

## Non-pharmacological methods for pain relief during labor

*Métodos no farmacológicos para aliviar el dolor durante el parto*

*Métodos não farmacológicos para alívio da dor no trabalho de parto*

**Glória Stéphanhy Silva de Araújo<sup>1\*</sup>**

ORCID: 0000-0002-6473-2724

**Amanda Sousa Rodrigues<sup>1</sup>**

ORCID: 0000-0003-2854-5865

**Camilla Martins<sup>2</sup>**

ORCID: 0009-0002-3042-3613

**Domingos Kayro de Sousa<sup>3</sup>**

ORCID: 0009-0009-8592-1936

**Paulina Feitosa Lopes<sup>4</sup>**

ORCID: 0009-0006-4117-8931

**Wanderson da Costa Lima<sup>5</sup>**

ORCID: 0009-0009-9702-6816

**Ícaro Soares de Carvalho**

**Pinheiro<sup>6</sup>**

ORCID: 0000-0002-3051-223X

<sup>1</sup>Universidade Federal do Piauí.  
Piauí, Brazil.

<sup>2</sup>Universidade Paranaense.  
Paraná, Brazil.

<sup>3</sup>Faculdade Anhanguera  
Educativa. Maranhão, Brazil.

<sup>4</sup>Centro Universitário  
Uninovafapi. Piauí, Brazil.

<sup>5</sup>Universidade Paulista. Piauí,  
Brazil.

<sup>6</sup>Universidade Estadual do Piauí.  
Piauí, Brazil.

### How to cite this article:

Araújo GSS, Rodrigues AS, Martins C, Sousa DK, Lopes PF, Lima WC, Pinheiro ISC. Non-pharmacological methods for pain relief during labor. Glob Acad Nurs. 2025;6(3):e485. <https://dx.doi.org/10.5935/2675-5602.20200485>

### \*Corresponding author:

[gloriestephany360@gmail.com](mailto:gloriestephany360@gmail.com)

Submission: 08-30-2025

Approval: 09-25-2025

### Abstract

The aim was to describe the experience of nursing students using non-pharmacological methods for pain relief during labor and to relate it to Ida Jean Orlando's theory. This is an experience report from the supervised obstetrics internship of nursing students, conducted from August to September 2023, at a leading maternity hospital in the state of Piauí. Laboring women were monitored in the ward and in the natural birth center. The methods applied consisted of music therapy, warm baths, lumbar massages with the assistance of companions, and Swiss ball exercises. By correlating the methods used with Ida Jean Orlando's theory, three categories emerged: Patient behavior, Nurse reaction to this situation according to nursing diagnoses, and Nursing actions performed. The methods applied were effective and easy to apply for pain management; Furthermore, the experience contributed to the practical and critical exercise regarding the appropriate use of these non-pharmacological techniques for pain relief during labor.

**Descriptors:** Labor, Obstetric; Labor Pain; Complementary Therapies; Nursing Care; Nursing Theory.

### Resumen

El objetivo fue describir la experiencia de estudiantes de enfermería utilizando métodos no farmacológicos para el alivio del dolor durante el parto y relacionarlos con la teoría de Ida Jean Orlando. Este es un relato de experiencia durante la pasantía supervisada de obstetricia de estudiantes de enfermería, realizada de agosto a septiembre de 2023 en una maternidad líder en el estado de Piauí. Las parturientas fueron monitoreadas en la sala y en el centro de parto natural. Los métodos aplicados consistieron en musicoterapia, baños calientes, masajes lumbares con la asistencia de acompañantes y ejercicios con pelota suiza. Al correlacionar los métodos utilizados con la teoría de Ida Jean Orlando, surgieron tres categorías: Comportamiento de la paciente, Reacción de la enfermera a esta situación según los diagnósticos de enfermería y Acciones de enfermería realizadas. Los métodos aplicados fueron efectivos y fáciles de aplicar para el manejo del dolor. Además, la experiencia contribuyó al ejercicio práctico y crítico sobre el uso apropiado de estas técnicas no farmacológicas para el alivio del dolor durante el parto.

