CARE PRACTICES IN NORMAL BIRTH: RESIDENCE TYPE FORMATION

PRÁTICAS DE ASSISTÊNCIA AO PARTO NORMAL: FORMAÇÃO NA MODALIDADE DE RESIDÊNCIA

LAS PRÁCTICAS DE ASISTENCIA AL PARTO NORMAL: FORMACIÓN EN LA MODALIDAD DE RESIDENCIA

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ABSTRACT

Objectives: to identify the care practices by obstetric nursing residents during the qualification for normal childbirth; discuss care practices based on technical recommendations of the World Health Organization.

Method: descriptive, exploratory, documentary study, from quantitative approach that examined the record sheets of normal births delivered in a public maternity. The data were analyzed using descriptive statistics.

Results: the majority (86.8%) of pregnant women had a companion; performing breathing techniques was encouraged (87.1%), ambulate (50.7%) and taking warm baths (44.9%). The episiotomy rate was 5.1%. Obstetric interventions during labor were oxytocin (42%) and amniotomy (14.2%). Conclusion: the resident nurses perform most obstetrical practices according to technical recommendations. However, teaching strategies should be established to limit the influence of the medicalized model for the formation of these professionals.

Descriptors: Nursing Education; Nurse-Midwifery; Normal Childbirth.

RESUMO

Objetivos: identificar as práticas assistenciais realizadas pelas residentes de enfermagem obstétrica durante a qualificação profissional para o parto normal; discutir as práticas assistenciais com base nas recomendações técnicas da Organização Mundial de Saúde. Método: estudo descritivo, exploratório, documental, com abordagem quantitativa, que analisou as fichas de registro dos partos normais atendidos em maternidade pública. Os dados receberam tratamento estatístico descritivo. Resultados: a maioria (86.8%) das parturientes contou com acompanhante; foi incentivada a realizar técnicas de respiração (87,1%), deambular (50,7%) e tomar banho morno (44,9%). A taxa de episiotomia foi de 5,1%. As intervenções obstétricas no trabalho de parto foram a ocitocina (42%) e a amniotomia (14,2%). Conclusão: As enfermeiras residentes realizam a maioria das práticas obstétricas conforme as recomendações técnicas. Contudo, estratégias pedagógicas devem ser estabelecidas para limitar a influência do modelo medicalizado durante a formação destas profissionais.

Descrições: Educação em Enfermagem; Enfermagem Obstétrica; Parto Normal.

RESUMEN

Objetivos: identificar las prácticas asistenciales realizadas por los residentes de enfermería obstétrica durante la capacitación profesional para el parto normal; discutir las prácticas de asistencia basadas en las recomendaciones técnicas de la Organización Mundial de la salud. Método: descriptivo, exploratorio, documental, con abordaje cuantitativo que analizó los registros de parto en maternidad pública. Los datos fueron analizados usando estadística descriptiva. Resultados: la mayoría (86.8%) de las mujeres contó con acompañantes; hubo incentivo para realizar técnicas de respiración (87,1%), caminar (50,7%) y ducharse con agua tibia (44,9%). La tasa de episiotomía fue del 5,1%. Las intervenciones obstétricas en trabajo de parto fueron oxitocina (42%) y la amniotomía (14,2%). Conclusion: Las enfermeras residentes realizan la mayoría de las prácticas obstétricas dentro de las recomendaciones técnicas. Sin embargo, deben establecerse estrategias pedagógicas para limitar la influencia del modelo de medicación durante la formación de estos profesionales.

Descripciones: Educación en Enfermería; Enfermería Obstétrica; Parto Normal.

