Analysis of practices in childbirth and postpartum hospital care

ABSTRACT
Objective: to analyze practices in childbirth and postpartum hospital care. Methods: cross-sectional study, conducted with 335 mothers in a reference maternity hospital. A form was used based on the indicators of the Bologna index and guidelines for childbirth and puerperium assistance. Data were analyzed using descriptive and inferential statistics (chi-square, binomial and Clopper-Pearson tests), with p<0.05 being significant. Results: it was observed that 77.9% of the puerperal women considered professional assistance satisfactory. The presence of the doula (p=0.037) and breastfeeding in the first hour of life (p=0.032) had a significant relation with the evaluation of women. The Bologna index evaluation obtained an average of 2.6. Conclusion: there was a higher frequency of intermediate and inadequate practices in childbirth and postpartum care.

Descriptors: Nursing; Humanizing Delivery; Postpartum Period; Evidence-Based Practice; Midwifery.

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RESUMO
Objetivo: analisar as práticas na assistência ao parto e pós-parto hospitalar. Métodos: estudo de corte transversal, realizado com 335 puérperas em uma maternidade de referência. Utilizou-se formulário com base nos indicadores do índice de Bologna e diretrizes para assistência ao parto e puerpério. Analisaram-se os dados por meio de estatística descritiva e inferencial (testes Qui-Quadrado, binomial e Clopper-Pearson), considerando-se significativos os valores de p<0.05. Resultados: observou-se que 77,9% das puérperas consideraram satisfatória a assistência profissional. A presença da doula (p=0.037) e o aleitamento materno na primeira hora de vida (p=0.032) tiveram relação significativa com a avaliação das mulheres. A avaliação pelo índice de Bologna obteve média de 2.6. Conclusão: verificou-se maior frequência de práticas intermediárias e inadequadas na assistência ao parto e puerpério hospitalar.

Descritores: Enfermagem; Parto Humanizado; Período Pós-Parto; Prática Clínica Baseada em Evidências; Tocologia.
Introduction

Brazil presents a technocratic obstetric model, centered on interventions and guided by technologies, evidenced by a scenario with high rates of cesarean sections and by professionals who reproduce the acquired experiences based, mostly, on the mechanism of norms and routines\(^{(1)}\). The biopsychosocial model, on the other hand, sees women beyond the physiology of childbirth, seeing the social, psychological and cultural context linked to the individual\(^{(2)}\).

Advances in obstetrics contributed to improving indicators of maternal and perinatal morbidity and mortality, but also increased rates of interventions that, in most cases, generate negative experiences for women\(^{(3)}\). The dissemination of good practices promotes safe delivery assistance, through the humanization of the care process\(^{(1)}\).

Failure to comply with scientific practices submits the woman and her concept to the actions of professionals, with unnecessary interventions and a decrease in the woman’s autonomy, characterizing obstetric violence\(^{(4)}\). It is essential to humanize the process of childbirth and birth, including the human experience, in order to provide adequate assistance in the face of the need of the other and centered on conducts that aim to attend the parturient woman and promote healthy parturitions and births\(^{(5)}\).

In view of this, the humanization of childbirth expresses the respect for the role of informed women in choosing the mode of delivery, multidisciplinary monitoring and care based on scientific evidence\(^{(6)}\). In this context, in Brazil, it promoted a process to consolidate the model of humanized assistance in the process of childbirth and birth\(^{(2)}\).

Although there are no internationally standardized indicators to analyze the quality of maternal and neonatal care, a comparison of procedures performed in care using the Bologna Index analysis and the guidelines recommended by the Ministry of Health and Organization’s Assistance Protocols World Health Organization.

It is worth mentioning that the systematized information with the aid of indicators is an important instrument in monitoring the quality of care provided to the mother-child binomial; however, there are still gaps in the implementation of good obstetric practices in health services and knowledge about this reality can contribute to the improvement of strategies aimed at reducing maternal morbidity and mortality and encouraging respectful and humanized childbirth. Faced with this context, the objective is to analyze practices in childbirth and postpartum hospital care.