**Descriptores:** Trabajo de Parto; Dolor de Parto; Terapias Complementarias; Atención de Enfermería; Teoría de Enfermería.

### Resumo

Objetivou-se descrever a vivência das acadêmicas de enfermagem no uso de métodos não farmacológicos para alívio da dor no trabalho de parto e associar à teoria de Ida Jean Orlando. Trata-se de um relato de experiência vivenciado durante o estágio supervisionado em obstetricia de acadêmicas de enfermagem realizado nos meses de agosto a setembro de 2023, em uma maternidade de referência do Estado do Piauí. Foram acompanhadas parturientes na enfermaria e no centro de parto normal. Os métodos aplicados consistiram na oferta de musicoterapia, banho morno, massagens lombares com auxílio dos acompanhantes e exercícios com bola suíça. E ao correlacionar os métodos utilizados com a teoria de Ida Jean Orlando, emergiram-se três categorias: Comportamento do paciente, Reação do enfermeiro frente à esta situação segundo os diagnósticos de enfermagem e Ações de enfermagem realizadas. Os métodos aplicados foram eficazes e de fácil aplicação para o manejo da dor; além disso, a experiência contribuiu para o exercício prático e crítico acerca do uso adequado dessas técnicas não farmacológicas para alívio de dor no trabalho de parto.

**Descriptores:** Trabalho de Parto; Dor do Parto; Terapias Complementares; Cuidados de Enfermagem; Teoria de Enfermagem.



## Introduction

Pain is a subjective sign that is difficult to assess, a marker of the onset of labor, and a feared condition for pregnant women. The sociocultural context in which the pregnant woman lives plays a fundamental role in shaping this perception through the sharing of other women's experiences. Thus, the desire for a cesarean section is seen as an alternative to avoid pain<sup>1</sup>.

This can be reinforced by pregnant women's lack of awareness of their rights, which are guaranteed by the Ministry of Health's Humanized Childbirth and Delivery Policy. This policy establishes the rights to humanized care, safe care practices, a companion chosen by the pregnant woman, the strategies she wishes to receive for pain management, the delivery method, and the right to refuse any practice to which she will be subjected<sup>2</sup>.

One option for pain relief during labor is non-pharmacological methods. These are simple, easy-to-apply, effective strategies that have no adverse effects on maternal or fetal health. They also allow women complete autonomy in their choices<sup>2,3</sup>.

A Brazilian study conducted in southern Brazil recorded the prevalence of non-pharmacological methods in 95.4% of births, demonstrating the essential nature of these resources during care. Another national study reinforces the need for these techniques, noting that approximately 60% of the pregnant women evaluated used non-pharmacological methods, with 41.7% attributing this lack of use to the lack of availability of these methods<sup>4,5</sup>.

The chosen method may vary depending on the supply, need, and objective. Furthermore, they may be prescribed, introduced, and evaluated by nurses. Examples of these techniques include acupuncture and acupressure, hot mist baths, music therapy, aromatherapy, breathing techniques, heat therapies, and Swiss ball exercises<sup>6,7</sup>.

According to a study conducted at Adidome Government Hospital in the Volta Region of Ghana, the study sought to highlight pregnant women's expectations regarding the use of alternative strategies to medication in a natural birth center. Although women reported severe pain and labor lasting more than 12 hours, the alternative methods were evaluated positively. Breathing techniques, emotional support, body changes, nursing management, and the presence of a familiar person, as well as lamentations and cries, were implemented<sup>8</sup>.

Another study, a literature review, identified these methods as the most effective during childbirth, in addition to walking, changing positions, relaxation exercises, massage, breathing techniques, Swiss ball, and transcutaneous electrical stimulation<sup>9</sup>.

