (n = 5)

Research Questions	Evidence (Key themes)
What are the non-pharmacological methods used in Africa for labour pain relief?	<p>Massage Sacral massage walking</p> <p>Relaxation techniques Deep breathing exercises</p>
What are the benefits of the non-pharmacological methods of pain relief?	<p>Benefits Client relaxation and comfort. Distraction from pain and anxiety. Client-midwife relationship. Ease of administration. No side effects.</p>
What are the non-pharmacological methods of pain relief used for?	<p>Uses Psychological preparation for birth, A means of support and participation Pain management during labour, To promote relaxation</p>
What is the efficacy of the non-pharmacological methods of pain relief on labour pain?	<p>Efficacy Can reduce the intensity of the perceived pain but cannot eliminate the pain entirely.</p>
What are the barriers to using the non-pharmacological methods for labour pain relief?	<p>Barriers Poor participation from expectant mothers Low efficacy compared to pharmacological approach</p>
What are the facilitators for using non-	<p>Facilitators</p>



pharmacological methods for labour pain relief?	Midwife's skill Mother's acceptance
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Discussion

This review's findings regarding non-pharmacological interventions of labour pain relief underscore their diverse applications and benefits. Massage, including sacral massage, walking, relaxation techniques and deep breathing exercises, provides client comfort, pain and anxiety relief, and improvement of the client-midwife relationship. They are easy to administer, do not have side effects, and may be sought after by women in labour based on cultural ideas. They offer preparatory, supporting, and relaxation benefits to the woman in labour.

This review identified that non-pharmacological interventions play a notable role in preparing mothers for labour and birth. Measures such as relaxation and breathing control were used by midwives to improve the mothers' ability to cope, mental well-being, and birth experience. The reason behind this finding is that these techniques increase the activity of the parasympathetic nervous system to reduce feelings of stress and anxiety in mothers. This physiological response assists in limiting the perception of pain and discomfort during labour. This is in agreement with Baljon et al. (2022), who concluded that relaxation techniques that are practised during labour help to reduce stress levels among expectant women. Additionally, this finding corresponds with the conclusions of Czech et al. (2018) who highlighted the significant impact of psychological preparation on reducing fear and enhancing maternal well-being during the childbirth process.

This review found that non-pharmacological techniques like massage and deep breathing provided physical comfort and emotional support. The guidance midwives give also helps improve women's appraisal of pain as well as their capacity to deal with the challenges of labour. The reason for this finding could be that massage can stimulate the release of endorphins (natural hormones that limit pain) and consequently reduce relaxation. Deep breathing techniques are also a way to stimulate the parasympathetic nervous system, which then counters the sympathetic activity of stress and anxiety. In the same respect, the feel of massage and the breathing rhythms that come with deep breathing exercises also bring about the element of distraction from the painful contractions that labour brings with it. This was in congruency with the study findings by Dado et al. (2022) which hinted that support from caregivers during labour enhanced women's experiences and satisfaction with childbirth. In addition, the finding also substantiated Eyeberu et al. (2022), who pointed out that sustained encouragement from midwives made women experience lower levels of labour pain, resulting in more satisfaction with the childbirth process.

This review found that non-pharmacological interventions provide women in labour with diverse coping strategies. These techniques make women more involved with a sense of control over the birth process. This finding is attributed to the idea that coping strategies assist women in shifting their attention away from the pain of labour. This finding supports the evidence by Hosseini et al. (2020), who also mentioned that the preparation of women with labour coping strategies improves the capacity of women to manage pain and lessens their need for pain-relieving medication. Furthermore, this finding is in line with Jha et al. (2023), who noted that teaching women coping strategies for application during labour enhances the sense of self-efficacy and ensures a positive birth experience.

This review found that while non-pharmacological interventions may not always block labour pain, they lessen it considerably. The finding could be because the intervention facilitates muscle and nervous system relaxation which could offer relief of soreness and pain associated with labour. Moreover, by providing distraction and promoting a sense of control, non-pharmacological methods can shift the focus away from pain sensations, thereby reducing its perceived intensity but not stopping the uterine contractions of labour. This finding aligns with



Boateng et al. (2019), who reported that techniques such as sacral massage and breathing exercises provided women with valuable tools to manage pain naturally and minimise the need for pharmacological interventions.

