# CUIDADO É FUNDAMENTAL

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INTEGRATIVE REVIEW OF LITERATURE

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# TEN STEPS TO BREASTFEEDING SUCCESS: THE INFLUENCE ON BREASTFEEDING CONTINUITY

Dez passos para o sucesso no aleitamento materno: influência na continuidade da amamentação

Diez pasos para una lactancia exitosa: influencia en la continuidad de la lactancia materna

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## **ABSTRACT**

**Objective:** to evaluate the evidence of Brazilian scientific production about the influence of the 10 steps to succeed on breastfeeding continuity. **Method:** integrative review of Brazilian scientific literature developed at the databases LILACS, SCOPUS and MEDLINE in June of 2017. **Results:** the standardization of care positively interferes on breastfeeding continuity. Health team training increases the prevalence of breastfeeding. Professional orientation on the advantages and management of lactation protects against mastitis, mixed suckling and early weaning. Those who received support in breastfeeding within the first half hour after delivery were more likely to keep it at home. Provision of breast milk substitutes, pacifiers or artificial nipples interferes negatively in stablishing and maintaining breastfeeding. **Conclusion:** it is concluded that the ten steps influence on the continuity of breastfeeding and, therefore, it is important to expand the Child Friendly Hospital Initiative national coverage.

**Descriptors:** Breast feeding; Infant; Public health policy; Health promotion; Rooming-in care.

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### **RESUMO**

Objetivo: avaliar as evidências, de produções científicas brasileiras, acerca da influência dos 10 passos para o sucesso do aleitamento materno na continuidade da amamentação. Método: revisão integrativa de produções científicas brasileiras, desenvolvida em junho de 2017, nas bases eletrônicas de dados LILACS, SCOPUS e PUBMED. Resultados: a normatização da assistência interfere positivamente na continuidade da amamentação. Treinar a equipe de saúde aumenta a prevalência de aleitamento materno. Orientar as vantagens e o manejo da lactação protege contra mastites, aleitamento misto e desmame precoce. Aqueles que receberam apoio no aleitamento materno na primeira meia hora após o parto estiveram mais propensos a mantê-lo no domicílio. Oferta de substitutos do leite materno, chupetas ou bicos artificiais interfere negativamente no estabelecimento e manutenção da amamentação. Conclusão: conclui-se, que os dez passos influenciam na continuidade da amamentação e, portanto, é importante que se amplie a cobertura nacional da IHAC.

**Descritores:** Aleitamento materno; Lactente; Políticas públicas de saúde; Promoção da saúde; Alojamento conjunto.

#### **RESUMEN**

Objetivo: evaluar la evidencia de la producción científica brasileña sobre la influencia de los 10 pasos para tener éxito en la continuidad de la lactancia materna. Método: revisión integral de la literatura científica brasileña desarrollada en las bases de datos LILACS, SCOPUS y MEDLINE en junio de 2017. Resultados: La estandarización del cuidado interfiere positivamente en la continuidad de la lactancia materna. La capacitación de los equipos de salud aumenta la prevalencia de la lactancia materna. La orientación profesional sobre las ventajas y el manejo de la lactancia protege contra la mastitis, la lactancia mixta y el destete precoz. Aquellos que recibieron apoyo en la lactancia durante la primera media hora después del parto tenían más probabilidades de mantenerlo en casa. La provisión de sustitutos de la leche materna, chupones o pezones artificiales interfiere negativamente en el establecimiento y mantenimiento de la lactancia materna. Conclusión: se concluye que los diez pasos influyen en la continuidad de la lactancia materna y, por tanto, es importante ampliar la cobertura nacional de la Iniciativa Hospital Amigo de los Niños.