Methods

Cross-sectional study carried out in a maternity hospital of maternity and child reference in Pernambuco. Data were collected between September 2018 and February 2019. The sample was calculated based on normal births that took place at the maternity hospital in the previous year of the survey, totaling 2,603 births. Considering this information, the formula for sample calculation of cross-sectional studies of finite population was used, adopting a 95% confidence interval, a margin of error of 5% and a critical value of 1.96. Thus, a sample of 335 postpartum women was obtained.

It is included women of any age range, of usual risk pregnancy, whose vaginal cephalic delivery occurred in maternity, between 37 to 42 weeks of gestation with a single fetus, and that postpartum, were in the rooming. Postpartum women who had stillbirths or neonatal death were excluded from the sample; possessing some cognitive and mental limitation, previously diagnosed, that hindered comprehension and verbal expression, making their participation impossible.

Face-to-face interviews were carried out with the puerperal women during hospitalization in the maternity room and complementary data were extracted from the medical record of the puerperal woman and the newborn. For this purpose, a questionnaire was used containing questions about sociodemogra-
phic characteristics, obstetric history and data related to labor, delivery and postpartum and the woman’s opinion on the assistance received.

A questionnaire was built based on indicators contained in the guidelines of the Rede Cegonha (Stork Network) program; National guidelines for assistance to normal childbirth from the Ministry of Health\(^3\); World Health Organization recommendations for a positive delivery experience\(^7\); and the Bologna Index.

The World Health Organization classifies normal birth care practices into four categories. Category A includes effective practices that should be encouraged. Practices considered ineffective or harmful are in category B and should be abandoned. Categories C and D are those in which there is no clear scientific evidence to approve their recommendation or are considered inappropriate\(^7\).

After analyzing the aforementioned literature, thirty recommendations from the World Health Organization and the Ministry of Health were extracted to analyze the assistance provided to the mother and her baby. Thus, the classification of assistance in childbirth and postpartum practices was divided into four levels: Adequate superior, when 100.0% of responses are positive practices; Suitable, when ≥75%; Intermediate, when 74 to 51.0%; and Inadequate when 50.0% or less of the responses are positive practices.

The Bologna index presents five variables: presence of a companion during delivery; use of the partogram; absence of stimulation of labor (use of oxytocin, Kristeller’s maneuver); delivery in the non-supine position and skin-to-skin contact between mother and child, at least 30 minutes in the first hour\(^5\). For each index, 1 point is attributed, if it has been fulfilled. After evaluating the assistance, the value of the sum zero is considered as the lowest quality, from 1 to 4 intermediate quality and 5 the highest quality of assistance.

The evaluation by the parturient was also classified according to the degree of satisfaction of the assistance received in the delivery process and the hospital puerperium, through five questions contained in the questionnaire. Each question with a positive answer accumulated 1 point, with 1 to 2 answers as unsatisfactory assistance and 3 to 5 as satisfactory assistance.

A pilot test was carried out with five mothers, to verify the acceptability, clarity and understanding of the instrument’s language. There was a need for further adjustments and the sample was disregarded. A second pilot test proved the quality and acceptability of the instrument.

The data collected were organized in a Microsoft Office Excel 2007 spreadsheet and analyzed using the Statistical Package for the Social Sciences, version 21.0, using descriptive statistics and statistical inference (Chi-square, binomial and Clopper-Pearson tests). Values of \(p<0.05\) were considered statistically significant. The research was approved by the Research Ethics Committee of the Health Sciences Center of the Federal University of Pernambuco under minute No. 2,830,353/2018 and Presentation Certificate for Ethical Appreciation No. 94050318.6.0000.5208.

Results

The age of the participants ranged from 14 to 41 years, with an average of 23.6 years of age (Standard deviation (SD) = 6.06). Most women declared themselves to be brown 228 (68%), with a fixed partner 271 (80.9%) and monthly income of up to 275 minimum wages (82.1%). Regarding the length of schooling, 165 (49.2%) had elementary education and 223 (66.6%) stated that they performed paid activities.