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INTRODUCTION

The medicalized care model is still dominant in the hospitals of the Unified Health System (UHS) of Brazil, which determines the perception of labor and childbirth as situations involving potential health risks to the mother and child. Thus, women with healthy pregnancies are assisted with interventions and unnecessary technologies that cause more harm than good and cause the high C-section rates in the country. The proportion of caesarean section in Brazil has had an increased rise in the last decade, from 38%, in 2000 and 56%, 2012.2

With the intent to change this dominant model of care, qualify obstetric care and encourage normal delivery, policies and ministerial programs were instituted based on care practices and appropriate technologies recommended by the World Health Organization (WHO)3 and humanization of care.4 These government initiatives culminated in encouraging the training and assistance of midwives, due to the reduced quantity of these professionals in the country.

These government actions required the adoption of specific measures by local managers, such as the Municipal Health Secretariat of Rio de Janeiro (MHS-RJ). Among other measures, the MHS-RJ partnered with a public university to offer a residency program in obstetric nursing and fund scholarships for newly graduated nurses from 2004. This program is a type of education service developed by Lato sensu post-graduation courses (residency type specialization course), akin to medical residency, which lasts twenty-four months and aims to empower nurses to work in care for women, newborns and family during pregnancy and the puerperal period.

In the municipal health network of Rio de Janeiro, hospitals are the main scenario of the training of these professionals, having a birth center and the basic services as complementary care. Hospitals are also the priority sites for the professional practice of nurse midwives in the UHS, since almost all births in the country occur in this environment, more than 98%.2 In addition, primary care is the primary locus for the performance of general nurses or specialists in public health and family health; the birth centers or normal delivery centers are in limited quantity and home care is still incipient.

Obstetric nursing education seeks to contemplate the technical recommendations for the promotion of human assistance and based on scientific evidence, form professional attitudes and skills attentive the right to health and to the demands of the clientele. To this end, care practices should be appropriate to include non-pharmacological methods for care during labor, also called the care technologies.3,4

In the year 2013, due to the launch of the network service reorganization strategy on maternal and child health, called the Stork Network, there was an expansion of residency programs linked to public institutions of higher education, resulting in the creation of the National Housing Programme in Obstetric Nursing (PRONAENF) by the Ministry of Health and Ministry of Education.5,6

The Stork Network aims to ensure women’s rights to reproductive planning and humanized attention to pregnancy, childbirth and postpartum stages, as well as the child’s right to a safe birth and healthy growth and development. To this end, the adoption of best care practices is advocated based on WHO recommendations and scientific evidence5. These goals integrate the objectives of PRONAENF and consequently connected residency programs.6

It is noteworthy that the adoption of the humanized model in health institutions implies not only changes in the care of nurse midwives to normal low-risk deliveries, but also in the hospital culture change, whose care routines should meet the individual needs of women and their family.

Despite these recommendations, a national survey found high frequencies of obstetrical interventions in the hospital care of pregnant women, such as oxytocin infusion; amniotomy; episiotomy and the lithotomy position of women in childbirth. These results show the need for all health professionals to follow the technical recommendations and scientific evidence in their care practice and require the improvement of managers in strategies to change the obstetric care model in the country.7

Faced with this problem and its interfaces with the qualification of nurse midwives, the following research questions were defined: What care practices are used by obstetric nursing care residents during normal delivery? Do these care practices meet the technical recommendations of WHO?

To answer these questions, this study has the following objectives:

- To identify the health care practices by obstetric nursing residents during their professional qualification for normal delivery.
Discuss the care practices based on technical recommendations of the World Health Organization.

**METHOD**

A descriptive, exploratory, documentary study from quantitative approach, conducted in a large municipal public hospital, located in the municipality of Rio de Janeiro (RJ), Brazil, and has teams of nurse midwives in normal birth care and resident nurses.

These residents are linked to two registered programs in PRONAENF and have the care practice directly supervised by nurse midwives, who are part of the preceptorship of the institution. The clientele served by these professionals in normal birth is primarily represented by healthy pregnant women, with single fetuses and in the cephalic position.

According to the MHS-RJ, the investigated maternity assisted in a total of 6,120 births in 2012, and 3,864 (63.1%) live births (n.v.) by vaginal birth. The obstetric nursing was responsible for the care of 20% (789) of these births by vaginal delivery in this year.

