**Review Article** 

# Baby-friendly Hospital Initiative – a policy of promoting, protecting and supporting breastfeeding\*

Iniciativa Hospital Amigo da Criança – uma política de promoção, proteção e apoio ao aleitamento materno

Iniciativa Hospital Amigo del Niño – una política de promoción, protección y apoyo a la lactancia materna

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### ABSTRACT

**Objective:** To conduct a literature review about the ten steps of the Baby Friendly Hospital Initiative (BFHI). **Methods:** We sought documents and scientific papers published in the databases of PubMED, Medline, SciELO and LILACS. **Results:** We initially identified 110 references about the BFHI, between the years of 1979 to 2009. Approximately 21% were published in the 1990s and 79% between 2000 and 2009; 10.8% were published in books and official documents of the Ministry of Health, Pan American Health Organization and World Health Organization; and, 89.2% were in articles indexed in the consulted databases. Of these, 35 references were selected. The analyzed studies showed that changes in hospital practices according to the Ten Steps of BFHI increased the prevalence of breastfeeding. **Conclusion:** Through the studies analyzed, the BFHI showed effectiveness in increasing breastfeeding in many regions of the world, contributing to the reduction of infant morbidity and mortality.

Keywords: Breast feeding; Health promotion; Program evaluation; Health policy

#### **RESUMO**

**Objetivo:** Realizar uma revisão da literatura sobre os dez passos da Iniciativa Hospital Amigo da Criança (IHAC). **Métodos:** Buscou-se documentos e artigos científicos publicados em bases de dados PubMED, Medline, SciELO e LILACS. **Resultados:** Foram identificadas inicialmente 110 referências sobre a IHAC, entre os anos de 1979 a 2009. Aproximadamente 21% foram publicadas na década de 1990 e 79% entre 2000 a 2009, sendo 10,8% em livros e documentos oficiais do Ministério da Saúde, Organização Panamericana de Saúde e Organização Mundial da Saúde e 89,2% em artigos indexados nas bases de dados consultadas. Destes foram selecionadas 35 referências. Os estudos analisados evidenciaram que as mudanças nas práticas hospitalares de acordo com os Dez Passos da IHAC aumentaram a prevalência do aleitamento materno. **Conclusão:** Por meio dos estudos analisados a IHAC tem se mostrado efetiva no aumento da prática da amamentação em muitas regiões do mundo, contribuindo com a redução da morbi-mortalidade infantil.

Descritores: Aleitamento materno; Promoção da saúde; Avaliação de programas e projetos de saúde; Política de saúde

#### RESUMEN

**Objetivo:** Realizar una revisión de la literatura sobre los diez pasos de la Iniciativa Hospital Amigo del Niño (IHAN). **Métodos:** Se buscó documentos y artículos científicos publicados en bases de datos PubMED, Medline, SciELO y LILACS. **Resultados:** Fueron identificados inicialmente 110 referencias sobre la IHAN, entre los años de 1979 a 2009. Aproximadamente el 21% fueron publicadas en la década de 1990 y el 79% entre 2000 a 2009, siendo el 10,8% en libros y documentos oficiales del Ministerio de Salud, Organización Panamericana de la Salud y Organización Mundial de la Salud y el 89,2% en artículos indexados en las bases de datos consultadas. De éstos fueron seleccionadas 35 referencias. Los estudios analizados evidenciaron que los cambios en las prácticas hospitalarias de acuerdo con los Diez Pasos de la IHAN aumentaron la prevalencia de la lactancia materna. **Conclusión:** Por medio de los estudios analizados la IHAN se ha mostrado efectiva en el aumento de la práctica del amamantamiento en muchas regiones del mundo, contribuyendo con la reducción de la morbimortalidad infantil. **Descriptores:** Lactancia materna; Promoción de la salud; Evaluación de programas y projectos de salud; Política de salud

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#### **INTRODUCTION**

The "Baby Friendly Hospital Initiative" (BFHI) Program is a World Health Organization (WHO) and **United Nations** Children's Fund (UNICEF) strategy adopted in Brazil in 1992 by the Ministry of Health, with the goal of increasing the prevalence of breastfeeding by means of revising policies and routines in the Mother-Child Health Services, in order to favor a better interaction between the mother-child binomial, and promote cultural changes on the use of pacifiers, feeding bottles and industrialized milk. It consists of the goals denominated "Ten Steps to Successful Breast Feeding" to be followed by hospitals in the pre-natal period, at birth and after giving birth <sup>(1)</sup>.

In Brazil, the process of implementing BFHI has shown variations in growth rates. At present there are 322 accredited hospitals in BFHI, which corresponds to coverage of 28% of the births in the Country, with 37 being in the Western and Eastern regions, 20 in the North, 137 in the Northeast, 76 in the Southwest and 52 in the Southern region<sup>(2)</sup>.

Innumerable studies have been published with the aim of showing the real impact of this Initiative on breastfeeding rates. Therefore the aim was to present these in the form of a literature review of the ten steps and the scientific evidence that proves its effects on the practice of breastfeeding.

### **METHODS**

This is a bibliographic review study conducted by means of searching scientific documents and articles published in the PubMed, Medline, Scientific Electronic Library Online (SciELO) and "Literatura Latino Americana e do Caribe em Ciências da Saúde" (LILACS) databases. The articles were identified by using the following descriptors Breastfeeding, Health Promotion, Program Evaluation and Health Policy.

