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Labour-Pain Control Methods, Experiences and Satisfaction among Postnatal Women: A Systematic Review.

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ABSTRACT

Background: Labour pain is one of the most intense forms of physical discomfort experienced during childbirth. Managing pain effectively is critical for improving maternal experiences and postnatal satisfaction. However, there is a need to systematically assess the effectiveness of various pain control methods, experiences and satisfaction among postnatal women globally.

Purpose: This review aims to evaluate different labour-pain control methods, experiences and satisfaction among postnatal women globally, using systematic review of previous studies.

Methods: A systematic review method was adopted, adhering to PRISMA guidelines. A systematic search was conducted across six databases, including PubMed, Scopus, ProQuest, and others, focusing on studies published within 2014 and 2024. A total of 8,473 studies were identified, and 25 studies were included for analysis after a rigorous screening process. Studies covering both pharmacological and non-pharmacological pain control methods, experiences and satisfaction of postnatal women were assessed.

Results: The study revealed that pharmacological interventions, particularly epidural analgesia, significantly reduced labour pain, however satisfaction varied due to technical issues and individual differences. Non-pharmacological methods, such as hypnobirthing, also proved effective but were underutilised due to gaps in patient education. Inconsistent adherence to WHO recommended practices, especially in low-resource settings, was identified as a limitation to enhanced optimal maternal outcomes.

Conclusion: Based on the findings, labour pain control methods, including pharmacological and non-pharmacological measures are effective in managing pain during childbirth. However, gaps in education, implementation of best practices, and emotional support were main issues of concern affecting maternal satisfaction. There is urgent need for improved patient education, consistent application of evidence-based practices, and more holistic, patient-centred care approach that integrates both physical and emotional support strategies in provision of maternal care.

Keywords: Labour-pain control, postnatal satisfaction, pharmacological methods, non-pharmacological methods, systematic review.

1. Introduction

According to the World Health Organization (WHO), labour is defined as the process through which regular uterine contractions result in progressive cervical dilation and effacement, leading to expulsion of foetus and placenta from the uterus (WHO, 2018). Labour is often described as one of the most intense physical experiences many women endure during birth. Labour is marked by varying degrees of pain and discomfort that often require targeted care. For many women, childbirth can be both physically exhausting and emotionally transformative event. The intensity of labour-pain is not uniform; it differs from woman to woman, and often determined by several factors, some of which include medical interventions, psychological preparedness, cultural expectations, and the availability of pain control methods. Finding effective ways to manage labour-pain is crucial, not only for the well-being of the mother, but also for ensuring that the mother have a positive birth experience and satisfaction after delivery. The motivation behind studying labour-pain control methods and postnatal satisfaction stems from a growing body of evidence suggesting that the experience of labour-pain can have long-term effects on a woman's psychological and emotional health (Can et al., 2024). An overwhelming or poorly managed labour experience may lead to negative postpartum outcomes, such as post-traumatic stress disorder (PTSD) or postpartum depression, which can impact negatively on the mother-infant bonding (Wachira et al., 2019). Studies have shown that women who feel well-supported during childbirth, and have access to effective pain management options, often report higher levels of satisfaction, which have also been linked to have a positive influence on postnatal recovery and maternal well-being (Wanyenze et al., 2023).

Other factors that influence labour -pain and satisfaction fear, anxiety, and expectations. These psychological constructs can exacerbate the physical pain experienced by a mother during childbirth, and could lead to prolonged labour and increased requests for interventions like caesarean sections (Bohren et al., 2023). Anxiety and low self-efficacy are common issues among pregnant women. These negative emotion and feelings heighten the mother's perception about pain, thereby creating a cycle of anxieties and intensification of labour-pain (Haines & Hill, 2019). The relationship between psychological factors and childbirth outcomes is well-documented. Women who experience higher levels of anxiety and fear during pregnancy are more likely to report negative birth experience, and may encounter difficulties in postnatal bonding with their newborns (WHO, 2019). This underscores the importance of adequate preparation for childbirth, including prenatal education, which is a critical component of antenatal care. According to the World Health Organization (WHO), prenatal preparation helps mothers to positively address fearful feelings and anxiety associated with delivery. This in turn helps them to improve their experience during birth and postpartum outcomes (WHO, 2019). Prenatal education programmess are designed to prepare women for the physical and emotional demands of childbirth, and equipping them with coping strategies and increasing their confidence in the birthing process is vital to satisfactory child delivery. These programs often focus on topics such as pain management techniques, physiological changes during pregnancy, childbirth preparation, and newborn care (Cignacco et al., 2020). Mellado-García et al. (2024) observed that water immersion can positively influence delivery outcomes and pain management during labour. Numerous studies agree that prenatal education can reduce the fear of childbirth, alleviate anxiety, and increase childbirth self-efficacy, resulting in more positive birth outcomes. However, the effectiveness of these programs varies, and some studies have shown mixed results regarding their impact on maternal attachment and postpartum psychological health (Mellado-García et al., 2024; Alizadeh-Dibazar et al., 2023).

Several studies focusing on labour-pain, experiences and maternal satisfaction have been conducted, with many of them providing consistent and divergent results. This systematic review aims to assess and synthesize existing research findings on labour-pain control methods, their effectiveness and impacts on women's experiences and satisfaction postnatally. By examining a broad range of studies, this review has provided insights into the existing and best practices for managing labour-pain, control methods, while identifying gaps in knowledge and care that could inform future healthcare policies and improve maternal care services globally.

2. Research Methods

2.1 Research design

This research adopted a systematic review approach to examine labour-pain control methods, experiences, and satisfaction among postnatal women. The research question was framed using the PICO (Population, Intervention, Comparison, and Outcome) framework - a widely used tool for formulating a systematic review questions (Higgins et al., 2021). Using this framework, the research question developed was: "What are the experiences and satisfaction levels of postnatal women regarding different labour-pain control methods?" The goal of this review was to identify the methods that women find most effective in managing labour-pain, their experiences during labour, and their satisfaction with the interventions they received.

Table 1. Description of PICO

Population	Postnatal women who have experienced labour, and pregnant women were part of a study focused on their delivery and postpartum care.
Intervention	Various labour-pain control methods, including pharmacological and non-pharmacological techniques.
Comparison	Different methods compared to each other or no intervention.
Outcome	Experiences of labour-pain, satisfaction with pain control methods, and overall birth satisfaction.

2.2 Search Strategy

A comprehensive search strategy was employed to gather relevant studies form databases and search engines: PubMed, EBSCOhost, Scopus, ProQuest, Cochrane Library, and Google Scholar. The search targeted studies published between 2014 and 2024. In developing the search strategy, I used Boolean operators to combine keywords. This helped to ensure a thorough and comprehensive coverage of literature related to labour-pain control methods, experiences, and satisfaction among postnatal women. The key concepts from the research question were linked using the operators "AND," "OR," and "NOT" to refine and expand the search as needed. The search string employed include: ("labour-pain control" OR "labour-pain management") AND ("postnatal women" OR "mothers" OR "women after childbirth") AND ("experience" OR "satisfaction" OR "perception") AND (methods OR "pain relief techniques" OR "pain management strategies").

2.3 Inclusion and exclusion criteria

The inclusion criteria for this review were: (1) Studies published between 2014 and 2024, (2) articles written in English, (3) Research focused on labour-pain control methods, experiences, and satisfaction among postnatal women, (4) Studies from any country, and (5) Both qualitative and quantitative studies. On the other hand, the exclusion criteria were: (1) Studies published before 2014, (2) Articles not written in English, (3) Research focused on healthcare professionals other than postnatal women or pregnant who were part of cohort or experimental studies focusing on their delivery and

postpartum care, (4) studies carried out in non-maternity settings, and (5) Editorials, opinion pieces, conference proceedings, theses, and articles that were not accessible or available for download.

2.4 Screening of articles

The screening process for the articles began with a search across seven databases. A total of 8,473 studies were identified. Moving forward, 6,980 studies were removed due to different reasons, including duplicate entries (620), irrelevant titles (3,992), non-English articles (79), non-peer-reviewed studies (1,055), unsuitable settings (946), and non-related interventions (288).The initial article screening phase focused on assessing the relevance of article titles to

the study topic. This process narrowed the selection to 1,493 articles for further screening. After the titles and abstracts were further screened, a total of 1,202 articles were excluded, with the result that a total of 291 articles were identified for full-text retrieval. However, a total of 17 were not retrievable. The retrieved 274 articles were rigorously assessed for eligibility. During this phase, 249 studies were excluded due to reasons associated with irrelevance (124), unsuitable design (56), inappropriate population and sample (45), and setting issues (24). At the end of the screening and eligibility assessment, 25 studies were deemed suitable and included for full-text reading and analysis. The selection process followed established guidelines for systematic reviews. I ensured that only relevant and methodologically sound articles were included in line with PRISMA requirements (See Figure 1).