Despite this, the literature studied presents gaps that demonstrate the perception of nursing students in the application of the methods, as well as the restriction of the methods applied only in cases of normal birth, guidelines for choice, opportune moment, and duration of the conduct<sup>6</sup>. Therefore, the present study aims to describe the experience of nursing students in the use of non-pharmacological methods for pain relief during labor and correlate them considering Ida Jean Orlando's theory.

## Methodology

This is a descriptive experience report, constructed by nursing students, based on their experience in a supervised obstetrics internship during their final semester of undergraduate studies. The students had the opportunity to monitor and perform non-pharmacological interventions for pain relief during vaginal labor.

The academic experience took place at a leading public maternity hospital in the state of Piauí, located in the city of Teresina, the state capital, from Monday to Friday, totaling six hours per week, between August and September 2023. The maternity hospital has been operating since July 15, 1976, and currently has a capacity of 248 maternal beds and 167 neonatal beds. It offers outpatient care, complementary exams, 24-hour emergency care, and inpatient care. It also serves as an internship for undergraduate programs in nursing, medicine, nutrition, social work, dentistry, and physical therapy. It also offers postgraduate programs in obstetrics/gynecology and pediatrics<sup>10</sup>.

Regarding ethical aspects, this study, as it is a report of experiences of nursing students, does not require evaluation by a Research Ethics Committee.

The participating population consisted of women in labor who accepted the use of non-pharmacological methods for pain relief. Therefore, data were obtained through observation and direct practice by the research authors. Data analysis was performed through transcription. Initially, the experience was organized according to management, acceptability, and identified benefits. Subsequently, the experience was associated and analyzed considering Ida Jean Orlando's Nursing Theory<sup>11</sup> and under the NANDA-I Taxonomy that describes nursing diagnoses<sup>12</sup>, Nursing Interventions Classification NIC<sup>13</sup>, and Nursing Outcomes Classification NOC<sup>14</sup>.

The consultations adopted were based on the theoretical knowledge acquired in the obstetrics discipline of the nursing program and supplemented by courses offered by the Ministry of Health. The application of non-pharmacological pain relief methods was carried out under the direct supervision of obstetrics residents and midwives. Thus, the students were guided by examples of the process, with practical demonstrations and discussions before applying them to pregnant women. Thus, the students implemented spray bath, music therapy, lumbar massage, and emotional support, while the pelvic exercises associated with the ball were demonstrated and performed by the obstetrics residents to enhance the technique's effectiveness and safety.

The criteria used in choosing pain relief were based on the woman's offer, acceptance, or refusal. To this end, the management to be performed was explained in advance. The women were accompanied in the birthing center, which consisted of rooms with an adjustable stretcher for the lithotomy position; a heated crib; a Pilates ball; a supply of diapers, maternity gowns, and sheets; and had side bars for exercise and an adapted bathroom with grab bars. They were accompanied by family members of their choice. In one case, a multiparous woman was accompanied in a ward,



**Non-pharmacological methods for pain relief during labor**  
Araújo GSS, Rodrigues AS, Martins C, Sousa DK, Lopes PF, Lima WC, Pinheiro ISC taken to avoid falls during the bath, with guidance on holding onto the bathroom bars. Their partners were also instructed to assist in this process.

where she went into labor and was unaccompanied at the time.

## Experience Report

### Fundamentals of Ida Jean Orlando's Theory

This theory views the patient as the essential point of care, with health actions addressing their immediate needs. The nurse must then interact verbally or nonverbally, seeking to interpret and propose care that continues from the moment the patient is admitted. This theory also encompasses three phases: the patient's behavior, the nurse's reaction to the situation, and the nursing actions to be performed. Based on these principles, the interaction of these aspects constitutes the nursing process<sup>11</sup>.

It is worth noting that the nurse's reaction refers to nursing diagnoses motivated by the need for assistance. The nursing action stage is understood as equivalent to the nursing process planning, objectives, and decision-making phases through timely execution. Thus, patient behavior can be understood as a means of verifying demands and evaluating the care provided by nursing actions<sup>11</sup>.

