ABSTRACT
The objective of this study was to identify the prevalence of breastfeeding in the first hour of life and its outcomes to breastfeeding continuation. This is a descriptive research developed at a hospital institution with the Child-Friendly Hospital Initiative in the triple frontier, during the second and third quarter of 2015. Data collection involved observation of the first breastfeeding and breastfeeding 18 hours after birth, and a phone call after 90 days. Data were analyzed through simple statistics. A total of 88 binomials were assessed, with 79.5% being breastfed in the first hour of life. Normal delivery was a protective factor to breastfeeding in the first hour of life and to good suction. As for rooming-in, those binomials that started being breastfed in the first hour showed better suction adaptation, but not better response from the newborn. After 90 days of birth, most children were being breastfed but were receiving artificial milk too. It is worth highlighting the need to make health managers and professionals sensitive to promoting breastfeeding practice in the first hour of life as a healthcare priority.

Keywords: Nursing Care. Mother-Child Nursing. Breastfeeding. Health Promotion.

INTRODUCTION
Every year, over 2.6 million children die within the first 28 days of life (neonatal period) and most of those deaths happen in poor countries\(^1\). Breastfeeding (BF) has been pointed out as a low-cost strategy that favors a child’s health, preventing morbimortality especially in the neonatal period\(^1,2\).

BF is considered the best way to prevent Child Mortality (CM), since it can avoid 1.3 million deaths from preventable causes among children younger than 5 years old all over the world\(^3\). Thus, six million children younger than one year old are saved through Exclusive Breastfeeding (EBF)\(^4\).

In Brazil, over three decades, BF promotion, protection and support actions have been developed. In recent years, specially, the focus of those actions have been placed on the hospital environment through the establishment of norms of rooming-in, the establishment of norms for the operation of human milk banks, the implementation of the Child-Friendly Hospital Initiative (CFHI) and the interruption of distribution of formulas that replace breast milk\(^4\).

The act of breastfeeding a newborn soon in the first hour of life, that is, right after birth, encourages mothers to understand the importance of breastfeeding. The longer this first breastfeeding is postponed, the higher the chances of neonatal mortality from a diversity of infections\(^5\).

In this way, cooperating with mothers so breastfeeding happens right after birth, when mother and newborns are alert, strengthens the bond and increases the chances of a successful breastfeeding. This action can be found in CFHI Step 4\(^4,6\) and can reduce neonatal mortality by 22\%\(^7\).

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Research shows that the protective effect of breastfeeding in the first hour after birth comprehends intestinal colonization in the newborn by saprophytic bacteria found in breast milk; the breast milk’s property that reduces intestinal colonization by gram-negative bacteria; the mother’s adaptive capacity to produce immunological factors, which are excreted into thecolostrum according to gestational age\(^{(8,9)}\).

However, breastfeeding a baby in the first hour remains as a challenge to hospital services, although it has been proved that it ensures reduced neonatal deaths. So there can be greater integration with the program aimed at encouraging, promoting and supporting breastfeeding in the first hour of life, nurses should act together with the health team, based on scientific knowledge, communication skills and technical competence, so they can inform and make families, communities and other professionals aware about the importance of breastfeeding\(^{(10)}\).

Considering the relevance of BF in the first hour of life along with its innumerable benefits, this study aimed to identify breastfeeding prevalence in the first hour of life and its results to BF continuation.

**METHODOLOGY**

This is a descriptive and prospective study with quantitative approach conducted in the second and third quarters of 2015 at an institution with CFHI, in Foz do Iguaçu, a triple-frontier city, along with Porto Iguaçu (Argentina) and Ciudad del Este (Paraguay).

Said hospital is considered to be of large size, reference for high-risk expectant mothers, located in Paraná’s 9th Health Region, which is composed of nine cities, namely: Foz do Iguaçu, Santa Terezinha de Itaipu, São Miguel do Iguaçu, Medianeira, Matelândia, Serranópolis do Iguaçu, Ramilândia, Itaipulândia and Missal.

This study was divided into three stages: 1) observation of the first breastfeeding at the Expectant Mother Service Center [Centro de Atendimento à Gestante] (CAGE); 2) observation of breastfeeding at the CF after 18 hours of birth; 3) phone call with the postpartum women 90 days after delivery.

This study included those binomials that were clinical stable and able to engage in BF in the first hour, that is, newborns weighing more than 2,000 grams; over 32 gestational weeks; negative serology for HIV; Apgar score at the fifth minute above seven; the binomial’s likely referral to the CF.