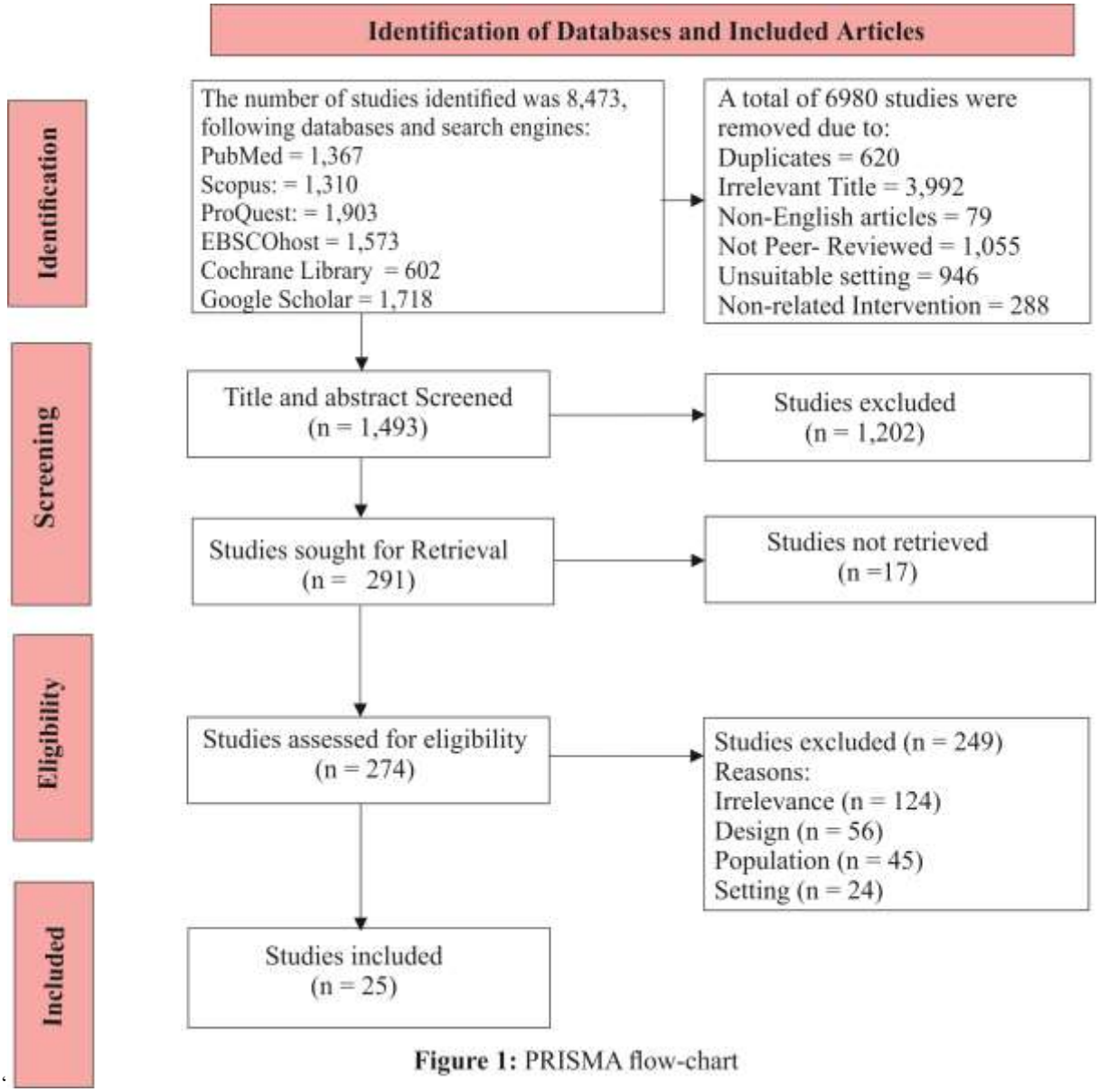

Figure 1: PRISMA flow-chart

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- *Data extraction*

Data extraction was conducted using a structured grid format that captured essential information from each of the 25 articles included in the review. I systematically recorded key details such as the authors, year and country of publication, study design, intervention or methods used, sample size, statistical

analyses, outcome measures, and significant findings. Each aspect was carefully documented to ensure that no important information was missed. The extraction process focused on identifying the labour-pain control methods, postnatal women's experiences, and their satisfaction with the interventions they received. Particular attention was given to both pharmacological and non-pharmacological pain relief techniques, as well as outcomes such as pain relief effectiveness, maternal satisfaction, and neonatal health. The grid format facilitated a consistent and thorough collection of data across all the 25 articles, thereby facilitating easier comparison of findings across different studies (See table 3).

2.6 Quality assessment and risk and bias

The studies included in this systematic review were evaluated using various tools to ensure a comprehensive assessment of quality and potential bias. For qualitative studies, the Critical Appraisal Skills Programme (CASP) was used. Studies like Atobrah-Apraku et al. (2024) and Lally et al. (2014) met most assessment criteria using CASP, and thus demonstrated high-quality research designs. Although Klomp et al. (2016) faced a minor issue, regarding the researcher-participant relationship, however all the studies assessed with the tool were generally rated highly for their methodological robustness. For cross-sectional studies, the JBI Critical Appraisal Checklist was used. Studies such as Adnan et al. (2020) and Akadri & Odelola (2018) demonstrated a strong methodological quality, having scored over 85% in "yes" responses, and indicated a low risk of bias. However, studies like Siseho et al. (2023) and Can et al. (2024) scored slightly lower at 75%, for reasons related to gaps in confounder control and outcome assessments. For intervention studies, the GRADE framework was employed. Mohaghegh et al. (2023) stood out with a high grade for primary outcomes due to its low risk of bias and consistent results, though some imprecision were present. Most other studies, including Kaple et al. (2023) and Yaqoob et al. (2024), were rated "Moderate" in overall, reflecting moderate risks of bias and imprecision, though low rate of inconsistency and publication bias were present. Lastly, for cohort studies, the Newcastle-Ottawa Scale (NOS) was used. Studies like Mäkelä et al. (2023) and Tan et al. (2018) received high ratings due to their methodological rigor, particularly in exposure measurement and follow-up assessment. In contrast, Yimam et al. (2024) and Hudziak and Nowosielski (2018) were rated "Good," and moderate performance was identified, although cohort representativeness and outcome required improvement. Overall, these tools provided a robust framework for assessing the quality and bias of the included studies. While some studies had moderate concerns related to follow-up, confounder control, and imprecision, the overall assessment indicated robust designs with minimal bias.

Table 2: JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies

Authors	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**%(Yes)**	**Interpretation**
Adnan et al.**, 2020**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	86	Low risk of bias
Akadri & Odelola, 2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90	Low risk of bias
Adnan et al., 2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	92	Low risk of bias
Bohren et al., 2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	88	Low risk of bias
Huang et al., 2024	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90	Lower risk of bias
Siseho et al. 2023	Yes	Yes	Yes	Yes	Yes	No	No	Yes	75	Low risk of bias
Can et al. 2024	Yes	Yes	Yes	No	No	Yes	Yes	Yes	75	Low risk of bias
Mohammad et al., 2014	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	88	Low risk of bias

Items 1 to 8 correspond to the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies. A study is classified as high risk if it scores ≤49%, moderate risk for 50-69%, and low risk for studies with ≥70% "yes" responses.

In Table 2, the JBI Critical Appraisal Checklist shows that the assessed studies had low risk of bias, as they all scored above 70%. Adnan et al. (2020) and Akadri & Odelola (2018) scored over 85%, while Siseho et al. (2023) and Can et al. (2024) scored 75% due to gaps in confounder control and outcome assessment. Overall, the studies are robust and suitable for inclusion in this systematic review.

Table 3: Newcastle-Ottawa Scale (NOS) Assessment Report

Articles	Representativeness of Exposed Cohort	Selection of Non-exposed Cohort	Ascertainment of Exposure	Outcome Not Present at Start	Comparability	Assessment of Outcome	Follow-up Time	Adequacy of Follow-up	Overall Quality
Yimam et al., 2024,	★	N/A	★★	★	★★	★	★	★★	Good

Mäkelä et al., 2023	★★	★★	★★	★	★	★	★	★★	High
Hudziak & Nowosielski, 2018	★	★	★	★	★	★	★	★	Good
Tan et al., 2018	★	N/A	★★	★	★★	★★	★	★★	High

In the Newcastle-Ottawa Scale (NOS) assessment, stars represent quality: ★★ indicates high performance, ★ indicates moderate, and N/A means not applicable.

In Table 3, the Newcastle-Ottawa Scale (NOS) assessed four studies. Yimam et al. (2024) and Hudziak and Nowosielski (2018) received "Good" ratings, which indicates a moderate quality, while Mäkelä et al. (2023) and Tan et al. (2018) earned "High" ratings given their stronger methodological rigor, particularly in exposure measurement and follow-up.

Tale 4: Critical Appraisal Skills Programme (CASP)

No	Critical Appraisal Skills Programme (CASP) Assessment	Atobrah-Apraku et al. (2024)	Klomp et al. (2016)	Lally et al. (2014)	Awotunde et al., 2023
1.	Was there a clear statement of the aims of the research?	Yes	Yes	Yes	Yes
2.	Is a qualitative methodology appropriate?	Yes	Yes	Yes	Yes
3.	Was the research design appropriate to address the aims of the research?	Yes	Yes	Yes	Yes
4.	Was the recruitment strategy appropriate to the aims of the research?	Yes	Yes	Yes	Yes
5.	Was the data collected in a way that addressed the research issue?	Yes	Yes	Yes	Yes
6.	Has the relationship between researcher and participants been adequately considered?	Yes	Can't tell	Yes	Yes
7.	Have ethical issues been taken into consideration?	Yes	Yes	Yes	Yes
8.	Was the data analysis sufficiently rigorous?	Yes	Yes	Yes	Yes
9.	Is there a clear statement of the findings?	Yes	Yes	Yes	Yes
10.	How valuable is the research?	Yes	Yes	Yes	Yes

The quality assessment in table 4 shows that each study was evaluated across ten criteria based on the Critical Appraisal Skills Programme (CASP) to check for methodological rigour. Except for Klomp et al. (2016), which lacked clarity on the researcher-participant relationship, all studies met the criteria consistently, affirming their quality.

