

**Prenatal health literacy related to non-pharmacological methods for pain relief in labor**

*Alfabetización en salud prenatal relacionada con métodos no farmacológicos para aliviar el dolor en el trabajo de parto*

*Letramento em saúde no pré-natal relacionado aos métodos não farmacológicos para alívio da dor no trabalho de parto*

**Fernanda Lima Bortoleto Pimenta<sup>1\*</sup>**

ORCID: 0000-0001-6803-0044

**Claudia Curbani Vieira Manola<sup>1</sup>**

ORCID: 0000-0002-0925-4432

**Evandro Bernardino Mendes de Melo<sup>2</sup>**

ORCID: 0000-0002-1772-3083

**Amanda dos Santos Oliveira<sup>1</sup>**

ORCID: 0000-0002-3926-8288

**Priscilla Silva Machado<sup>3</sup>**

ORCID: 0000-0001-5134-2914

**Livia Perasol Bedin<sup>1</sup>**

ORCID: 0000-0001-8228-6468

<sup>1</sup>Centro Universitário Salesiano. Espírito Santo, Brazil.

<sup>2</sup>Universidade Federal de Minas Gerais. Minas Gerais, Brazil.

<sup>3</sup>Universidade Federal do Espírito Santo. Espírito Santo, Brazil.

\*Corresponding author: E-mail: [fe.bortoleto@uol.com.br](mailto:fe.bortoleto@uol.com.br)

**Abstract**

The aim was to know and investigate the level of health literacy of pregnant women, as well as to describe and discuss non-pharmacological methods for pain relief during labor and how the transmission of these guidelines by health professionals occurs. It is a qualitative method, with the participation of 10 postpartum women, about Grande Vitória in Espírito Santo, in September 2020. The interview addressed issues of sociodemographic profiles, literacy in non-pharmacological methods in prenatal care and what was the source of this reported knowledge. Of these, the majority obtained information from friends and the others from relatives, the internet, the pregnant woman's booklet and a minority from nurses and doctors. For this, the pillars of the methods were: shower bath, immersion bath, massage, exercises without or with a Swiss ball, breathing and movements in general. It is concluded that health education at the time of prenatal care is an indispensable factor for the promotion of humanized childbirth, mainly due to the occurrence in the reproduction of obstetric violence. Therefore, it is the health professional's role to promote the autonomy and empowerment of the puerperal woman, making her have control of her body.

**Descriptors:** Literacy; Prenatal; Non-Pharmacological Methods; Childbirth.

**How to cite this article:**

Pimenta FLB, Manola CCV, Melo EBM, Oliveira AS, Machado PS, Bedin LP. Prenatal health literacy related to non-pharmacological methods for pain relief in labor. Glob Clin Res. 2021;1(1):e3.

Chief Editor: Caroliny dos Santos Guimarães da Fonseca

Executive Editor: Kátia dos Santos Armada de Oliveira

Submission: 01-22-2021

Approval: 02-11-2021



## Resumén

El objetivo fue conocer e investigar el nivel de alfabetización en salud de la gestante, así como describir y discutir métodos no farmacológicos para el alivio del dolor durante el trabajo de parto y cómo ocurre la transmisión de estas guías por parte de los profesionales de la salud. Es un método cualitativo, con la participación de 10 puérperas, en el barrio Grande Vitória de Espírito Santo, en septiembre de 2020. La entrevista abordó temas de perfiles sociodemográficos, alfabetización en métodos no farmacológicos en la atención prenatal y cuál fue la fuente de este conocimiento reportado. De estos, la mayoría obtuvo información de amigos y el resto de familiares, internet, el cuadernillo de la embarazada y una minoría de enfermeras y médicos. Para ello, los pilares de los métodos fueron: baño de ducha, baño de inmersión, masaje, ejercicios sin o con pelota suiza, respiración y movimientos en general. Se concluye que la educación para la salud en el momento de la atención prenatal es un factor indispensable para la promoción del parto humanizado, principalmente debido a la ocurrencia en la reproducción de la violencia obstétrica. Por tanto, es función del profesional de la salud promover la autonomía y el empoderamiento de la puérpera, haciéndola tener el control de su cuerpo.

