Non-pharmacological methods of pain control during labor: A literature review

Métodos não farmacológicos de controle da dor durante o trabalho de parto: Uma revisão de literatura

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ABSTRACT
Childbirth is an event that has undergone changes over decades. Studies reveal that from the twentieth century, childbirth began to be performed in a hospital environment. In 1922, the professional nurse began to appropriate knowledge about the process of parturition and in 1988 the nurse midwife inserted in childbirth care in an attempt to reduce the rates of perinatal death (SOUZA et al., 2015).

Keywords: Non-pharmacological Methods, Pain, Labor.

RESUMO
O parto é um evento que passou por mudanças no decorrer de décadas. Estudos revelam que a partir do século XX, o parto passou a ser realizado em ambiente hospitalar. Em 1922, o profissional enfermeiro começou a se apropriar de conhecimentos sobre o processo de parturição sendo em 1988 o enfermeiro obstetra inserido na assistência ao parto na tentativa de reduzir os índices de morte perinatal (SOUZA et al., 2015).

Palavras-chave: Métodos não farmacológicos, Dor, Parto.

1 INTRODUCTION

Childbirth is an event that has undergone changes over decades. Studies reveal that from the twentieth century, childbirth began to be performed in a hospital environment. In 1922, the professional nurse began to appropriate knowledge about the process of parturition and in 1988 the nurse midwife inserted in childbirth care in an attempt to reduce the rates of perinatal death (SOUZA et al., 2015).

The pain of childbirth is part of human nature itself and is not related to pathology, but according to the experience of conceiving a new life. However, many women believe that it is the worst pain felt and sometimes higher than what they imagined (GAYESKI; BRUGGEMANN, 2010).

At the time of delivery, the autonomy of the woman should be placed in a primordial way, and the health team should: clarify doubts, provide information and consider the wishes of the woman, intervening as little as possible, aiming at the naturalness of labor. For this to occur, it is necessary to build a bond of trust between the parturient and the professionals. And these should: plan, coordinate, execute, intervene and evaluate nursing care services, thus having the opportunity to apply their knowledge, avoid complications and promote a well-being service for pregnant women and newborns (BROCA; FERREIRA, 2012; BRAGA; SANTOS, 2017).

Pain is like a guide during childbirth, protective of the mother and baby. Its physiological function is to protect the body by sending alarm signals to warn it of aggressors, so that it can act in the face of danger, in order to protect itself (SCHMID 2005).

2 GOAL

This study aims to investigate in the literature about non-pharmacological methods for pain relief during childbirth.

3 METHODOLOGY

This research consists of a bibliographic research, which identifies, locates and obtains bibliography on some subject that the researcher (a) wishes to deepen, through the understanding of the authors to their, their, theories (STUMPF, 2006).

Through the follow-up of some steps occurs the elaboration of this type of research, initially identifying the theme of the research. For the search in the bibliographic sources, the most appropriate Descriptors are defined, which can be translated into other languages and delimiting the time interval for the searches. After the analysis and interpretation of the collected data is performed (STUMPF, 2006).

The following databases were consulted for content survey: BV (Virtual Health Library) and SCIELO and Google Scholar used the following descriptors: "non-pharmacological methods", "pain" and "childbirth". There was no time frame and in the English and Portuguese languages. Available free of charge

and in full. The search for the content of this research took place in the months of January and February of this year.

After reading the titles, abstracts and full texts, removing those that were incomplete, unavailable in full and repeated, a total of 42 articles were selected, and of these, 13 articles fit the research theme, which are available in the body of this study.

4 DEVELOPMENT

The Ministry of Health (MH) has formulated policies showing the importance of humanization in birth and delivery care based on scientific evidence. In 1985, the Conference on Appropriate Technology for Birth and Childbirth took place, which was important for reviewing the technologies used and, therefore, contraindicating the use of invasive technologies. And highlight the right of the population to information and prenatal care (MEDEIROS *et al*., 2016).

The Ministry of Health established the Prenatal and Birth Humanization Program, through Ordinance/GM No. 569, 6/1/2000, with the objective of improving the exclusive care to the parturient and the newborn. The program aims to reduce the high rates of maternal/neonatal mortality, employ practices that provide better prenatal care, in the aid of childbirth and postpartum and clarify all the doubts of the pregnant woman (BRASIL, 2002).

