ADHERENCE TO GOOD OBSTETRIC PRACTICES: BUILDING QUALIFIED ASSISTANCE IN MATERNITY SCHOOLS

Objectives: to analyze the frequency of good obstetric practices in maternity schools. Method: this is a descriptive, retrospective and documental study of a quantitative approach, which analyzed 428 medical records. Results: 90.91% of the women in labor had a companion, 81.82% had been fed, 82.50% had childbirth in vertical position and 83.12% had skin to skin contact. Early clamping was present in 28.90%, and 44.17% used synthetic oxytocin. It was observed the amniotomy (15.00%), the use of the partograph (37.50%) and the application of non-pharmacological methods for pain relief (43.18%). Conclusion: in the maternity schools analyzed, the frequency of good obstetric practices occurred more criteriously in some cases, but it would still be necessary to adjust the assistance.


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Introduction

Childbirth assistance, until the end of the 19th century, was performed by midwives in home care. The process of delivery outside the home was something that happened in extreme situations, as was the presence of the medical professional in the delivery scene, which was given only in complicated cases. This scenario changed as the medical profession was consolidated and recognized, making women and their reproductive lives objects of study in medical schools.

In Brazil, maternity became a state concern from the 1930s onwards. During this period, the childbirth care environment went through a transition, migrating from home to hospital. In addition, maternal habits began to change from being intrinsic to the female, to becoming shaped and guided by professionals during the periodic consultations.

The current model of health care includes childbirth and birth assistance as a medical event. In it, the woman is considered a complex, fragmented machine unable to understand her needs and make decisions about her health. Therefore, the birth of this defective woman is performed by the medical professional who, to correct the imperfections, uses technologies. These are employed without proper evaluation of their real need, effectiveness and safety.

The World Health Organization (WHO) understands that childbirth is a physiological event and, for this reason, needs care and, in most cases, does not require interventions. Therefore, practices during birth and childbirth assistance should be in accordance with scientific evidence that unites art and science, providing a humane and safe birth for mother and child. These practices are classified into four categories (A, B, C and D), according to the studies produced about each procedure.

The teaching hospitals, according to the MEC/MS Interministerial Ordinance nº 1,000, of 2004, are units in which curricular practical activities are developed by general or specialized health academic courses belonging or associated to higher education institutions. The practices, in this scenario, contribute significantly to the construction of the professional profile, since, in this environment, there is the meeting and exchange of experience between students and professionals, guaranteeing the students the opportunity to follow the development of labor and childbirth, and to provide assistance based on the scientific evidence produced. In this context, the routines of the institution and the knowledge of the professional assistant are usually respected. However, childbirth assistance in Brazil, including teaching hospitals, has proved to be technocratic and focused on medicalization.

Thus, knowing the scenario of obstetric assistance, regarding practices based on...
scientific evidence, especially in maternity schools, institutions that train new professionals, may contribute to the construction of a teaching model in accordance with the guidelines of the Rede Cegonha, as recommended by the Brazilian Ministry of Health (MH).

In view of the above, this study aims to analyze the frequency of good obstetric practices in maternity schools.

Method

Descriptive, retrospective and documental study of quantitative approach. The research was carried out in two high risk maternity schools, one federal and the other statewide, in a capital city of northeastern Brazil. For the composition of the sample, it was carried out a documental survey archived, by means of medical records, obstetric care forms and registration books used during the reception of the pregnant woman until the childbirth in the period from January to June 2016. A total of 428 medical records were analyzed from March to April 2017, with an average of 214 records per month.

For the data collection, a structured form with identification data was elaborated, to characterize the sample and the specific data on the attendance to the women in labor. The data were collected after approval of the project by the Ethics and Research Committee of the Universidade Federal de Alagoas, process number 63007816.5.0000.5013. The study included medical records with information on assistance provided to women who had more than 34 weeks of pregnancy and gave birth during the first half of 2016 in the maternity schools. It was excluded the records identified as anembryonic pregnancy or other fetal malformation.

The variables used in the study were: age, gestations and parity, gestational age, presence of the companion, use of the partograph, use of the episiotomy, maneuvers, performance of the amniotomy, use of oxytocin, Kristeller’s maneuver, non-pharmacological methods for pain relief, position of childbirth, prescribed diet, skin to skin contact, clamping of the umbilical cord, fetal weight, breast feeding in the first hour of life.