Table 5: GRADE (Grading of Recommendations Assessment, Development, and Evaluation). Quality and Bias Assessment

Authors, year, study title (Country)	Risk of Bias	Inconsistency	Indirectness	Imprecision	Publication Bias	GRADE Conclusion
Mohaghegh et al. 2023. Effect of Birth Plans Integrated into Childbirth Preparation Classes (Iran)	Low	Low	Low	Moderate	Not assessed	High for primary outcomes, Moderate for secondary outcomes
Kaple et al., 2023. Effectiveness of Jacobson Relaxation and Lamaze Breathing Techniques (India)	Moderate	Low	Low	Moderate	Low	Moderate
Yaqoob et al. 2024. Effects of Hypnobirthing on Labour-pain and Postpartum Depression (Pakistan)	Moderate	Low	Low	Moderate	Not assessable	Moderate

Baljon et al., 2020. Breathing Exercises, Foot Reflexology, and Back Massage for Labour-pain (Saudi Arabia)	Moderate	Low	Moderate	Low	Not assessable	Moderate
Weerasingha et al., 2024. Evidence-based Intrapartum Care during Vaginal Births (Sri Lanka)	Moderate	Low	Low	Low	Not assessable	Moderate
Vixner et al., 2015. Acupuncture for Labour-pain (Sweden).	Moderate	Low	Low	Moderate	Not assessable	Moderate
Duangkum et al., 2024. Subcutaneous vs Intravenous Fentanyl for Labour-pain (Thailand)	Moderate	Low	Low	Moderate	Low	Moderate
ez-Suárez et al., 2022. Relationship between pain management and women's satisfaction during labour: A Randomized Controlled Trial (Spain)	Moderate	Unclear	Low	High	Low	Moderate
Wanyenze et al., 2023. Efficacy of midwife-led role orientation of birth companions on maternal satisfaction and birth outcomes (Uganda)	Low	Unclear	Low	High	Low	Moderate

This GRADE in table 5 summarises quality and bias assessments for studies on childbirth interventions. Most studies showed "Moderate" bias risk overall but consistent "Low" bias in indirectness. However, inconsistencies and imprecision were noted for several studies, while publication bias was assessable in some of the articles due to lack of information, however, a generally moderate level of evidence reliability was observed across the outcomes.

3.0 Results

3.1 Characteristics of the Included Studies

The systematic review involved 25 studies that investigated labour-pain control methods, experiences, and satisfaction among postnatal women. The total sample of the studies reviewed is 18,315 women. Some of the included studies were Randomized Controlled Trials (RCTs) studies such as Mohaghegh et al. (2023, Iran), which evaluated the impact of birth plans on maternal and neonatal outcomes, Yaqoob et al. (2024, Pakistan), which studied hypnobirthing's effect on pain, anxiety, and postpartum depression, and Duangkum et al. (2024, Thailand), which compared intravenous and subcutaneous fentanyl for labour-pain management. Other RCTs like Baljon et al. (2020, Saudi Arabia) assessed breathing exercises for labour-pain, while Báez-Suárez et al. (2022, Spain) explored pain management's relationship to maternal satisfaction. Studies by Vixner et al. (2015, Sweden) and Wanyenze et al. (2023, Uganda) focused on acupuncture and midwife-led interventions, respectively. Observational Studies examined include Weerasingha et al. (2024, Sri Lanka), which investigated intrapartum care practices, while Hudziak & Nowosielski (2018, Poland), studied epidural analgesia's impact on labour-pain. Other observational studies included were Akadri et al. (2018, Nigeria) and Can et al. (2024, Turkey), both of which examined labour-pain and birthing practices. Adnan et al. (2020, Malaysia) investigated factors affecting satisfaction during labour and postnatal periods, while a transnational study by Bohren et al. (2019, Ghana, Guinea, Myanmar, Nigeria) focused on mistreatment during childbirth. Adnan et al. (2017, Malaysia) examined sociodemographic, obstetric, and medical factors contributing to labour satisfaction, with a view to to determine whether labour satisfaction predicts postnatal satisfaction. Mohammad et al. (2014, Jordan) and Huang et al. (2024, China) examined women's satisfaction with care and childbirth experiences, respectively. Siseho et al. (2023, Namibia) and Kaple et al., (2023, India) conducted respective quasi-experimental studies on quality-of-care interventions. Qualitative Studies included Atobrah-Apraku et al. (2024, Ghana), which explored women's experiences with labour induction, whereas Awotunde et al. (2023, Nigeria) investigated maternal satisfaction with labour care. Studies by Klomp et al. (2016, Netherlands) and Lally et al. (2014, United Kingdom) focused on women's decision-making and control during labour. Cohort Studies included Mäkelä et al. (2023, Finland), which compared induced and spontaneous labour experiences, and Tan et al. (2018, Singapore), which investigated maternal satisfaction with epidural analgesia. Finally, Yimam et al. (2024, Ethiopia) conducted a prospective follow-up study on postnatal perineal pain.

In terms of participant demographics, several studies shared similar participant demographics, thereby making it possible for us to group them by their age ranges. For example, studies such as Kaple et al. (2023, India), Baljon et al. (2020, Saudi Arabia), and Tan et al. (2018, Singapore) included women aged between 25 and 35 years in their studies, constituting approximately 60–70% of their total sample sizes. These studies focused on women in their prime childbearing years, whose average ages were close to 30 years. Another prominent group of women reported by Mäkelä et al. (2023, Finland), Adnan et al. (2020, Malaysia), and Mohaghegh et al. (2023, Iran), where women with average ages ranging from 29 to 30 years. For example, Mäkelä et al. (2023) reported that 15% of the participants were over 35 years old, and Adnan et al. (2020) reported a mean age of 29.9 years. Studies by Wachira et al. (2019, Kenya) and Bohren et al. (2019, West Africa and Asia) focused on younger participants, with over 40% of the respective studies samples aged between 15 and 24 years. For example, Wachira et al. (2019) noted that 31.2% of their study participants were aged between 15–24 years, while Bohren

et al. (2019) reported that 13.6% were aged 15–19 years, and 28.4% of the women were aged 25–29 years. For qualitative studies, which traditionally used smaller sample sizes, Klomp et al. (2016, Netherlands) and Lally et al. (2014, UK) focused on distinct age groups, although they did not fully specified participants age data. The details are presented in table 6 below.

Table 6: Characteristics and data extraction of included studies

S/n	Author(s), year and country	Design	Intervention/ Methods	Sample Size	Statistics/Analysis	Outcome Measures	Findings
1	Mohaghegh et al. 2023, Iran	Randomized Controlled Trial (RCT)	The study evaluated the effect of birth plans integrated into childbirth preparation classes on maternal and neonatal outcomes.	300 pregnant women (150 in the intervention group and 150 in the control group).	Independent t-tests, MannWhitney U tests, Chisquare tests, and logistic regression.	vaginal birth rates, duration of labour stages, and satisfaction with childbirth, labour augmentation, perineal tears, neonatal	The intervention group had significantly higher vaginal birth rates (81.9% vs. 48.7%, $p < 0.001$) and shorter first-stage labour durations (218.54 ± 156.54 minutes vs. 269.41 ± 168.83 minutes, $p = 0.02$). Episiotomy rates were lower (43% vs. 58.3%, $p < 0.001$), and oxytocin augmentation was less common (33.1% vs. 45.5%, $p = 0.043$). More women in the intervention group initiated breastfeeding within the first hour (81% vs. 46.7%, $p < 0.001$) and reported greater satisfaction with their childbirth experience.
2	Weerasingha et al., 2024, Sri Lanka	Observational study	Intrapartum care practices during vaginal births in a tertiary care hospital.	196 labouring women	Frequencies and percentages	compliance with WHO recommended practices during labour and delivery (offering labour companionship, oral fluids, etc),	WHO recommended practices such as providing privacy during vaginal examinations (33.2%), offering oral fluids (39.3%), and opioids for pain relief (48.5%) were observed infrequently. Practices like encouraging correct pushing techniques (77.6%), early breastfeeding (83.2%), regular assessment of vaginal bleeding (91.3%), and skin-to-skin contact (93.4%) were more frequently observed. Non-recommended practices such as routine amniotomy (85.2%) and fundal pressure (19.9%) were also recorded.
3	Yaqoob et al.. 2024, Pakistan.	Randomised controlled trial (RCT)	Impact of hypnobirthing training on reducing labour-pain, death anxiety, and postpartum depression in firsttime mothers	50 participants (25 in the experimental group and 25 in the control group)	Independent sample ttests, Oneway ANOVA	Labour-pain, death anxiety, and postpartum depression,	The experimental group reported significantly lower labour-pain (mean = 5.0) compared to the control group (mean = 8.0) ($t(48) = 15.1$, $p < 0.001$). Death anxiety was reduced in the experimental group (mean = 3.7) versus the control group (mean = 10.2) ($t(38) = 26.7$, $p < 0.001$). Postpartum depression scores were also lower in the experimental group (mean = 11.8) compared to the control (mean = 14.5) ($t(27) = 9.51$, $p < 0.001$). Additionally, the experimental group experienced shorter labour durations.

4	AtobrahAprakuet al., 2024, Ghana.	Qualitative, nonexperimental study.	Women's lived experiences during induction of labour at a tertiary hospital.	17 women.	Thematic content analysis	Women's knowledge of induction of labour, their experiences of care, and the challenges	Almost half of the participants (41%) had no knowledge of labour induction. Many experienced discomfort and psychological trauma during vaginal exams. Despite mixed feelings, 88.2% were married, and 41.1% were first-time mothers. "Psyching" themselves was the main coping method for painful experiences, especially during exams. Induction failed in 29.4% of cases, resulting in caesarean sections.
5.	Duangkum et al., 2024, Thailand	Multicenter, openlabel randomized controlled trial	Compared the effectiveness and safety of intravenous (IV) versus subcutaneous (SC) fentanyl for labour-pain management	226 women were randomized, with 113 receiving intravenous fentanyl and 113 receiving subcutaneous fentanyl.	Generalized linear mixed models	pain score, maternal satisfaction, maternal and neonatal effects	Both IV and SC fentanyl significantly reduced labour-pain, with overall mean changes of 1.39 (95% CI, 1.62 to 1.17) for IV and 0.89 (95% CI, 1.24 to 0.05) for SC. However, no significant difference was observed between the two groups (mean difference: 0.35; 95% CI, 0.76 to 0.05). Maternal satisfaction was high in both groups (IV: 89.4%, SC: 93.8%), with no significant difference in satisfaction levels. There were no serious maternal or neonatal adverse effects observed in either group.
6	Hudziak & Nowosielski, 2018, Poland	Crosssectional, observational study.	The intensity of labour-pain before and after administration of EA was measured using the Visual Analogue Scale (VAS).	219 women participated in the study, with 103 in the EA group and 116 in the control group	KolmogorovSmirnov test, while MannWhitney test, and Chisquare test.	patient satisfaction, labour-pain control, pain intensity.	Women who received EA reported much lower pain levels after its use (VAS score before: 7.45, after: 3.32). Satisfaction with pain control was higher in the EA group ($p = 0.001$), and 97.1% said they would use EA again, compared to 45.5% in the control group. Factors like residence, work type, and EA information sources (e.g., antenatal classes) affected the decision to use EA. Those in intellectual jobs were less likely to choose EA ($p = 0.0001$).
7	Akadri et al., 2018, Nigeria	Crosssectional, (observational study).	Assessed labour-pain perception using a structured questionnaire within 24 hours of delivery. Labour-pain was measured using the Visual Analogue	132 women	Descriptive statistics (mean, standard deviation) and Pearson's Chisquare test	Perception of labour-pain was, measured on the VAS scale.	The study found the mean VAS score for pain perception was 7.0, with 50% of participants rating labour-pain as severe. About 86.4% of respondents wanted some form of pain relief. A significant link was found between BMI and pain perception ($p = 0.010$). Women with normal weight (BMI 18.5–24.9) and overweight (BMI 25.0–29.9) had higher odds of severe pain ($OR = 3.7$, $p = 0.03$; $OR = 6.7$, $p = 0.03$) compared to obese women (BMI ≥ 30). Higher birth weight also increased pain perception ($p = 0.038$).