For the observation of the first breastfeeding, a structured instrument was filled in, containing the following variables: mother’s name; time of birth; type of delivery; gestational age; weight at birth; time of firstsuction; suction classification.

In a 40-day period (June 1 to July 10, 2015), 88 binomials were observed during the first suction. Assessments were classified as follows: ≤ 1 hour and >1 hour for the time of the firstsuction; and, for suction assessment, suction was defined as good, partial and no suction.

Then, at the CF, direct observation was made, without any interference from the researcher. In order to guide observation at the CF and assess the binomial’s behaviors, the instrument prepared by the United Nation’s Children Fund (UNICEF), adapted version, was used. It consists of a series of behaviors classified as breastfeeding favorable, or suggestive of difficulties, referring to the mother’s and newborn’s body position, to the pair’s response upon starting breastfeeding, to suction efficiency, to the emotional bond between mother and baby, to the breast’s anatomical characteristics and to the duration and way that breastfeeding ended. It is worth highlighting that breastfeeding was considered as the whole episode, that is, the period when a mother decides to put her baby to the breast until the end. After the filling of this form, suctions were analyzed according to Criteria for Breastfeeding Assessment Scores Classification – good, regular and bad\(^{(11)}\).

The last stage happened by phone, when the researcher sought to identify together with the postpartum woman if the child was being subjected to exclusive, supplementary or absent breastfeeding. In this stage, it was considered as “subject not found” the
Breastfeeding in the first hour of life at an institution with the baby-friendly hospital initiative

binomial that, after five phone call attempts, on different days and at different times, could not be reached.

Data were tabulated by frequency distribution and analyzed by simple statistics.

It is worth noting that the study was submitted to the Ethics and Research Committee of the State University of Western Paraná and complied with all national norms on ethics for research involving humans, in accordance with Resolution 466/2012.

RESULTS AND DISCUSSION

This research provides subsidizes for health professionals and hospital managers to reflect on BF practices in the first hour of life and invest in the enhancement of actions aimed at boosting benefits in maternal and child healthcare, since this process remains as a challenge to health services.

Within the period of the study, 456 births occurred, of which 88 were possible to be assessed in the first and second stages, and 73 in the third stage proposed. The first breastfeeding in less than an hour of birth was possible for 79.54% of all newborns, and 20.46% of the newborns were fed after one hour of life. Table 1 shows that vaginal delivery was a protective factor to the start of breastfeeding in the first hour of life.

Table 1. Assessment of first breastfeeding, related to type of delivery, time after birth and suction description. Foz do Iguacu, PR, 2015.

<table>
<thead>
<tr>
<th>First suction</th>
<th>Total n=88</th>
<th>Good suction n=72</th>
<th>Partial suction n=09</th>
<th>No suction n=07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 1 hour</td>
<td>24</td>
<td>82.8</td>
<td>91.7</td>
<td>0</td>
</tr>
<tr>
<td>&gt; 1 hour</td>
<td>05</td>
<td>17.2</td>
<td>60.0</td>
<td>0</td>
</tr>
<tr>
<td>Surgical delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 1 hour</td>
<td>46</td>
<td>78.0</td>
<td>78.3</td>
<td>13.0</td>
</tr>
<tr>
<td>&gt; 1 hour</td>
<td>13</td>
<td>22.0</td>
<td>84.6</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Source: Researcher’s data.

It is worth highlighting that, at said studied hospital institution, the moment of the first breastfeeding happened at the obstetric recovery room and none of the binomials started breastfeeding at the delivery room, as preconized by the World Health Organization (WHO) and the UNICEF(3,6), although breastfeeding started before one hour after birth.

A research conducted in the city of Londrina, PR, to identify BF prevalence found that this practice was possible for 72.5% of the binomials(12), while another study showed variation from 4 to 16%(5).

Despite this practice being recommended by the WHO, innumerous maternities still have trouble encouraging BF in the first hour of life(6,13), an essential action to prevent neonatal morbillimortality(13).

Among newborns born by vaginal delivery and started being breastfed in a time shorter or equal to one hour, 91.7% showed good suction, and 60% of those who were breastfed in more than one hour after birth showed good suction.

As for those born by surgical delivery, although most of them have started being breastfed in less than one hour (78%), early start of breastfeeding was not relevant to good suction, because for those who started in a longer time good suction happened for 84.6%.