For the production data, the assisted delivery forms by nurse midwives were used from March 2012 to February 2014. These records describe the obstetrical data of labor and delivery; healthcare practices performed, which include non-pharmacological methods employed; and the name of obstetric nurses and residents who were responsible for the conduct of assistance.

This time frame was chosen due to the fact that residence in obstetric nursing is developed in two years, starting in March and ending in February of the second subsequent year.

The inclusion criteria used were the records of normal births assisted by residents in obstetric nursing in the first and second year. They excluded the records of normal deliveries assisted by nurses without identifying with the term "resident".

For documental analysis, a structured form was used, based on institutional printed information, to research the records of obstetric nursing care in normal delivery whose residents have participated.

The instrument consisted of two parts, the first part consisting of the labor data: the presence of the laboring woman’s companion, non-pharmacological methods and obstetric intervention practices (oxytocin administration and performing amniotomy). The second part included the delivery of data such as maternal position, episiotomy embodiment, occurrence and degree of perineal laceration and time of clamping of the umbilical cord. This data set was used as the variables of the study.

It should be noted that the "time of cord clamping" was included in the registration form of normal birth care from April 2013, when there was the admission of new obstetric nurses in the maternity.

Data was stored in a computerized database of Excel type on Microsoft Office 2007, received descriptive statistical treatment and was analyzed based on WHO technical recommendations for normal birth.

The research project was approved by the Ethics Committee of the MHS-RJ, No. 180A / 12, and there was compliance with the terms laid down in the guidelines and regulatory standards of research involving humans.

**RESULTS**

The obstetric nursing residents attended the assistance of 827 (100%) normal deliveries from March 2012 to February 2014, which represents all of the records of the care that these qualifying professionals acted in this period.

The assistance provided by resident nurses were for 718 (86.8%) women who had counted on the presence of a companion during labor and delivery. The absence of the companion was recorded in 12.8% (106) of cases, and in 0.3% (03) of the analyzed records, this data was missing.

In almost all (786; 95%) of these women, one or more non-pharmacological methods were applied for relaxation, relief of pain and facilitating the progression of the fetus descending the pelvis. Among the methods used, there was predominance (87.1%) of breathing techniques, followed by walking (50.7%), a warm bath (44.9%) and massages (33.8%), as can be noted in the following table.
Considering the obstetric interventions during labor, oxytocin administration was reported in 42.0% (348) of the analyzed records. Amniotomy was performed in 14.2% (216) of assistances that obstetric nursing residents participated in.

In relation to the positions of women in childbirth the most adopted were the vertical (376; 45.4%) and semivertical (216; 25.8%), followed by sideways (149; 17.8%) and lithotomy (65; 7.9%). Other positions represented 3.5% (29) of the cases, as the knee-chest and sitting in a pelvic rocking chair. In one delivery (0.1%), there was no record of the woman's labor position.

As for perineal care, episiotomy was performed in 5.1% (42) of normal births assisted by resident nurses and perineum remained intact in 21.8% (180) of these assistances. The laceration of the perineum occurred in 73.1% (605) of the women, but among the group of women whose perineum was torn, first grade lesions were prevalent (80.5%; 487). Second grade lacerations occurred in 11.7% (76) of pregnant women and the third degree accounted for 0.5% (3) of care. There were no reports of fourth degree laceration. However, this information was not found in 7.3% (44) of birth records analyzed.

The time of registration of the clamping of the blood vessels of the umbilical cord started in April 2013 in the researched maternity, and found 295 birth records with this information. This full, timely impingement occurred in 73.2% (216) of newborns and the premature represented 7.5% (22) of births. Despite the recent inclusion of this data, underreporting was higher among all variables, corresponding to 19.3% (57) of normal deliveries which had the participation of residents in nursing care.