			Scale (VAS), ranging from 0 (no pain) to 10 (worst pain possible).				Unbooked status and secondary education predicted severe pain, but these results were not statistically significant.
8	Can et al. 2024, Turkey	Analytical cross-sectional	Examined women's preferences and experiences regarding birthing practices	347 women.	Descriptive statistics, Chi-square tests.	women's satisfaction with labour interventions	A total of 81% of participants reported a positive birth experience. Most women favoured evidence-based interventions and avoided non-recommended practices. For instance, 87.6% of women were mobilised during labour, while 92.8% had CTG monitoring, which is not always advised. Episiotomy was used in 64.8% of cases, especially in first-time mothers, though it is not routinely recommended. Factors like the number of previous births and labour duration influenced interventions such as induction and fundal pressure.
9	Adnan et al., 2020, Malaysia	Crosssectional study	Aimed to identify the factors associated with labour satisfaction and postnatal satisfaction among women in a tertiary hospital.	110 postpartum women	Simple and general linear regression	Labour satisfaction and postnatal satisfaction, assessed using the WOMBLSQ and WOMBPNSQ questionnaires	Labour satisfaction scores ranged from 52.5 to 92.0, with a mean score of 73.6 (SD = 10.18). Significant factors associated with higher satisfaction included a green colour code (p = 0.004), a yellow colour code (p = 0.031), and higher household income (p = 0.001). The association between labour satisfaction and postnatal satisfaction was significant (p = 0.029), suggesting that labour satisfaction could predict postnatal satisfaction. Women without comorbidities and those with a longer gestational period also reported higher satisfaction levels.
10	Bohren et al., 2019, Ghana, Guinea, Myanmar, Nigeria	Crosssectional study	Continuous observations of labour and childbirth (from admission up to 2 hours postpartum) and community based surveys (administered up to 8 weeks postpartum)	2016 women (labour observations) and 2672 women (surveys).	Descriptive statistics and generalised linear regression models	Physical/verbal abuse, stigma, discrimination, consent for procedures, and experiences of mistreatment.	The study uncovered key findings on mistreatment during childbirth. Physical abuse was reported by 14.0% of women, while 37.8% experienced verbal abuse. Abuse peaked 30 minutes before birth and 15 minutes after. Consent issues were notable: 75.1% did not consent to episiotomy, 13.4% to caesarean section, and 59% to vaginal exams. Additionally, 5% were detained at healthcare facilities due to unpaid bills. Women aged 15–19 were 3.6 times more likely to face verbal abuse, especially those with little education. Among tho women who requested for pain relief, 33.8% did not receive any, and 4.5% delivered without a provider. Finally, 93.8% lacked a companion during labour.

11	Mohammad et al., 2014, Jordan.	Descriptive cross-sectional	Examined women's satisfaction with hospital-based intrapartum care.	298 women	Descriptive statistics (frequencies, means, and standard deviations), and Chi-square tests	Women's satisfaction was assessed in three areas: care, decision-making, and environment.	Only 17.8% of women were satisfied with intrapartum care. Satisfaction with interpersonal care was 13%, with information and decision-making 20.5%, and with the physical environment 18.8%. The study identified several predictors of low satisfaction, including vaginal birth ($\beta = 0.333$, $p = 0.009$), experiencing an episiotomy ($\beta = -0.766$, $p < 0.001$), and being unhappy with pain relief ($\beta = 0.345$, $p = 0.008$). The overall regression model accounted for 84% of the variance in low satisfaction ($r^2 = 0.838$).
12	Klomp et al., 2016, Netherlands.	Qualitative interview study	Semi-structured postpartum interviews were conducted with women who had experienced midwife-led care during labour	17 women	Constant comparison method was used alongside interpretative phenomenological analysis (IPA)	Measured women's perceptions of control over decision-making during labour, continuous midwife support, and childbirth preparation	Women felt more in control of labour-pain when they made decisions, had midwife support, and were well-prepared. Some were unhappy when their pain relief needs weren't met on time. Many expected midwives to anticipate their pain and step in. Women aiming for a natural birth without pain relief often struggled when labour didn't go as planned. A few women shifted from wanting pain relief to trying natural methods, influenced by midwives.
13	Kaple et al., 2023, India	Experimental study	Aimed to assess the effectiveness of the Jacobson relaxation technique and Lamaze breathing technique in managing pain and stress during labour	36 women (18 in each group)	Student's paired t-test, unpaired t-test.	Pain intensity and stress levels	Both the Jacobson relaxation and Lamaze breathing techniques significantly reduced labour-pain and stress. Group A (Jacobson relaxation) showed a mean reduction in NPRS from 8.77 ± 1.00 to 7.22 ± 1.00 (mean difference = 1.55, $p = 0.0001$). Group B (Lamaze breathing) showed a reduction in NPRS from 8.94 ± 0.93 to 7.55 ± 0.92 (mean difference = 1.38, $p = 0.0001$). Although both techniques were effective, the reduction in pain was more pronounced in the Jacobson relaxation group
14	Lally et al., 2014, United Kingdom	Qualitative study	Explored women's decision-making processes and experiences regarding pain relief during labour. Semi-structured interviews were used.	23 women (13 primiparous and 10 multiparous).	Thematic analysis	Women's expectations and actual experiences of pain relief during labour, decision-making processes, and perceptions of control over their	Women expressed uncertainty during pregnancy about the level of pain they would experience during labour and the effectiveness of various pain relief methods. Many women did not feel comfortable making decisions about pain management antenatally due to this uncertainty. Postnatally, women reflected on their actual experiences, with some feeling a lack of control over their bodies during labour. The study suggests that the current approach to antenatal preparation in the NHS, which expects women to make

						bodies and decisions.	decisions about pain relief before labour, needs to be revised.
15	Tan et al., 2018, Singapore	Retrospective cohort study	Investigated the determinants of patient satisfaction in women receiving epidural analgesia for labour-pain	10,146 parturient (after excluding incomplete records).	Ordinal logistic regression models. Univariate analysis and multivariable regression models were applied	Patient satisfaction	Of the 10,146 parturients, 31.8% were "not satisfied," 35.9% were "satisfied," and 32.2% were "very satisfied" with their epidural analgesia. Factors associated with lower satisfaction included instrument-assisted vaginal delivery (OR = 1.24, p = 0.0007), higher post-epidural pain scores (OR = 1.09, p = 0.0016), and epidural catheter resiting (OR = 2.78, p < 0.0001). Chinese ethnicity (p = 0.0104) and multiparity (OR = 1.12, p = 0.0039) were also associated with lower satisfaction.
16	Vixner et al., 2015, Sweden	Randomised controlled trial (RCT)	The study compared long-term recollection of labour-pain in women receiving manual acupuncture, combined acupuncture, or standard care.	303 nulliparous women with normal pregnancies.	Generalised linear models, Logistic regression.	Recollection of labour-pain and birth experience.	In two months postpartum, there was no significant difference in the recollection of labour-pain between the three groups (mean VAS scores: standard care = 70.1, manual acupuncture = 69.3, electro-acupuncture = 68.7). The proportion of women reporting a positive birth experience was 54.3% for the standard care group, 64.6% for the manual acupuncture group, and 61.0% for the electro-acupuncture group. Despite a lower use of epidural analgesia in the electro-acupuncture group, pain recollection and birth satisfaction were comparable across groups (p > 0.05).
17	Baljon et al., 2020, Saudi Arabia.	Randomised controlled trial (RCT)	The intervention group received BRM and standard care, while the control group received only standard care.	154 participants (77 in each group).	Regression models, time series analyses, and Paired t-tests	Labour-pain, anxiety, stress hormones, vitals, fetal heart rate, labour duration, Apgar scores, and maternal satisfaction.	Women in the intervention group reported significantly lower pain and anxiety levels compared to the control group (p < 0.05). Additionally, stress hormone levels, particularly cortisol and oxytocin, showed more favourable outcomes in the intervention group. The intervention also led to shorter labour duration (mean reduction of 1.5 hours) and higher maternal satisfaction (p < 0.001). Apgar scores at 5 minutes were not significantly different between groups.
18	Huang et al., 2024, China	Cross-sectional study	Compared childbirth self-efficacy, fear of childbirth, and labour-pain intensity between primiparas and multiparas	347 women (182 primiparas and 165 multiparas	Descriptive statistics, chi-square tests, t-tests, and Mann–Whitney tests were used to compare childbirth self-efficacy, fear of childbirth, and labour-pain	Perceived labour-pain intensity, self-efficacy, and fear of childbirth.	Primiparas reported significantly higher levels of fear of childbirth compared to multiparas (p < 0.05), with moderate and severe fear more common in primiparas (47% vs. 15.75%). Multiparas had a shorter first stage of labour (mean duration 6.41 ± 4.55 hours vs. 9.90 ± 4.24 hours, p < 0.0001). There was no significant difference in perceived labour-pain intensity between the two groups, with