For the organization, tabulation and analysis of descriptive statistical data, the IBM SPSS Statistic program was used. The descriptive analysis occurred based on the absolute frequency (n) and percentage (F%) and the results were presented in a descriptive way, by means of tables.

Results

It was observed that the age of the 428 women attended in both units varied between 13 and 45 years, with a mean age of 24.09 years with a standard deviation of ± 7.38 in the Federal and 23.73 years with a standard deviation of ± 7.01 in the statewide one. The most frequent age was 19 years, with 9.74% in Federal and 22 years, with 8.33% in statewide. Regarding parity, in the Federal one, the majority presented between 1 and 3 births; in the statewide one, the majority was nulliparous. When analyzing the gestational age in both maternity schools, the majority was between 37 to 39 weeks and 6 days.

Regarding the practices classified by WHO in Category A of recommendations, it was obtained that the absolute majority had companions (90.91% and 86.67%). However, the use of non-pharmacological methods for pain relief was present for the minority (43.18% and 12.50%), as shown in Table 1.

Table 1 – Frequency of demonstrably useful practices that should be encouraged, Category A, in high complexity maternity schools. Alagoas, Brazil – 2017 (continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Federal</th>
<th></th>
<th>Statewide</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample (n = 308)</td>
<td>%</td>
<td>Sample (n = 120)</td>
<td>%</td>
</tr>
<tr>
<td>Presence of companion</td>
<td>280</td>
<td>90.91</td>
<td>104</td>
<td>86.67</td>
</tr>
<tr>
<td>Prescription of hydration and oral feeding</td>
<td>252</td>
<td>81.82</td>
<td>46</td>
<td>38.33</td>
</tr>
</tbody>
</table>
Adherence to good obstetric practices: building qualified assistance in maternity schools

Table 1 – Frequency of demonstrably useful practices that should be encouraged, Category A, in high complexity maternity schools. Alagoas, Brazil – 2017

<table>
<thead>
<tr>
<th>Variables</th>
<th>Federal Sample (n = 308)</th>
<th>%</th>
<th>Statewide Sample (n = 120)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verticalized position during the childbirth</td>
<td>192</td>
<td>62.34</td>
<td>99</td>
<td>82.50</td>
</tr>
<tr>
<td>Breast feeding in the first hour of life</td>
<td>206</td>
<td>66.88</td>
<td>40</td>
<td>33.33</td>
</tr>
<tr>
<td>Skin to skin contact</td>
<td>256</td>
<td>83.12</td>
<td>95</td>
<td>79.17</td>
</tr>
<tr>
<td>Use of non-pharmacological methods for pain relief</td>
<td>133</td>
<td>43.18</td>
<td>15</td>
<td>12.50</td>
</tr>
<tr>
<td>Partograph</td>
<td>-</td>
<td>-</td>
<td>45</td>
<td>37.50</td>
</tr>
</tbody>
</table>

Source: Created by the authors.

Note: Conventional signal used:
- Numerical data equal to zero not resulting from rounding up.

The expressive majority of women were fed and hydrated during labor and childbirth, as described in one of the units, while in the other institution more than half of the women were kept on fasting.

Table 2 – Frequency of clearly harmful practices that should be abolished, Categories B, C and D, in high complexity maternity schools. Alagoas, Brazil – 2017

<table>
<thead>
<tr>
<th>Variables</th>
<th>Federal Sample (n = 308)</th>
<th>%</th>
<th>Statewide Sample (n = 120)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithotomy</td>
<td>104</td>
<td>33.77</td>
<td>14</td>
<td>11.67</td>
</tr>
<tr>
<td>Oxytocin Infusion</td>
<td>93</td>
<td>30.20</td>
<td>53</td>
<td>44.17</td>
</tr>
<tr>
<td>Early clamping of the umbilical cord</td>
<td>89</td>
<td>28.90</td>
<td>6</td>
<td>5.00</td>
</tr>
<tr>
<td>Amniotomy</td>
<td>7</td>
<td>2.27</td>
<td>18</td>
<td>15.00</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>58</td>
<td>18.83</td>
<td>25</td>
<td>20.83</td>
</tr>
<tr>
<td>Kristeller’s maneuver</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>1.67</td>
</tr>
</tbody>
</table>

Source: Created by the authors.