### Experience Description

The implemented actions were organized into emotional support, shower baths, music therapy, lumbar massage, and pelvic floor exercises using a ball. Subsequently, the actions were associated with the needs evidenced in the context of reported language or nonverbal aspects such as cries, moans, and restlessness, as described in Chart 1, according to the three moments of the theory. Nursing diagnoses were based on the NANDA-I Taxonomy (NANDA-I Taxonomy)<sup>12</sup>, the NIC (Nursing Interventions Classification)<sup>13</sup>, and the NOC (Nursing Outcomes Classification)<sup>14</sup>.

### Emotional support

The aim was to promote the woman's protagonism throughout the labor process, as well as freedom of choice regarding the non-pharmacological method used. The initial contact aimed to build a bond between the patient and the healthcare professional, given the sensitivity of the moment. The team of obstetric nurses and academics began introducing themselves; immediately after, they actively listened to the women's wishes, aiming for optimal comfort and experience.

Some women had concerns about expressing pain by screaming, and their preference was reiterated. It was observed that this issue may have been triggered by the proximity of other rooms with women in active labor, and that others also experienced increased fear and apprehension regarding labor.

### Sprinkler bath

It was chosen based on the intensification of uterine contractions. Women decided to squat or stand holding onto the bathroom bars, as well as to remain naked. Care was

### Music therapy

During the first contact with patients at the birth center, they were offered music of their choice or silence. With silence chosen by the women and their families, one of the women also opted for the lights to be off.

### Lumbar massage

Exercises were later introduced due to the increase in contractions occurring at shorter intervals. One of the pregnant women preferred to squat, and a lumbar massage was offered in circular motions with body moisturizer. This was performed with each contraction, and the woman reported significant relief. Furthermore, her partner was encouraged to perform the massage; thus, he was instructed on the steps. Thus, it was observed that the partner's participation was highly important. For the pregnant woman who went into labor in the maternity ward, respiratory control was achieved by inhaling through the nose and exhaling through the mouth. Lumbar massage was then performed in circular motions with body moisturizer, resulting in reported improvement. Subsequently, the patient was placed in a comfortable position, sitting on the bed, until medical assistance arrived, and she was transferred to the operating room, as it was an iterative procedure.

### Pelvic exercises associated with the ball

To increase dilation, a pelvic floor ball was used for side-to-side pelvic floor exercises combined with lumbar massage. Furthermore, the pregnant women were taught the importance of controlling their breathing during contraction intervals, as well as encouraged and praised for their development. The exercise was performed in bed, with the woman on all fours leaning over the sac, rocking back and forth as needed. Pain relief was observed.

### Three moments of Ida Jean Orlando's Theory related to the non-pharmacological methods used

The behavioral concepts associated with Ida Jean Orlando's theory, according to the needs visualized by the students, are presented in Chart 1. In this sense, it is possible to identify from the behavioral expressions the needs or problems faced, nursing diagnoses represented by (NANDA-I), developed from the interaction between professionals and parturients, interventions (NIC) with specific activities denoting need resolutions through nursing actions, and expected outcomes (NOC) with measurable goals demonstrating the satisfaction outlined by the parturients. It is reiterated that the NOC has a goal grading scale, in which it uses a five-point scale, with 1 corresponding to the most compromised state and 5 the ideal result (best possible state)<sup>14</sup>.