					between primiparas and multiparas.		NRS scores averaging 5.22 for primiparas and 5.04 for multiparas. Higher self-efficacy scores were associated with lower perceived pain intensity ($p < 0.05$). Fear of childbirth was found to be an independent risk factor for perceived labour-pain intensity (OR = 3.45, 95% CI, 1.88–2.67).
19	Siseho et al. 2023, Namibia	Quasi-experimental study.	Implemented quality-of-care interventions during labour, childbirth, and early postnatal care in a high-volume hospital	Pre-intervention: 100 women interviewed and 53 observed. Post-intervention: 102 women interviewed and 60 observed.	Descriptive statistics	Improvements in quality-of-care standards, such as maternal history taking, labour monitoring using partographs, newborn resuscitation assessments, and family planning counselling	Significant improvements were seen in quality-of-care post-intervention. For example, skin-to-skin contact increased from 89.5% to 98%, and newborn resuscitation assessments improved from 69.8% to 98%. However, monitoring labour with partographs remained low, with only 19.3% of women having their labour monitored post-intervention, up from 11.3% pre-intervention. Family planning counselling improved but remained low, increasing from 5.3% to 42%. Women's satisfaction with breastfeeding information increased to 56.9%, and satisfaction with postnatal care and hygiene information remained low, between 41-43%.
20	Yimam et al., 2024, Ethiopia	Multicentre prospective follow-up study.	Investigated postnatal perineal pain and its associated factors among women who had vaginal deliveries in comprehensive specialised hospitals	356 women (final sample after excluding incomplete responses).	Descriptive statistics, and Binary logistic regression.	Moderate to severe perineal pain	The incidence of moderate to severe postnatal perineal pain was 59.8% on day one (95% CI, 54.8–65.4), 35.4% on day three (95% CI, 30.6–39.9), and 8.4% on day seven (95% CI, 5.6–11.8). Factors significantly associated with higher pain levels included having an episiotomy (AOR = 11.9 on day one, 18.18 on day three, and 9.76 on day seven), primiparity (AOR = 3.22 on day one, 2.66 on day three), and perineal tears (first-degree tears: AOR = 5.62 on day one, 7.98 on day three; second-degree tears: AOR = 12.48 on day three).
21	Mäkelä et al., 2023, Finland	Prospective cohort study	Focused on comparing pain relief and overall birth experiences between induced (IOL) and spontaneous-onset labours (SOL).	2042 women (575 IOL, 1467 SOL).	A questionnaire was administered on the second postpartum day. Correlation was used.	Experiences between induced (IOL) and spontaneous-onset labours (SOL)	Mean VAS scores for pain relief were 7.7 (SD = 2.4) for IOL and 7.9 (SD = 2.2) for SOL. The proportion of women satisfied with pain relief (VAS ≥8) was 65% in the IOL group and 69% in the SOL group ($p = 0.082$). However, dissatisfaction (VAS ≤5) was significantly higher in the IOL group at 17% compared to 12% in the SOL group ($p = 0.003$). The mean VAS score for overall birth experience was 8.0 (SD = 1.84) in the IOL group, compared to 8.4 (SD = 1.54) in the SOL group ($p < 0.001$). The proportion

							of women reporting dissatisfaction with the overall birth experience (VAS ≤5) was higher in the IOL group at 9% compared to 5% in the SOL group (p = 0.001). The strongest factor associated with dissatisfaction was delayed timing of pain relief, which raised the risk. Other factors included deficient information. and the use of misoprostol for induction. Epidural analgesia, however, was protective against dissatisfaction (OR = 0.42, 95% CI = 0.29–0.62, p < 0.001).
22	Adnan et al., 2017, Malaysia	Cross-sectional study.	Aimed to identify the sociodemographic, obstetric, and medical factors contributing to labour satisfaction and to determine whether labour satisfaction predicts postnatal satisfaction	110 postpartum women responded.	Simple and general linear regression analyses were performed to identify the factors associated with labour satisfaction. Multiple linear regression was used to adjust for fetal outcome and parity.	Labour satisfaction scores. Postnatal satisfaction scores	Significant factors associated with higher labour satisfaction included green and yellow colour codes (P = 0.004 and P = 0.031, respectively), longer gestational periods (P = 0.039), higher household income (P = 0.001), and absence of comorbidity (P = 0.023). Labour satisfaction was a significant predictor of postnatal satisfaction (P = 0.029), and this remained significant after adjusting for fetal outcome and parity (P = 0.045). The study also found that women with lower household incomes had higher levels of satisfaction with labour care, while women with comorbidities reported lower satisfaction
23	Awotunde et al., 2023, Nigeria.	Qualitative exploratory study	Investigated the contextual influences on maternal satisfaction with labour care services.	17 postnatal women who had received antenatal and labour care.	Thematic analysis was used to identify key themes from the transcribed interviews. Atlas-Ti software was utilised to manage the data	aimed to identify factors influencing maternal satisfaction, such as the quality of healthcare providers, the environment of the healthcare facilities, etc.	Factors influencing maternal satisfaction included the choice of health facility, cost-effectiveness of services, availability of essential drugs, respectful and competent healthcare providers, and ensuring privacy during labour. Women expressed satisfaction when healthcare providers were competent, caring, and communicative. Satisfaction was also influenced by the cleanliness and conducive environment of the healthcare facilities. Emergency preparedness and postnatal education regarding baby care and family planning were also noted as contributing factors to maternal satisfaction
24	Báez-Suárez et al., 2022, Spain.	Randomised and double-blind controlled trial.	Explored the relationship between pain management and maternal satisfaction during labour. Participants	63 participants	Quantitative variables were presented as mean ± standard deviation (SD). Non-parametric tests, including the Mann-	Pain intensity and Satisfaction with care	The mean total COMFORTS scale score was 171.03 (SD = 19.69). Women who experienced severe pain had lower satisfaction (mean score = 168.61, SD = 9.8) compared to those with moderate pain (mean score = 175.51, SD = 12.1). The study concluded that TENS is an effective non-pharmacological method to

			were assigned to different.		Whitney U test and Kruskal-Wallis test, were used		improve pain relief and overall satisfaction during labour.
25	Wanyenze et al., 2023, Uganda.	Stepped wedge cluster randomised controlled trial	Evaluated the efficacy of midwife-led role orientation for birth companions on maternal satisfaction and birth outcomes of spontaneous labour expecting vaginal delivery.	475 women (240 in the control group, 235 in the intervention group).	Independent t-tests, Chi-Square tests and Multivariable analysis.	The chance of having a spontaneous vaginal delivery. Length of labour, Apgar score, coping, anxiety, and maternal satisfaction	The study found that maternal satisfaction was significantly higher during the intervention period compared to the control period ($p < 0.001$). Satisfaction with pain management improved during the intervention (74.9%) compared to the control period (56.9%). Satisfaction with humaneness was the highest-rated aspect of care, with 93% of women in the intervention group reporting satisfaction compared to 79.5% in the control group. However, there were no significant differences in birth outcomes, including mode of delivery, length of labour, and Apgar scores

3.3 Data analysis/synthesis

This review used a narrative synthesis because of the heterogeneity of designs of Included studies, encompassing both qualitative and quantitative approaches. A narrative approach was necessary because the various included studies did not use a uniform method that could easily be combined through a single statistical approach such as meta-analysis. Each study brought its own unique approach, thus making a synthesis the preferred flexible approach for drawing and linking connections to their findings. For example, Mohaghegh et al. (2023) and Yaqoob et al. (2024) conducted randomised controlled trials, while Weerasingha et al. (2024) and Can et al. (2024) focused on observational and cross-sectional designs. Their interventions varied widely, from childbirth classes to hypnobirthing techniques—so synthesising their findings required an approach that could accommodate such diversity. This is why narrative synthesis was considered appropriate for synthesising the various studies without the need for strict statistical application.

4. Study findings on the Types of Deliveries and Pain Control

4.1 Epidural analgesia (EA): Effective but varied satisfaction levels

Epidural analgesia (EA) significantly reduced pain during labour, with a substantial reduction in pain scores from 7.45 to 3.32, as reported in Hudziak and Nowosielski (2018). In Tan et al. (2018), 32.2% of women were "very satisfied" with their experience, while 31.8% were "not satisfied" due to factors like post-epidural pain and instrumental deliveries. Despite the general effectiveness of EA, several gaps emerged. Technical issues, such as catheter resitting issues were reported as a causative of dissatisfaction. Furthermore, individual factors, including multiparity and ethnicity, as reported by Tan et al. (2018) in China, influenced maternal satisfaction. These findings highlight the need to strengthen advocacy for personalised approaches in the administration of epidural analgesia (EA). The studies showed that while EA is a reliable method of pain control and relief, it does not always translate to high satisfaction, which underscores the need to factor individual preferences among expectant mothers, and the importance of taking proactive steps to identify and address technical issues (such as incorrect placement of the epidural catheter, inadequate dosage and delayed administration), which may lead to birth complications.

4.2. Non-Pharmacological methods: Effective but underutilised

Hypnobirthing was found to be effective in Yaqoob et al. (2024), where women reported lower pain (mean = 5.0) compared to the control group (mean = 8.0). It also reduced death anxiety and postpartum depression. However, in Atobrah-Apraku et al. (2024), women undergoing induction in Ghana had limited awareness of pain control methods, with 41% unaware of their options, and had to rely on psychological self-management. A significant gap was found between the awareness and education around non-pharmacological methods. Although these techniques, such as hypnobirthing, showed a strong result in pain reduction, they were reportedly underutilised due to lack of patient education. The findings from Atobrah-Apraku et al. (2024) highlighted the need for broader awareness of available pain control methods, especially in regions where medical interventions are less common, or where cultural beliefs may influence the acceptance of non-pharmacological interventions.

