

## Effects of the use of complementary therapies by nurses on labor pain: an integrative review

*Efeitos da utilização de terapias complementares por enfermeiros na dor do parto: revisão integrativa*  
*Efectos del uso de terapias complementarias por enfermeras sobre el dolor del parto: una revisión integradora*

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### Abstract

**Objective:** To identify in the literature the effects of the use of complementary therapies by nurses on labor pain. **Methods:** Integrative literature review, carried out in the following databases: MEDLINE (via PubMed), CINAHL, Web of Science, and SciElo Virtual Library. The search took place in a paired manner in January 2023, with articles available in full that addressed Integrative and Complementary Practices and the inclusion of Nursing in this context. **Results:** 11 articles were included which showed that complementary therapies reduced pain during labor, helped to relieve symptoms of stress-medium tension and anxiety, as well as increased emotional well-being and relaxation. Nursing professionals appeared to be responsible for offering and supporting the use of methods to humanize care and encourage women's autonomy during the process. **Conclusion:** Complementary therapies have been shown to be effective in minimizing pain during childbirth and nursing care was the crucial element in providing opportunities for the use of these methods and their effects.

**Descriptors:** Pregnant Women; Complementary Therapies; Nursing Care; Labor pain.

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#### Whats is already known on this?

Fear of the pain of childbirth is an important factor in women choosing to have a cesarean section. One of the strategies for easing the painful experience of childbirth is complementary therapies.

#### What this study adds?

It highlights and summarizes the benefits of complementary therapies for pain relief in childbirth and elucidates how nursing care promotes these effects.



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### Resumo

**Objetivo:** Identificar na literatura os efeitos da utilização de terapias complementares por enfermeiros na dor do parto. **Métodos:** Revisão integrativa da literatura, realizada nas seguintes bases de dados: MEDLINE (via PubMed), CINAHL, Web of Science e Biblioteca Virtual SciElo. A busca aconteceu de forma pareada em janeiro de 2023, com os artigos disponíveis na íntegra que abordaram as Práticas Integrativas e Complementares e a inserção da Enfermagem nesse contexto. **Resultados:** Foram incluídos 11 artigos que apontaram que as terapias complementares diminuíram a dor no trabalho de parto, auxiliaram na redução dos sintomas de estresse-medo-tensão e ansiedade, além de aumentar o bem-estar emocional e o relaxamento. O profissional de Enfermagem apareceu como o elemento responsável por oferecer e apoiar o uso dos métodos para humanizar a assistência e estimular a autonomia da mulher durante o processo. **Conclusão:** As terapias complementares demonstraram ser eficazes para minimizar as dores no parto e o cuidado de Enfermagem se configurou como o elemento crucial para oportunizar o uso de tais métodos e efeitos.

**Descritores:** Gestantes; Terapias complementares; Cuidados de Enfermagem; Dor do parto.

### Resumen

**Objetivo:** Identificar en la literatura los efectos del uso de terapias complementarias por enfermeras sobre el dolor del parto. **Métodos:** Revisión integradora de la literatura, realizada en las siguientes bases de datos: MEDLINE (vía PubMed), CINAHL, Web of Science y SciElo Virtual Library. La búsqueda se realizó en pares en enero de 2023, encontrándose disponibles en su totalidad artículos que abordaran Prácticas Integrativas y Complementarias y la inserción de la Enfermería en este contexto. **Resultados:** Se incluyeron 11 artículos, que indicaron que las terapias complementarias redujeron el dolor durante el parto, ayudaron a reducir los síntomas de estrés-medo-tensión y ansiedad, además de aumentar el bienestar emocional y la relajación. El profesional de Enfermería apareció como el elemento responsable de ofrecer y apoyar la utilización de métodos para humanizar el cuidado y fomentar la autonomía de las mujeres durante el proceso. **Conclusión:** Las terapias complementarias han demostrado ser eficaces para minimizar el dolor durante el parto y la atención de enfermería ha demostrado ser un elemento crucial para posibilitar el uso de dichos métodos y efectos.

