Original Article

Obstetrical nursing care based on good practices: from admission to delivery

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ABSTRACT

The objective of this study is to assess the obstetric nurse's care from admission to delivery based on good obstetric practices. It is a descriptive, retrospective, and documentary study, with a quantitative approach based on the analysis of 500 medical records. The research identified that an episiotomy was done in 12.2%, an amniotomy in 13%, oxytocin was used in 42.8%, non-pharmacological methods for pain relief were applied in 75.4%, and skin-to-skin contact was used to stimulate in 91.6%. Most of the good obstetrical practices recommended by the World Health Organization were observed to be used by the obstetric nurses when providing care from admission to delivery and this is close to what has been recommended by scientific evidence.

Descriptors: Nursing Care; Obstetric Nursing; Perinatal Care; User Embracement.

INTRODUCTION

In the history of public health, maternal-infant care has been considered an area of priority, especially in regard to the care to a mother during pregnancy, in order to have a pregnancy and childbirth with minimum risk to the mother-child-family triad[(1)].

Pregnancy is experienced in a special way in a woman's life, each one with their own experiences that transform the delivery into a cultural process, as it reflects the historical and social values prevalent in each society. The current model of care during labor and birth here in Brazil has the characteristic of an excess of intervention, taking from the woman the opportunity go through labor and delivery, which has contributed significantly to the increase in the rates of cesarean deliveries and maternal and perinatal morbidity and

mortality[2-3].

From this perspective, the scientific evidence used through good obstetric practices have helped drive the improvement of the maternal health factors that act negatively during the gestational cycle, directly influencing the results in the quality of prenatal care and, therefore, contributing to reduce the damage to the trinomial. By the same token, a significant portion of the complications that may occur throughout labor and at delivery was reduced by appropriate obstetric care, carried out with the appropriate use of technology. These various practices used to assist in pregnancy and childbirth have been promoting successful experiences in obstetric procedures and are effective in the reduction of adverse perinatal outcomes[4-5].

Following the recommendations of the World Health Organization (WHO) and of the Ministry of Health (MH), the institutions have been encouraging normal delivery and a decrease in cesarean sections. These humanization measures aim to provide well-being to the woman and reduce the risks for her and her baby, as well as to provide comfort and well-being to the companion[6].

In this way, a fundamental commitment was established that the health professionals involved in the woman's health will help her during labor and delivery with safety and dignity, meeting the recommendations set forth by the MH, because to humanize the delivery is to promote quality care to the woman in labor using the classifications of good obstetrical practices that are divided into four categories:

- Category A – Practices that are proven useful and should be encouraged
- Category B – Practices that are clearly harmful or ineffective and should be eliminated
- Category C – Practices in which there is insufficient evidence to support a clear recommendation and which should be used carefully until more research clarifies the issue
- Category D – Practices often used inappropriately[7]

These categories were created to encourage the correct use of good practices and promote proper assistance during labor and delivery, focusing on assistance based on pain relief, physical and emotional comfort, freedom of choice for the birth of their baby, and the best delivery method. They are also intended to provide the necessary support (material, personal, and emotional) to the trinomial and help the experience of the woman's labor process to be more secure, calm, satisfactory, and happy[7-8].

In addition, when providing quality care to the woman who experiences the puerperal pregnancy cycle, the professionals can help her overcome fears, tensions, and anxieties through the exercise of empathy and respect, considering the woman's opinions, preferences, and needs[9].

The health professionals are supporters in these experiences, carrying out a satisfactory role in putting their knowledge at the service of the woman and her baby, helping them in the postpartum and birth process in a healthful manner[6].

In this context, the obstetric nurse plays an important role in the care during labor and birth and his/her help has been required both in the care scenarios involving prenatal, delivery, and postpartum actions, as well as in the formulation and development of policies related to the obstetric context[6,10]. It is in

the moment of the labor and birth process that the obstetric nurse can act decisively, making the difference in the care provided, in the support capacity, and in the communication between those involved during labor and delivery, thus favoring the contact and bonding, because pregnancy, delivery, and the postpartum period are a meaningful and enriching experience for all who participate in them[11-12].

For these reasons, the relevance of this study is characterized by being about the care given during delivery and birth, which is a theme of international discussion, where the use of good obstetrical practices by health professionals—among them the obstetric nurses—have undertaken efforts in order to reduce harm during the puerperal pregnancy cycle and, therefore, reduce the high rates of cesarean sections and maternal and newborn mortality, as well as improve the quality of the trinomial care[6,13].