4.3. Fentanyl for pain control: Comparable efficacy, but long-term impact unclear

Both intravenous (IV) and subcutaneous (SC) fentanyl were reported to be effective in managing labour-pain, as shown in Duangkum et al. (2024). There was no significant difference between the methods in terms of pain reduction (mean difference = 0.35), although maternal satisfaction was reported to be high (89.4% for IV, 93.8% for SC). While fentanyl was equally effective across administration routes, the study did not explore the long-term effects of each method. Moreover, there were no significant findings on whether one method was preferable over the other in terms of safety or maternal and neonatal outcomes. Further research is needed to clarify whether one administration method has advantages over another, especially for different maternal profiles or in different healthcare settings.

4.4 Vaginal deliveries and non-epidural pain management: Awareness and implementation gaps

The study by Mohaghegh et al. (2023) demonstrated the importance of education in improving vaginal birth outcomes. Women who received birth plans through preparation classes had higher vaginal birth rates (81.9% vs. 48.7%) and were more satisfied with their experience. In Weerasingha et al. (2024), WHO-recommended practices, like encouraging mobility and correct pushing techniques, were adopted and reported to be effective, although they inconsistently applied. A significant gap in non-epidural pain management was attributed to the inconsistent implementation of evidence-based practices. Weerasingha et al. (2024) reported low adherence to best practices like offering oral fluids (39.3%) and providing privacy (33.2%). The gap between recommended practices and their implementation in real-world settings was reported (Weerasingha et al., 2024; Mohaghegh et al., 2023), highlighting the limitations undermining the possibility of exploring non-pharmacological interventions. Patient education is another area of concern (Mohaghegh et al., 2023; Atobrah-Apraku et al., 2024), given that well-informed women tend to achieve better health outcomes. This highlight the importance of consistent, accessible and structured educational programmes aimed at empowering women by providing the necessary knowledge and resources to enable them to navigate their healthcare options effectively, manage their conditions, and ultimately improve their quality of life.

4.5 Induction of labour: Psychological gaps and limited awareness

In Atobrah-Apraku et al. (2024), approximately 41% of women undergoing induction were unaware of their options for pain relief. This was reported to have contributed to anxiety and discomfort. Psychological self-management was the most common coping mechanism, with many women reporting trauma during vaginal exams. Induction often resulted in unanticipated caesarean sections (29.4%). The major gap observed was the lack of patient education and psychological support during induction of labour. Many women were uninformed about the process, and this reportedly led to increased anxiety and a higher incidence of caesarean sections, highlighting the need for a comprehensive counselling as part of maternal preparation before induction procedures. Furthermore, the psychological impact of pain and fear was not adequately addressed in most studies reviewed. This reinforces the importance of providing enhanced emotional support systems alongside physical pain management options. The studies show that while various pain control methods, such as epidurals, non-pharmacological methods, and fentanyl, are effective, several gaps remain. Epidurals need more technical refinement to ensure that issues connected to dissatisfaction are address. The non-pharmacological methods require broader awareness and education; and the long-term safety of fentanyl routes needs further study. For vaginal deliveries, best practices are not consistently applied, and this is a challenge undermining their effectiveness. Finally, most studies indicate that induction of labour poses significant psychological challenges to mothers. This is a pointer to the need for improvement in patient counselling and support services. Addressing these gaps would enhance the quality of maternal care and improve women's overall satisfaction with their birth experiences.

4.5 Study findings on Maternal Satisfaction and Experiences

4.5.1 Satisfaction with care

The quality of care, particularly regarding how healthcare providers treat women, has emerged as a crucial determinant of patient satisfaction across several studies, including Awotunde et al. (2023, Nigeria), who reported that women experienced greater satisfaction when healthcare providers showed respect, demonstrated competence, and met essential needs, such as ensuring privacy and delivering timely information. In this study, factors like the cleanliness of healthcare facilities and postnatal education also contributed to overall maternal satisfaction. Similarly, Adnan et al. (2020, Malaysia) found that higher household income, longer gestation periods, and the absence of comorbidities were significantly linked to greater satisfaction during labour ($p < 0.05$). However, not all studies reported high satisfaction levels. Mohammad et al. (2014, Jordan) revealed a low satisfaction levels, with only 17.8% of women reporting satisfaction with the care they received. Women reported dissatisfaction with the interpersonal aspects of care (13%) and the decision-making process (20.5%). These findings contrast sharply with those of Awotunde et al. (2023), which demonstrated that respectful interactions between women and healthcare providers resulted in significantly higher satisfaction levels. Midwife-led interventions also played a critical role in enhancing maternal satisfaction. In the study by Wanyenze et al. (2023, Uganda), women who received midwife-led role orientation for birth companions reported a significantly higher satisfaction than their counterparts in the control group ($p < 0.001$). This intervention prepared birth companions to offer enhanced physical and emotional support to woman during parturition.

These findings underscore the importance of integrating social support systems into labour care to enhance maternal satisfaction. A common thread across several studies was the importance of women feeling involved in their care decisions. Klomp et al. (2016, Netherlands) revealed that women who felt more in control of their decisions during labour and had continuous midwife support were more satisfied with their overall birth experience. However, women who were disappointed by the lack of expected midwife-led support and pain relief were significantly more dissatisfied. This stands in contrast

to the findings of Mohammad et al. (2014), who identified a strong correlation between dissatisfaction and a lack of patient autonomy in decision-making. These studies suggest that maternal satisfaction is significantly influenced by respectful interpersonal care, involvement of patient in care decision-making process, provision of adequate pain relief, and enhanced access to quality healthcare services, particularly those provided by midwives.

4.5.2. Satisfaction with pain management

Pain management consistently appeared as a key factor in maternal satisfaction across studies. Mäkelä et al. (2023, Finland) reported that women who experienced spontaneous-onset labour (SOL) were more satisfied with pain relief provided than those in the induced labour (IOL) group. Dissatisfaction was significantly higher in the IOL group due to delays in administering pain relief ($p = 0.003$), even though epidural analgesia had a protective effect (OR = 0.42, $p < 0.001$). Similar findings were observed in Hudziak and Nowosielski (2018, Poland), who reported substantially lower pain levels and significantly greater satisfaction with pain control ($p = 0.001$) among women who received epidural anesthesia (EA). Non-pharmacological methods for pain management have also proven to be effective in enhancing maternal satisfaction.

In Báez-Suárez et al. (2022, Spain), the use of Transcutaneous Electrical Nerve Stimulation (TENS) for pain relief resulted in higher satisfaction, especially for women who experienced moderate pain (mean score = 175.51, SD = 12.1). The study concluded that TENS was is an effective non-pharmacological intervention for improving pain relief and overall satisfaction. Similarly, in Yaqoob et al. (2024, Pakistan), hypnobirthing training demonstrated a significant effect in reducing labour-pain (mean = 5.0 vs. 8.0, $p < 0.001$) and lowered death anxiety, leading to higher in maternal satisfaction. This was however, inconsistent with report by Mohammad et al. (2014, Jordan), which indicated a sizable amount of patients (63.8%) expressed high dissatisfaction with pain relief provided among women in Jordan, with only 17.8% of the women reporting that they were satisfied with their intrapartum care, citing reasons for their dissatisfaction as inadequate involvement in decision-making, insufficient pain relief, routine vagina examination and interventions, as well as an impersonal and unsupportive birth environment, adding that their experiences with episiotomies contributed significantly to the low overall satisfaction ($\beta = 0.345$, $p = 0.008$). Atobrah-Apraku et al. (2024, Ghana) also reported a high dissatisfaction rates among women, as a result of psychological trauma and discomfort associated with vaginal examinations and labour induction, resulting in caesarean sections for 29.4% of participants. These findings reveal a clear contrast between settings where effective pain relief was available and places where it was inadequate or delayed. In Duangkum et al. (2024, Thailand), the effectiveness of both intravenous (IV) and subcutaneous (SC) fentanyl for pain management was compared. Both methods significantly reduced labour-pain, with high satisfaction levels in both groups (IV: 89.4%, SC: 93.8%). This clearly demonstrates the importance of providing expectant mothers a tailored and effective pain management to enhance their satisfaction. Across these studies, inconsistent pain management, particularly the lack of timely and effective pain relief, was a common significant contributor to maternal dissatisfaction, as evidenced by studies like Mäkelä et al. (2023) and Mohammad et al. (2014). Awotunde et al. (2023, Nigeria) and Adnan et al. (2020, Malaysia) have both emphasized the critical role of social support, clean environments, and the competence of healthcare providers as essential elements of quality maternal care. Unfortunately, these aspects of care are lacking in some regions such as Jordan (Mohammad et al., 2014), where inadequate interpersonal care and poor communication reported major sources of dissatisfaction. The findings highlight significant gaps in maternal satisfaction, which are largely due to inconsistent care standards, limited patient involvement, and inadequate access to pain relief options. There is a need to approach these issues with holistic strategy that combine respectful care, provision social support during parturition, and effective pain management plan. By addressing these areas, healthcare providers can significantly enhance maternal experiences across diverse contexts.

4.6. Study findings on Sociocultural and Healthcare Provider Factors

4.6.1 Sociocultural norms and practices

Women's experiences and perceptions of childbirth were deeply influenced by sociocultural norms, especially in studies from Africa and Asia. In Atobrah-Apraku et al. (2024, Ghana), it was evident that 41% of women had no prior knowledge about labour induction, which significantly increased their discomfort during the process. Sociocultural expectations around pain and childbirth often left these women unprepared for medical interventions. The study highlighted how many of the expectant mothers relied on self-motivation, such as "psyching" themselves up, as a coping strategy and tool for handling pain. This was often insufficient, as 29.4% of the women required caesarean sections due to induction failure. Similarly, Awotunde et al. (2023, Nigeria) showed that access to healthcare services was heavily influenced by economic and social factors, with women from lower socioeconomic backgrounds reporting higher dissatisfaction due to the cost of services and perceived lower quality of care. Although 88.2% of participants were married, marital status did not correlate with better healthcare experiences. Instead, access to affordable and respectful care emerged as a stronger determinant of satisfaction. These findings emphasise the need for context-specific care approaches that pay greater attention to the cultural and societal factors influencing women's expectations during childbirth.