**Descritores:** Mujeres Embarazadas; Terapias Complementarias; Enfermería Primaria; Dolor de Parto.

## INTRODUCTION

Labor is a natural and physiological event involved in a set of perceptions, sensations, feelings, and emotions in the life of the woman experiencing it. This process is influenced by hormones, in which the release of oxytocin is responsible for the contraction of the uterus, which generates the painful stimulus. In addition, other factors, such as stress and tension, can influence the process.<sup>(1)</sup>

The pain experienced during labor appears to be a factor responsible for women's fear of the parturition process and the consequent choice of cesarean section, as well as the fear of suffering obstetric violence, which reinforces the importance of a humanized attitude during childbirth care.<sup>(2)</sup>

It should be noted that Brazil is among the countries with the highest number of cesarean sections in the world, as well as being the country where many vaginal births are marked by the excessive use of interventions.<sup>(3-4)</sup>

Faced with this scenario, strategies are being developed to try to reduce the high rates of cesarean sections and restore women's autonomy to ease the painful experience of childbirth. One of these strategies concerns the use of complementary therapies, which are therapeutic resources to prevent disease and promote health, with an emphasis on welcoming listening and, when applied to obstetric care, contribute to rescuing the physiology of natural childbirth, which enables the parturient woman to take the lead in this process, whether at home or in hospital.<sup>(5)</sup>

In this sense, when it comes to the care provided to parturient women, nursing becomes the key category for encouraging and implementing complementary therapies since it implements them through comprehensive nursing care. It should be noted that nurses who know these practices are better able to provide humanized care since they have a broader vision of the various possibilities for caring for parturients.<sup>(6)</sup>

The work of nurses in the context of using complementary therapies is supported by Federal Nursing Council (COFEN) Resolution 197/1997, which establishes and recognizes these practices as one of the specialties and/or qualifications of nursing professionals.<sup>(7)</sup>

Added to this is the fact that nurses working in obstetric services focus their work on respecting the physiology of childbirth and women's protagonism, as well as drawing on scientific evidence during their care, without ignoring women's cultural values, which provides women with safety during their parturition process.<sup>(8)</sup>

However, the use of complementary therapies during labor is still considered to be incipient. Data from a survey showed that only 29.3% of parturients had access to a pain reduction method. In the same

study, it was also observed that there is a need for nurses to acquire greater autonomy in this area of activity.<sup>(9)</sup>

Given the need to summarize the impact of the use of complementary therapies in the nursing care provided to parturients during labor and the ways in which nurses act on the use of pain-relieving practices during childbirth, the aim was to identify, in the literature, the effects of the use of complementary therapies by nurses on labor pain.

## METHODS

This is an integrative literature review, developed in six stages: identification of the topic and selection of the research question; establishment of criteria for inclusion and exclusion; categorization of the selected studies; methodological evaluation of the included studies; analysis and interpretation of the results and presentation of the review/synthesis of knowledge.<sup>(10)</sup>

The guiding question was developed based on the PVO strategy (P - population; V - variable(s); O - outcome) and is shown in Table 1, followed by the respective Health Sciences Descriptors (DeCS)/Medical Subject Headings (MeSH) for each item.<sup>(11)</sup>

**Table 1.** PVO strategy for elaborating the research question of the integrative review. Iguatu (CE), Brazil. 2023.

COMPONENT	DESCRIPTION	DeCS	MeSH
P	Parturients	Pregnant women	<i>Pregnant Women</i>
V	Integrative and Complementary Practices Nursing Team	Complementary therapies Nursing care	<i>Complementary Therapies</i> <i>Nursing Care</i>
O	Relieving the pain of childbirth	Labor pain	<i>Labor Pain</i>

Source: Authors (2023).

The following research question was therefore defined: What are the effects of the use of complementary therapies by nurses on labor pain?

The inclusion criteria were original articles, in English, Portuguese, and Spanish, which dealt with the subject of the study and answered the guiding question. As for exclusion criteria, duplicate articles were used, as well as articles that did not have the full text available for download, such as experience reports, abstracts, literature reviews, dissertations, theses, and documentaries. In addition, no time frame was used to cover a wider range of articles.

The search took place in a paired manner in January 2023; the advanced search form was used, through the Portal of Periodicals of the Coordination for the Improvement of Higher Education Personnel (CAPES) in the databases: Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science and the Virtual Library Scientific Electronic Library Online (SciELO).