Note: Conventional signal used:
- Numerical data equal to zero not resulting from rounding up.

A low frequency of amniotomy was obtained, a practice classified in category C by the WHO, but 97.40% of the Federal medical records did not contain information regarding this practice.

A great omission is noticeable in the records of the assistant professional, since 17.99% (n=77) of all births attended in the two units (n=428) had no notes regarding perineal integrity.

Discussion

The study evidenced that the ages of the women in labor in the two maternity hospitals were outside the age range considered a risk factor by the MH, since the minority was under or equal to 15 years old and over 35 years old. However, it is valid to emphasize that age by itself does not represent a risk, because it must be associated with other factors that, added together, may be the cause of pregnancy damage and, consequently, result in damage to maternal-infant health, thus increasing maternal-fetal morbidity and mortality\(^7,8\). Among the factors that characterize the population studied, it was observed that, although not appearing more frequently in some studies, nulliparity was significant in the sample studied. This is also a gestational risk generator factor, according to the MH. Moreover, half of the population had gestational age corresponding to the term, a contradictory fact in relation to risk eligibility criteria\(^6,9\).
Good obstetric practices are classified by the WHO into categories that help in the qualified assistance to women in labor and are based on successful experiences. Over the years, studies have built up evidence to reinforce the general recommendations on the assistance provided to the woman in labor, thus strengthening the National Guidelines for Normal Birth Assistance. These state that good obstetric practices also serve for childbirths that present gestational risk⁶,¹⁰.

Among these practices there is the presence of the companion, recognized as a right foreseen in Federal Law nº 11.108/2005. Such practice is within category A, that is, they are undoubtedly beneficial and should be stimulated, since the continuous physical and emotional support promotes better outcomes of childbirth, especially when they come from people from the conviviality of the pregnant woman and transmit her confidence and security. In evaluating its application in the maternity hospitals studied, it was found that the vast majority of women had their rights respected, when the maternity hospitals allowed the companion to participate in all the assistance provided during labor and childbirth. The safety transmitted by the accompanying person, at the time of childbirth, is of extreme importance for the continuation of the process. Thus, health professionals, in addition to assuring women and their families this right, should encourage not only the presence, but especially the participation and involvement of the family member. For this, they can be instructed on relaxation techniques, breathing and physical and emotional support, providing them privacy and a welcoming environment¹¹.

Another practice that should be encouraged is the stimulation of hydration and oral feeding during all labor and childbirth, because women need a high energy intake to achieve a good development of the parturition process, since, according to scientific evidence, light diet and intake of caloric liquids increase glucose and insulin levels and promote a decrease in the production of ketone bodies due to muscle fatigue. When analyzing the results obtained in the study, it was verified, between the two institutions studied, that the results were contrary. The statewide institution practices the feeding of pregnant women, and the federal institution imposes fasting on more than half of them. Although the women in the study institutions present a high gestational risk, the water intake, as well as the ingestion of light foods is not contraindicated, since there is no strong scientific evidence to prove the need for a zero diet for this group¹².

In addition to the recommendations described above, the use of the partograph is also encouraged, since it is a graphic instrument in which the maternal and fetal conditions are recorded, allowing the follow-up and evaluation of labor. In the partograph, they must contain information indicated by the WHO, such as cervical dilatation, uterine dynamics, height of presentation, fetal heart rate, as well as the vital signs of the woman in labor. These records help the team to target interventions that are indispensable to the clinical needs of the woman during the stage of labor, decreasing the risk of maternal-fetal mortality¹³.

However, in this study, no data were found regarding the completion of the partograph in one of the units; in the other, the frequency of use was low. The failure to record data on labor in the program makes it impossible to analyze whether or not there was a need for interventions in the study group, since the correct completion of this document subsidizes the decision making power of the assistant professional.