**Descriptores:** Lactancia materna; Lactante; Políticas públicas de salud; Promoción de la salud; Alojamiento conjunto.

## INTRODUCTION

The World Health Organization (WHO) and the Health Ministry of Brazil advocate exclusive breastfeeding (EB) up to six months of the baby's life. After this period, other types of food can be introduced in a complementary way, maintaining the breast milk offer until the child is two years of age or older. <sup>1</sup> There are Brazilian public policies favoring and protecting breastfeeding. One of them is the Baby-Friendly Hospital

Initiative (BFHI). The BFHI is a strategy that acts promoting, protecting and supporting breastfeeding, mobilizing health care professionals and hospital and maternity ward employees to improve routines and behaviors to prevent early weaning.<sup>2</sup> The positive impact of this strategy on breastfeeding and on the improvement of children's health is highlighted, especially for public health.<sup>3</sup>

In order to fight early weaning and contribute to healthy child growth, the WHO and the Fundo das Nações Unidas para a Infância (UNICEF) [United Nations Children's Fund] issued the Innocenti Declaration in 1990 at a meeting in Florence. Twelve countries, including Brazil, were selected to start the BFHI. Implemented in 1992 in Brazil, the BFHI is coordinated by the Health Ministry and the Politica Nacional de Incentivo ao Aleitamento Materno [National Policy for Promoting Breastfeeding].³ For an institution to receive the Baby-Friendly designation, it must apply the Ten Steps to Successful Breastfeeding (TSSB) stated by the Innocenti Declaration.

The TSSB cover measures to provide health care professionals and the general public with information about the benefits and management of breastfeeding. These measures support services that promote the breastfeeding and fight the free advertising of artificial milk for babies, as well as the offer of nozzles, pacifiers, and baby bottles. Studies evaluating the implementation of the BFHI prove the benefits that this initiative offers for child health through protecting breastfeeding. The objective of this review is to evaluate the evidence of the TSSB influence on the continuity of breastfeeding according to Brazilian publications.

## **METHODS**

The following steps were taken to carry out this integrative review<sup>7</sup>: formulation of the research question ("what are the evidences supporting the influence of the TSSB on the maintenance of breastfeeding?"); sample definition (Brazilian publications); extraction of data from primary studies (form); critical evaluation (hierarchy of evidence) and summary<sup>8</sup>.

The search was conducted in June 2017 in the following databases: Literatura Latino Americana e do Caribe em Ciências da Saúde (LILACS) [Latin American and Caribbean Health Science Literature], SciVerseScopus (Scopus) and Public MEDLINE (PubMed). The strategy used for determining the final number of articles is described in Figure 1.

Figure I - Search strategy for sample definition. Santa Maria city, Rio Grande do Sul State, Brazil, 2017.

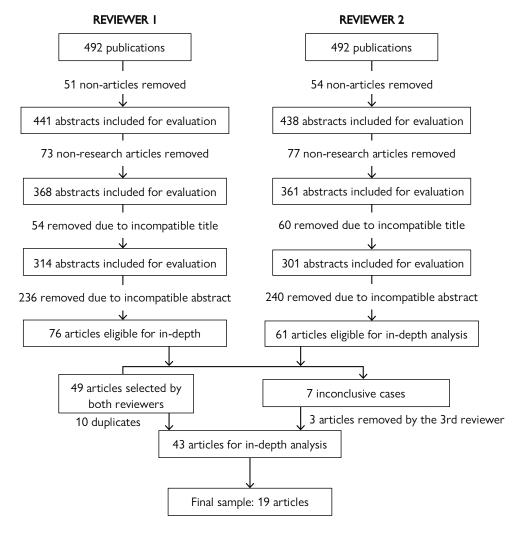
Database	Strategy	Filters	Sampling
LILACS	Aleitamento Materno "descriptor" AND (BFHI) "words" OR (promocao da saude) OR "politicas publicas de saúde)	No	264
SCOPUS	"Breastfeeding" AND "health promotion" OR "health policy" OR "ihac" OR "bfhi" OR "baby friendly hospital initiative) as title/abs/keywords.	Language (English, Portuguese and Spanish); Time period (1992-2016); articles; Brazil	122
PubMed	"Breastfeeding" as Mesh Terms AND (health promotion" OR "health policy" OR "ihac" OR "bfhi" OR "baby friendly hospital initiative)		106
			Total: 492

Source: Prepared by the authors.