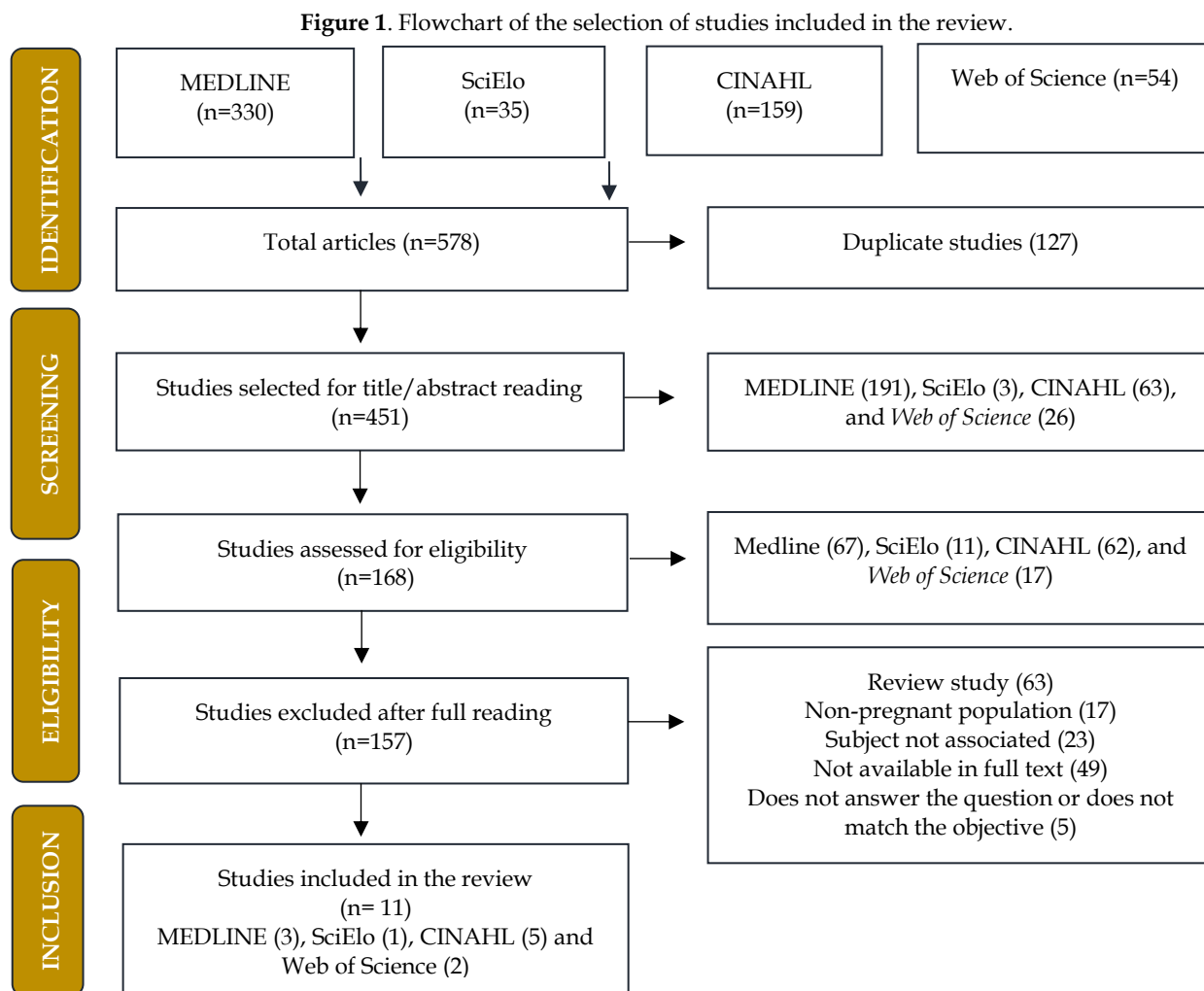
**Table 2.** Search strategy for articles by database and Virtual Library. Iguatu (CE), Brazil. 2023.

DATABASES	DeCS/MeSH
MEDLINE (access via PubMed)	<i>Pregnant Women AND Complementary Therapies AND Nursing Care Complementary Therapies AND Labor Pain AND Nursing Care Pregnant Women AND Labor Pain AND Nursing Care</i>
CINAHL	<i>Pregnant Women AND Labor Pain AND Complementary Therapies Complementary Therapies AND Labor Pain Nursing Care AND Labor Pain</i>
Web of Science	<i>Complementary Therapies AND Labor Pain Pregnant Women AND Labor Pain AND Nursing Care Labor Pain AND Nursing Care</i>
SciELO	<i>Pregnant Women AND Labor Pain AND Nursing Care Pregnant Women AND Labor Pain AND Complementary Therapies Labor Pain AND Complementary Therapies</i>

Source: Authors (2023).