Chart 1. Application of Ida Jean Orlando's Methods and Theory. Teresina, PI, Brazil, 2023

Patient behavior	Nurse's reaction to this situation	NANDA-I Nursing Diagnoses <sup>12</sup>	Nursing actions performed (Orlando: nursing action) / Interventions (NIC) <sup>13</sup>	Results (NOC) <sup>14</sup>
Verbalization of doubts, fears, restlessness.	Observation of anxious conditions, listening, welcoming, positive words, and encouragement.	<b>Anxiety (00146)</b> is related to labor pain manifested by tension, anguish, and insecurity.	Emotional support (5260). Active listening (4920). Encouraging partner participation (7120). Music therapy (4400).	<b>NOC 1211 - Anxiety level</b> Indicators: agitation, facial tension. Scale: Initial 2 (moderate anxiety), Target 4 (reduced/often controlled anxiety) within 30 minutes.
Reports, facial expressions of pain, disorganized or restraining body movements, such as contracting, grabbing lower limbs or nearby surfaces (sheets, bed rails).	Observation of facial and body expression signs.	<b>Labor pain (00256)</b> is related to the perception of pain as significant, manifested by facial expression of pain, anxiety, and protective behavior.	Bath spray (1380). Lower back massage (1340). Pelvic floor exercises with a ball (0221).	<b>NOC 2102 - Pain level</b> Indicators: Reported pain, facial expressions of pain, pacing, and agitation. Scale: Initial 2 (pain often uncontrolled). Target 4 (pain often controlled) within 30 minutes.

**Discussion**

**Ida Jean Orlando's theory and the conduct of clinical practice**

In the early 1960s, Orlando was one of the first theorists to use the term "Nursing Process" (NP), describing it as a method of organizing nursing professionals' care based on evidence<sup>15</sup>.

By permeating its guiding principles: patient behavior, the nurse's reaction to this situation, and the nursing actions to be performed<sup>11</sup>, it is clear that non-pharmacological practices were implemented at the appropriate time during the birthing process, based on the needs presented, and validated each experience shared by the woman in labor. Therefore, each reaction and gesture of the woman during labor was analyzed, interpreted, and immediately considered to make the most appropriate clinical decision.

The interaction established enabled the construction of a welcoming and trusting space between the nursing team and the woman in labor, evident in her acceptance and refusal of care. In line with this discussion, an exploratory study sought to evaluate the responses of 60 nursing students regarding simulated care of distressed patients, using Orlando's theory as an analysis<sup>16</sup>.

The students' reports demonstrated mechanized attitudes based on verbal expressions without considering the patient's participation in care management. This reflects the opposite idea proposed by Orlando—the proposition of bonds between nursing professionals and patients, with the patient being the protagonist of their care<sup>16</sup>.

The effectiveness of this theory is related to establishing relational safety in the proposed care, encouraging the expression of needs. Therefore, the different forms of verbal and nonverbal communication, as well as the patient's observations and behaviors, must be considered<sup>17</sup>.

**National guidelines and evidence on non-pharmacological methods**

According to the Brazilian National Guidelines for Labor and Delivery, healthcare professionals should discuss the available pain relief options with patients, highlighting advantages and disadvantages and considering the mother's concerns, as well as her own and the fetus's safety. During birth monitoring, the nursing team observed compliance with this guideline, providing recommendations on the available methods, describing their benefits, and allowing the mother to choose the most effective method for her comfort<sup>18</sup>. Among non-pharmacological techniques, the shower bath was widely used and required during labor. With the support of the nursing staff and the assistance of a companion, the mothers went to the bathroom and were placed under a warm shower. The literature indicates the great effectiveness of the shower bath in relieving anxiety, controlling pain, and improving maternal well-being, especially when combined with other techniques<sup>3</sup>.

Two studies, one a prospective cohort and the other a meta-analysis of randomized clinical trials, seek to understand the use of warm water as therapeutic care, which showed, in addition to pain control, relaxation, reduction of blood pressure, reduction of labor time, strengthening of the woman, and reduction of the need for epidural analgesia<sup>19,20</sup>. Cross-sectional research conducted at a university hospital in southern Brazil corroborates this finding, highlighting other benefits such as an increased sense of well-being, greater satisfaction due to greater freedom of movement, and a lower risk of invasive procedures such as episiotomy<sup>21</sup>.