Besides the technical factors, subjective elements such as pain must be taken into account. It is considered the main component of vaginal delivery and is responsible for the feeling of fear shown by the pregnant women. However, pain during labor is physiological and important, since it unleashes the release of endorphins, hormones that have helped in the completion of labor, providing pleasure and satisfaction. Thus, obstetric assistance should not be centered on promoting the absence of pain, but rather the
use of non-pharmacological methods for its relief during labor and childbirth\textsuperscript{(12)}.

The results of this study demonstrate that less than half of the woman in labor attended had access to these methods, although the maternity hospitals have the resources to perform them. In one of the maternity hospitals, materials and an environment conducive to music therapy, aromatherapy, rebozos, foot scalping are available; in both, massage, Swiss ball use, penumbra and warm bath are available. These resources can provide the woman with moments of pain relief and welcome during her stay in the delivery room. In addition, the verticalization of childbirth has been stimulated by the gravitational favoring of the childbirth mechanism, to generate greater comfort and satisfaction for the woman regarding childbirth.

The lithotomy or supine position, on its turn, is proven to be harmful, making its abolition and replacement necessary by positions such as half-seated, seated, squatting, among others\textsuperscript{(13)}. In the present study, it was found that most of the women gave birth in a vertical position, but a significant number of deliveries were performed in lithotomy.

It is important to note that imposing the position that the woman should give birth, whether it is verticalized or not, is contraindicated, because at this time she should feel comfort and security for the expulsive period. The adoption of more vertical positions is inherent to the human being, however, due to the culture of prohibition of movement and imposition of dorsal decubitus, women adopt such position spontaneously. In this context, the assistant health professional should present, guide and stimulate adherence to vertical positions\textsuperscript{(14)}.

Another action that is also encouraged is skin to skin contact. This contact consists in placing the baby without clothes, face down, over the thorax or maternal abdomen, covering them to keep them warm, thus promoting better adaptation of the newborn to the extrauterine life\textsuperscript{(14)}. In addition, studies have confirmed that early contact facilitates the promotion of breastfeeding and the construction of a bond in the first hour of postpartum. These practices are established as routine in most maternity hospitals. However, this moment is often short and does not respect the norms recommended by the Hospital Amigo da Criança Initiative\textsuperscript{(15)}.

This study evidenced that most newborns were placed in skin-to-skin contact, but the significant percentage referring to the early clamping of the umbilical cord (a practice classified in category C of WHO recommendations) raises the hypothesis that this first contact between mother and child is not in accordance with the recommended one, a factor that can negatively influence the establishment of the bond between the mother and the baby\textsuperscript{(15)}.

As for the intravenous infusion of synthetic oxytocin during labor, about one third of the population in one of the units, and almost half of the women in the other institution were submitted to this practice. These numbers, although representing the minority, are significant and should be taken into consideration, since the routine use of uterotonics is contraindicated by WHO and the Ministry of Health. The use of oxytocin in labor should be based on clinical criteria. It should not be used to speed up delivery, however its application for this purpose is still very frequent, as some studies show\textsuperscript{(16-17)}. The restriction of this practice results from the deleterious effect on the woman, since the drug increases the frequency and intensity of uterine contractions, which implies greater discomfort and risk of uterine rupture and fetal suffering\textsuperscript{(12)}.

In view of the above, it is clear that professionals in the units under study may be using this method to reduce labor time. However, from the point of view of humanized care, this routine is potentially harmful, not only considering the intervention on the physiological process, but also for imposing on the woman a significant increase in pain, which can cause emotional damage, especially with regard to the natural satisfaction of begetting and giving birth to a child\textsuperscript{(15)}.

One of the first interventions performed soon after birth is the early clamping of the umbilical
cord. This is defined as the clamping and section of the cord before one minute after the birth of the baby, being the late, or timely, that occurs between one and five minutes, or only after the cessation of their pulse. Its early execution is contraindicated, since its use must be cautious, that is, only with established clinical indication, such as, for example, the prevention of vertical transmission of HIV\textsuperscript{(18)}.

This study shows that this practice is presented in different ways in the two institutions. In one of them, in most of the assisted childbirths, the timely clamping of the umbilical cord was performed, a positive indicator of the quality of the assistance provided. Its benefits for the newborn have been proven, as a greater contribution of iron in early childhood and contribution to better successes in cases where the use of neonatal resuscitation maneuvers is necessary\textsuperscript{(9,16)}. In contrast, the other institution recorded timely clamping in less than a quarter of the population under study, a fact that may bring some inconvenience to the newborn in the future\textsuperscript{(15,18)}.

