ORIGINAL ARTICLE

CARE TECHNOLOGIES IN OBSTETRIC NURSING: CONTRIBUTION FOR THE DELIVERY AND BIRTH

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ABSTRACT
Objective: to identify the care technologies used by obstetric nurses in a Normal Birth Center.
Method: a descriptive study, performed at the Normal Birth Center of a maternity hospital in the city of Rio de Janeiro, with eighteen obstetric nurses, using semi-structured interviews between June and September 2016. The data collected were submitted to thematic type content analysis.
Result: the obstetric nurse uses non-pharmacological methods such as a spray bath, massage, Swiss ball, horse, aromatherapy, music therapy, free movement, warm environment and presence of the companion, as care practices together with the women.
Conclusion: the use of care technologies allows obstetric nurses to valorize humanized practices in the context of the delivery and birth.

KEYWORDS: Obstetric Nursing; Obstetrics; Normal Birth; Humanized Birth; Women’s Health.

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TECNOLOGIAS DO CUIDADO NA ENFERMAGEM OBSTÉTRICA: CONTRIBUIÇÃO PARA O PARTO E NASCIMENTO

RESUMO
Objetivo: identificar as tecnologias do cuidado utilizadas por enfermeiras obstétricas em um Centro de Parto Normal.
Método: estudo descritivo, realizado no Centro de Parto Normal de uma maternidade do município do Rio de Janeiro, com dezesseis enfermeiras obstétricas, mediante entrevistas semiestruturadas entre junho e setembro de 2016. Os dados coletados foram submetidos à análise de conteúdo na modalidade temática.
Resultado: a enfermeira obstétrica utiliza métodos não farmacológicos como banho de aspersão, massagem, bola suíça, cavalinho, aromaterapia, musicoterapia, livre movimentação, ambiente acolhedor e presença do acompanhante, como práticas do seu cuidado junto às mulheres.
Conclusão: a utilização das tecnologias do cuidado permite que as enfermeiras obstétricas valorizem as práticas humanizadas no contexto do parto e nascimento.

DESCRITORES: Enfermagem Obstétrica; Obstetrícia; Parto Normal; Parto Humanizado; Saúde da Mulher.

TECNOLOGÍAS DEL CUIDADO EN LA ENFERMERÍA OBSTÉTRICA: CONTRIBUCIÓN PARA EL PARTO Y NACIMIENTO

RESUMEN:
Objetivo: identificar las tecnologías del cuidado utilizadas por enfermeras obstétricas en un Centro de Parto Normal.
Método: estudio descriptivo, realizado en el Centro de Parto Normal de una maternidad del municipio de Río de Janeiro, con dieciocho enfermeras obstétricas, mediante entrevistas semiestructuradas entre junio y septiembre de 2016. Los datos recogidos fueron sometidos al análisis de contenido en la modalidad temática.
Resultado: la enfermera obstétrica utiliza métodos no farmacológicos como baño de aspersión, masaje, bola suíza, caballito, aromaterapia, musicoterapia, movimientos libres, ambiente acogedor y presencia de acompañante, como prácticas de cuidado a mujeres embarazadas.
Conclusión: la utilización de las tecnologías del cuidado permite que las enfermeras obstétricas valoricen las prácticas humanizadas en el contexto del parto y nacimiento.

DESCRIPTORES: Enfermería Obstétrica; Obstetricia; Parto Normal; Parto Humanizado; Salud de la Mujer.
INTRODUCTION

Childbirth was, traditionally, a family event, centered on women and their protagonism, in which midwives provided the necessary assistance to the mother and child in the home environment. However, there have been countless transformations over the years, especially in the pregnancy-puerperal cycle. This has been influenced by the hospital-centered, biomedical and technological model of delivery and birth, depersonalizing the female condition, this being a model focused on intervention in harmful practices, with pregnancy and delivery considered pathological events which required the presence of the medical professional.