Therefore, due to the importance of this topic, the objective of this study is to assess the obstetric nurse's care from admission to childbirth based on good obstetric practices.

METHOD

This is a descriptive, retrospective, and documentary study with a quantitative approach. The survey was conducted in a maternity hospital of normal risk in a northeastern Brazilian capital. The sample size was estimated at 462 medical records of women admitted, considering the proportion in the population of 50% (a safer estimate when you have little information about the population studied), an absolute precision of 6%, and a significance level of 1%. An electronic calculator available on the Internet at http://www.lee.dante.br/pesquisa/amostragem/calculo_amostra.html was used.

For the sample composition, a filed documentary survey was carried out through medical records, obstetric care records, and record books used from the admission of pregnant women through their delivery in the year 2014. In total, 500 medical records were analyzed between January and June 2015, with an average of 50 records per month.

For data collection, a semi-structured form was created with identification data to characterize the sample and specific data about the care given to the women in labor by obstetric nurses. The data were collected after the approval of the project by the Research Ethics Committee of the Federal University of Alagoas under process No. 40166414.8.0000.5013, on January 16, 2015.

The variables used in the study were the following: completing the data collection form; age; origin; color/race; marital status; level of education; pregnancies and parity of the patients; amount of prenatal appointments; use of partogram; need of episiotomy; active techniques in the third delivery stage; realization of amniotomy; oxytocin use; skin-to-skin contact; non-pharmacological methods for pain relief; labor location; and gestational age.

For organization, the program Microsoft Excel 2010 was used for tabulation and analysis of the statistical and descriptive data. The descriptive analysis was from the absolute frequency (n) and percentage (F%), and the results were presented descriptively through tables.

RESULTS

Of the 500 (100%) medical records analyzed, 413 (83.0%) were fully filled out and 87 (17.0%) were partially filled out or, in other words, the latter were missing essential identification data of the woman in labor and of the follow-up of the labor, delivery, and postpartum.

Table 1 refers to the profiles of women cared for by obstetric nurses during this period in the maternity ward.

Table 1: Socio-demographic profile of pregnant women in a low-risk Maternity Hospital. Maceió, AL, Brazil, 2014.

Variable	(n)	(F%)
Age range		
Less than or equal to 15 years old	32	6.4
16 to 25 years old	330	66
26 to 35 years old	138	27.6
City of origin		
Maceió	228	45.6
Atalaia	39	7.8
Marechal Deodoro	36	7.2
Rio Largo	30	6
São Luís do Quitunde	27	5.4
Skin color		
White	35	7
Black	26	5.2
Brown	416	83.2
Marital status		
Single	404	80.8
Married	79	15.8
Level of education		
Incomplete elementary school	189	37.8
Complete elementary school	79	15.8
Incomplete high school	58	11.6
Complete high school	89	17.8

As for the obstetrical data of the patients, the greatest number were primigravida and primipara. In regard to the amount of appointments during the prenatal period of the last pregnancy, more than half (62.0%) of the woman carried out more than six visits. Still, in relation to the current pregnancy, almost all (95.8%) of the women arrived at the maternity for delivery with a gestational age of 37 to 42 weeks, as described in Table 2.

Regarding the good practices carried out by obstetric nurses for the laboring women in question, we analyzed the data regarding the use of a partogram and episiotomy, the active techniques in the third delivery stage, the realization of amniotomy, oxytocin use, skin-to-skin contact with the baby after birth, the use of non-pharmacological methods for pain relief, and the labor location.

The use of a partogram for recording labor progress was found in 379 (75.8%) of the medical records, where 182 (48.0%) were fully filled out, 65 (17.0%) were partially filled out, and 132 (35.0%) were blank. As for the use of episiotomy, it was done in only 61 (12.2%) of the deliveries.

Table 2: Obstetrical profile of pregnant women in a low-risk Maternity Hospital. Maceió, AL, Brazil, 2014.