After applying the filters, 492 publications were analyzed by first reading their titles and abstracts and, later, reading them fully. From this total, 19 articles were selected to form the review *corpus* (**Figure 2**). The inclusion criteria were original research articles on the subject, available in Portuguese, English or Spanish, and carried out in Brazil since 1992

(the year the BFHI was established in the country). Articles available in more than one database were considered only once. To ensure an accurate selection of studies, two reviewers read the articles independently for further comparison. In cases of divergence, a third reviewer was necessary for a definitive decision.

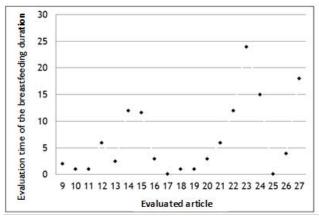
Figure 2 - Flowchart describing the process of determining the final sample. Santa Maria city, Rio Grande do Sul State, Brazil, 2017.



Source: Prepared by the authors.

In order to stablish breast milk offer, the evaluation time of breastfeeding duration was investigated. As can be seen in **Figure 3**, the analyzed studies have assessed more than one period of breast milk offering: from the first hour (value 0) to the 15th month of life.

**Figure 3** – Duration time of breastfeeding reported in the evaluated articles. *Santa Maria* city, *Rio Grande do Sul* State, Brazil, 2017.



Source: Prepared by the authors.

After being selected, a form was developed to extract useful data from the publications, namely: origin of publication, year of publication, objective, study design, level of evidence, and main findings.

For the evaluation of the evidence level of the studies, the evidence classification for different clinical issues was used, which considers the clinical issues of the primary study using an evidence hierarchy. Hence, for clinical issues associated with health care treatments/interventions, the strength of the evidence can be classified into seven levels: from level 1 (strongest) to level 7 (weakest).<sup>8</sup> The ethical principles were maintained, respecting copyrights by means of citation.

## **RESULTS**

The distribution the 19 selected articles by origin of publication, according to the Brazilian regions of the field stage, was: South (n=7), Southeast (n=7), Northeast (n=4) and Center-West (n=1); the distribution by first author's education was: Medicine (n=8), Nutrition (n=4), Nursing (n=3), Dentistry (n=3), and Social Sciences (n=1); the distribution by year of publication was: 2002-2009 (n=10) and 2010-2016 (n=9); and the distribution by methodology was: cross-sectional (n=7), cohort (n=6), randomized clinical trial (n=4), case-control (n=1), and longitudinal (n=1).

To analyze the evidence of the TSSB influence on maintaining breastfeeding, the TSSB steps addressed by the selected studies were first identified (**Figure 4**). After this, the evidence of each step and the period of continuous breast milk offer were highlighted (**Figure 5**).

Figure 4 - The TSSB addressed by the selected studies.