**Descriptor:** Literatura; Prenatal; Métodos no Farmacológicos; Parto.

## Resumo

Objetivou-se conhecer e investigar o nível de letramento em saúde das gestantes, bem como descrever e discutir os métodos não farmacológicos no alívio da dor no trabalho de parto e o modo como ocorre a transmissão destas orientações por parte dos profissionais de saúde. Trata-se de um método qualitativo, com participação de 10 puérperas, no bairro da Grande Vitória no Espírito Santo, em setembro de 2020. Na entrevista foram abordadas questões de perfis sociodemográficos, letramento em métodos não farmacológicos no pré-natal e qual era a fonte destes conhecimentos relatados. Destes, majoritariamente obtiveram as informações a partir de amigos e os demais partiram de parentes, internet, caderneta da gestante e a minoria de enfermeiros e médicos. Para isso, os pilares dos métodos foram: banho de chuveiro, banho de imersão, massagem, exercícios sem ou com bola suíça, respiração e movimentos em gerais. Conclui-se que a educação em saúde no momento do pré-natal é um fator indispensável para a promoção do parto humanizado principalmente pela ocorrência na reprodução da violência obstétrica. Portanto, é papel do profissional de saúde promover a autonomia e o empoderamento da puérpera, fazendo com que esta tenha domínio do seu corpo.

**Descritores:** Letramento; Pré-Natal; Métodos não Farmacológicos; Parto.

## Introduction

Functional health literacy (LFS) concerns the ability of individuals to acquire, gather and understand information about basic health services to make adequate decisions<sup>1</sup>.

Communication is of fundamental importance as a working tool for health professionals, based on the exchange of understandings. Research and debate on prenatal health literacy can assist in the development of interventions that will help prevent or mitigate the health impact of policies, programs, processes, actions, or events originating from the prenatal sector in primary care, contributing to the strengthening of the Unified Health System (SUS) and incorporation of new knowledge and technologies<sup>1,2</sup>.

The Ministry of Health, thinking of improving the quality of care at birth and during prenatal care, created the Humanization Program, thus stimulating an institutional, political, ethical, and affective movement in favor of joint work and humanized, through the creation of policies and guidelines in favor of good practices in the care of women in their reproductive cycle<sup>3</sup>.

Based on this context, from the humanization for better quality of care, based on the argument that anxiety and pain are largely responsible for the increase in the number of elective cesarean sections, the physical and

psychological preparation of pregnant women for vaginal birth is necessary with presentation of existing techniques for proper decision making for the event<sup>4</sup>.

Faced with a health system structured at all levels of care, such as the Unified Health System (SUS), there are weaknesses, especially in Primary Care, in communication, in care and longitudinal monitoring by actions to promote well-being and prevention of diseases and injuries. In this context, it is necessary to reflect on how pregnant women are receiving guidance about prenatal delivery, as well as on which health professional is performing them, in addition to the ability to understand the conscientious decision of these mothers for the natural childbirth. In view of this, it is necessary that innovative measures, involving light and educational technologies performed by specialized professionals, be established to raise the level of maternal and childcare.

This work aims to know and investigate the level of health literacy of pregnant women, as well as describe and discuss non-pharmacological methods for pain relief during labor and analyze how the transmission of these guidelines by health professionals occurs.

It is hesitant that parturient women at the time of pre-partum and delivery would not know how to behave or



what they could do to facilitate and reduce their pain due to the lack of guidance provided to them, both by professionals and by poor literacy of these.

The theme of Prenatal Health Literacy is in the Agenda of Research Priorities of the Ministry of Health, within the thematic axis of Maternal and Child Health, whose objectives are aimed at improving SUS services, as well as evaluating the effectiveness and results that certain services and programs exert on the population's health.

It is intended that this research, through the analyzed data, can contribute to improve the guidance and integration of prenatal care, childbirth, and puerperium through various educational practices, including non-pharmacological techniques during labor.

**Methodology**

It consists of a field study, with data collection and interpretation. This is an exploratory descriptive research with a qualitative approach.

The sample was for convenience, selected 10 pregnant women, aged 18 to 45 years, from the Greater Vitória region approached by the health team, including the researcher at the door of the home, ensuring distance by COVID-19 in the Golden August 2020. This action aimed at health education aimed at breastfeeding.

Data collection was aimed at characterizing the participants regarding their socioeconomic, gynecological, and obstetric profile, followed by an interview.