The introduction of good practices in normal birth, instituted by the World Health Organization (WHO) in 1985, began this process of deconstruction of the technological model, in favor of the humanization of care. In this sense, these obstetric procedures promoted by the WHO proposed scientific evidence-based care, based on the classification of obstetric procedures in normal birth according to the criteria of use, efficacy and risk. These recommendations gave rise to the following categories of care practices in normal delivery: A - demonstrably useful practices which should be encouraged; B - clearly harmful or ineffective practices that should be eliminated; C - practices with no evidence to support their recommendation that should be used with caution until further research clarifies the issue; and D - frequently inappropriately used practices. Despite these recommendations, women in Brazil are still exposed to unnecessary interventions, with it being important that there is an institutional and political commitment for changes in behavior to take place.

Obstetric Nursing, through its professional practice, emerges as central to promote the humanization of care and the use of good practices in normal birth, since it promotes actions that refer to the concept of care technology.

The conceptualization of care technology is classified into three types: 1) Light technology, which implies the creation of a relationship between subjects, for example, the health professional and the client/user of the health system; 2) Light-hard technology, which is well-structured knowledge that acts in the health process, as is presented in the medical practice and epidemiology; and 3) Hard technology, which is the technological equipment that works together with organizational structures or the machines, rules and routines of an institution. In this sense, the concept of technology also involves knowledge and skills in a context of structured knowledge that is applied with intentionality and justification, producing results that satisfy the individualized needs of the people.

Care technology is related to the development of practices for the pregnancy and birth process that are not invasive of the physiology of the woman’s body, of her mind or of her privacy. The non-invasive character has a dimension of establishing a bond of trust with the obstetric nurse, and even when behaviors that express care in the intimacy of the biological or sociocultural body occur, they are not perceived as a process of invasion of her privacy. Thus, the obstetric nurse, with the use of his/her care technology, allows the promotion of the humanization of the delivery and birth care, respecting the women, and promotes a satisfactory environment for the care centered on them.

Accordingly, the study aimed to identify the care technologies used by obstetric nurses in a Normal Birth Center.

METHOD

This descriptive, exploratory, qualitative study was carried out at the Normal Delivery Center (NDC) of a maternity hospital of the Municipal Health and Civil Defense Network of the city of Rio de Janeiro, located in the neighborhood of Bangu, which provides care to users of the Brazilian Nation Health System (Sistema Único de Saúde - SUS) and offers training for professionals in the field of reproductive health.
The structure of the NDC includes an intra-hospital NDC with seven individualized pre-delivery, delivery and postpartum (PDP) rooms, a relaxation space and four clinical support beds, with physical communication with the Surgical Center, with three surgical rooms and six post-anesthetic recovery beds. After the delivery, the puerperal women and their infants are accommodated in one of the 61 beds available in the joint accommodation. The NDC has 18 obstetric nurses on a 12/60 hour work rota, who performed an average of 500 normal deliveries per month in 2016, during the investigation. All were invited to participate in the study.

After accepting the invitation and signing the consent form, they were assured of the secrecy and anonymity of the interviews, using an alphanumeric code: ON (Obstetric Nursing), followed by a number, according to the order of the interview (ON1 to ON18). The inclusion criteria were: to be an obstetric nurse working in normal, usual risk childbirth care and to have worked in the NDC for a minimum of six months. The nurses who worked in management or administration at the time of the study were excluded.

The information was collected through a semi-structured interview, held from June to September, 2016, in a room in the institution reserved for this purpose. The data were recorded on a digital device, with the prior authorization of the participants, fully transcribed and submitted to thematic type content analysis(8), with Registration Units (RUs) used as the strategy to organize the content. Colorimetry allowed the identification and grouping of each unit, providing an overview of the theme.

The interviews produced the following units: humanized care; non-invasive birth care technology; care of the newborn; the companion as part of the delivery and birth care. These RUs supported the construction of the following thematic category: 1) Care technologies of the obstetric nurse in the delivery and birth.

In compliance with the Resolution of the National Health Council (CNS) No. 466 of December 12, 2012(9), the study was approved, on March 4th 2016, by the Research Ethics Committee of the Faculty of Medicine of the Fluminense Federal University (Universidade Federal Fluminense - UFF) under authorization No. 1438.481/2016.