To search for articles, strategies were devised using the descriptors mentioned above, combined using the Boolean operator AND. Thus, the following combinations of descriptors in Portuguese and English were used.

To present the stages of study selection, the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart were used to elucidate the process of identification, screening, eligibility, and inclusion of studies, as shown in figure 1.<sup>(12)</sup>



Source: adapted from Page et al. (2022).

After searching the databases, the studies identified were imported into the EndNote Web online reference manager, where it was possible to access the abstracts of the articles, find duplicate citations, and organize the references by folder. After excluding the duplicates, the studies were screened by reading the titles and abstracts and then reading the full texts.

To extract data from the articles included in the integrative review, an instrument adapted from Ursi<sup>(13)</sup> was used, which included the following variables: identification of the original article (title, authors, database, year of publication, country), objective or research question (study population and characteristics of the participants), the methodological characteristics of the study (type of study), the level of evidence, the main results and the conclusion of each study included.

Once extracted, the data was organized using the categorization process and compiled electronically using the Microsoft Office Word 2021 program. The results and interpretation of the articles were organized into tables to facilitate the interpretation of the information obtained and the discussion following the relevant literature on the subject.

The quality of the primary studies included in the review was assessed according to the levels of evidence, which are classified into seven, as guided by a modification of the Agency for Health Care Research and Quality (AHRQ): at level 1, the evidence comes from a systematic review or meta-analysis of

randomized controlled clinical trials or from clinical guidelines based on systematic reviews of randomized controlled clinical trials; at level 2, the evidence is derived from at least one well-designed randomized controlled clinical trial; at level 3, the evidence is obtained through well-designed clinical trials without randomization; at level 4, the evidence comes from well-designed cohort and case-control studies; at level 5, the evidence comes from a systematic review of descriptive and qualitative studies; at level 6, the evidence comes from a single descriptive or qualitative study; at level 7, the evidence comes from the opinion of authorities and/or the report of expert committees.<sup>(14)</sup>

There was no need for a Research Ethics Committee (REC), since the data used was in the public domain and did not involve human beings or aspects requiring ethical confidentiality.

## RESULTS

The identification process resulted in 578 studies in the databases and virtual library, of which 127 duplicates were excluded. After reading the title and abstract, a total of 283 documents were eliminated; 168 were counted for assessing the eligibility criteria. Thus, the final sample consisted of 11 studies that met the inclusion criteria.

The articles were identified by the letter A followed by a number. Of the studies included, eight were carried out in Brazil. As for the level of evidence, six articles<sup>(16, 20-21, 23-25)</sup> were level 2 and the other five articles<sup>(15,17-19,22)</sup> were level 6.

Regarding the characterization of the participants included in the studies, it can be seen that the majority were parturient and puerperal women, with full-term births, aged over 18. It was also found that all three studies included women's medical records in the study and that complementary therapies were used from the first stage of labor onwards.

Table 3 shows the general characteristics of the studies selected, as well as the following data: main author, year, country, database/virtual library, title, type of study, level of evidence, characteristics of the study population, and stage of labor.

**Table 3.** Characterization of the studies included in the review. Iguatu (CE), Brazil. 2023.

ID/ Year/ Country/	Database / Virtual library	Title	Type of study/ Level of evidence	Population characteristics / Stage of childbirth
A1 <sup>(15)</sup> 2008 Brazil	CINAHL	Non-pharmacological care for pain relief in labor: guidelines for the nursing team	Exploratory qualitative study Level 6	10 parturients/ over 18 years old/ stage of labor at which the practices were applied: dilation
A2 <sup>(16)</sup> 2016 Brazil	SciELO	Hydrotherapy and Swiss ball in labor: randomized clinical trial	Randomized controlled clinical trial Level 2	128 parturients/ over 18 years of age/ full-term GI/ stage of labor at which the practices were applied: dilation
A3 <sup>(17)</sup> 2017 Brazil	CINAHL	Non-pharmacological pain relief management in deliveries attended by obstetric nurses	Quantitative, cross-sectional, descriptive and retrospective study Level 6	232 records of parturient women/ vaginal delivery assisted by obstetric nurse
A4 <sup>(18)</sup> 2018 Brazil	CINAHL	Efficiency of non-pharmacological methods for pain relief in labor	Descriptive, qualitative research Level 6	40 puerperal women/ over 18 years old/ stage of childbirth at which the practices were applied: dilation
A5 <sup>(19)</sup> 2019 Brazil	<i>Web of Science</i>	The role of obstetrics resident nurses in childbirth care	Descriptive cross-sectional study with a quantitative approach	102 medical records of puerperal women whose deliveries were attended by Obstetrics resident nurses/