Regarding the effectiveness of the non-pharmacological interventions, this review found that although, in general, these interventions may prove to be quite effective for some participants, others may experience less relief due to variations in pain perception threshold. The reason for this finding is that pain is a subjective phenomenon that depends on psychological conditions, previous experiences, and pain sensitivity. One of the reasons for differences in the reaction to pain relief interventions is physiological factors that affect pain perception. This finding corroborates Konlan et al. (2021), who reported that the effectiveness of non-pharmacological interventions varied among women depending on their pain tolerance and responsiveness to the techniques employed. This finding also aligns with Mwakawanga et al. (2022), who noted that women's experiences with pain relief methods during labour were influenced by their individual preferences and responses to the interventions, highlighting the need for personalized approaches to pain management in childbirth.

Regarding pain threshold, this review found that mothers experience labour pain differently, with significant variations in pain perception among individuals. The basis of such a difference in pain endurance might depend on genetic factors, past pain experiences, cultural values, and psychological conditions. This is in line with Tolutope et al. (2020), who noted differences in pain threshold and underscored the need for an individualized approach to pain relief during birth. Additionally, this finding aligns with Esan et al. (2023), who noted the significance of adapting pain relief interventions to meet the diverse needs of labouring women and enhance their overall childbirth experience.

This review found that there are barriers to the use and acceptance of non-pharmacological labour pain interventions among women in labour. The barriers perhaps stem from cultural background, fear, and scepticism about the efficacy of non-pharmacological pain control measures. The reasons may include the perceived effectiveness of drugs compared to non-pharmacological measures. Some mothers may wish not to have non-pharmacological measures because they are convinced that they work. This finding agrees with Baljon et al. (2022) who limited patient confidence as a barrier. Similarly, Boateng et al. (2019) asserted that controversies arise in convincing healthcare providers and patients of the efficacy of non-pharmacological approaches.

This review also found that the effectiveness of non-pharmacological techniques depends on the skill and competence of the midwife. Those who are skilled in the techniques of massaging and guiding the mothers through deep breathing can improve their efficiency. Nevertheless, the mother's acceptance and willingness to use such methods are major enablers. Mothers who are likely to benefit from non-pharmacological approaches are those who are receptive to the approaches. This is in tandem with Aziato et al. (2017), who noted that healthcare provider skills are essential for the successful adoption of non-pharmacological interventions for labour pain management. Additionally, this finding corresponds with Konlan et al. (2021), who highlighted maternal cooperation and engagement's positive impact in enhancing such interventions' effectiveness.

Limitations

The inclusion of multiple studies allows for the identification of common themes and patterns in the African context. Additionally, the qualitative nature of the review enables a deeper exploration of the subjective experiences, perspectives, and nuances surrounding non-pharmacological interventions for labour pain relief, offering valuable insights for midwifery research and practice.



The review also has some limitations that warrant consideration. First, the quality of the included studies varied, which could affect the trustworthiness of synthesized findings. Second, this review may be constrained by the availability and accessibility of other relevant qualitative research literature in other databases not searched. Third, while qualitative reviews excel in exploring complex phenomena and providing rich insights, they may not always offer definitive or quantifiable conclusions. Qualitative findings are often context-dependent and subject to interpretation.

Implications for Health Policy

The findings of the qualitative review have significant implications for health policy regarding labour pain management. Policymakers can utilize insights from this review to develop evidence-based guidelines and protocols tailored to meet the needs of women during childbirth. This will promote patient-centred care. Additionally integrating training programs for midwives can enhance their skills in administering non-pharmacological interventions for pain relief. It can improve the quality of care provided.

Conclusion

While non-pharmacological measures may not completely eliminate pain, these methods offer valuable benefits in terms of relaxation, comfort, and psychological support during childbirth. Overcoming barriers such as poor participation and addressing concerns about efficacy requires concerted efforts from midwives to educate and support expectant mothers in utilizing these techniques effectively.

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