Ref	Objective	Methods	Steps	LE
9	Assessing the impact of the BFHI on breastfeeding rates.	CS, P: 437 newborns	I	Ш
10	Evaluating the rates and quality of breastfeeding for newborns hospitalized in a high-risk nursery at the time of their discharge from hospital and analyzing the potential factors that hinder EB in Brazil.	CSS, P: 495 newborns	1,9	IV
П	Comparing the effects of two systems (hospital and home visits) on breastfeeding rates for promoting breastfeeding in Brazil.	RCS, P: 350 mothers of newborns aged up to 180 days	2	п
12	Evaluating the impact of BFHI-based training on breastfeeding rates during the first 6 months of life.	RCS, P: 334 mothers of newborns aged up to 10 days	2,3,6	II
13	Comparing the EB rates and intercurrences during 30-74 days after training mothers.	RCS, P: 211 (mothers and newborns aged up to 30 days)	3	II
14	Investigating whether the follow-up of lactating mothers proposed by Baby-Friendly hospitals with an emphasis on the importance of breastfeeding and their preparation to deal with lactation proved to be protective factors against lactational mastitis.	CSS, P: 2543 mothers of children aged up to 1 year	3	IV
15	Evaluating the impact of the BFHI on breastfeeding by mothers living in cities.	CSS, P: 1514 children aged up to 2 years	I	IV
16	Evaluating the impact of an incentive model for breastfeeding based on the support and guidance to mothers of premature newborns about breastfeeding rates during the first 6 months after hospital discharge.	CSC, P: 100 (mothers and premature newborns)	3,5	ш
17	Identifying the features of mothers, babies, and maternities associated with the onset of breastfeeding during the first hour after delivery.	CS, P:2741 mothers of newborns	3,4,5,9	ш
18	Characterizing how babies are fed during hospitalization and after discharge using indicators proposed by the WHO.	CSS, P:80 (mothers and babies aged up to 30 days)	4,6,9	IV
19	Measuring EB indices during the 1st month and comparing the quality of the food given to babies in Baby-Friendly hospitals.	CS, P:973 (mothers and newborns)	1,5	Ш

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Ref	Objective	Methods	Steps	LE
20	Evaluating the role of the BFHI as a protective factor for EB for children attending <i>Unidades Básicas de Saúde</i> (UBSs) [Basic Health Units].	CSS, P: 811 mothers of newborns aged up to 5 months	ı	IV
21	Identifying why mothers participating in an interdisciplinary program for promoting breastfeeding stopped practicing EB.	LS, P: III (mothers and newborns aged up to 6 months)	6,9	Ш
22	Evaluating the influence of the BFHI on breastfeeding indicators in Brazil using data from the second breastfeeding prevalence survey conducted in 2008.	CS, P: 65936 newborns aged up to 1 year	1,4,9	ш
23	Evaluating the prevalence and association of feeding and sucking habits in babies aged from zero to 24 months.	CSS, P: 800 mothers of children aged two years	9	IV
24	Evaluating the effect of promoting breastfeeding on this practice in two consecutive children.	CS, P: 334 children aged up to four years	3	ш
25	Investigating how step 4 of the BFHI was applied to evaluate the prevalence of breastfeeding in the first hour after birth and analyzing the factors associated with the lack of breastfeeding in this period.	CSS, P: 403 puerperal women	3,4	IV
26	Evaluating the mothers' perceptions and attitudes toward following the health professionals' guidelines on breastfeeding, complementary feeding, and associated factors.	RCS, P: 20 Baby-Friendly institutions	3	п
27	Evaluating the average time of EB for children born on Baby- Friendly hospitals and correlate it with the following variables: marital status, mother's age, baby's weight, difficulties in performing breastfeeding, and received guidance.	CS, P:225 mothers (up to 180 days after discharge)	3,5,6,9	IV

P: population; CSS: cross-sectional study; CS: cohort study; LS: longitudinal study; CCS: case-control study; RCS: randomized clinical study. Source: *LILACS*, PubMed, SCOPUS (2017).

Figure 5 - Evidence of each Step to Successful Breastfeeding and the period of continuity of breastfeeding present in the selected studies.

#### I. Having a written breastfeeding policy that is routinely communicated to all health care staff.

The average duration of EB was two months for newborns after the implementation of the BFHI, and one month before this implementation. The results showed a percentage of 1.66 for non-EB among newborns aged one month and 1.55 for the interruption of any breastfeeding activities among newborns aged four months before the institution received the Baby-Friendly designation.<sup>9</sup>

The EB rate after hospital discharge was 36% before the BFHI designation and was 54.7% after the designation.  $^{10}$ 

The continuity curves for EB show an increased number of mothers who adopt this practice during the first six months of life. The median duration for EB has increased from 120 to 151 days. The median duration of breastfeeding increased from 8.9 to 11.6 months. 15