			Level 6	average age 22 years/ GA 37 to 41 weeks and four days/ stage of delivery at which the practices were applied: dilation
A6 <sup>(20)</sup> 2019 Brazil	CINAHL	Effectiveness of auriculotherapy on labor pain: randomized clinical trial	Randomized, parallel clinical trial Level 2	102 parturients/ from 37 weeks gestation/ stage of labor in which the practices were applied: dilation
A7 <sup>(21)</sup> 2020 Brazil	<i>Web of Science</i>	Maternal and perinatal parameters after non- pharmacological interventions: a randomized controlled trial	Randomized controlled clinical trial Level 2	101 pregnant women/ minimum age 18 years/ full-term GI/ stage of labor at which the practices were applied: dilation
A8 <sup>(22)</sup> 2020 Brazil	CINAHL	Women in labor experience the use of flower essences	Descriptive, exploratory research with qualitative content Level 6	30 parturients/ stage of labor at which the practices were applied: dilation
A9 <sup>(23)</sup> 2020 United States	MEDLINE/ PubMed	Effects of Massage and Acupressure on Relieving Labor Pain, Reducing Labor Time, and Increasing Delivery Satisfaction	Randomized controlled trial Level 2	120 pregnant women/ 20 to 30 years old/ GA 38 to 42 weeks/ latent, dilated and transitional phase
A10 <sup>(24)</sup> 2022 Iran	MEDLINE/ PubMed	A comparison of the effect of Swedish massage with and without chamomile oil on labor outcomes and maternal satisfaction of the childbirth process: a randomized controlled trial	Randomized controlled clinical trial Level 2	154 parturients/ 18 to 35 years old/ GA between 37 and 41 weeks/ stage of labor in which the practices were applied: dilation
A11 <sup>(25)</sup> 2022 Saudi Arabia	MEDLINE/ PubMed	Eficácia dos exercícios respiratórios, da reflexologia podal e da massagem (BRM) nos resultados maternos e neonatais entre primigestas na Arábia Saudita: Um ensaio aleatório controlado	Single-blind, parallel, randomized, stratified clinical trial Level 2	225 parturients/ 20 to 35 years old/ GA 37 to 41 weeks/ stage of labor in which the practices were applied: dilation

**Note:** ID: Identification. A: Article.

**Source:** Authors (2023).

Of the 11 studies selected, seven used the hot bath method, two used the hot bath and Swiss ball in combination, seven used massage, six used the Swiss ball, four used the practice of ambulation, two used flower essences, horseback riding and music therapy, and one study used the practice of auriculotherapy, acupressure, breathing, massage with chamomile oil, massage and acupressure in combination and breathing exercises combined with massage and foot reflexology. Therefore, the data showed that hot baths were the most commonly used complementary therapy for pain relief during childbirth in the selected studies.

Table 4 discusses the main results, the methods used and the effects of complementary therapies for pain relief in the included studies:

**Table 4.** Complementary therapies used during labor. Iguatu (CE), Brazil. 2023.

ID	Methods used	Impact of pain relief therapies through nursing care
A1	Bath, ambulation, and massage	<ul style="list-style-type: none"> <li>- Showering or hydrotherapy and walking provide pain relief, comfort, and relaxation during labor.</li> <li>- The parturients reported that the nursing staff provided guidance on pain relief through non-pharmacological care and that they were encouraged to carry out non-pharmacological pain relief care.</li> </ul>
A2	Hot bath and Swiss ball; Associated hot bath and Swiss ball	<ul style="list-style-type: none"> <li>- The methods used in combination contributed to an increase in cervical dilation and an increase in the frequency of uterine contractions (<math>p &lt; 0.001</math>).</li> <li>- The team of obstetric nurses was involved in guiding the parturients taking part in the study on the methods used.</li> </ul>
A3	Ambulation bath, massage, change of position, aromatherapy, Swiss ball, rebozo, foot bath and music therapy	<ul style="list-style-type: none"> <li>- The study did not assess the effectiveness of non-pharmacological pain management in the parturition process, but it was possible to identify that almost 100% of the sample used some non-pharmacological method offered by the nurses.</li> </ul>
A4	Sprinkling bath, ambulation, changes of position, breathing control techniques, massage and Swiss ball	<ul style="list-style-type: none"> <li>- It minimized the painful sensations and left the women feeling more calm, satisfied and relaxed.</li> <li>- Nursing provided comfort, support, strength, tranquility, confidence and helped women during labor.</li> </ul>
A5	Hot sprinkling bath, horseback riding, bobath ball, massage and others that included breathing, music therapy, aromatherapy, squatting and vocalization	<ul style="list-style-type: none"> <li>- The study did not evaluate the effectiveness of non-pharmacological pain management in the parturition process.</li> <li>- The percentage of use of good practices in the care provided by the resident nurses was higher when compared to the obstetric interventions carried out during labor by the professionals.</li> </ul>
A6	Auriculotherapy	<ul style="list-style-type: none"> <li>- The mean pain intensity scores were similar on admission (<math>p</math>-value=0.4475), but after 60 minutes (<math>p</math>-0.0060) and 120 minutes (<math>p</math>-value=0.039), there was a significant reduction in pain scores among parturients.</li> <li>- The obstetric nurse was responsible for applying the auriculotherapy.</li> </ul>
A7	Hot bath, Swiss ball and associated hot bath and Swiss ball	<ul style="list-style-type: none"> <li>- A significant reduction in pain intensity during labor (<math>p</math>-0.0026).</li> <li>- An increase in cervical dilation and uterine contractions (<math>p &lt; 0.001</math>).</li> <li>- The obstetric nurses applied the methods proposed for pain relief used during the research.</li> </ul>

A8	Flower essences	<ul style="list-style-type: none"> <li>- They helped with pain control, relaxation and positive thoughts, relieved stress and anxiety and increased emotional well-being.</li> <li>- The obstetric nurses in the environment were able to perceive and welcome the experiences of the parturients after using the essences.</li> </ul>
A9	Massage and acupressure in isolation; massage and acupressure in combination	<ul style="list-style-type: none"> <li>- In the active and transition phases, the mean Visual Analog Scale (VAS) scores of the “massage-only group”, “acupressure-only group” and “massage + acupressure group” were significantly lower than those of the “control group” (<math>p &lt; 0.01</math> and <math>p &lt; 0.001</math>, respectively).</li> <li>- An obstetric nurse was responsible for carrying out the massages.</li> </ul>
A10	Massage; Massage with chamomile oil	<ul style="list-style-type: none"> <li>- A significant reduction in the pain score (<math>p &lt; 0.001</math>).</li> <li>- Maternal satisfaction with the labor process increased (<math>P &lt; 0.001</math>).</li> <li>- An obstetric nursing professional was responsible for performing the massages.</li> </ul>
A11	Breathing exercises, Foot reflexology, Massage	<ul style="list-style-type: none"> <li>- A reduction in pain and anxiety scores (<math>p &lt; 0.001</math>).</li> <li>- A reduction in the duration of labor (<math>p &lt; 0.001</math>).</li> <li>- Increased maternal satisfaction (<math>p &lt; 0.001</math>).</li> <li>- A professional nurse was included in the team responsible for advising the participants on the methods to be used.</li> </ul>

Source: Authors (2023).

The findings showed that the practices reduced pain in labor<sup>(15,18,20-25)</sup>: hot bath and Swiss ball in combination ( $p=0.0026$ ); auriculotherapy ( $p\text{-value}=0.039$ ); massage and acupressure in combination ( $p < 0.001$ ), massage with chamomile oil ( $p < 0.001$ ), breathing exercises and foot reflexology ( $p < 0.001$ ). The practices also increased cervical dilation ( $p < 0.001$ ) and uterine contractions<sup>(16, 21)</sup>, which consequently reduced the duration of labor: the associated hot bath and a Swiss ball, massage ( $p < 0.001$ ), and walking ( $p < 0.001$ ).