In the obstetric data, it was observed that 160 (48.0%) were primiparous and 249 (74.3%) were spontaneous vaginal deliveries. Only 15 (4.0%) women developed a prenatal delivery plan and, of these, only 5 (33.0%) delivered the delivery plan at the maternity hospital. It was noticed that 278 (83%) of the women used non-invasive and non-pharmacological methods to relieve labor pain.

In the maternity hospital, 108 (32.2%) of women with more than 4 cm of dilation were admitted, with an average of 5.2 cm of dilation and 7.6 hours
of labor. As for the number of vaginal touches, 222 (65.6%) received three or more vaginal touches. The evaluation of uterine dynamics was observed, at least once, in only 152 (45.0%) of the women and 154 (46.0%) of the participants had their fetal heartbeat auscultation recorded three to five times.

184 (55.0%) of the medical records were found, but only 115 (61.5%) of them were completely filled out. Obstetric nurses attended only 83 (24.8%) of the usual obstetric risk deliveries. Table 1 shows the procedures performed in childbirth and postpartum care at the study maternity.

### Table 1 – Practices identified in hospital delivery and postpartum care. Pernambuco, PE, Brazil, 2019 (n=335)

<table>
<thead>
<tr>
<th>Variables</th>
<th>n (%)</th>
<th>*CI95%</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of partner</td>
<td>302 (90.1)</td>
<td>86.4 – 93.1</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Childbirth in non-supine position</td>
<td>16 (4.8)</td>
<td>02.8 – 07.4</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Respect to privacy</td>
<td>305 (91.0)</td>
<td>87.7 – 93.8</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Use of oxytocin in the post-partum</td>
<td>297 (88.7)</td>
<td>85.0 – 91.8</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Skin-to-skin contact between mother with baby</td>
<td>289 (86.3)</td>
<td>82.3 – 89.7</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Breastfed in the first hour after birth</td>
<td>87 (26.0)</td>
<td>21.5 – 30.8</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Partogram</td>
<td>184 (54.9)</td>
<td>49.6 – 60.2</td>
<td>0.080</td>
</tr>
<tr>
<td>Trichotomy</td>
<td>4 (1.2)</td>
<td>0.0 – 2.8</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Enema</td>
<td>9 (2.7)</td>
<td>0.1 – 4.8</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Directed pull</td>
<td>269 (80.3)</td>
<td>75.8 – 84.3</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Diet restriction</td>
<td>134 (40.0)</td>
<td>34.8 – 45.3</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Amniotomy</td>
<td>146 (43.6)</td>
<td>38.3 – 48.9</td>
<td>0.022</td>
</tr>
<tr>
<td>Kristeller’s Maneuver</td>
<td>82 (24.5)</td>
<td>20.1 – 29.3</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>92 (27.5)</td>
<td>22.9 – 32.4</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Consent to perform Episiotomy</td>
<td>26 (7.8)</td>
<td>5.2 – 10.9</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Presence of doula</td>
<td>71 (21.2)</td>
<td>17.0 – 25.8</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Participated in choosing the position to birth</td>
<td>137 (40.9)</td>
<td>35.7 – 46.2</td>
<td>0.001</td>
</tr>
<tr>
<td>Dilation &gt;4cm on admission</td>
<td>108 (32.2)</td>
<td>27.4 – 37.4</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Use of oxytocin</td>
<td>111 (33.1)</td>
<td>28.2 – 38.3</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Verification of uterine dynamics</td>
<td>152 (45.4)</td>
<td>40.1 – 50.7</td>
<td>0.101</td>
</tr>
<tr>
<td>Uterine massage on discharge</td>
<td>175 (52.2)</td>
<td>46.9 – 57.6</td>
<td>0.444</td>
</tr>
<tr>
<td>Timely clamping of umbilical cord</td>
<td>181 (54.0)</td>
<td>48.7 – 59.3</td>
<td>0.155</td>
</tr>
<tr>
<td>Offer of information during assistance</td>
<td>224 (66.9)</td>
<td>61.7 – 71.8</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*CI95% confidence interval of proportions - Clopper-Pearson; Binomial test

The classification of practices for childbirth and postpartum hospital proved to be adequate in only 9 (2.7%) visits; 209 (62.4%) were classified as intermediate and 117 (34.9%) as inadequate. It was noted that there was statistical significance in the relationship between this classification and the presence of a companion during childbirth, in the presence of a doula, performing an episiotomy, the professional who provided the assistance, skin-to-skin contact and breastfeeding in the first hour of life, verbal violence suffered, information and explanations provided about the delivery process and the procedures related to the mother and baby (Table 2).