This is justified by the fact that, in the first hour, babies born by vaginal delivery, in special, are found active and alert right after birth, which strengthens bonds and increases the chances of a successful breastfeeding(6).

Vaginal delivery was considered a positive factor to breastfeeding in the first hour, although the statistical difference was small, around 4%. Researches have been showing that surgical delivery can reduce breastfeeding likelihood right after birth, affecting approximately 50% of binomials(5,14).

Table 2 displays data distribution
Table 2. Distribution of the mother/newborn pairs regarding the scores* in each breastfeeding aspect according to the moment of the first suction. Foz do Iguaçu, PR, 2015.

<table>
<thead>
<tr>
<th>Scores</th>
<th>First breastfeeding</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤ 1 hour n=70</td>
<td>&gt; 1 hour n=18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>69</td>
<td>18</td>
<td>100.0</td>
</tr>
<tr>
<td>Regular</td>
<td>00</td>
<td>00</td>
<td>0.0</td>
</tr>
<tr>
<td>Bad</td>
<td>01</td>
<td>00</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Emotional bond</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>69</td>
<td>18</td>
<td>100.0</td>
</tr>
<tr>
<td>Regular</td>
<td>01</td>
<td>00</td>
<td>0.0</td>
</tr>
<tr>
<td>Bad</td>
<td>00</td>
<td>00</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Suction adequacy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>61</td>
<td>14</td>
<td>78.0</td>
</tr>
<tr>
<td>Regular</td>
<td>05</td>
<td>02</td>
<td>11.0</td>
</tr>
<tr>
<td>Bad</td>
<td>04</td>
<td>02</td>
<td>11.0</td>
</tr>
<tr>
<td><strong>Newborn’s response</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>62</td>
<td>18</td>
<td>100.0</td>
</tr>
<tr>
<td>Regular</td>
<td>04</td>
<td>00</td>
<td>0.0</td>
</tr>
<tr>
<td>Bad</td>
<td>04</td>
<td>00</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Breast anatomy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>65</td>
<td>17</td>
<td>94.0</td>
</tr>
<tr>
<td>Regular</td>
<td>05</td>
<td>01</td>
<td>6.0</td>
</tr>
<tr>
<td>Bad</td>
<td>00</td>
<td>00</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*UNICEF adapted instrument(6,11)

Source: Researcher’s data.

Analyzing the mother’s and the newborn’s position during breastfeeding and bonding, no difference was found between binomials that started first breastfeeding before or after one hour, with scores for both groups being considered good.

In the suction adequacy category, which involves the child’s characteristics during breastfeeding, that is, whether he has his mouth opened, whether suction is slow and deep, whether swallowing happened, among others, it was possible to observe that, among newborns who started being breastfed in the first hour, that results were good, as only 13% proved to be suggestive of difficulties; in turn; among those newborns who started being breastfed after one hour, 22% presented difficulties.

As to the newborn’s response, a good score was achieved for 88% of the binomials that started breastfeeding before one hour, and 100% for those who started late. This category involves aspects such as: shows search reflex, explores the breast, is calm, and keeps the areola grasped, among others.

When it comes to breast anatomy, no difference was found between binomials in two groups, which showed good scores for most of them.

Although no big differences were found at the CF between binomials contemplated by BF in the first hour and after one hour, it is worth stressing that encouraging breastfeeding right after birth is imperative. This action can release and maintain oxytocin so bond starts early and, at the same time, maternal morbidities related to postpartum bleeding are prevented, because the presence of oxytocin in higher amounts will cause the uterus to contract faster.

Just as immediate benefits of breastfeeding in the same hour to the mother, the WHO highlights that there are innumerable immediate benefits to newborns, because the colostrum, known as the “first vaccine”, ensures resistance against infections that cause necrotizing enterocolitis, gastrointestinal and respiratory tract...
infections, allergies, septicemia and meningitis, and contributes to the child’s healthy growth and development\(^{(2,6)}\). Added to these benefits, in general, breastfeeding can play an important role in the real life of children in terms of educational accomplishment, intelligence and better income in adulthood\(^{(16)}\).

Table 3 shows data referring to breastfeeding sequence in 60 to 90 days after birth, with this stage happening through phone call. It was found that at least 80% of the children remained being breastfed, although most of them were already receiving supplementation with artificial milk. This happened regardless of breastfeeding having started or not in less than one hour.