In addition, it has been shown that the use of methods such as auriculotherapy, massage, and acupressure in combination, and aromatherapy, help to reduce symptoms of stress-medium tension and anxiety, as well as increase emotional well-being and relaxation<sup>(15,18,22)</sup>. In addition, other methods were used less frequently, such as hip rocking, stool and horseback riding, rebozo, foot baths, and music therapy.

It was observed that the nursing professional appeared to be the element in the context responsible for offering and supporting the use of methods to humanize care and encourage women's autonomy during the process<sup>(15-25)</sup>. In particular, warm baths, the Swiss ball, massage, walking, auriculotherapy, music therapy, aromatherapy, and changing positions were mentioned. Maternal satisfaction with childbirth was also influenced by the use of these practices<sup>(24-25)</sup> and by the presence of nursing staff during the parturition process.<sup>(17-18)</sup>

## DISCUSSION

The studies showed that the use of complementary therapies is strongly related to labor with a lower pain rate. In this sense, they contribute to a more physiological and respectful process, in which the woman is the protagonist and is aware of the practices. In addition, complementary therapies enable the parturient woman to feel more satisfied with the birth of her baby.

Among the findings, the most used method for pain relief during labor was the use of baths and the Swiss ball. The purpose of showering, sprinkling, or immersion baths during labor is to promote body relaxation since contact with heated water promotes the redistribution of blood flow to the muscles and the release of endorphins, which triggers a feeling of comfort and pain reduction and promotes muscle relaxation.<sup>(26)</sup>



The use of this method not only increases pain tolerance but also regulates the pattern of uterine contractions, dilates the cervix, reduces stress, increases female satisfaction and autonomy, encourages the active participation of the partner, and reduces the duration of the first stage of labor.<sup>(27)</sup>

In a study that evaluated 560 medical records of parturients who used the maternal and child nursing service at a university hospital in southern Brazil, it was found that 164 (29.3%) of the participants used non-pharmacological methods of pain relief during labor; the most commonly used was hydrotherapy.<sup>(9)</sup>

Regarding the use of the Swiss ball to promote pain relief during labor, it should be noted that it stimulates the woman's upright position, aids descent and fetal presentation, and is a resource that is well-accepted by pregnant women in labor, which contributes to active participation, an increase in the parturient woman's sense of satisfaction, and aids comfort and pain relief.<sup>(28)</sup>

Another practice highlighted by the studies analyzed was auriculotherapy, which proved to be effective in reducing the intensity of pain during labor and had positive effects on anxiety, fear, and tension. The effects of auriculotherapy have been evaluated in other studies, which have found that this practice can help reduce anxiety, reduce the intensity of labor pain, and shorten its duration.<sup>(39-30)</sup>

Massage has also been shown to have benefits for labor pain. In this sense, massage in the sacral region during labor reduces pain, and minimizes levels of worry and anxiety, discomfort, and muscle fatigue. In addition, massage promotes body awareness and emotional balance in women.<sup>(31)</sup>

It should be noted that during the parturition process, massage benefits physiological progress, increases uterine contractions, and reduces the duration of labor. In addition, the practice of this therapy strengthens the bond between the parturient and the professional, which results in greater maternal satisfaction.<sup>(32)</sup>

It was found that massage with chamomile essential oil significantly reduced the pain score and increased maternal satisfaction. Another study also found that the use of *Jasminum grandiflorum* oil also provided pain relief and reduced anxiety and fear during labor.<sup>(33)</sup>

Breathing exercises also help to reduce pain during labor. During childbirth, this practice has the function of reducing pain, as well as optimizing maternal-fetal saturation levels, and increasing the woman's relaxation and confidence, to leave her feeling calmer and more satisfied.<sup>(34)</sup>

Foot reflexology has also been associated with pain relief. This practice is considered to be a safe technology based on touch. Its method is based on applying pressure to certain areas of the foot (the reflex points), to stimulate the nerve points that send electrochemical messages.<sup>(35)</sup> It can therefore be used in complementary therapy to contribute to childbirth, empower women, and increase their self-confidence and ability to cope with childbirth.<sup>(36)</sup>

Ambulation, characterized by a woman's freedom of movement during childbirth, has been associated with a reduction in labor time by increasing cervical dilation and uterine contraction. Horizontal positions, where the woman's vertebrae remain aligned between 0 and 45 degrees, should be replaced by promoting freedom of movement and the adoption of comfortable positions, especially vertical ones.<sup>(37)</sup>