### Table 2 – Association between the classification of care and practices identified in delivery care and hospital postpartum. Pernambuco, PE, Brazil, 2019 (n=335)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adequate</th>
<th>Intermediate</th>
<th>Inadequate</th>
<th>Total</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of partner</td>
<td>9 (3.0)</td>
<td>194 (64.2)</td>
<td>99 (32.8)</td>
<td>302</td>
<td>0.035</td>
</tr>
<tr>
<td>Presence of doula</td>
<td>4 (8.9)</td>
<td>36 (80.0)</td>
<td>5 (11.1)</td>
<td>45</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>–</td>
<td>45 (48.9)</td>
<td>47 (51.1)</td>
<td>92</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Assistance by doctor</td>
<td>3 (1.2)</td>
<td>150 (59.5)</td>
<td>99 (39.3)</td>
<td>252</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Assistance by obstetric nurse</td>
<td>6 (7.2)</td>
<td>59 (71.1)</td>
<td>18 (21.7)</td>
<td>83</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Had skin-to-skin contact</td>
<td>9 (3.1)</td>
<td>189 (65.4)</td>
<td>91 (31.5)</td>
<td>289</td>
<td>0.003</td>
</tr>
<tr>
<td>Breastfed in the first hour of life</td>
<td>7 (8.0)</td>
<td>64 (73.6)</td>
<td>16 (18.4)</td>
<td>87</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Verbal violence</td>
<td>–</td>
<td>28 (50.0)</td>
<td>28 (50.0)</td>
<td>56</td>
<td>0.020</td>
</tr>
<tr>
<td>Information provided</td>
<td>7 (4.0)</td>
<td>129 (73.3)</td>
<td>40 (22.7)</td>
<td>137</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*Chi-square test

As for the evaluation of the Bologna index, an average of 2.6 was obtained. Therefore, 328 (97.9%) of deliveries with intermediate quality were considered, 3 (0.9%) with lower quality and 4 (1.2%) with higher quality.

With regard to the parameters for evaluating assistance, according to the opinion of women during the delivery and hospital postpartum process, it was observed that 262 (77.9%) of the puerperal women considered themselves satisfied with the care re-
ceived. It was noticed that the presence of the doula and the presence of breastfeeding in the first hour of life had a significant relationship with the evaluation by women (Table 3).

**Table 3** – Satisfaction of the parturient in relation to hospital care. Pernambuco, PE, Brazil, 2019 (n=335)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Satisfactory</th>
<th>Unsatisfactory</th>
<th>Total</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of doula</td>
<td>40 (88.9)</td>
<td>5 (11.1)</td>
<td>45</td>
<td>0.037</td>
</tr>
<tr>
<td>Breastfed in the first hour of life</td>
<td>61 (70.1)</td>
<td>26 (29.9)</td>
<td>87</td>
<td>0.032</td>
</tr>
<tr>
<td>Skin-to-skin contact</td>
<td>229 (79.2)</td>
<td>60 (20.8)</td>
<td>289</td>
<td>0.103</td>
</tr>
<tr>
<td>Non-performance of episiotomy</td>
<td>191 (78.6)</td>
<td>52 (21.4)</td>
<td>243</td>
<td>0.360</td>
</tr>
<tr>
<td>Developed the delivery plan</td>
<td>10 (66.7)</td>
<td>4 (33.3)</td>
<td>14</td>
<td>0.218</td>
</tr>
</tbody>
</table>

*p*Chi-Square test

**Discussion**

The limitation of the present study includes the use of the cross-sectional method, which makes it impossible to identify cause and effect relationships between the variables analyzed. It is also noteworthy that the data collection, carried out through interviews and consultation in the medical records, compromises the discussion of some variables predicted by the research due to incomplete information filling. This fact justifies the need for studies that include assistance in the view of professionals and in the observation of the care provided, in the structure and results.