The research period was divided into two stages: contact registration of pregnant women after the awareness approach on the correct management of breastfeeding on August 20, 2020. On the same date, the research objective and the pregnant woman's consent to participate in the

signed study were explained the informed consent form and aware that they could withdraw at any time. Then, in August and September, recorded telephone contact was made to collect data for those who agreed to participate. To ensure the anonymity of the participants in this work, they will be referenced by precious stones.

The results were analyzed from the characterization of the pregnant women's profile and, regarding the answers to the guiding questions in the interview, Bardin's content analysis was used, comprising three phases: Pre-analysis, material exploration and treatment of results - the inference and interpretation.

As for the ethical aspects, this study was submitted to the Ethics and Research Committee with human beings of the Salesian University Center of Espírito Santo, in line with the ethical aspects of research involving human beings, as recommended by Resolution No. 466/2012, of the National Health Council, being approved under opinion number 3707456.

**Results and Discussion**

Ten pregnant women aged 18 to 45 years who attended the health unit in the Grande Vitória neighborhood, in the municipality of Vitória in Espírito Santo, were interviewed. It was decided to conduct the interview by telephone, recorded in September 2020. These women were approached in an educational action in September, focusing on the importance of breastfeeding.

For purposes of understanding and better visualization, Table 1 was organized with the sociodemographic data of the pregnant women and the names were changed and identified as precious stones.

**Table 1.** Organization of sociodemographic data of pregnant women. Vitória, ES, Brazil, 2020

Identification	Occupation	Income	Age in years	Education	Marital status	GESTURE	Vaginal birth	Cesarean birth	Abortions
Tourmaline	Student	1 to 3 salaries	24 to 29	Incomplete higher	Married	2	0	1	0
Ruby	Work outside the home	1 to 3 salaries	30 to 45	Complete high school	Single	2	0	1	1
Marine Water	Work from home	1 to 3 salaries	30 to 45	Incomplete high school	Stable union	3	2	0	0
Sapphire	Work outside the home	1 to 3 salaries	24 to 29	Incomplete high school	Married	2	1	0	1
Turquoise	Work outside the home	1 to 3 salaries	18 to 23	Complete high school	Single	2	0	0	1
Emerald	Work outside the home	<1 salary	18 to 23	Complete high school	Single	2	1	0	1



**Prenatal health literacy related to non-pharmacological methods for pain relief in labor**

Pimenta FLB, Manola CCV, Melo EBM, Oliveira AS, Machado PS, Bedin LP

Participant	Work arrangement	Income	Age	Education	Marital status	1	0	0	0
Diamond	Work from home	<1 salary	18 to 23	Complete high school	Stable union	1	0	0	0
Amethyst	Unemployed	1 to 3 salaries	18 to 23	Incomplete high school	Stable union	1	0	0	0
Jade	Unemployed	1 to 3 salaries	18 to 23	Incomplete high school	Single	3	0	2	0
Opal	Unemployed	<1 salary	18 to 23	Incomplete high school	Single	1	0	0	0

Performing the sociodemographic analysis, one can see the influence of health determinants in the knowledge process, since these dictate factors beyond biological issues. Therefore, this perspective interferes with social and economic issues in the lives of young mothers. In this scenario, the sample contains mostly incomplete/completed secondary education, have income up to one minimum wage and their ages range from 18 to 32 years (in Table 1, these variables were addressed with ranges of means for better analysis by the reader).

In addition, even though 6 out of 10 interviewees already have more than one child, they still have a superficial knowledge of the non-pharmacological methods of labor. Thus, two themes could be questioned: the neglected role of professionals in the process of health education in prenatal care and the importance of literacy to understand their empowerment and autonomy in childbirth.

Thus, the general social factors are highlighted in several studies, which show that the adequate FHL was related to different living arrangements and standards. Therefore, the high level of education, social self-perception and the presence of a private health plan directly affecting access, understanding of health information and self-care<sup>5,6</sup>.

Regarding the interview, based on the guiding question, the pregnant women were not sure when answering the question: "What do you know that can be used or performed to reduce pain and labor time?". Thus, the interviewer had to use clarifying devices to instigate them to answer some report about the question. Afterwards, they presented feedback with a lack of effectiveness on how to use these methods and the appropriate moments for practice.

Adding to this, Turquoise, Sapphire, Amethyst and Jade, which account for 40% of the respondents, reported that a hot shower and immersion bath are effective in reducing pain during active labor, in addition to being available and able to easy access to maternity services. According to some researches, water temperature at 37°C causes skin stimulation capable of reducing the level of neuroendocrine hormones, reducing stress, and regulating uterine contractions<sup>7</sup>. We can observe that these pregnant women in their reports have already used and would use this resource at some point during their own labor.