**DISCUSSION**

Federal Law No. 11,108/2005 guarantees the right to the presence of a companion of choice of pregnant women during labor, delivery and immediate postpartum period in the UHS health services, the network itself or with health plans. Despite this legal prerogative, there are still difficulties in the implementation of this right in Brazilian hospitals. In research that investigated 135 health delivery care service providers, it was found that only 54.8% of these services mentioned always allowing the presence of a companion, and, in others, this presence is permitted sometimes or never, corresponding to percentage of 32.6% and 11.9%, respectively.

The national survey of childbirth care in Brazil found that only 18.8% of 23,879 mothers investigated had continuous company during all phases of the hospital, from admission to discharge from the maternity. The proportion of mothers who relied on their companion during labor was 42.1% and during the time of delivery, this percentage was lower, 32.7%. It is noteworthy that 24.5% of women had no monitoring during obstetric hospitalization.

In this study, there was no possibility to identify which times the normal delivery assistance had the presence of a partner, if it occurred during labor, childbirth or in both periods. The investigated maternity delivery form only provides for the recording of answers “yes” and “no” to the presence of the companion. However, the proportion of 86.8% of pregnant women assisted by obstetric nursing residents was higher than that observed in studies in Brazilian hospitals. The percentage of 12.8% of pregnant women without a companion during childbirth was almost half of that reported in other studies.

Nevertheless, the training of resident nurses still needs to advance in compliance with Brazilian legislation on the right of all Brazilian pregnant women to count on the presence of a companion during labor and...
delivery, as recommended by WHO and health programs and the mother-child area.

It should be noted that the methodological design adopted in the present study does not allow conclusions about the reasons for the absence of a companion, which may raise barriers to personal, professional or institutional orders and should be the subject of future investigations.

Among the useful practices and which should be encouraged, WHO includes non-invasive and non-pharmaceutical pain relief, such as massage and relaxation techniques during labor. These methods were used in almost all (95%) of pregnant women assisted by resident nurses. 3

This percentage was higher than that found in a population-based research in Brazilian hospitals, 28% in women classified as a usual obstetric risk. However, 46.3% of women members of this low-risk group reported that they moved during labor. 7

An American survey study found that in 70.5% of the 1,382 women surveyed, these methods have been used for pain relief in childbirth, most representative was the use of breathing techniques and corporal movement. 11 The breathing techniques during labor and childbirth can significantly reduce the time of the first stage of labor and the need for induction, although they were not significant effects on the Apgar score and cesarean section rates. 12

The use of water through warm bath through sprinkling, the breathing techniques and massage promotes pain reduction and comfort of the parturient. The use of these practices in the teaching service of the residents indicates the alignment trend with the humanized practices and collaborates with the critical movement of the biomedical model in hospital obstetric care. 13 This trend was also observed in other studies on obstetric nursing care in normal births, with the use of breathing techniques, walking, warm baths and massages in the care of parturientes. 14,16-8

During the first stage of labor, the woman can adopt the upright position or lateral position, providing greater intensity and greater efficiency of the contractions, which implies the ability to promote cervical dilation. WHO recommends that women have freedom of movement and position during labor, since it improves the physiology of labor and promotes greater maternal comfort in that moment. 3

To decrease the restricted stay of the mother, the nurse should encourage her to find a more comfortable position, respect her wishes and follow the instructions for bed rest in the experience of maternal and/or fetal risk situations. It is noteworthy that the routine use of fetal monitoring, intravenous infusions, inflexible application of care protocols and adoption of epidural analgesia limits the ability of the mother to move and causes bed restriction. 7

The use of oxytocin and performing of an amniotomy have a prevalence of 40% in Brazilian hospitals, being higher in the public sector and those with a lower education. 7,16 WHO includes these procedures among the practices that are often used improperly, that they cause pain and restriction of women to their beds, as well as possible adverse effects on the mother and the fetus. 7

In many places, the infusion of this medicine is done only in hospitals and under the responsibility of the physician, consequent to the unpredictability of artificially managed labor. The need of the uterine dynamic correction is also seen as an indication for the referral to obstetric services with surgical capacity. Such findings have made the Institute for Safe Practices in the Use of Drugs (Institute for Safe Medication Practices - ISMP) include oxytocin in the list of high alert medications and high-risk classification reserved only for eleven drugs. 19