The process of hospitalization for parturition began in the 40's, in which something never explored by women – the medical performance in the control of pregnancy and labor – increased. This innovation consists of techniques that configure a care model that disturbed and inhibited the physiological outcome of childbirth (ALMEIDA; ACOSTA; PINHAL, 2015).

Childbirth is divided into some periods such as dilation, characterized by painful and regular uterine contractions, cervical modification, including erasure until total dilation. Soon after coming the expulsive period, where the woman, with the birth canal fully dilated, presents stronger and more frequent contractions (BRASIL, 2018).

The expulsive period has two phases: the latent phase and the active phase (descent). During the latent phase the fetus continues to slowly descend through the birth canal resulting in continuous contractions, the need to make force in this period is not so great. During the active phase the pregnant woman has a strong need to force down, pressing the elastic receptors of the pelvic floor and thus expelling the baby. At this time, the most important thing is that the future mother makes force in sync with the uterine contractions (LOWDERMILK, 2013).

After the birth of the baby, comes the period of placental discharge, which usually happens up to 30 minutes with the aid of much lighter and spaced contractions, and at this time breastfeeding can contribute to the uterus contracting (BRASIL, 2018).

And the last period, called the fourth period or Greenberg. It lasts approximately 1 to 2 hours after discharge, characterized by the observation of the safety globe of the parturient by the team. Consisting of a more delicate phase of observation for complications, such as the risk of abnormal bleeding (BRAZIL, 2018).

Labor pain comes from muscle and joint contractions and strains, and the body produces defense mechanisms to ease the pain, such as the release of endorphins. Therefore, the woman needs to feel supported, so that the mechanisms of the organism itself are not blocked. Above all, the "abnormal pain", which can be caused by the stress of childbirth care procedures, causes a disharmony in the woman's body, influencing the increase in pain (BRASIL, 2018).

Due to the increase in the maternal and perinatal mortality rate in 1990, a question was raised about the current hospital model, which mainly involved cesarean section. As a result, in 2006 there was the National Campaign to Encourage Normal Childbirth and Reduction of Unnecessary Cesarean Section (ROCHA et al., 2015).

Non-pharmacological measures are increasingly used from the early twentieth century to the 1950s and 1960s. Being able to reduce the stress caused by the moment of delivery and provide greater comfort to the parturients, besides being simple and low-cost techniques, they are effective, and do not cause any harm to the parturient and the child (SILVA; (SILVA; BARBIERI; FUSTIONI, 2011).

Drugs, in general, are used to produce analgesia or to induce labor, in procedures and methods to advance the delivery process, with a conflict of interest, so that the professional receives by number of procedures performed. But, the use of these drugs can lead to various complications, which can produce damages both to the mother, as the fetus, and the labor itself, making it less natural (OLIVERIRA et al., 2013).

Childbirth care practices and services are influenced by the roles played by the parturient, by the professionals who assist her and by the environment of occurrence. Places with care focused on the physiology of birth and delivery where obstetric nurses and midwives can freely use their skills to promote normal delivery, allowing the use of less interventionist comfort practices (SILVA et al., 2011).

In this perspective, the scenario of delivery and birth should have humanized practices, as well as pharmacological and non-pharmacological pain relief methods, to reduce the discomfort caused in the parturition process. Non-pharmacological methods can be oriented to the couple (during prenatal care) and/or taught/applied by the nurse or by the multidisciplinary team (during labor and delivery). Among them, the following stand out: psychoprophylactic method, acupuncture, transcutaneous electrical stimulation (TENS), ambulation, music therapy, body massages, baths (shower or immersion), breathing and relaxation techniques, comforting touches, use of the Swiss ball, aromatherapy and reflexology, among others. Ideally, the multidisciplinary team should establish a relationship of closeness and empathy with

the woman during the birth event and provide adequate assistance regarding the offer and implementation of humanized practices (BRASIL, 2016).

Among the main anesthetics used to relieve pain in labor, we have epidural analgesia, one of the main pharmacological methods of pain relief used in current obstetrics, one of the advantages is the increase in the number of women who undergo vaginal delivery by having the possibility of effective pain relief. But it is worth mentioning that its use can cause respiratory depression to the newborn, in addition to increasing invasive conducts by professionals (BARALDI et al., 2007).