Children born in Baby-Friendly hospitals had a higher rate of EB. 19

The EB rates during the first days of life are twice as high in Baby-Friendly hospitals. <sup>20</sup>

The duration of EB in Baby-Friendly hospitals was 60.2 days (95% CI: 56.5-64.2) compared with 48.1 days in non-Baby-Friendly hospitals (95% CI 45.3 to 50.8).<sup>22</sup>

## 2. Training all health care staffs in the skills necessary to implement this policy.

In 2001, when the training was carried out to promote EB, 70% of the children received EB in the hospital, compared with 21% in 1998. Although the intervention of the hospital training is associated with a significant increase in the proportion of babies receiving EB in the maternity hospital, the practice was not maintained for 10 days. Of the 175 infants, only 53 (30%) received EB. At 30 days of age, the proportion had fallen to 26 (15%) from 168.11 In maternity hospitals, success in establishing lactation is influenced by hospital routines and training of professionals. 12

## 3. Informing all pregnant women about the benefits and management of breastfeeding.

On the 7th and 30th day, the rates of EB in the control and experimental groups were, respectively, 82.5% vs 79.7% and 53.3% vs 60.8%, not changing the frequency of breastfeeding problems.<sup>13</sup>

Regarding lactation management according to the presence or absence of lactational mastitis, a lower prevalence was noted among women who gave birth in Baby-Friendly hospitals. The variables identified as protection factors against mastitis were as follows: attending Baby-Friendly hospitals (RP = 0.71; 95% CI: 0.48-1.06).<sup>14</sup>

In the control group (mothers who received standard support), the rates of EB and breastfeeding were, respectively, 8.4 and 38.9% at hospital discharge and 5.6 and 36.1% at the first appointment. In the intervention group (mothers who received personalized and standard support), these rates were 19.5 and 80.5%, respectively, at hospital discharge and 16.6% and 75.0% at the first appointment. The median duration of the breastfeeding was 54 days for the control group and 91 days for the intervention group (p < 0.001). 16

Only a third of the parents received information about breastfeeding. 17

The prevalence of breastfeeding was similar before (87.2%) and after (91%) promoting it (p = 0, 481). Regardless of promotion actions, most newborns breastfed until the sixth month of life with a progressive decline until approximately 15 months of life, stabilizing thereafter.<sup>24</sup>

Of the total women, 55.6% were informed about practicing breastfeeding during the first quarter. Receiving prenatal care and guidance proved to be protective toward breastfeeding during the first hour of life.<sup>25</sup>

Guidelines from the Baby-Friendly professionals on infant feeding were followed by 55% of the mothers (330/619).<sup>26</sup>

The staff members' beliefs/values influence the mother's behavior. Professionals have not valued storage guidelines. Support during difficult situations influences the success/abandonment of breastfeeding.<sup>27</sup>

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#### 4. Helping mothers initiate breastfeeding within one hour of birth.

Almost all mothers wanted to breastfeed and 87% of them had breastfed during the interview. Furthermore, 35.5% of the mothers breastfed during the first hour of life. Older mothers started breastfeeding less frequently during the first hour of life. Cesarean-delivered mothers were twice as likely not to breastfeed during the first hour of life. Taking a pacifier to the hospital has increased the risk of babies not sucking within the first hour of life, as well as being born in non-Baby-Friendly maternity hospitals.<sup>17</sup>

A higher proportion of newborns receiving EB after hospital discharge in the group that performed early suction in the delivery room (92.3%) compared to the group that did not perform it early (80.6%). <sup>18</sup>

The babies born in Baby-Friendly hospitals were 9% more prone to breastfeeding during the first hour of life and 6% more prone to breastfeeding on the first day at home after discharge.<sup>22</sup>

Prenatal care and the modality of breastfeeding guidance proved to be protective for breastfeeding during the first hour of life. The prevalence of breastfeeding during the first hour of life was 43.9%. Helping mothers breastfeed during labor, especially when the physical contact between them and their newborns was facilitated and asking these mothers about the desire to put the baby on the breast showed protection against the outcome of breastfeeding within the first hour. <sup>25</sup>