The findings of this study also highlighted the use of aromatherapy. Calming and sedative oils, such as lavender and chamomile, are recommended; frankincense oil has a relaxing action and aids breathing, and should be used at the end of the active phase of the dilation period; sage sclarea is suitable for pain relief, favors contractions and is an alternative for the use of non-pharmacological analgesia.<sup>(38)</sup>

In this way, aromatherapy used in labor has beneficial properties for relieving pain and anxiety, which are very common during this period, and in turn, makes for a more satisfying experience for women.<sup>(39)</sup>

It is therefore understood that complementary therapies can play a role in reducing pain and increasing satisfaction and can be used as a method in an attempt to provide a good birth experience. In addition, other studies have also verified the importance of these practices and found that relaxation techniques, yoga, music, and acupressure influenced maternal satisfaction with childbirth.<sup>(40-41)</sup>

In this way, the use of complementary therapies contributes to the strengthening and practice of humanized nursing care and provides greater autonomy for women in the parturition process.<sup>(42)</sup>

In addition to Integrative and Complementary Practices and their effects on labor, the results showed that nursing professionals are closely involved in this scenario, as they actively work to humanize care and increase the autonomy of parturients through the practices discussed.

The work of nursing professionals using complementary therapies is based on scientific evidence. This contributes to increasing the comprehensiveness of care in a welcoming way, since, during care, a

bond is established between the professional and the parturient, and the empowerment of the parturient, which provides her with security, to reduce her fears, anxieties, and physical sensations, as well as promote a respectful birth that favors women's protagonism.<sup>(43)</sup>

The inclusion of nursing professionals in this scenario has also been associated with women's satisfaction. Data from a study carried out in China revealed that the participants in the analysis reported a good satisfaction score concerning the nurses' care behaviors during childbirth.<sup>(44)</sup>

To this end, the care provided by nursing professionals, with the inclusion of complementary therapies, optimizes normal childbirth care and respects women at a unique moment in their lives, since humanized childbirth is the goal of the current scenario.<sup>(45)</sup>

The data pointed out and discussed in this study can serve as a source of theoretical support for further study of the subject, since it understands the positive effects of the practices and subsequently implements them within the scope of nursing care. In addition, the synthesis presented can provide nurses with tools for making decisions when choosing the most effective and safest practices, as well as giving them an overview of their role in the context of using complementary therapies.

In this way, the research presented limitations in terms of the levels of evidence of the selected studies, since some articles were classified as low. In addition, it was understood that there are few studies that address the use of complementary therapies by the nursing team, and some studies did not evaluate the effectiveness of these practices.

## CONCLUSION

Warm baths, Swiss balls, auriculotherapy, massage, acupressure, breathing exercises, foot reflexology, walking, and aromatherapy have all been shown to be effective in minimizing pain during labor, reducing symptoms of stress-medium tension, and anxiety and promoting maternal satisfaction with the birth. It was found that the hot bath was the practice most used to promote pain relief, as it is low cost easy to use, and provides a sense of well-being and a reduction in tension.

Nurses were effectively involved in the use of Integrative and Complementary Practices and nursing care, in this context, favored the humanization of care, aspects that gave women an awareness of their body's capacity, autonomy, and freedom over it. However, there is a lack of studies addressing the role of nursing in the use of complementary therapies.

Given this, the data identified and summarized in this study proved to be pertinent in contributing to the dissemination of knowledge produced by Nursing and its consequent appreciation. Likewise, they can also provide greater knowledge about the results of using Integrative and Complementary Practices in the labor process, as well as reinforce to nursing professionals the importance of such practices and their impact on care, to encourage their use in obstetric practice and reduce the impact of medicalization in childbirth.

## CONTRIBUTIONS

Contributed to the conception or design of the study/research: Amorim LT, Lima JN. Contributed to data collection: Amorim LT, Lima JN. Contributed to the analysis and/or interpretation of data: Amorim LT, Lima JN, Almeida RC, Bezerra TB, Araújo JMG, Quirino GS. Contributed to article writing or critical review: Amorim LT, Lima JN, Almeida RC, Bezerra TB, Araújo JMG, Quirino GS. Final approval of the version to be published: Amorim LT, Lima JN, Almeida RC, Bezerra TB, Araújo JMG, Quirino GS.

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