4.6.2. Education and knowledge levels

Educational background of was a major determinant of women's childbirth experiences and satisfaction. In a transnational study by Bohren et al. (2019), covering four countries (Ghana, Guinea, Myanmar, and Nigeria), women with lower education levels were more vulnerable to mistreatment. Descriptive statistics revealed that 75.1% of women who underwent episiotomies did so without consent, and 13.4% of women had caesarean sections without giving their consent. Inferential analysis further indicated that younger women (aged 15–19) were 3.6 times more likely to experience verbal abuse than their older counterparts ($p < 0.001$), especially those with limited education. The gap in communication between healthcare providers and less-educated women was evident, and thus highlight the need for a better engagement and enhanced patient education. A midwife-led orientation for birth companions resulted

in improved outcomes, including increased satisfaction with pain management. This rise from 56.9% in the control period to 74.9% in the intervention group (Wanyenze et al., 2023). This finding highlights the significant impact that informed support systems and education during labor can have on women's childbirth experiences.

4.6.3. Healthcare provider competency and communication

Competency and effective communication from healthcare providers were major factors influencing maternal satisfaction across the studies. Awotunde et al. (2023, Nigeria) observed that healthcare providers who were respectful and competent were effective in enhancing maternal satisfaction. Women who experienced clear communication and adequate care from healthcare providers reported more positive birth experiences, indicating that emotional support and professional competency are strong predictors of patient satisfaction. Other studies including Can et al. (2024, Turkey), re-echoed this fact, having reported that 81% of women had positive birth experiences when the healthcare providers used evidence-based practices, such as encouraging mobility during labour and providing emotional support. Furthermore, 87.6% of women in this study were mobilised during labour, and 83.2% received early breastfeeding support, reinforcing the link between provider adherence to recommended practices and higher satisfaction. Conversely, Mohammad et al. (2014, Jordan) revealed that only 17.8% of women were satisfied with their intrapartum care, with dissatisfaction stemming from poor communication and unmet expectations around pain relief. These findings emphasise the need for improved communication strategies, particularly in discussing pain relief and birth interventions.

4.6.4. Respect, dignity, and access to pain relief

Respectful treatment and the preservation of dignity were key themes in many studies, particularly in low-resource settings. Bohren et al. (2019) found that 14% of women experienced physical abuse, and 37.8% were subjected to verbal abuse during labour, with mistreatment more common among younger women and those with lower education levels. This demonstrated the clear link between social vulnerability and the quality of care. Access to adequate pain relief was another critical factor influencing maternal satisfaction. Lally et al. (2014, UK) highlighted that uncertainty around pain relief during pregnancy often led to dissatisfaction during labour. Many women felt unprepared for the intensity of the pain, and their discomfort in making antenatal decisions about pain management pointed to a systemic issue in antenatal education. The importance of effective pain relief was also emphasised in Tan et al. (2018, Singapore), where 31.8% of women were not satisfied with their epidural analgesia, often due to complications like catheter re-siting or higher post-epidural pain scores. Multiparous women and those from Chinese ethnic backgrounds were more likely to report dissatisfaction, suggesting a need for more tailored approaches to pain relief. Similarly, Hudziak and Nowosielski (2018, Poland) found that women who received epidural anaesthesia reported much lower pain levels (VAS scores decreased from 7.45 to 3.32 after epidural use, $p < 0.001$). Notably, 97.1% of these women said they would choose epidural anaesthesia again, compared to only 45.5% in the control group, who did not receive it. These findings underscore how access to effective pain management can significantly enhance satisfaction with childbirth experiences.

Limited access to effective pain relief emerged as a common issue across several studies, though the reasons behind these disparities were often overlooked. Tan et al. (2018, Singapore) pointed out that women's dissatisfaction with epidural analgesia was linked to complications after the procedure, but the study didn't dive deeply into why these issues occurred or how they could be avoided. Similarly, Hudziak and Nowosielski (2018, Poland) found that nearly all women who used epidural anaesthesia (97.1%) would choose it again, but only 45.5% of women who hadn't tried it would consider it in the future. This suggests that the barriers to pain relief aren't just about availability but are also tied to women's trust in the method and how well they understand it. Moving forward, it is crucial that researcher should dig into the systemic obstacles and communication gaps that prevent women from accessing effective pain relief and involvement in making informed decisions during childbirth. Other gaps were also highlighted by some studies. Can et al. (2024, Turkey) For example, noted notably inconsistencies in the way WHO-recommended practices were applied. While encouraging mobility during labour was emphasized, the study also found that 92.8% of women experienced continuous cardiotocography (CTG), even though this is not always recommended, yet 64.8% of women underwent episiotomies, even though it was not a routine procedure.

The study did not explore why these deviations from best practices happened, thus suggesting a larger issue in translating evidence-based guidelines into everyday care. There's a need for further research to understand why healthcare providers sometimes stray from these recommendations and how we can ensure that best practices align more closely with the latest evidence in maternal care. These studies collectively highlight the profound influence of sociocultural norms and healthcare provider practices on maternal experiences during childbirth. Across the studies, cultural expectations, education, and knowledge levels were reported as significant predictors of women's preparedness and vulnerability. Additionally, healthcare provider competency, communication, and respect for dignity emerged as critical factors in determining satisfaction. Adequate pain relief and informed decision-making were essential in improving maternal satisfaction, particularly when women felt in control of their labour. These findings suggest that a holistic approach that addresses both sociocultural influences and systemic healthcare practices—is needed to enhance maternal care and improve childbirth experiences.

4.6.5. Perceptions of labour-pain and anxiety: Impact of pain relief and psychological preparedness

The studies reviewed consistently highlighted how perceptions of labour-pain and anxiety were shaped by both physical interventions and psychological preparedness. Women who received effective pain relief, such as epidural anaesthesia, as in Hudziak and Nowosielski (2018, Poland), experienced significantly lower pain, with VAS scores dropping from 7.45 to 3.32, leading to higher satisfaction levels. Similarly, non-pharmacological methods like hypnobirthing and relaxation techniques were inversely related pain and anxiety (Yaqoob et al., 2024, Pakistan) and Kaple et al. (2023, India). Psychological preparedness was another key factor, as seen in Lally et al. (2014, United Kingdom) and Aziato et al. (2017, Ghana), where women's

uncertainty about pain relief options and reliance on self-encouragement or cultural coping mechanisms contributed to heightened anxiety. Meanwhile, interventions combining emotional and physical support, such as those in Baljon et al. (2020, Saudi Arabia), effectively reduced both anxiety and labour duration, indicating that addressing both physical and emotional needs during labour is crucial. These findings suggest that women who had access to well-timed pain management and supportive care reported lower levels of pain and anxiety, while those that were not supported with such interventions faced greater challenges. This underscores the importance of holistic care during childbirth.

4.6.6 Study findings on outcomes and postnatal care

The studies in this review reveal varied outcomes related to postnatal care and maternal health. The findings are highlighted under subheadings: maternal satisfaction, quality of postnatal care, neonatal outcomes, comparison of clinical and emotional interventions.

- *Maternal satisfaction*

Maternal satisfaction was a consistent focus across several studies, and the results gleaned from the studies demonstrate that satisfaction is largely influenced by the nature of the birth experience, specific interventions, and personal circumstances, including socio-cultural beliefs and economic status of the women. Mohaghegh et al. (2023), for example, highlighted that integrating birth plans into childbirth preparation classes led to significantly higher satisfaction levels, with 81.9% of women in the intervention group reporting satisfaction, compared to 48.7% in the control group. The study shows that when women are empowered with relevant birth related knowledge, and by that develop a sense of control over their birth process, the result often showed increase in post-birth satisfaction. However, this finding contrasts with Adnan et al. (2020), who noted that while labour satisfaction predicted postnatal satisfaction, factors like household income and the absence of comorbidities played a significant role in determining postpartum satisfaction. Women with higher incomes and without health complications reported greater satisfaction. This study highlights the social determinants of health, implying that personal circumstances can affect how interventions are received and associated experience, regardless of the quality of clinical care provided. Comparing these studies, it is clear that while clinical interventions (such as birth plans and preparation classes) can enhance satisfaction. Individual socioeconomic factors also exert a considerable impact on maternal satisfaction. Yaqoob et al. (2024) reinforces this, having reported that hypnobirthing training improved satisfaction primarily by reducing pain and anxiety during labour, resulting in a positive birth experience. This study further supports the notion that emotional and psychological interventions can significantly influence maternal satisfaction.

- *Quality of postnatal care*

When it comes to the quality of postnatal care, there is a notable disparity between clinical improvements and the broader aspects of care, such as maternal education and counselling. Siseho et al. (2023) demonstrated that quality-of-care interventions, such as improving skin-to-skin contact and newborn resuscitation, led to better clinical outcomes. However, postnatal education on family planning and hygiene remained inadequate, with satisfaction levels in these areas ranging between 41% and 43%. This disparity between clinical care and maternal education highlight a gap in provision of holistic postnatal care, as physical health were mostly prioritized over maternal mental health, empowerment and knowledge. This argument correlate with findings of Weerasingha et al. (2024), who reported similar gaps in postnatal care, particularly in compliance with WHO-recommended practices. While neonatal bonding practices such as early breastfeeding and skin-to-skin contact were widely observed, maternal comfort measures, such as providing companionship during labour, were less commonly offered by healthcare personnel. This further underscores the need for a more comprehensive approach to postnatal care that balances clinical interventions with maternal well-being. Evidence supports that clinical outcomes such as newborn health and immediate postnatal interventions are improving, however the softer aspects of care, such as education, emotional support, and maternal counselling, are still inadequate and therefore require significant attention.