RESULTS

The participants stated that the care practices they develop are based on scientific evidence and that they use non-pharmacological and non-invasive methods for pain relief, such as: spray bath, massage, Swiss ball, half moon stool, horse, aromatherapy, music therapy, free movement and/or walking, dim lighting and a welcoming environment with the companion present throughout the entire process:

The non-pharmacological technologies for pain relief are: freedom of movement, use of warm water, pelvic movements, balls, horse, massage, aromatherapy, we use these a lot here and during childbirth we try very hard to follow the protocols of the Ministry of Health. (ON1)

We mainly use the ball together with the warm bath and we usually offer the ball so that she can be more comfortable in the shower. We put this ball under the shower and it gives greater comfort. (ON7)

The use of non-pharmacological methods of pain relief, which are: the ball, horse, stool, hot bath, aromatherapy and music, are very favorable for this process. (ON18)

The spray bath was the method of pain relief most used by the interviewees during their practice of labor and birth care, either alone or associated with other methods, with this being the most evident form of relaxation for the woman during the labor and birth:
The spray bath, which we know regulates the contractions, decreases the pain and the painful sensation for the woman and provides better relaxation. (ON9)

In our birth care, we suggest other positions to her, as well as freedom of movement and the hot bath. (ON15)

The need to install a bathtub for the immersion bath was also evidenced, aiming to offer the woman a method of promoting relaxation and pain relief during labor:

According to the evidence what I would have to implement that we do not have would still be the use of a bathtub, we do not have that in the unit and we know that there is evidence that it greatly improves the expulsion period and the delivery for the woman and that it is a non-pharmacological technology for pain relief. (ON1)

The participants highlighted that they act to minimize the suffering and pain of the parturient women in the birth process and to associate the care with methods such as aromatherapy, which help in the relaxation of the women throughout the process:

We have aromatherapy, humanization is very strong here in the hospital, both with the obstetric nurses and also other professionals, like the physicians. Many already have this practice well evidenced in the client care. (ON3)

We use aroma, with cinnamon oil or lavender oil, depending on her general status. (ON17)

The episiotomy was highlighted in the participants’ statements:
Episiotomy by obstetric nurses has been zero here in the unit. We are trying to make the physicians reduce this as well. (ON13)

We have already seen that perineal protection does not decrease or increase the degree of tearing, there is no need to perform perineal protection, just like the perineal oil that was widely used, which I already learned in my residence is of no use, just to leave lubricated, because if there is going to be tearing, it will tear with or without oil, with or without protection. (ON15)

Many practices, such as hands-off, not manipulating the baby during the detachment that we have already seen in our practice and there is already evidence that this decreases the perineal trauma. (ON17)

Regarding postnatal care for the newborn, the participants indicated skin-to-skin contact for breastfeeding within the first hour of life and late clamping of the umbilical cord:

For me, the essential care is to respect the baby to the maximum, from the moment he starts crowning until the moment he really is born. (ON8)

Contact in the first moment of life, early contact of the mother with the child and breastfeeding in the first hour, I encourage breastfeeding a lot. (ON17)

Clamping was also highlighted by the participants regarding the care of the newborn in relation to the difficulty of use by other health providers:

Another thing we saw was clamping, which started to be done at the appropriate time, however, even though we know from the scientific evidence that it is beneficial for the newborn, there is still a clash with the pediatrician, with many of them, even if they take
the course and know this, getting in our way in this process, but we try to do our best, but there are some that we cannot control. (ON7)

Historically there is always a problem with pediatricians, who do not like timely clamping, who say a million things, but we manage to do it very well. (ON9)

The participants emphasized the importance of the companion’s presence in the process of caring for the newborn during labor and birth, which favors the women’s feeling of trust, facilitating and promoting their legal rights, making them more autonomous and satisfied due to being promoters of this process together with their companions:

At the time of labor and delivery, or during the birth of the baby, we have a great facility if she wants the baby to be supported by us, if she wants to support the baby, if she wants the companion to support the baby. ... We can apply this very well. (ON13)

We can implement and promote all the practices, good baby care practices together with the companion, but it depends... on each woman. Each woman requires a behavior, she has a will of her own, there are women who like to have an companion... make sure the companion helps ... we do not have any problem with this. (ON7)

DISCUSSION

The care practice of the obstetric nurse has enhanced the performance of a professional practice based on good obstetric practices. This prioritize the development of evidence-based technical skills recommended by the WHO rather than technical care that does not consider the physical, emotional and social requirements of the women in the parturition process.