However, the data from this research has the potential to contribute to the improvement of assistance in childbirth and birth and in the discussion of variables that impact the physical and emotional health of women, with a view to arousing the need to implement good obstetric practices in health services. Cheers.

Scientific evidence-based practices for delivery care and hospital postpartum are an effective strategy to improve maternal and neonatal outcomes. Such practices have been systematically recommended since 1996 by the World Health Organization. In Brazil, they have been emphasized since 2011. In such a way, their monitoring is an important strategy to qualify obstetric care(8).

Studies carried out with puerperal women in public maternity hospitals, in several Brazilian regions, resemble the sociodemographic profile found in this research. It can be inferred that the profile of Brazilian women who continue to deliver in the public health system is similar in most regions of the country. Broadly, it is observed that the reproductive age varies between 14 and 42 years old, with brown women, with a fixed partner, educational level between Elementary and High School and income of one and two minimum wages(5,8).

Adolescent pregnancy can be associated with a deficit in family planning. The level of education and the socioeconomic standard can make it difficult to understand humanized quality care and, thus, lead to greater risks of complications(9). In addition, the presence of a steady partner is considered positive, as it can be related to emotional support, reinforcement in the support network and psychological security(10).

The World Health Organization encourages the development of the prenatal delivery plan, which must be delivered at the beginning of labor(7). However, in this study there was a low frequency of women who developed it. These data possibly demonstrate the lack of knowledge of women and professionals and a low stimulation of their elaboration(11).

In Spain, it was found that 2.3% of women developed a delivery plan. Among these, there was statistical relevance in positive care practices, such as skin-to-skin contact, late clamping of the umbilical cord, choice of birth position, free diet and no enema and trichotomy. In addition, the decision process between professionals and parturients results in feelings of empowerment, satisfaction and trust in the team(12).

It is recommended that women in active labor be admitted to the maternity ward, as it favors shorter hospital stays and reduces the chances of unnecessary obstetric interventions. Adequate monitoring of the parturient occurs through the assessment of
uterine dynamics, intermittent auscultation of cardio-
fetal beats. Such actions aim at the early detection of
maternal-fetal complications. In the current study,
less than half of the women evaluated uterine dyna-
mics and auscultation of fetal well-being three to five
times, showing a deficit in this continuous assessment
of fetal well-being.

In addition, the partogram is a tool that con-
tributes to an accurate monitoring of labor, identifies
deviations from maternal and fetal well-being and the
evolution of childbirth and is one of the variables in
the Bologna index. A study carried out in Acre showed
the partogram present in 53.5% of the medical recor-
ds, of which 42.7% were completely filled, which
corroborates the findings of this study.

On the other hand, studies carried out in Rio de
Janeiro and Piauí found more than 90.0% of the parto-
gram completed. These data demonstrate the need
for awareness in the national territory about the im-
portance and benefits of using the partograph, throu-
gh incentives and training.

A study carried out in Rio de Janeiro revealed
that 57.1% of women had the presence of a compa-
nion who contributed to the offer of massage, bathing,
movement, privacy, attended to faster labor and spon-
taneous vaginal deliveries. The comfort, tranquility
and calm provided to the parturient by the companion
awakens unique and positive feelings and emotions.

The doula has become indispensable for a posi-
tive experience of childbirth, since other professionals
have difficulty in monitoring the parturient woman
full time. It provides emotional support, physical su-
port, contributes to positive feelings, such as securi-
ty, tranquility and encouragement. In line with our
research, the presence of a doula was related to care
satisfaction in childbirth from the perspective of par-
turients.

The use of non-supine positions is related to
the control and reduction of pain and this practice be-
longs to category A of classification by the World Heal-
th Organization and to the Bologna index. In this re-
search, there was a high frequency of women who gave
birth in the supine position and it is important to infer
that, in the hospital where the study was conducted,
the delivery rooms had surgical tables that induce gre-
ater use of the lithotomy position, associated with a
lack of encouragement and knowledge of parturients.