#### 5. Showing mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.

Simple attitudes toward supporting mothers throughout hospitalization and outpatient follow-up had a positive impact on breastfeeding rates. <sup>16</sup> Only a third of the parents received information on breastfeeding. <sup>17</sup>

Approximately three out of four mothers with children in Baby-Friendly hospitals pointed out that the hospital support influenced them to breastfeed. Among the mothers who had problems with breastfeeding, the risk of newborns not receiving EB within the first month of life increased by 31% (p < 0.001).

Mothers with difficulties performed EB during lower periods of time (p < 0.05). Those who had pre-discharge difficulties presented in the 60th day a higher percentage of weaning (10.9% vs 3.3%, p = 0.038). The support from the staff is fundamental for the success of breastfeeding and the prevention of traumas and mastitis within the first days of puerperium. One of the probable causes for early weaning due to the return to work may have been the lack of proper guidance.<sup>27</sup>

#### 6. Giving infants no food or drink other than breast milk, unless medically indicated.

Consuming lower amounts of water, tea and non-maternal milk in the maternity hospital B favored the percentage of EB compared with maternity hospital A (p < 0.001). <sup>12</sup>

A higher proportion of EB after hospital discharge among the newborns who did not receive any type of milk supplement during hospitalization (85.7%), compared with those who did (60%). Among those who received the supplementation, the proportion of early weaning was higher and 40% received artificial breastfeeding 30 days after hospital discharge. <sup>18</sup>

Fruit juice was the most frequent food introduced early in a child's diet. Of the total number of mothers, 43% offered juice to their babies before they were six months old. According to the mothers' statements, the introduction of food was guided by the pediatrician (81.5%) or by relatives and friends (18.5%).<sup>21</sup>

The abandonment of EB was influenced 11.7% of the time by the pediatrician who prescribed non-breast milk in addition to breast milk.  $^{27}$ 

#### 9. Giving no pacifiers or artificial nipples to breastfeeding infants.

The hospitalized children were fed through a tube in 76.8% of the cases. Of the total number of newborns, 67.7% were fed by using cups or bottles and 57.9% were breastfed.

Groups of tube-fed infants whose mothers had less than six prenatal appointments, using translactation, with a birth weight of less than 2500 g, and hospitalized in non-Baby-Friendly maternity wards presented a significantly higher risk of not receiving EB after discharge.<sup>10</sup>

The mother showed the intention to offer a pacifier to the baby in 73% of the statements, and 65% of the interviewees took a pacifier to the hospital. Being born in non-Baby-Friendly maternity hospitals and taking a pacifier to the hospital have increased the risk of not breastfeeding within the first hour of life.<sup>17</sup>

The majority of newborns receiving EB (93%) were those whose mothers reported not using a pacifier. 18

The mother's return to work and the introduction of pacifiers were negatively associated with the practice of EB during the six months of life.<sup>21</sup> Giving birth in Baby-Friendly hospitals significantly reduced the use of pacifiers.<sup>22</sup>

The majority of children (74.0%) who used no pacifiers were breastfed and the minority (8.3%) were breastfed artificially, showing an association between pacifiers and the type of breastfeeding (p < 0.05). Early weaning occurred in a child who was fed without using bottles. In addition, early weaning occurred in 37.4% of the children who were fed with the use of bottles (p < 0.05). <sup>23</sup>

The use of pacifiers compromises the continuity of EB. The professionals did not value the guidelines on this use. 27

RP: prevalence ratio. Source: LILACS, PubMed, SCOPUS (2017).

## DISCUSSION

In general, the BFHI has been considered as a major influence in increasing the breastfeeding and EB rates, as well as reducing early weaning. Because of its coverage, the results were presented according to each Step to Successful Breastfeeding in order to explain the BFHI and its main features as presented in the analyzed articles. The discussion of these results<sup>9-27</sup> will be conducted according to the literature on the subject of this study.