- *Neonatal outcomes*

Neonatal outcomes were generally positive across most studies, though the correlation between maternal satisfaction and neonatal outcomes varied. Mäkelä et al. (2023) showed that neonatal outcomes such as Apgar scores were stable, regardless of whether labour was induced or spontaneous. However, maternal satisfaction was lower in induced labour cases. This suggests that neonatal outcomes, while crucial, do not always directly influence maternal satisfaction, particularly when the birth experience itself is less favourable. In contrast, Baljon et al. (2020) found that maternal interventions like breathing exercises, foot reflexology, and back massage (BRM) not only improved maternal satisfaction, but also positively impacted neonatal outcomes, including reduction in stress hormone levels and maternal anxiety. Although Apgar scores were similar between the intervention and control groups, the study suggests that reducing maternal stress during labour can create enabling and favourable environment for neonatal health. Verbal abuse during childbirth, as reported by Bohren et al. (2019) led to lower maternal satisfaction and may have long-term effects on neonatal bonding and care. This study provides an important counterpoint to studies that focus solely on clinical outcomes, accentuating further that emotional and psychological factors during labour significantly impact both the mother and child postnatal wellbeing.

- *Comparing clinical and emotional interventions*

When comparing clinical and emotional interventions, a clear pattern emerged. Studies like Mohaghegh et al. (2023) and Baljon et al. (2020), which incorporated specific maternal interventions (birth plans, hypnobirthing, or BRM), resulted in higher maternal satisfaction and positive neonatal outcomes. These findings suggest that when mothers are empowered through relevant pre-labour education, adequate labour preparation and emotional support, their satisfaction and the health of their newborns is better off On the other hand, studies such as Siseho et al. (2023) and Weerasingha et al. (2024) recognized that while clinical outcomes and practices such as skin-to-skin contact and breastfeeding initiation are improving, emotional support and

postnatal education are lagging behind. This calls for attention a better and comprehensive approaches to promoting postnatal care that addresses not just the physical needs of the mother and child, but also their emotional needs and wellbeing.

5. Discussion

5.1 Summary of key findings

I reviewed 25 studies, comprising a variety of study designs, such as randomized controlled trials (RCTs), cross-sectional studies, and qualitative studies, focusing on labour-pain management, experiences and satisfaction. Several studies, including the randomized controlled trial by Mohaghegh et al. (2023), highlighted the positive influence of structured birth plans on maternal satisfaction, vaginal birth rates, and early breastfeeding initiation. This finding aligns with previous systematic reviews that emphasize the benefits of personalized birth plans. For instance, a review by Soltani and Sandall (2012) noted that women with tailored birth plans were more likely to experience spontaneous vaginal births, and reported greater satisfaction with their childbirth experiences. These results further support the recommendation for integrating birth plans into routine prenatal care as a strategy directed at improving maternal outcomes (Soltani & Sandall, 2012). The deficiency observed in adherence of WHO guidelines as observed in studies like Weerasingha et al. (2024) and Siseho et al. (2023) resonates with global findings regarding the variability in the implementation of evidence-based practices in labour and postnatal care. A systematic review by Vogel et al. (2016) also highlighted that while practices such as skin-to-skin contact and early breastfeeding are often well-adopted, other critical practices like continuous labour support and non-pharmacological pain relief are inconsistently applied, particularly in low-resource settings. The low compliance with recommended practices, such as providing oral fluids during labour, as observed by Weerasingha et al. (2024) is quite reflective of these global challenges (Vogel et al., 2016).

The consistent finding across several studies, including Yaqoob et al. (2024), Duangkum et al. (2024), and Hudziak and Nowosielski (2018), that effective pain management is closely linked to higher maternal satisfaction, is supported by systematic reviews on pain relief during labour. A Cochrane review by Jones et al. (2012) reported that both pharmacological and non-pharmacological interventions significantly reduce labour-pain and significantly improve women's overall birth experiences. The preference for epidural anaesthesia and its association with reduced pain, as found in Hudziak and Nowosielski, is corroborated by systematic evidence suggesting that epidural analgesia is one of the most effective forms of pain relief, although it can sometimes lead to longer labours and increased interventions, such as instrumental deliveries (Jones et al., 2012). The importance of emotional and psychological support during childbirth, emphasized in Bohren et al. (2019) and Atobrah-Apraku et al. (2024), aligns with findings from systematic reviews on respectful maternity care. Bohren et al. (2015) reported that mistreatment during childbirth, including physical and verbal abuse, is a significant issue worldwide, particularly in low-resource settings. The negative psychological impact of such mistreatment can extend into the postnatal period, affecting both maternal mental health and satisfaction with care. Most studies revealed substantial inadequacies in respect to emotional support, underscoring the urgent need for interventions aimed at improving the emotional support provided to women during labour and delivery, as also highlighted by Wanyenze et al. (2023) (Bohren et al., 2015).

Findings from studies like Can et al. (2024) and Tan et al. (2018), which explored the use of interventions such as episiotomy and epidural analgesia, reflect broader the concerns about the overuse of non-recommended interventions in childbirth. A systematic review by Miller et al. (2016) noted that the routine use of interventions like episiotomy and continuous electronic fetal monitoring is still prevalent in many countries, despite evidence suggesting these interventions should be used with discretion and selectively. These practices are often linked to lower maternal satisfaction and increased rates of medical complications, as observed in Tan et al. (2018) and (Miller et al., 2016). The high incidence of postnatal perineal pain reported by Yimam et al. (2024) is consistent with findings from systematic reviews on postnatal recovery. A review by East et al. (2012) found that episiotomies and perineal tears are significant predictors of postnatal pain and delayed recovery. The association between perineal trauma and higher pain levels during the first week of postpartum period, as reported by Yimam et al. (2024), mirrors global data suggesting that targeted interventions to reduce perineal trauma could significantly improve postnatal outcomes and maternal comfort (East et al., 2012). The findings from these individual studies are largely supported by existing systematic reviews, reinforcing the importance of having birth plans, adhering to WHO-recommended practices, using effective pain management methods, providing emotional support, judicious use of interventions, and application of strategies to reduce postnatal pain. Together, these studies and reviews highlight the multifaceted nature of maternal care and the need for integrated approaches to improve maternal and neonatal outcomes.

5.2 Implications of the study and practice

This systematic review reveals critical implications for clinical practice and future research. For effective pain management and maternal satisfaction during childbirth, effective pain control is essential for positive postnatal outcomes. However, current methods, such as epidural analgesia, have proven to be deficient in meeting women's expectations. The reason for this deficiency was largely attributed to technical challenges, thereby reinforcing the need for enhancement of personalized care. Non-pharmacological approaches, such as hypnobirthing, have demonstrated significant benefits in reducing pain and anxiety, but there remains a gap in patient education, especially in low-resource settings. This strengthens the importance of comprehensive prenatal education that properly prepares the minds of expectant mothers about pharmacological and non-pharmacological options. Psychological factors, including fear and anxiety, can exacerbate labour-pain and contribute to postpartum complications, including PTSD. This emphasizes the need for integrative approaches to care, involving the combination of physical and emotional support. Furthermore, sociocultural norms, healthcare provider competence, and patient education play a significant role in shaping maternal satisfaction, underscoring the need for tailored, context-specific interventions. Future research should explore the long-term effects of different pain relief methods. Investigations should focus on the psychological aspects of childbirth, and development of enabling strategies targeted at promoting and ensuring equitable patient-centred care.

5.3 Limitations of the Study

Some studies used cross-sectional designs, which provide only a snapshot of the moment and do not allow the researcher to see changes over time. This may impact the generalizability of the study. There is also inconsistent application of WHO-recommended practices, particularly in low-resource settings, this has posed challenges in drawing universal conclusions from the study. The review however highlights significant gaps in patient education and awareness regarding non-pharmacological pain management, which may skew satisfaction outcomes. Moreover, the long-term effects of pain control methods, especially pharmacological ones like fentanyl need additional inquiry. Finally, while psychological factors such as anxiety and fear were noted, there are insufficient studies focusing on psychological interventions and their impact on long-term maternal mental health, such as postpartum depression or PTSD.

5.4 Conclusion

This study systematically examined labour-pain control methods, experiences and satisfaction among postnatal women. The results underscore the importance of effective pain management and maternal support during labour. It identified both successes and gaps in current practices. While pharmacological methods like epidural analgesia provide significant pain relief, their satisfaction levels vary due to technical challenges and individual preferences. Non-pharmacological techniques, such as hypnobirthing, showed promise in reducing pain and anxiety but are underutilised due to limited patient education. The review highlights inconsistent application of WHO-recommended practices, particularly in low-resource settings, thereby hindering comprehensive maternal care. Psychological factors such as fear and anxiety are critical factors shaping maternal labour experiences. This study calls for adoption of integrative approaches to care, involving the combination of both physical and emotional support strategies. To enhance maternal care, future efforts should focus on improving patient education, ensuring consistent adherence to evidence-based practices, and addressing the long-term effects of pain relief methods on maternal and neonatal health.

5.5. Recommendations

Based on the findings, the following recommendations are offered:

1) Efforts should be made to ensure consistent application of WHO intrapartum care practices, as the guidelines are often not followed thoroughly.
2) Birth plans should be incorporated into prenatal care, as they can help to improve maternal satisfaction and outcomes during childbirth.
3) Healthcare managers should provide ongoing comprehensive prenatal education on both pharmacological and non-pharmacological pain management options to maternal attendants in order to reduce anxiety among parturient women to enhance their satisfaction.
4) Maternal attendants should ensure consistent application of WHO-recommended practices, such as mobility during labour and early breastfeeding, through better training and monitoring.
5) Maternal attendants should combine physical pain relief with emotional and psychological support during labour to address fear of death and other maternal anxieties.
6) Future studies should investigate the long-term impacts of pain management methods, especially pharmacological types, on maternal and neonatal health.
7) Health facilities managers should introduce interventions targeted at preventing mistreatment of women during childbirth, and ensuring that they receive respectful and dignified care.

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