Variable	(n)	(F%)
Pregnancies		
Primigravida	207	41.4
Secundigravida	136	27.2
Tercigravida	73	14.6
Multigravida	82	16.4
Not registered	2	0.4
Total	**500**	**100**
Parity		
Primiparas	224	44.8
Paucipara (until 3 deliveries)	209	41.8
Multipara	65	13
Not registered	2	0.4
Total	**500**	**100**
Prenatal check-ups		
None	4	0.8
1 to 3	30	6
4 to 6	101	17.8
More than 6	298	62
Not registered	67	13.4
Total	**500**	**100**
Current gestational age		
Preterm	13	2.6
Term	477	95.4
Postterm	2	0.4
Not registered	8	1.6
Total	**500**	**100**

The active techniques used in the third stage of labor were performed in 489 (97.8%) of the labors; however, the three recommended techniques (intramuscular oxytocin, controlled cord traction, and uterine massage) were performed together in only two deliveries. In regards to amniotomy, it was performed in 66 (13.2%) of the deliveries; however, of these, 20 (4.0%) were carried out by a professional doctor. In reference to the use of oxytocin during delivery, the rate of use was relatively high, occurring in 214 (42.8%) of the women in labor.

As for non-pharmacological methods for pain relief, they were used in 377 (75.4%) of the women in labor; however, the medical records of only 197 (39.4%) indicated which of these methods had been used, and 180 (36%) indicated that the methods applied were registered in the normal delivery book records, but there was no record of their use in the patient's medical records. Among the methods used, the ones that stood out the most were the Swiss ball, used in 100 (20.0%) of the women in labor; walking, done by 94 women (18.8%); and the spray bath used in 61 (12.2%) of the women in labor.

In regards to the labor location, 487 (97.4%) of them happened in the delivery room and the rest in the pre-partum room. As for skin-to-skin contact between the mother and child right after birth, this occurred in 458 (91.6%) of the deliveries.

DISCUSSION

In this study, analyzing the assistance provided by the obstetric nurse through the use of good

obstetrical practices and classifying them according to categories, made it evident that the use of the partogram for registering the progress of the labor was fully filled out by less than half, showing that little importance is given to the use of this tool for following up the labor process.

The partogram is a technology used in the obstetric area that assists in the attention given to and the ability to follow the progress of the labor. In 1994, the WHO recommended its use during labor in order to reduce maternal and fetal morbidity and mortality. Therefore, the MH recommends the adoption of quality indicators during the delivery period of the pregnancy, where information is inserted into the partogram as a way to follow up and evaluate the delivery process[14-15]. The careful monitoring of the delivery progress through the partogram is classified within the good practices as category A in relation to the care given during delivery. In other words, it is a practice that is useful and should be encouraged, as its incorrect or incomplete use may negatively affect the labor and delivery process, causing unnecessary deaths[8].

In obstetric care, the obstetric nurse must understand the importance of the partogram's regular and systematic use and be able to use and fill it out, as it is necessary for the professionals who intend on having a competent performance that is humane, safe, and assertive during the delivery process. However, this technology is still little explored in the everyday practice of the obstetric nurse[9].

This shows advantages for the mothers in labor, reflected by the decline of an invasive procedure that is unnecessary for the progress of the delivery, and therefore indicating adequate care. Episiotomy is a surgical procedure used in obstetrics for increasing the vaginal opening through an incision in the perineum at the end of the second stage of vaginal delivery. However, when the perineum is well massaged using the appropriate and desired position of the woman, this surgical procedure becomes unnecessary[10]. Episiotomy was not frequently used in deliveries, having a rate of 12.2%, which is very close to what is recommended by the WHO.

Though episiotomy has become the most common surgical procedure in the world, it was introduced without much scientific evidence about its real effectiveness. Therefore, currently, on an international level, there is an intention to restrict this procedure and make it no longer routine[11].

WHO's current recommendation is not to prohibit the use of episiotomy, but to restrict it. In some cases, the use of episiotomy may be necessary, such as in fetal distress situations, insufficient progress of delivery, and imminent injury to the third degree of the perineum. The WHO also suggests that the ideal rate of episiotomy in the various services should be around 10%, which is already a reality in many European countries[13]. The liberal and routine practice of episiotomy during delivery is classified as category B or, in other words, is clearly harmful or ineffective and should be eliminated[14].

In this study, it was identified that most healthcare professionals used active techniques in the third stage of the delivery (Category A), following the MH recommendations. The third stage of labor is the period that begins with the birth until the delivery of the placenta (afterbirth). It is classified as extended if it takes more than 30 minutes to complete when an active conduct is adopted and more than 60 minutes with physiological conduct. Complications in the third stage of labor are the main causes of maternal mortality

worldwide[15].