Oxytocin is a drug used in labor, which is a hormone capable of inducing or increasing rhythmic contractions at any time during pregnancy. It has prophylactic indications for use during various moments of the third period of childbirth, but it is often applied after the detachment of the anterior shoulder or after the birth of the child to reduce blood loss in the postpartum, which is a positive point of its use; in low-risk deliveries, the use of oxytocin routinely for active management of the third period of delivery seems to be premature, the woman may present tachysystolia, hypertonia, uterine hyperstimulation and uterine rupture (ROCHA; FONSECA, 2010).

Non-pharmacological methods for pain relief are essential for a more humanized part. Since, in addition to relieving physical pain, they enable the relief of psychological stress involved in the process. Methods such as these, which aim at autonomy and freedom of the parturient were already used by various cultures and ethnicities, for example: the Kambiwá indigenous people made use of herbs and prayers to assist in the evolution of childbirth and the gypsies of the Calon ethnic group who in their rituals used amulets for pain relief (ROCHA et al.; Smith, 2016).

The warm bath reduces and relieves the painful sensation, promoting the relaxation of pregnant women proving to be the most effective and pleasant method. A survey conducted in a public maternity hospital in the State of Goiás revealed that of the 71 women interviewed, 63 (88.7%) evaluated this method as the most efficient (HANUM *et al*., 2017). Other authors reinforce the idea that the therapeutic bath is the best choice to reduce pain and stimulate labor, as it promotes comfort, tranquility, and well-being of women (VIEIRA *et al*, 2019; DIAS *et al*., 2018).

The stimulation of ambulation and freedom of positioning can be suggested as beneficial for mother-baby. The act of walking associated with vertical positions, in comparison to other positions, brings benefits in the course of labor, in the reduction of pain, improvement of uterine contractions, circulation from mother to fetus, and elevation of maternal well-being (FERRÃO; ZAGÃO, 2017).

Breathing exercises are also considered relevant for a greater sense of relaxation, as they reduce the painful sensation and help reduce anxiety, especially when associated with the humanized communication of the nurse with the parturient (Cavalcanti et al., 2019). The use of floral therapy maintains emotional balance during labor, reducing the adrenaline levels of the sympathetic nervous system, showing its

effectiveness in decreasing anxiety, stress and fear, promoting relaxation, calm, concentration, balance and playing an essential role in relieving pain during the parturition process (LARA et al., 2020).

The hot bath is a very favorable method, because it promotes the redistribution of blood flow of the muscles and release of endorphins causing a feeling of comfort, pain reduction, improvement in metabolism and the elasticity of some tissues through heated water, but this practice finds obstacles to its effectiveness, since most hospitals do not have bathtubs to perform an immersion bath, being possible only the sprinkler bath, which is not indicated in all stages of childbirth (CAVALCANTI et al., 2019).

Several studies demonstrate acupuncture as an effective method for pain relief at the beginning of treatment, recognizing it as a method that offers an "encouraging" effect during the procedure, reducing fear, anxiety and stress (CHEROBIN et al., 2016).

The Swiss ball is considered an alternative to the posture offered by the parturient at the time of labor. Studies performed with the ball demonstrate that, in the active phase of labor, it is very effective, cooperating to reduce the dilation period. Another measure that has ease to be adopted is the stimulation of ambulation, which reduces low back pain, favors the descent of the presentation and decreases the time of labor, making childbirth an active and dynamic moment. There is a need for change in the understanding that the only favorable position to give birth is lithotomy, so women should be prepared to experience childbirth in other positions that are more comfortable for them (SILVA; BARBIERI; FUSTIONI, 2011; BARBIERI et al, 2013).

All these methods are used in order to reduce or soften the pains caused by the process of normal childbirth and are very effective. Moreover, when pharmacological methods of pain control during labor are applied, there is a greater approximation between the health team and patients, which is very important for this moment and generally successful at this time to the end that is intended, which is to promote comfort to the pregnant woman.

5 FINAL CONSIDERATIONS

According to the literature, it is perceived that health professionals who work with women in labor and delivery become aware of their role. It should respect the cultures and the rights of patients, display the non-pharmacological methods of pain control and how it is possible to use them informing their benefits.

It is irrelevant that the sectors present adequate inputs and structures for the use of non-pharmacological methods of pain relief during labor: ball, horse, shower with warm water, among others. Thus, this research contributes to the knowledge of the use of non-pharmacological methods of pain control during labor and the benefits of its practice.

Therefore, implementing these methods is very valid for humanized care during labor.

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