Another very recurrent procedure in birth assistance is amniotomy, which consists of the artificial rupture of the ovular membranes, as a means to accelerate labor, but also to evaluate the aspect of the amniotic fluid in situations that require more complex attention. Its routine use is contraindicated, since it implies risks, such as umbilical cord prolapse and threat to maternal and neonatal infection\textsuperscript{(8)}. This procedure has not been demonstrated to be a practice in this study, but this data may not correspond to the reality in one of the institutions, since the records as to whether or not this practice was performed were omitted in most cases. On the other hand, one of the institutions presents low rates of application of the technique.

Among the interventions performed indiscriminately is the episiotomy, a surgical incision performed in the perineum with the intention of enlarging the vaginal canal, one of the most used practices worldwide. Its indiscriminate use is associated with increased blood loss, perineal pain and increased risk of severe perineal laceration (Degree III and IV), not presenting clear maternal benefits. This procedure was performed in less than a quarter of the study population of both institutions, which indicates that the practice is still far from the maximum percentage recommended by the WHO\textsuperscript{(16)}.

Among the most common practices in the Brazilian obstetric scenario is Kristeller’s maneuver, which consists of compressing the uterine fund, aiming to shorten the expulsive period. However, its official register is nonexistent in most hospitals, as observed in the present study. In one of the units, for example, no registers were found related to the use of the technique, considered as potentially harmful for mother and baby. Therefore, it is necessary to extinguish it from delivery rooms and obstetric centers\textsuperscript{(47)}. It is essential to emphasize the importance of the involvement of assistance institutions, especially the trainers of new professionals, in the fight against potentially harmful practices, especially those that should be extinguished, such as Kristeller’s maneuver.

It is worth noting that normal childbirth is not contraindicated for high-risk pregnant women. Its eligibility depends not only on the trajectory traveled by the pregnant woman throughout the prenatal period, but mainly on the health situation of the pregnant woman at the time of labor and childbirth, as well as on the conduct adopted by the team that will assist her at this very important and unique moment in her life\textsuperscript{(1)}.

This research presented as a limitation the omission of important data in the registers of the assistant professionals. Moreover, it was observed a repeated contradiction between the information contained in the medical and nursing evolution, mainly related to the practices contraindicated by the MH. Another fact related to the study was the loss of some data, since, in one of the institutions, the access to the physical record was difficult. Thus, the research was carried out in the electronic record, which did not contain all the information.

**Conclusion**

This study showed that the obstetric scenario analyzed is undergoing transformations, given
the good results regarding some of the practices analyzed. It was found that the pregnant women had their right to a companion preserved; however, they were still going through the process of fasting parturition. Moreover, a large part of these women had access to vertical positions and immediate contact with their child.

On the other hand, most did not have access to non-pharmacological methods for pain relief, a practice encouraged and defined as beneficial by the WHO and the ministerial programs to encourage humanized care. Moreover, interventions in the labor and childbirth process, such as the use of intravenous oxytocin and episiotomy, have not been shown to be present in most of the treatments performed, but are not yet in accordance with the recommended.

It is important to emphasize the need for adequacy of the maternity schools linked in the study, since they are trainers of professionals since graduation. Thus, it is relevant to carry out other studies, so that it is possible to analyze the evolution and adjustment of these institutions, providing a favorable obstetric scenario and quality trainer.

Collaborations:

1 – conception, design, analysis and interpretation of data: Lahys Firmino Silva, Maria Elisângela Torres de Lima Sanches and Amuzza Aylla Pereira Santos;

2 – writing of the article and relevant critical review of the intellectual content: Lahys Firmino Silva, Maria Elisângela Torres de Lima Sanches, Amuzza Aylla Pereira Santos, Julio Cesar Silva Oliveira, Deborah Moura Novaes Acioli and José Augustinho Mendes Santos;

3 – final approval of the version to be published: Lahys Firmino Silva and Amuzza Aylla Pereira Santos.

References


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