The nursing team also used massage techniques, with women frequently requesting lumbar and sacral massages. Massages were performed with the assistance of family members, and the rebozo technique was also used, which involved wrapping a sheet around the hips in a back-and-forth motion to promote relaxation.



**Non-pharmacological methods for pain relief during labor**  
Araújo GSS, Rodrigues AS, Martins C, Sousa DK, Lopes PF, Lima WC, Pinheiro ISC  
increase oxygenation in both the mother and fetus, resulting in a greater state of relaxation. Furthermore, they are linked to increased Apgar scores (which assess the newborn's vitality) and a reduced risk of perineal lacerations<sup>3</sup>.

An East African study of 592 professional midwives in Ethiopia revealed that approximately 91.4% of respondents were aware of non-pharmacological pain relief methods, but 57.9% believed that women should manage pain without using non-pharmacological methods. Thus, a professional attitude of knowledge and appreciation of these methods facilitates a better maternal experience<sup>28</sup>.

### Conclusion

Non-pharmacological pain relief techniques have proven effective and promoted maternal comfort during labor. The nursing team played a key role in implementing and educating mothers about these techniques and their benefits, involving mothers in their choices and thus establishing a humanized clinical practice. Family members also play important roles during this process, providing women with emotional and instrumental support, assisting healthcare professionals in implementing the techniques, and fostering confidence - all aspects that help reduce labor discomfort and provide a better maternal experience. The implemented theory allowed for a critical discussion of the methods chosen based on the needs identified in the experiment. Thus, the experience awakened the students' awareness of non-pharmacological methods for pain relief during labor, which were verified to be effective. It also provided a simple-to-apply strategy that allowed the parturient to be autonomous in choosing the method and receiving support from family members. Finally, this study hopes to contribute to the dissemination of scientific knowledge on the topic, enabling the incorporation of the methods discussed into the practice of healthcare professionals. Furthermore, we aim to encourage further research on the topic that describes the new methods available and their expected benefits.

A Brazilian study of 344 women who had natural births found the method's acceptance, with 50% of women using relaxing massage. Body manipulation through touch is associated with the stimulation of sensory receptors, increasing blood flow and tissue oxygenation, and promoting a sense of well-being. The rebozo technique has also been widely used to reduce labor pain. During the dilation phase, the discomfort caused by contractions is alleviated by this method, which promotes relaxation in the woman's lower back and aids in proper fetal positioning, speeding up labor. The rebozo, when combined with the active participation of a companion, stimulates the release of oxytocin, facilitating a sense of comfort<sup>22</sup>.

Exercises with a birthing ball were also performed. The birthing ball, or Swiss ball, is used for exercises involving sitting, jumping, and movement during labor. In addition to providing maternal comfort, ball exercises encourage pelvic joint mobility through movements such as rocking back and forth and pelvic rotation. These movements widen the pelvic outlet, facilitating the baby's delivery<sup>23</sup>.

Music therapy was used during labor; however, the women opted for a quiet environment. However, the literature points to music therapy as a resource for reducing labor discomfort, citing benefits such as reduced anxiety, pain control, and labor progression, especially when combined with other therapies<sup>24-26</sup>.

Furthermore, family involvement is extremely important in this process. Among the patients, only one was unaccompanied, and the mothers' satisfaction with family support was observed throughout the births. A Chinese study evaluating paternal influence during childbirth corroborates this observation. Among the 45 pregnant women monitored, 95.6% appreciated their father's psychological support and felt more comfortable and secure. The instrumental support provided to healthcare professionals, assisting with procedures, also contributed to reducing anxiety<sup>27</sup>.