The technologies of obstetric nursing care are a set of techniques, procedures and knowledge used in the relationship with the women, with the comprehension of childbirth as a physiological process and respect for the bodily and psychic integrality\(^5\(^,\)\(^7\)). Therefore, these technologies should be elaborated and developed through practices related to the pregnancy and birth process, which are not invasive and do not interfere in the physiological process of labor and birth.

The use of technologies in the care of women with a view to promoting a physiological and humanized process is an integral part of the care provided by the participants. The use of obstetric practices that value women and diminish acts of intervention demonstrate the progress of obstetric nursing in the city of Rio de Janeiro.

The adoption of the Nursing Care Implantation for the Pregnant and Parturient Woman project in two municipal maternity hospitals in Rio de Janeiro contributed to this reality. This project aims to establish practices consistent with the humanized model of childbirth care\(^4\)), providing obstetric nursing with institutional legality to promote their care and their insertion into the context of delivery and birth, through the use of practices favorable to the process of birth previously described\(^7\(^,\)\(^10\)). The use of these technologies undoubtedly guarantees the safety of the woman, as well as favoring relaxation for a more physiological process\(^11\).

A study carried out in the city of Rio de Janeiro in a public maternity hospital showed that the obstetric nurses realized that the relaxation of the woman in the hot water during the spray bath affects the progression of labor: the bath helps to accelerate it, since the dilation of the uterine cervix increases rapidly, favoring a faster and more adequate descent of the baby\(^5\)). Thus, the spray bath is a method widely used in labor and birth care, favoring the obstetric care and avoiding interventionist practices, thus promoting a satisfactory response to the relaxation of the woman and the decline of catecholamines in the body\(^12\).
The immersion bath is classified as one of the non-pharmacological methods of pain relief during labor, because it allows women to resume their autonomy in the birth process, since they can mobilize their own resources in the pursuit of their well-being during this moment. In addition, this practice contributes to women experiencing the process of childbirth in a more harmonious and relaxing way. Considering that maternity ward investment projects are only in the political and institutional discourses, it is necessary to invest in the construction and adaptation of maternity hospitals, according to the models that guarantee the humanization of care.

Aromatherapy is a non-medicalized complementary treatment, which uses the senses of touch and smell. Increasingly used, essential oils, with a delicate, slightly sweet, sometimes velvety, citrus, woody smell, such as lavender, eucalyptus, jasmine, rose and orange, are having significant effects on the perception of pain, anxiety of the parturient women and, consequently, on the length of the parturitive process phases, when the well applied choice inspires a touch of sensitivity and smells. When being inhaled, the oil activates sensory receptors throughout the brain, involving specific neurological parts and substances that harmonize in an intoxicating way, resulting in physical and psychological changes that are capable of providing effective results in the reduction of pain and anxiety.

Its use by the obstetric nurse occurred together with massages, mainly in the lower and upper back, providing relaxation and humanized care. This allowed attenuation of the pain, anxiety and fear in 89% of the participants of one study, however, did not show a guarantee of influencing normal delivery, since the results of a systematic review study showed that there was no difference between the women who used aromatherapy and those who did not use it during a normal delivery.

The participants pointed out that there was a zero rate of episiotomy in the indicators and that, during the baby's detachment from the cephalic pole, they used the hands-off technique as an alternative method to avoid tearing. In addition, they reported that, in the care during the expulsive period, they did not manipulate and did not perform protection in the region of the woman's perineum for the detachment of the baby, except when necessary.

A study carried out at the Casa de Parto in Sapopemba, São Paulo, revealed that the practices of perineal protection and management of the cephalic pole are maneuvers used by teams of health professionals, and further studies are needed to prove the effect of these techniques. A systematic review confirmed their effect on the reduction of the episiotomy rate, however, not of third and fourth degree tearing.