Despite this potential, the present study found a high proportion of oxytocin administration, 42% in normal births attended by resident nurses. Other studies on obstetric nursing care in public maternity hospitals in Rio de Janeiro also found a high percentage as 51.3% and 54.6%. 15,20

The Obstetric Assistance Protocol of the MHS-RJ states that nurse midwives should carefully examine the need or not for oxytocin only during the second stage, and conducting routine prescription of intramuscular oxytocin only in the third stage of labor, as prophylaxis of postpartum hemorrhage. 21

Regarding the practice of amniotomy, the percentage of 14.2% was similar to studies conducted in hospitals of the city of Rio de Janeiro, where different proportions to carry out this procedure in pregnant women assisted by obstetric nursing were found, in 25.1% and 13 6% of births analyzed. 15,6 However, these amniotomy percentages are lower than those seen in a delivery center (67.6%), in adhering to the humanized maternity obstetric model (73.6%) and maternity adopting the traditional care model (82.2%). 22

The Obstetric Nursing Care Protocol MHS-RJ21 recommends that amniotomy not be routinely performed in the care of the mother. However, it does not address the
situations where this intervention procedure is indicated or center-indicated, and neither makes it clear what the percentage is acceptable for this procedure.

The present results also suggest that it is necessary to draw up objective criteria for the indication of the use of oxytocin in the hospital delivery, and obstetric and resident nurses can act reflectively and in a participatory way in decision-making in the indication of this drug, as well as providing assistance based on technical recommendations and updated scientific evidence, without unnecessary and iatrogenic intervention, as provided for in the pedagogical guidelines PRONAEUF.

Moreover, these results also highlight the need for investigation of the reasons and factors involved in the use of intervention behaviors by obstetric and resident nurses, considering that the clientele they serve has an obstetric profile more associated with normality than the risk of morbidity during pregnancy and childbirth.

Regarding the position of women in childbirth, WHO included the supine position during labor between the clearly harmful or ineffective practices that should be eliminated. Despite this recommendation, the national survey on birth in Brazil found the prevalence of lithotomy position during delivery, among pregnant women classified as normal risk, being adopted by 91.7% of 23,894 women investigated. The upright positions are more frequent when the nurse midwives take the conduct of assistance. The predominance of these women's positions during delivery was also observed in the present study. Therefore, training and obstetric nursing care seeks to encourage the choice of women for more physiological positions in childbirth, which reveals the suitability of parameter according to the recommendations during the formation of resident nurses.

Regarding the care to the perineum, the WHO recommends restricting the routine use of episiotomy and sets the rate of 10% as acceptable. The routine practice of this procedure is clearly classified as harmful, should be discouraged and not support the current scientific evidence due to causing more damage than benefits. This intervention should be considered in the presence of fetal distress and severe perineal trauma threat, such as lacerations of the perineum in third and fourth degrees.

It is noteworthy that the Brazilian Ministry of Health does not clearly establish a percentage acceptable for episiotomy, although they adopt WHO recommendations.

Although the recommendation is of limited use, the practice of episiotomy remains widespread in routine care in hospitals. Research found that this procedure was carried out in more than half of normal births of women treated in Brazilian hospitals. In another study conducted in a Normal Birth Center of a public hospital, the frequency of use of episiotomy was 25.9%. This difference may suggest that when the nurse midwife is directly inserted in the conduct of assistance, the trend is to reduce this intervention.

In the results presented in this research, the episiotomy rate was 5.1% in normal births assisted by obstetric nursing residents. Therefore, the formation of these professionals is different about this procedure and leading to the technical and ministerial recommendations. Training must be for the purpose of conferring competence and technical skills in delivery care to prevent perineal trauma; ensure non-invasive and safe care; and promote maternal and fetal well-being.