*"I think hot bath helps me a lot"* (Turquoise).

*"Can I make use of the hot water in the shower and bathtub"* (Sapphire).

*"Use the hot shower"* (Amethyst).

*"A shower bath brings some comfort and helps with pain"* (Jade).

As for the knowledge of non-pharmacological techniques or also known as non-invasive, two pregnant women reported having total lack of knowledge about the subject. This may be related to the fact that both had undergone cesarean delivery and the lack of guidance on the part of health professionals in prenatal care for these patients. From this perspective, women must receive accurate information so that they can assert, as recommended by the Prenatal and Birth Humanization Program, the right to freely choose the mode of delivery, which must be respected, especially when pregnant women are properly guided and accompanied throughout the process of pregnancy and childbirth<sup>8</sup>.

The decision for the type of delivery, as well as the use of invasive or non-invasive methods in labor can be influenced by several factors concerning risks, benefits, possible complications, and future repercussions. It is known that the choice of the type of delivery is related to the knowledge that pregnant women have on the subject through the guidelines that are passed on by health professionals<sup>9</sup>.

Based on the analysis of Rubi's comment, it is understood that the lack of preparation of professionals regarding health education during pregnancy does not depend on the type of care and whether the service is public or private.

*"I can't say anything about this subject, I had health insurance and I wanted to have a cesarean in my first child"* (Ruby).

*"Never heard of"* (Tourmaline).

The use of massage to reduce pain was reported only by Jade and Diamante. Massage can be a great help in childbirth, with the touch of another person it relaxes and comforts reducing muscle tension in the back regions<sup>10</sup>.

*"Back massage gives some relief"* (Jade).

*"Massage helps reduce pain"* (Diamond).



Pimenta FLB, Manola CCV, Melo EBM, Oliveira AS, Machado PS, Bedin LP the others who received counseling obtained it from relatives, information on the internet or from friends. In relation to the practice of the obstetric nurse, the bond of trust that can be built between the subject and the professional will influence decision-making and planning of the delivery work, thus providing the implementation of methods with a non-invasive character of care technologies<sup>16</sup>.

Regarding the use of resources for pain relief, it is important to highlight their application in the prenatal period to adapt the body to the active phase of childbirth. Therefore, the preparation of pregnant women for childbirth and motherhood is extremely important, contributing to a positive feedback at the right time for both parties<sup>11</sup>. Thus, the understanding of the item that is part of literacy in the parturition process and the choice options during the period promote greater autonomy and empowerment.

As for the exercises, which are another method applied for the relief and optimization of childbirth, they are important to assist in the descent and rotation of the fetal presentation, stimulating the baby's vertical position and bringing psychological benefits, muscle relaxation and relief from pelvic discomfort of the pregnant woman<sup>12,13</sup>. These are applied in various positions, also with walking and the use of the Swiss ball. Among the 10 pregnant women, Amethyst, Jade, Opal and Diamond reported one or several of these techniques:

*"Doing squat exercises helps with discomfort"* (Amethyst).

*"Staying in different positions improves the pain"* (Jade).

*"Standing, squatting and sitting can reduce pain"* (Diamond).

*"Walking more eases the pain"* (Opal).

In addition, it was observed that some professionals still encourage the practice of the kristeller maneuver, which is a technique in which the physician applies an external force on the upper part of the uterus to facilitate the exit of the fetus. However, according to studies, its performance does not reduce the time of labor, with no evidence of benefits and may cause harm to the woman<sup>14</sup>. According to the Brazilian Federation of Gynecology and Obstetrics Associations, this maneuver should not be performed in the routine of care, only in some situations, and these exceptions, furthermore, you must request authorization from the parturient, register in the medical record and justify it. According to the Ministry of Health, this maneuver is prohibited during the second period of labor.

*"The doctor said that putting force and pushing the baby and lying down would help to reduce the time of delivery"* (Marine Water).

*"The friends said that the doctor pushes the baby to give birth faster"* (Emerald).

Studies<sup>15</sup> concluded that greater knowledge (literacy) may be related to a smaller number of interventions, as these patients seek to have more access to scientific information, which allows their empowerment in relation to care, based on evidence. Thus, professionals are more questioned by patients, discouraging the performance of some contraindicated or potentially harmful procedures.