The first step indicates that there is a written rule on breastfeeding, which should be routinely transmitted to the entire health care staff. It was evident that standardizing health care interferes positively with the continuity of breastfeeding. This can be seen when comparing hospitals before and after receiving the BFHI designation. In these studies, the results indicated that the duration of EB increased from one to two months<sup>9</sup> and the rate of EB at hospital discharge rose 18.7%. <sup>10</sup> According to a study, the

period of breastfeeding increased from 8.9 to almost 12 months and EB from 120 to 151 days after the institution became Baby-Friendly. The risk of interruption of EB were no longer present in the first month of life but in the fourth month.

By comparing Baby-Friendly with non-Baby-Friendly hospitals, a study showed that children born in Baby-Friendly hospitals were exclusively breastfed more frequently. The BFHI increases EB rates by approximately twice during the period between the first days oup to two months of life. Furthermore, babies aged <3 and <6 months are more likely to be exclusively breastfed when born in Baby-Friendly hospitals.

Nevertheless, the median duration of breastfeeding is less than 24 months, which is the minimum recommended by the WHO. Furthermore, it is less than 11.2 months, which is the estimate of the median duration of breastfeeding in children under 12 months of age.<sup>28</sup>

The second step is to train the whole health care staff for implementing this standard. According to the study results, it is evident that this training in managing breastfeeding increases the prevalence of EB<sup>11</sup> up to six months of life.<sup>12</sup> This is in line with the fact that the acquisition of knowledge by professionals due to training results in better performance towards breastfeeding.<sup>29</sup> Sustaining themselves as a source of stimulation for lactating mothers, who, when facing difficulties, may seek support and information from these professionals.<sup>30</sup>

In relation to the third step, which recommends informing all pregnant women about the advantages and management of breastfeeding, it was evident that the success of lactation can be influenced by the support given by professionals. They can support lactating mothers in their difficulties and management of breastfeeding <sup>12,17,27</sup> as these mothers usually follow the given guidelines <sup>25-26</sup>, reducing the frequency of breastfeeding intercurrences. <sup>14</sup> Nevertheless, this frequency remained unchanged after the group comparison <sup>13</sup>. In another study, the period of breastfeeding was greater in the group that received intervention and individualized support compared with the group that followed only the institution standard routine. <sup>16</sup>

However, in a study carried out in 2013, little more than half of the puerperal women received information about breastfeeding within the first quarter of the period of prenatal care.<sup>25</sup> In a study seeking to identify the characteristics of maternity hospitals, only one-third of the parents received guidance.<sup>17</sup> Also, in another study carried out in 2012, other authors showed that the prevalence of breastfeeding was similar before (87.2%) and after (91%) promoting this activity.<sup>24</sup>

This indicates the importance of the guidance offered by health professionals, which should respect the lactating mothers' opinions and meet perspective of promoting health and strengthening the family network.<sup>30</sup>

With regard to the fourth step of the strategy, which advocates helping mothers to start breastfeeding within

the first half hour after giving birth, the results pointed out that the newborns are more likely to receive breastfeeding within the first hour of life in Baby-Friendly institutions<sup>22</sup> and, thus, presented a higher probability of EB after hospital discharge.<sup>18,22</sup> These findings suggest that when the professional guides the mother, consider his/her desires for breastfeeding, and his/her intentions regarding skinto-skin contact, there is a greater influence on the rates of breastfeeding within the first hour of life.<sup>17,25</sup> According to a study on the factors associated with breastfeeding within the first hour of life, the late start of breastfeeding becomes one of the reasons for the early introduction of non-breast milk.<sup>31</sup> Thus the WHO recommends encouraging mothers to start breastfeeding as soon as the baby is ready by offering support.