Despite this limited practice, the majority (80.5%) of pregnant women had no severe perineal lesions. The perineal injury is one of the most frequent injuries during childbirth, especially in gilts, and even in labor and delivery with normal evolution.

The proportions found here in the distribution by degree of perineal laceration were similar to the study developed in a delivery center. Among the 2,895 women who had perineal laceration, the first, second and third degrees accounted for 72.5%, 27.3% and 0.2%, respectively.

In England, a national survey investigated 1035253 vaginal delivery gilts, due to the only child gestation and term, from 2000 to 2012, and found an increase of third and fourth degree lacerations from 1.8% to 5.9% in this period, ranging from the episiotomy rate between 30% and 36%. The main factors associated with these lacerations were newborn weight above 4.000g, shoulder dystocia and instrumental vaginal delivery, especially without episiotomy and maternal age above 25 years.

It is noteworthy that the record of the degree of lacerations of the perineum can be inaccurate because of its classification involving possible professional difficulties in specifying the extent of lacerate structures and also the anatomical differences of vulvoperineal region among women, which may interfere with proper identification the
degree of this lesion. 25 Despite obstetric nursing residents hardly ever performing an episiotomy, it seems that this did not result in high rates of severe perineal trauma, however, correlational studies may be required for analysis of the association of these variables. The appropriate timing of clamping should take place, in general, between 1 to 3 minutes after birth, when pulsation of the umbilical cord ceases, as recommended by WHO. 3 With the adoption of this recommendation, the blood is transferred from the placenta to the newborn child and causes increased hemoglobin concentration and neonatal hematocrit. This practice has been shown to be safe and must be implemented to prevent iron deficiency and neonatal anemia. 27

Although there are few studies on the timing of cord clamping and its effects on iron deficiency and anemia in newborns and prevention of maternal hemorrhage, but preliminary results seem to be promising. 27 In eight studies that examined the relationship of cord clamping with time between hematologic evolution and the concentration of iron in newborns at term, it was found that in the long run, the appropriate cord clamping of at least two minutes, has benefits for the infant iron levels between two to six months of age. 27

Therefore, the results described here about this practice seems to indicate that the obstetric nursing residents seek to meet this technical recommendation of WHO. However, the record of this procedure should be more vigilant and be an incentive object and respect for the teaching service of these professionals.

CONCLUSION

Most care practices by obstetric nursing residents during his professional qualification is in accordance with WHO technical recommendations for vaginal delivery, especially in relation to the proportions checked for the presence of the mother’s companion; application of non-pharmacological methods; the vertical position in the delivery of women assisted by them; and episiotomy. The rate of this procedure was lower than the ratio recommended by WHO and yet, no high frequency of severe perineal trauma.

Resident nurses, when performing these practices in their training scenario, are acquiring skills leading to a qualified assistance and that counteract with the medicalized model. Thus, to reproduce much of the practices recommended by the WHO and ministerial programs, they are also contributing to change the care model in public obstetric hospitals. It can be said that these practices learned during the course of specialization in residence mode invigorates the struggle for humanization of birth in institutions where teaching service is developed.

Despite these results, it was found that oxytocin is commonly used in labor, which is a challenge for the teaching of future obstetric nurses in the hospital setting, as denoting the need for reflection and review of pipelines to reduce unnecessary interventions that are not consistent with their professional scope, directed to healthy pregnant women.

Facing this challenge, the actions and teaching strategies should enable nurses to face this problem, with the strengthening of the guiding principles of humanized obstetric practices and scientific evidence. It is also necessary to establish reflection and critique of the subjective effects of the use of these invasive practices on women’s bodies and autonomy.

This research has limitations related to the methodological design used and does not allow generalizations, since it was developed from the assistance of records in a single motherhood. It also did not investigate the factors involved in the decision making of the adopted behaviors and how the teaching-learning process occurs during normal birth care in the residency program.

Despite these limitations, the study presents preliminary results on training in obstetric nursing in residence mode and raises the importance of further research on the subject of specialized vocational education and its interfaces with the reality of obstetric care provided to the population.

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