<table>
<thead>
<tr>
<th>Breastfeeding</th>
<th>(\leq 1) hour</th>
<th>(&gt; 1) hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBF</td>
<td>20</td>
<td>29.0</td>
</tr>
<tr>
<td>Supplementary BF</td>
<td>25</td>
<td>36.0</td>
</tr>
<tr>
<td>No BF</td>
<td>12</td>
<td>17.0</td>
</tr>
<tr>
<td>Not found</td>
<td>13</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>n=70</td>
<td>n=18</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

Source: Researcher’s data.

Results showed that the time breastfeeding started was not a protection factor to EBF continuation after 60 to 90 days of life. However, the problem regarding this matter is that, despite EBF in Brazil is increasing, many women are failing to breastfeed exclusively their newborns due to multifactorial aspects. Fact which is explained by lack of knowledge and information, stress, lack of family and social support, culture, low educational attainment, return to work, teenage mothers, inexperience, and others\(^{(17)}\). On the other hand, a study conducted with 100 postpartum women from a rich neighborhood in the city of São Paulo showed that poor education was not relevant to EBF continuation\(^{(18)}\).

Thus, it can be observed that the barrier to continue with EBF for a woman may be impossible to overcome, but not for another one. In this way, it is hard to assess weaning in a way disconnected from the meaning of breastfeeding for each woman.

It is worth pointing out that the period right after delivery is the moment when the postpartum woman is more sensitive, and encouraging breastfeeding in the newborn’s first hour of life will be vital so as to establish affection and engage the mother in the care of her child. Professionals should stimulate these measures in order to promote a breastfeeding experience to the mother and the building of emotional attachment\(^{(19)}\). In this sense, it is the health team’s duty to support mothers during the first breastfeeding and, if necessary, during subsequent ones, in order to ensure that newborn will have an effective suction. Besides, it is imperative that health teams carry out strategies to comprehend the family network, because there is a need for everyone to be aware about and encourage breastfeeding\(^{(20)}\).

Nurses assisting pregnant women, women in labor and postpartum women should be always in tune with this theme, working with their team, as they have great potential to make changes and program new practices that are essential to both mother and newborn\(^{(10)}\).

It is believed that nurses are capable of improving and transforming common practices at the delivery room, starting by their presence and attitude during delivery, carrying out an ongoing education along with the interdisciplinary team. Those measures are vital to accountability and commitment in a humanized mother-child care and to strengthen BF in the first hour of life\(^{(10)}\).

Finally, about the observation protocol used in this study, it is worth highlighting that, with the adoption of scores for the assessment of the frequency of unfavorable behaviors, it was revealed that this is a viable and simple procedure that can be adopted routinely at hospital institutions with obstetric service. In addition to helping the identification of mothers and newborns with greater difficulties to start
breastfeeding, said protocol and the calculation of scores based on it allowed including, in an objective manner, breastfeeding performance according to criteria of discharge from the CF and the need for referral to the human milk bank for a better breastfeeding practice.

As a limitation of the study, the observational technique is worthy of highlight, since the description of the perception of mothers, as well as of health professionals working at obstetric centers, could suggest gaps hindering the implementation of BF practice in the first hour of life.

**FINAL CONSIDERATIONS**

Most newborns in this study were breastfed in the first hour of life, although it has not happened at the delivery room. Vaginal delivery was a protective factor to the start of breastfeeding; among those who were fed in the first hour, a big portion showed good suction.

When it comes to assessment at the CF, those newborns that started being fed before one hour showed better adaptation to suction when compared to those who were not fed in the first hour.

EBF continuation was not observed for most part of the newborns, regardless of them having started or not BF in the first hour of life, showing that breastfeeding continuation can be considered as multifactorial and that factors for weaning will depend on the meaning and conditions of breastfeeding for each woman.

It is important to stress the nursing professionals’ responsibility to ensure mothers and newborns their right to breastfeeding in the first hour of life, as well as to continue with BF after hospital discharge. Thus, it is essential to make health professionals and hospital managers sensitive to the promotion of this practice as a healthcare priority.

There is also a need for investment by hospital institutions in policies that promote breastfeeding in the first hour of life, since it refers to the fourth step towards the success of BF so this practice can be stimulated and started soon at the delivery room.
gestores y profesionales de salud para promover la práctica de la lactancia materna en la primera hora de vida como una prioridad de cuidado.

**Palabras clave:** Cuidados de Enfermería; Enfermería Materno-Infantil; Lactancia Materna; Promoción de la salud.

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