Furthermore, breathing exercises are very valuable in this process. These exercises help control anxiety and

---

### References

1. Jucá L A, Lago RR, Borges MF SO. A Percepção De Mulheres Acerca Da Dor No Parto Normal. *Brazilian Journal of Development*. 2021; 7(4): 41956-41975. DOI:10.34117/bjdv7n4-587
2. Bachilli MC, Zirbel I, Helena ETS. Autonomia relacional e parto humanizado: o desafio de aproximar desejos e práticas no SUS. *Physis*. 2021; 31(01):e310130. <https://doi.org/10.1590/S0103-73312021310130>
3. Freitas JC, Silva CC, Rodrigues MD, Souza RAP. Eficácia dos métodos não farmacológicos para alívio da dor no trabalho de parto natural: uma revisão integrativa. *Revista Eletrônica Acervo* 2021; 12: e7650. DOI: <https://doi.org/10.25248/reaenf.e7650.2021>
4. Elgzar WT, Alshahrani MS, Ibrahim HA. Non-pharmacological labor pain relief methods: utilization and associated factors among midwives and maternity nurses in Najran, Saudi Arabia. *Reprod Health*. 2024;21(1):11. doi: 10.1186/s12978-023-01737-2
5. Maffei MCV, Zani AV, Bernardy CCF, Sodr e TM, Pinto KRTF. Uso de m todos n o farmacol gicos durante o trabalho de parto. *Rev enferm UFPE on line*. 2021; 15: e245001. <https://doi.org/10.5205/1981-8963.2021.245001>
6. Mascarenhas VHA, Lima TR, Silva FMD, Negreiros FS, Santos JDM, Moura MAP, et al. Evid ncias cient ficas sobre m todos n o farmacol gicos para al vio da dor do parto. *Acta Paul Enferm*. 2019; 32(3): 350-7. <http://dx.doi.org/10.1590/1982-0194201900048>
7. Pitilin EB, Sbardelotto T, Soares RB, Resende TC, Tavares D, Haag F, et al. Terapia floral na evolu o do parto e na tr ade dor-ansiedade-estresse: estudo quase-experimental. *Acta Paul*. 2022; 35:eAPE02491. <https://doi.org/10.37689/acta-ape/2022AO02491>
8. Konlan KD, Afaya A, Mensah E, Suuk NA Kombat DI. Non-pharmacological interventions of pain management used during labour; an exploratory descriptive qualitative study of puerperal women in Adidome Government Hospital of the Volta Region, Ghana. *Reprod Health*. 2021; 18(86):1-11. <https://doi.org/10.1186/s12978-021-01141-8>