On the other hand, studies carried out in a ma-
ternity hospital in Rio de Janeiro obtained a birth rate
in a non-supine position of 75.0%, with the majority of
these births being attended by obstetric nurses. These
data demonstrate the change in the scenario of obst-
etric practices through professional efforts and the
importance of nursing in the parturition process.

In this research, it was noticed the persistence
of practices classified in category B, which should be
abandoned, with emphasis on the stimulus of the di-
rected pull, diet restriction, trichotomy and enema. At
the university hospital in Porto Alegre, a comparison
study was carried out between the care of the years
2012 and 2016, obtaining a significant reduction in
trichotomy and enema. However, no practice in this
category has been abolished, even after 20 years of
the recommendations, these practices still persist.

In the present study, there was a significant
percentage of amniotomy, Kristeller’s maneuver and
episiotomy. In Acre, high percentages of clearly har-
mful or ineffective interventions were observed, such
as episiotomy (32.8%) and Kristeller’s maneuver
(15.5%). Corroborating, similar findings in Rio de
Janeiro demonstrated a high percentage of Kristeller’s
maneuver (13.6%) and episiotomy (55.0%).

It is reinforced that there is no recommendation
to perform the Kristeller maneuver and episiotomy in
spontaneous labor. These practices classified in
categories C and D of the World Health Organization;
therefore, there is no clear scientific evidence for its
use and should be eliminated in childbirth care.

A study revealed good quality of care under the
parturient’s eyes, even though there were reports of
the use of oxytocin, excessive touching, Kristeller’s
maneuver and lack of information. Accordingly, a
study demonstrated a good to excellent satisfaction
rate in 77.7% of deliveries, even with Kristeller ma-
neuer records, unreported episiotomy and lack of access to non-pharmacological methods for pain relief (82.4%)\(^\text{16}\). It is noteworthy that many women do not have enough knowledge to recognize harmful and unnecessary practices in childbirth and postpartum hospital care, and often do not recognize the obstetric violence suffered.

Most women, possibly, feel passive in the delivery process, waiting for guidance from professionals, becoming a hierarchical relationship with technical assistance, which is often characterized by obstetric violence\(^\text{17}\). Despite advances in good care practices, the Brazilian obstetric model is still traditional and interventionist. A study showed that 89.0% of women suffered some type of unnecessary or harmful intervention during the parturition process\(^\text{16}\).

The use of good, evidence-based, scientific practices in delivery and childbirth makes them humanized, promotes healthy births and reduces the risk of complications when related to cesarean sections, in addition to preventing maternal and perinatal mortality\(^\text{6}\).

The research pointed out that, in Brazil, the quality of hospital care for childbirth is not satisfactory when compared to other countries in the world, which reached lower coefficients of neonatal and infant mortality\(^\text{8}\). In the Northeast, a study showed an intermediate quality of care analyzed by the Bologna index and that medical professionals attended most births (80.6%)\(^\text{5}\).

There is a smaller number of interventions and higher scores in the Bologna index for assistance by obstetric nurses\(^\text{7}\). In this study, it was observed that births attended by an obstetrical nurse had higher rates in positive and recommended practices. Thus, we point out the insertion of obstetric nurses in the assistance to the parturition process as a consolidated path worldwide.

The collaborative model of childbirth care provides for the organization of work in a shared configuration, with the potential to implement evidence-based practices and to reverse unfavorable rates of maternal and neonatal morbidity and mortality through the appropriate use of technologies and reduction in unnecessary interventions\(^\text{8}\).

**Conclusion**

When analyzing practices in childbirth and postpartum hospital care, there was a higher frequency of intermediate and inadequate practices, as referenced by the Ministry of Health and the World Health Organization. There was an association of adequacy in care, with the presence of a companion and doula in childbirth, episiotomy, professional who provided assistance in childbirth, skin-to-skin contact, breastfeeding in the first hour of life and information received during the delivery and birth process.

**Collaborations**

Moura NAS, Silva HRL and Rocha EPG collaborated in the analysis and interpretation of data and writing of the manuscript. Castro JFL contributed to the critical review of intellectual content. Holanda VR and Albuquerque GPM contributed to the conception, analysis and interpretation of data and approval of the final version to be published.

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