In the maternity hospital in the study, there was a relatively low rate in the use of amniotomy. The low use of this procedure reflects advantages for both the mother in labor and for the baby. According to the WHO, early routine amniotomy done in order to reduce the duration of the labor is also classified under category B[16].

Although there is evidence that early amniotomy can decrease the duration of labor, undesirable side effects may occur, such as an increase in early decelerations of the fetal heart rate and changes in the cephalic pole. In addition to these complications, the longer the labor lasts with ruptured membranes, the higher the risks of ovular and puerperal infection. Therefore, artificial rupture of the sac should be avoided by restricting its use only to those cases where its practice is clearly beneficial, as in some functional disorders[17].

As for the use of oxytocin during labor, a high utilization rate was shown, revealing that it was used in 42.8% of the women in labor, many times causing the mothers to feel unnecessary pain. There are no proven benefits to the routine use of oxytocin, but there are side effects, such as uterine hyperstimulation and an increase in pain[17]. The WHO does not recommend routine infusion of oxytocin in healthy pregnant women. The use of oxytocin is unnecessary and may be harmful. The administration of oxytocins at any moment before the delivery in a way that does not allow for control of its side effects should be eliminated from the care process. This practice was classified as category B[16].

Regarding non-pharmacological methods for pain relief, most of the women in labor used them. The ones that were used more frequently were the Swiss ball, walking, and the spray bath. The use of non-pharmacological methods of pain relief not only provides comfort to the woman in labor, but also prevents the use of pharmacological substances that may interfere with the physiological process of the labor[17]. They decrease the pain caused by uterine contractions, increase maternal satisfaction, and improve obstetric outcomes, which results in the women being more collaborative because they appreciate the sense of control that they gain as they actively manage the pain, the support they receive from their companion and caregivers, as well as the freedom of movement and the ability to choose their movements. This practice is included in category A[18].

In regards to the labor location, most occurred in the delivery room. However, regardless of the birth location, what is important is that more power be given to the woman, respecting her physiology and her desires in order to offer humane care[17].

With a very positive result, skin-to-skin contact between the mother-child binomial right after birth happened in almost all of the deliveries. Skin-to-skin contact must start immediately after birth, and be continuous, prolonged, and established among all healthy binomials. Skin-to-skin contact calms the baby and the mother, who are joined in single harmony at this unique moment. In addition, it aids in stabilizing the blood, respiration, and heart rate of the child; reduces crying and the newborn's stress with less energy loss; and keeps the baby warm through the heat being transmitted from the mother[18].

The practice of encouraging early contact, breastfeeding, and the time between birth and

breastfeeding, reveals data that are consistent with the recommendations of the MH, which recommends contact of the mother with her baby and breastfeeding in the delivery room. Placing the newborn baby on the mother's chest immediately after birth provides a great environment for the newborn's adaptation to extra-uterine life and for the adaptation of the women to maternity[19-20].

The obstetric nurse has an important role at this moment in the assistance given, because the guidance and encouragement of early contact may favor the bond between mother and child, as well as serve as an action that enhances the production of breast milk in the mother[17].

The study also showed that good obstetric practices were significantly carried out as recommended by the WHO and MH, with a focus on the work of the obstetric nurse in promoting humanization during labor and delivery in order to produce a better quality of life and better health for both mother and child[19].

CONCLUSION

The results obtained from the evaluation of the variables such as the rate of episiotomy, non-pharmacological methods for pain relief, skin-to-skin contact between mother and baby, favoring the formation of the bond between this pair as soon as possible, and the low performance of amniotomy show the obstetric nurse's commitment, along with the promotion of health in the quality of the care given to the trinomial, thus demonstrating successful experiences in the labor process and delivery through the use of good obstetrical practices.

It also shows that investment in the use of good obstetric practices has been extremely valid, especially when considering the important benefits given to the trinomial, as well as empowering the women in her process of delivery. Thus, the importance of the obstetric nurse in providing comprehensive care, with technical and scientific expertise that is capable of understanding the human needs, in order to practice the useful and recommended behaviors given by the WHO during labor and delivery in a normal-risk maternity, is quite clear.

This research reflects on the quality of the care given by the obstetric nurse, supported by scientific evidence, both for the application of good practices, as well as the use of interventions when necessary.

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