9. Santos CB, Marçal RG, Voltarelli A, Silva RPM, Sakman R. Métodos não farmacológicos de alívio da dor utilizados durante o trabalho de parto normal. *Glob Acad Nurs*. 2020; 1(1):e2. <https://dx.doi.org/10.5935/2675-5602.20200002>
10. Portal da Saúde (Internet). Teresina: Maternidade Evangelina Rosa; (Data de acesso em: 27 fev. 2024). Disponível em: <https://www.saude.pi.gov.br/paginas/maternidade-evangelina-rosa>
11. Leonard MK, Crane MD. Ida Jean Orlando. In: GEORGE J. B. et al. *Teorias de enfermagem: fundamentos para prática profissional*. Porto Alegre: Artes Médicas, 1993. Cap. 12 p 164-173.
12. Herdman TH, Kamitsuru S, Lopes CT. *Diagnósticos de enfermagem da NANDA: definições e classificação 2021 – 2023*. 12ª ed. Rio de Janeiro: Thieme Medical Publishers; 2021.
13. Bulechek GM, Butcher HK, Dochterman JM. *Classificação das Intervenções de Enfermagem (NIC)*. 5ª ed. Rio de Janeiro: Elsevier; 2010.
14. Moorhead S, Johnson M, Maas ML, Swanson E. *Classificação dos Resultados de Enfermagem (NOC)*. 4ª ed. Rio de Janeiro: Elsevier; 2008
15. Garcia TR. Capítulo 1 - Sistematização da prática e processo de enfermagem: elementos estruturantes do saber e do fazer profissional. In: Argenta C, Adamy EK, Bitencourt JVOV. *Processo de enfermagem: história e teoria* [online]. Chapecó: Editora UFFS; 2020. p. 11- 25.
16. Abdoli S, Safavi SS. Nursing students' immediate responses to distressed clients based on Orlando's theory. *Iran J Nurs Midwifery Res*. 2010;15(4):178-84. Disponível em: <https://pmc.ncbi.nlm.nih.gov/articles/PMC3093185/>
17. Gaudet C, Howett M. Communication and Technology: Ida Orlando's Theory Applied. *Nurs Sci Q*. 2018; 31(4):369-373. doi: 10.1177/0894318418792891.
18. Brasil. *Diretriz Nacional de Assistência ao Parto Normal*. Brasília: Ministério da Saúde; 2017.
19. Mellado-García E, Díaz-Rodríguez L, Cortés-Martín J, Sánchez-García JC, Piqueras-Sola B, Franganillo MMP, et al. Hydrotherapy in Pain Management in Pregnant Women: A Meta-Analysis of Randomized Clinical Trials. *J Clin Med*. 2024;13(11):3260. doi: 10.3390/jcm13113260.
20. Dias RA, Cardoso CF, Ghimouz R, Nono DA, Silva Junior JÁ, Acuna J, et al. Quantitative cardiac autonomic outcomes of hydrotherapy in women during the first stage of labor. *Front Med (Lausanne)*. 2023; 9:987636. doi: 10.3389/fmed.2022.987636.
21. Klein BE, Gouveia HG. Utilização de métodos não farmacológicos para alívio da dor no trabalho de parto. *Cogitare Enferm*. 2022; 27: 1- 13. [dx.doi.org/10.5380/ce.v27i0.80300](https://dx.doi.org/10.5380/ce.v27i0.80300)
22. Ferreira GMAD. Benefícios da utilização do rebozo durante o trabalho de parto: uma revisão de escopo [Trabalho de Conclusão de Curso]. São Paulo: Escola de Enfermagem, Universidade de São Paulo, 2021.
23. Grenvik JM, Coleman LA, Berghella V. Birthing balls to decrease labor pain and peanut balls to decrease length of labor: what is the evidence?. *Am J Obstet Gynecol*. 2023; 228(5S):S1270-S1273. doi: 10.1016/j.ajog.2023.02.014.
24. Rocio Santiváñez-Acosta R, López ELNT, Santero M. Music Therapy in Pain and Anxiety Management during Labor: A Systematic Review and Meta-Analysis. *Medicina (Kaunas)*. 2020; 56(10):526. doi: 10.3390/medicina56100526.
25. Hunter AR, Heiderscheit A, Galbally M, Gravina D, Mutwalli H, Himmerich H. The Effects of Music-Based Interventions for Pain and Anxiety Management during Vaginal Labour and Caesarean Delivery: A Systematic Review and Narrative Synthesis of Randomised Controlled Trials. *Int J Environ Res Public Health*. 2023; 20(23):7120. doi: 10.3390/ijerph20237120.
26. Buglione A, Saccone G, Mas M, Raffone A, Meglio LD, Meglio L. Effect of music on labor and delivery in nulliparous singleton pregnancies: a randomized clinical trial. *Arch Gynecol Obstet*. 2020; 301(3):693-698. doi: 10.1007/s00404-020-05475-9.
27. Ngai F, Xiao X. Perceptions of paternal involvement and labour pain management in Chinese couples during childbirth: A qualitative study. *Women Birth*. 2021;34(3):288-295. doi: 10.1016/j.wombi.2020.03.003.
28. Getu AA, Getie SA, Gela GB, Maseresha EA, Feleke BE, Muna AM. Non-pharmacological labor pain management and associated factor among skilled birth attendants in Amhara Regional State health institutions, Northwest Ethiopia. *Reprod Health*. 2020;17(1):183. doi: 10.1186/s12978-020-01043-1.