The fifth step, which aims to show mothers how to breastfeed and maintain lactation, has proved to be fundamental to the success of breastfeeding. <sup>16</sup> According to a study, the support of professionals influenced the breastfeeding rates in Baby-Friendly hospitals twice as much when compared with non-Baby-Friendly hospitals. <sup>19</sup> This support encompasses guidelines and actions that support and protect the breastfeeding, assigning ways to show mothers how to breastfeed in their right.

In one of the studies analyzed, the interruption of breastfeeding due to the return to work may have been caused by the lack of orientation.<sup>17</sup> Furthermore, problems and difficulties in breastfeeding children contributed to the abandonment of EB.<sup>19,27</sup>

Health care professionals monitoring lactating mothers should be aware that they need to receive support for breastfeeding successfully, focusing on the specific difficulties and particularities these mothers.<sup>32</sup> Guiding women in order for them to become more confident is one of the bridges to successful breastfeeding, and this should be encouraged from the very beginning of the training.<sup>33</sup>

The sixth step, which states that newborns should not be fed with any food or drink other than breast milk unless clinically prescribed, has brought about that the abandonment of EB is related, therefore, to the influence of pediatricians. These professionals prescribe industrialized non-breast milk as a complement to breast milk.<sup>21,27</sup> The highest percentage of EB appears when water, tea, and non-breast milk are used for feeding children<sup>12</sup> except during the period of hospitalization.<sup>18</sup>

Considering the seventh step (practicing rooming-in), no evidence was identified of its influence on the continuity of breastfeeding in the analyzed studies. In relation to the eighth step that advocates encouraging breastfeeding on demand, it was present in all articles whose results also showed the third step. Informing all pregnant women about the advantages and management of breastfeeding includes guidance on demand.

The ninth step advocates giving no pacifiers or artificial nipples to breastfeeding infants. One of the studies showed that this step was not followed by the professionals since they

did not value this type of practice, possibly compromising the continuity of the EB. <sup>27</sup>

Considering that the suction process during breastfeeding is different from using a baby bottle or pacifier, leading to the confusion of nozzles, the babies' difficulty in putting their mouth on the breast, and consequently a reduced production of breast milk. A study indicated that the use of pacifiers is directly related to the type of breastfeeding, and the use of baby bottles proved to be associated with early weaning. <sup>23</sup> Moreover, using no pacifiers favored EB<sup>18</sup> in 93% of the cases, but compromised EB at the time of hospital discharge<sup>10</sup>, as well as within the sixth month of life. <sup>21</sup>

There were few cases of the use of pacifiers in maternity hospitals.<sup>22</sup> Furthermore, taking pacifiers to the hospital increased the risk of babies not sucking within the first hour of life.<sup>17</sup> This result is in line with another study conducted in 2009, which stated that using pacifiers increased food supplementation. Therefore, this practice has been widely present in hospitals, especially those without the BFHI designation.<sup>34</sup>

The tenth step, which refers to fostering the establishment of breastfeeding support groups and referring mothers to them on discharge from the hospital or birth center, was also not identified in the studies. However, it is known that support groups are essential for the exchange of information and discussions on the subject, providing guidance to users and removing doubts, fears and concerns about breastfeeding.

It should be noted that the seventh and tenth steps were present in the analyzed publications. Nonetheless, they were not associated with the continuity of breastfeeding.

## CONCLUSIONS

The evidence pointed out the BFHI as a protective factor for breastfeeding, considering that eight of the 10 steps indicated that promotion and support actions influenced the continuity of this activity. The BFHI increased the prevalence of both breastfeeding and EB, highlighting the need to expand its coverage nationwide.

It is highlighted the importance of investing in the evaluation of the health care professionals' behaviors toward the TSSB, specifically the seventh and tenth steps because little research was conducted on them. Grouping the selected studies by each step can be regarded as a limitation of this review because all steps are related to each other. Longitudinal studies would best address this issue as they analyze variations in the characteristics of the sample elements over a period of time (in this case by adjusting the influence of the steps on the continuity of breastfeeding).

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