From the sample of parturients, only one respondent reported having been guided by a nurse, and

*"From the maternity nurse"* (Sapphire).

*"Through the health center booklet"* (Jade).

*"The friends said what the doctor does"* (Emerald).

*"The doctor who said"* (Marine Water).

*"Through mother-in-law"* (Turquoise).

*"Through friends who had a vaginal birth"* (Amethyst, Diamond).

*"Through friends and on Internet videos"* (Opal).

Such results can bring harm to pregnant women, because when they receive erroneous clarifications through social media, they carry them throughout pregnancy and childbirth. Still on this approach, according to a study<sup>17</sup>, a quarter of Brazilian women who experienced normal births reported having been victims of violence and/or abuse in maternity hospitals, and research<sup>18</sup> she states in her article that the act of getting pregnant is still seen as something pathological. Therefore, this exchange of experiences between women can cause early stress in current pregnant women, which brings many traumas and fears for the parturients. Concluding that health education is the most appropriate tool to break these existing preconceptions<sup>19</sup>.

On the other hand, studies also show that the use of electronic devices and the use of the Internet to search, understand and use information influence LFS results, and this use has become increasingly frequent<sup>20</sup>. Based on what Jade reports on the origin of the information, the importance of hard technology, in this case the pregnant woman's booklet, for literacy purposes is observed, as it was from this device that she gained some knowledge on the subject. Thus, this can be a proactive factor to arouse interest in the practices by these women.

In addition to the above, Sapphire says that the guidance was at the time of childbirth, not being prepared in the prenatal period, which would be ideal for the practice of health education and clarification on the pregnancy process. Such clarification would raise the level of literacy in decision-making and the empowerment of women at the time of labor and, this knowledge, can contribute positively to the memories of this woman about her pregnancy. It is presumable to come across scientific articles that prove the effectiveness of humanized care by nurses, by approaching the treatment of the patient, respecting their physiological processes, taking a holistic look at the demands of this woman<sup>18</sup>.

Another important factor of this humanized approach is the guarantee of pregnant women's rights,





Pimenta FLB, Manola CCV, Melo EBM, Oliveira AS, Machado PS, Bedin LP provide clarification on the existing methods that help in labor. In addition, there were reports of encouragement to practices considered as obstetric violence, this infers that perhaps professionals are not trained for humanized care. Therefore, it is necessary that old customs are deconstructed and that measures be adopted to help in the knowledge of this parturient, allowing her to be self-sufficient for her moment.

In this context, it was shown that professionals need to be trained in practices to improve care and, in turn, allow this woman to empower and have autonomy in the labor of delivery. In addition, educational practices become crucial for the literacy process, and this device is easily accessible and performed in any sphere of the SUS care network.

There are studies that relate literacy and educational technological innovations, and this resource is a stimulating factor for novelties in the field of clinical practice and health education. Thus, the importance of the applicability and results of this proposal is perceived, because from literacy it is possible to evaluate in an important way individual as well as the population and their difficulties regarding the learning process. Furthermore, it is important that the method chosen to develop literacy matches the reality of the target audience, respecting access demands.

Based on the adopted methodology, the expected results were achieved, and, in turn, it opens the opportunity for new studies that relate sociodemographic factors with prenatal literacy, offering professionals different analyzes and more resources to improve their care practices.

At the beginning of the research, there was a hypothesis that these women knew little about the practices, which the research confirmed. For health education purposes, activities with this subject would bring positive feedbacks to their lives, highlighting the need for health education in the pre-partum, childbirth, and postpartum period.

Finally, it is necessary that these women allow themselves to live the unique, profound, and remarkable moment of pregnancy and that negative ideas about the subject are deconstructed. Therefore, it is important that active childbirth is the focus of care, influencing the family, society, and its history with the child. If this experience is positive, it will cause the overcoming of traumas, abortions, negative experiences in relation to sexuality, strengthening the inner woman in her. Otherwise, negative marks will perpetuate for decades and can generate inner and sometimes irreversible conflicts such as fear of getting pregnant again and loneliness.

rights aimed at comprehensive care in primary care. Therefore, if professionals are not able to have this holistic and comprehensive look, they would be disrespecting her as a citizen. According to the constitution of Brazil, between Articles 194 to 200, we can find all the laws relating to the Unified Health System (SUS), in these are themes such as social security, universality of care and SUS guidelines and with o appreciate focused on pregnant women, it is considered that they are supported by care aimed at promoting and preventing health. According to a study<sup>21,2</sup>, regarding cesarean sections:

*“Every unnecessary cesarean means an increased risk of complications, such as infection, hemorrhage and anesthetic complications, which contribute to the increase in maternal mortality rates. For the child, the main risk refers to respiratory problems arising from prematurity, generally associated with early removal of the conceptus before full lung maturity. In addition, the excess of surgical procedures, hospitalizations and treatment of complications represent a waste of millions of reais per year in the Unified Health System (SUS). Studies show that cesarean delivery costs, in general, two to three times the cost of normal delivery. Thus, a large part of maternal deaths could be avoided by reducing cesarean rates, improving the quality of obstetric care in health services, encouraging vaginal delivery and, mainly, implementing humanized childbirth in health services [...]”.*

Therefore, cesarean delivery poses risks to pregnant women and is related to issues of financial interests, following the hegemonic, biomedical model, where pregnancy is problematized and compared with disease. Thus, based on this scenario, the importance of literacy in childbirth is perceived, as the woman goes from being subordinate to the protagonist of her moment, giving freedom and confidence so that she can choose what suits her. Still on the subject, there are studies that report that patients who received qualified care in vaginal delivery obtained proactive results compared to cesarean sections, noting that humanized practice influences the evolution of a physiological and favorable delivery<sup>22</sup>.

### Final Consideration

From the analysis of this paper, it was possible to observe that the patients' literacy about non-pharmacological practices in prenatal care was not sufficient for clarification purposes, as they were victims of the biomedical model. Thus, their answers were vague, erroneous, incomplete, and reflecting little knowledge on the subject. It is noteworthy that educational practices are not explored by professionals in public and private care, something that goes against the guidelines of the SUS, as there is no science of health promotion, but rather hospital and invasive measures are chosen.

Thus, prenatal care, however performed, did not

### References

1. Lima BC, et al. A importância da comunicação e o cuidado com o paciente visando o letramento funcional em saúde: uma revisão bibliográfica. Revista Interdisciplinar do Pensamento Científico [Internet]. 2018 [acesso em 20 abr 2020];4(1)e10. Disponível em:



<http://reinpeconline.com.br/reinpec/index.php/reinpec/article/download/185/147>

2. Ministério da Saúde (BR). Diretrizes Nacionais de Assistência ao Parto Normal: versão resumida [Internet]. Brasília (DF): MS; 2017 [citado 2018 Jan 05]. Disponível em: [http://bvsmis.saude.gov.br/bvs/publicacoes/diretrizes\\_nacionais\\_assistencia\\_parto\\_normal.pdf](http://bvsmis.saude.gov.br/bvs/publicacoes/diretrizes_nacionais_assistencia_parto_normal.pdf)
3. Alves TCM, Coelho ASF, Sousa MC, Cesar NF, Silva PS, Pacheco LR. Contribuições da enfermagem obstétrica para as boas práticas no trabalho de parto e parto vaginal. *Enferm. Foco* [Internet]. 2019 [acesso em 20 abr 2020];10(4):54-60. Disponível em: <http://revista.cofen.gov.br/index.php/enfermagem/article/view/2210>
4. Mascarenhas VHA, et al. Evidências científicas sobre métodos não farmacológicos para alívio a dor do parto. São Paulo: *Acta paul. enferm.* 2019;32(3):350-357. <https://doi.org/10.1590/1982-0194201900048>
5. Beauchamp A, et al. Distribution of health literacy strengths and weaknesses across socio-demographic groups: a cross-sectional survey using the Health Literacy Questionnaire (HLQ). *BMC Public Health* [Internet]. 2015 [acesso em 15 abr 2020];15(1):678. Disponível em: <https://bmcpubhealth.biomedcentral.com/articles/10.1186/s12889-015-2056-z>
6. Tiller D, et al. Health literacy in an urban elderly East-German population— results from the population-based CARLA study. *BMC Public Health*. 2015;15(1):883. doi: 10.1186/s12889-015-2210-7
7. Gallo RBS, Santana LS, Marcolin AC, Duarte G, Quintana SM. Sequential application of non-pharmacological interventions reduces the severity of labour pain, delays use of pharmacological analgesia, and improves some obstetric outcomes: a randomised trial. *J Physiother.* 2018;64:33-40. doi: 10.1016/j.jphys.2017.11.014
8. Ministério da Saúde (BR). Cadernos HumanizaSUS: Humanização do parto e do nascimento [Internet]. Brasília (DF): MS; 2014 [cited 2019 Jan 23]. Disponível em: [http://www.redehumanizaus.net/sites/default/files/caderno\\_humanizaus\\_v4\\_humanizacao\\_parto.pdf](http://www.redehumanizaus.net/sites/default/files/caderno_humanizaus_v4_humanizacao_parto.pdf)
9. Feitosa RMM, Souza JCP, et al. Fatores que influenciam a escolha do tipo de parto na percepção das puérperas. *Rev Fund Care Online* [Internet]. 2017 [acesso em 19 abr 2020];9(3):717-726. Disponível em: <https://www.redalyc.org/pdf/5057/505754116014.pdf>
10. Balakas J. Parto Ativo- Guia prático para o parto natural. São Paulo: Editora Ground LTDA; 1989.
11. Silva EAT. Gestaç o e preparo para o parto: Programas de interveç o. *O mundo da Sa de* [Internet]. 2013 [acesso em 17 abr 2020];37(2):208-215. Disponível em: [http://www.saocamillo-sp.br/pdf/mundo\\_saude/102/10.pdf](http://www.saocamillo-sp.br/pdf/mundo_saude/102/10.pdf)
12. Henrique AJ, Gabrielloni MC, Rodney P, Barbieri M. Nonpharmacological interventions during childbirth for pain relief, anxiety, and neuroendocrine stress parameters: a randomized controlled trial. *Int J Nurs Pract.* 2018;24:e12642. doi: 10.1111/ijn.12642
13. Araujo AE, Delgado A, Boaviagem A, Lemos A. Prescription of breathing orientations given by the healthcare team during labor: a cross-sectional study. *Mundo sa de.* 2018;42(3):628-641. doi: 10.15343/0104-7809.20184203628641
14. Gosh CS, et al. Assist ncia ao parto em maternidade do Tocantins: an lise centrada na realizaç o da manobra de kristeller. *Rev Bra Edu Sa de.* 2020;10(2):18-22. <https://10.0.71.202/rebes.v10i2.7525>
15. Zanardo GLP, Calder n M, Nadal AHR, Habigzang LF. Viol ncia obst trica no Brasil: uma revis o narrativa. *Psicologia & Sociedade.* 2017;29. <https://doi.org/10.1590/1807-0310/2017v29i155043>
16. Nascimento NM, et al. Tecnologias n o invasivas de cuidado no parto realizadas por enfermeiras: a percepç o de mulheres. *Escola Anna Nery.* 2010;14(3). <https://doi.org/10.1590/S1414-81452010000300004>
17. Sena LM, et al. Viol ncia obst trica no Brasil e o ciberativismo de mulheres m es: relato de duas experi ncias. *Interface.* 2017;21(60). <http://doi.org/10.1590/1807-57622015.0896>
18. Mouta RJO, et al. Plano de parto como estrat gia de empoderamento feminino. *Rev baiana enferm.* 2017;31(4):e20275. <http://dx.doi.org/10.18471/rbe.v31i4.20275>
19. Minist rio da Sa de (BR). Diretriz Nacional de Assist ncia ao Parto Normal: relat rio de recomendaç o [Internet]. Bras lia (DF): CONITEC; 2016 [acesso em 15 abr 2020]. Disponível em: [http://conitec.gov.br/images/Consultas/2016/Relatorio\\_DiretrizPartoNormal\\_CP.pdf](http://conitec.gov.br/images/Consultas/2016/Relatorio_DiretrizPartoNormal_CP.pdf)
20. Levy H, Janke AT, Langa KM. Health literacy and the digital divide among older Americans. *J gen intern med.* 2015;30(3):284-289. doi: 10.1007/s11606-014-3069-5
21. Nagahama EEI, Santiago SM. Parto Humanizado e tipo de parto: avaliaç o da assist ncia oferecida pelo Sistema  nico de Sa de em uma cidade do sul do Brasil. *Rev. Bras. Saude Mater. Infant.* 2011;11(4). <https://doi.org/10.1590/S1519-38292011000400008>
22. World Health Organization (WHO). Maternal and Newborn Health. Safe Motherhood Unit. Family and Reproductive Health. Care in normal birth: a practical guide. Genebra: WHO; 1996.