The episiotomy is an enlargement incision of the vulvar orifice performed in the region of the perineal body. It is one of the practices that have caused maternal morbidities during the postpartum period, by predisposing the woman to increased blood loss, puerperal infection, sexual dysfunction such as dyspareunia, urinary incontinence, vaginal prolapse, among other alterations, when compared with other types of perineal trauma. It should be emphasized that episiotomy is one of the only procedures performed without the prior consent of the patient, perpetuating an interventionist and technocratic model in the care of the woman, without reducing the risks of perineal trauma.

Thus, in the humanization model, it is clear that the environments where women are during the pregnancy-puerperal period are important, with it being up to the professionals who assist them to value more the physiological aspects of pregnancy and birth, avoiding unnecessary interventions and ensuring a qualified and safe work process for the woman and her baby.

The importance, for the participants, of the immediate care and practice performed in the care for the newborn in the first hour of life was observed, with them emphasizing that these actions are based on scientific evidence. The WHO recommends putting babies in skin-to-skin contact with their mothers immediately after giving birth for at least an hour, encouraging mothers to recognize when their babies are ready to breastfeed and offering help, if necessary. Support for initiating breastfeeding during this sensitive period, in which the mother and newborn are alert, corresponds to Step 4 of the Baby-Friendly Hospital.
Initiative. This is a practice that can reduce neonatal mortality, because the longer the initiation is delayed, the greater the chances of neonatal mortality caused by infections\textsuperscript{(19)}.

Late umbilical cord clamping, according to the WHO, is a strong recommendation for all births, and should be performed approximately one to three minutes after the birth, concomitantly initiating the first care for the newborn. At present, however, the coverage of this intervention has been limited due to the lack of information regarding its benefits, as well as concerns about the practice\textsuperscript{(20)}. Thus, the late clamping of the umbilical cord should be propagated and stimulated to promote the health of the newborn.

The statements of the participants made it possible to comprehend that in the care of the newborn by these professionals the technocratic model was prioritized with the separation of the mother and the baby. This is because the logic of hospital care is based on the production of procedures\textsuperscript{(21)}. Thus, the care practices for the newborn occur in an accelerated and mechanical way so as not to disturb the practice of the other professionals that work in the delivery room.

The participants emphasized the importance of the support of the health professional in relation to women by promoting safety and attention in the care together with the companion, as well as stimulating and promoting their right to be respected throughout the delivery and birth process. Thus, the presence of the companion during labor, delivery and in the immediate care of the newborn, provides physical and emotional well-being to the woman. However, respecting this unique moment of the woman and her opinion, the principles of the humanization of the delivery and birth should be prioritized, favoring the singularity, its meaning and the presence of the companion.

Law no. 11.108, of April 7, 2005, instituted in the health services of the Brazilian Nation Health System and in the private hospitals, allows the presence of a companion of free choice of the woman during the prepartum, delivery and immediate puerperium period\textsuperscript{(22)}. Therefore, changing the model in parturition, with the knowledge of the woman and the insertion of the companion into the scene of support and care, became necessary with the utilization of good practices in the health care of women.

The study presented as a limitation the number of participants, not allowing an extrapolation of the results, as it did not include the entire population. Future studies are therefore suggested, using an increased number of unit nurses to cover the entire scenario.

CONCLUSION

The centrality of women’s care is a premise described in the best scientific evidence, as well as guided by public health policies. Therefore, it is incumbent upon the obstetric nurse, with her care practice, to reaffirm respect for the physiology of childbirth through the use of non-pharmacological and non-invasive practices in the parturition process, such as the spray bath, massage, Swiss ball, half moon stool, horse, aromatherapy, music therapy, free movement and/or walking, dim lighting and a welcoming atmosphere. The care technologies described here contribute to the promotion of a respectful birth, favoring the role of the women.

It is concluded, therefore, that the technologies used by the obstetric nurses in the field of delivery and birth may favor the autonomy of the women in the parturition process. They should, however, be offered to the women as an care option, and not as a practice imposed on them, as they need to be guided and informed, from the prenatal period, to participate actively in the act of giving birth. Undoubtedly, the practice of the obstetric nurse permeates the valorization of the autonomy, showing its importance for the assurance of the use of practices for care centered on the needs of the woman.


15. Osório SMB, Junior LGS, Nicolau AIO. Avaliação da efetividade de métodos não farmacológicos no