Articles that approached the studied subject, published in Portuguese, English and Spanish, with abstracts available in the selected databases were included, without delimitation of the period of publication. The following exclusion criteria were adopted: articles that did not meet the aims of this review, those that were not available on-line or in Brazilian libraries, or that did not present an abstract in the databases.

#### RESULTS

Initially 110 references about BFHI between the years 1979 to 2009 were identified. Of these, approximately 21% were published in the 1990s and 79 % between 2000 and 2009, corresponding to 2.7% in books, 8.1 % in official Ministry of Health, Panamerican Health

Organization (PAHO) and/or World Health Organization (WHO) documents and 89.2% in articles indexed in the databases consulted. Of these, 35 references were selected for discussion in the present article. The analyzed studies showed that the changes in hospital practices in accordance with the 10 Steps of BFHI have increased the prevalence of breastfeeding.

Scientific evidences with regard to each step will be presented as follows.

# STEP 1 – Have a written breastfeeding policy that is routinely communicated to all health care staff.

Studies identified with regard to this step showed that the existence of a written policy is associated with the increase in breastfeeding rates <sup>(3)</sup>. Another publication showed that changes in policies, consciousnessraising among all staff members about breastfeeding, distribution of educational material among patients, removal of infant formula, and support for mothers after discharge from the nursing home contributed to the increase in duration of breastfeeding <sup>(4)</sup>.

# STEP 2 – Train all health care staff in skills necessary to implement this policy.

The publications identified showed that the acquisition of knowledge and attitude by health professionals had an influence on breastfeeding. Training was conducted with doctors, nurses and midwives showed a significant increase in the duration of breastfeeding <sup>(5)</sup>. Training with visitors <sup>(6)</sup> and health professionals <sup>(7)</sup> resulted in better knowledge and performance, and the mothers instructed by them received more support and breastfed their infants for a longer time <sup>(6)</sup>.

# STEP 3 – Inform all pregnant women about the benefits and management of breastfeeding.

Instructions given to pregnant women favored the practice of breastfeeding. Studies conducted with pregnant women who received instructions about the benefits of breastfeeding (group intervention) and home visits showed that at three months these women breastfed for a longer time (67%) in comparison with other women who received no instruction (12%) (control group) <sup>(8)</sup>. Similarly, another study showed greater probability of the women in the intervention group practicing and maintaining exclusively breastfeeding (EBF) for a longer time <sup>(9)</sup>

# STEP 4 – Help mothers initiate breastfeeding within half an hour of birth.

Early contact positively influenced the mother as regards breastfeeding and increased its duration, as it establishes an increase in oxytocine levels <sup>(10)</sup> and determines increased sucking competency by the baby during

the first breastfeeding <sup>(11)</sup>. Studies conducted showed that babies who had early contact or began sucking at an early stage, presented greater probability of exclusive breastfeeding after discharge from the nursing home and of continuing with breastfeeding, when compared with the control group <sup>(12)</sup>, in addition, this practice represented one of the factors positively associated with exclusive breastfeeding (EBF) <sup>(13)</sup>.

### STEP 5 – Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.

Breastfeeding is not completely instinctive, therefore it must be learned, therefore, if the mother has good knowledge, this may have an influence on breastfeeding. A clinical trial conducted showed that mothers who received instruction soon after giving birth had 1.7 times greater chance of obtaining an above average score in the knowledge test at the end of the first month, and 8.2 times greater chance of EBF in the 3rd month <sup>(14)</sup>. A Meta-analysis conducted found that educational programs had impact both on the beginning and duration of breastfeeding in the short term, and only written materials, such a pamphlets did not significantly increase breastfeeding rates (15). Whereas, in another study the frequency of EBF at 30 days was similar both in the intervention group while and in the control and there was no difference in the frequency of mammary trauma at seven and 30 days, as well as of mammary ingurgitation, mastitis and quality of the technique (16).

# STEP 6 – Give newborn infants no food or drink other than breast milk, unless medically indicated.

Offer other types of milk or liquids to the child in the first days of life is a common and frequent practice in the Brazilian population. An investigation carried out with 24,476 children under the age of six months revealed that on the first day after discharge from the nursing home, 94.6% received mother's milk, 5.9% water, 12.6% tea and 10.3% another type of milk. At 15 days of life, the probability of receiving tea was 32.9%; other type of milk 23.1% and water, 10.7% (17). Another study found that at seven days, 21.3% of the children were using a feeding bottle and at one month, 46.9%. The contents of the feeding bottle at 30 days were tea (37%), water (9.4%), and industrialized milk (20.4%). The children who received water and tea at seven days had a three times higher probability of having artificial milk introduced at one month<sup>(18)</sup>.

These practices also negatively influenced the duration of breastfeeding. Another study conducted showed that after 91 days of the introduction of another type of milk, 50% of the children had been weaned, and that the later introduction of artificial milk was a statistically significant factor for the prolongation of breastfeeding <sup>(19)</sup>. Another study showed that the introduction of another type of milk was associated with the offer of tea and ingurgitated breast at seven days, as well as poor latching and pacifier use at 30 days <sup>(20)</sup>.

### STEP 7 – Practice rooming-in – that is, allow mothers and infants to remain together – 24 hours a day.

Allowing the newborn to remain together with its mother after birth is a practice that brings innumerable benefits. Rooming-In (RI) 24 hours per day was associated with less probability of interrupting breastfeeding when compared with women who did not stay with their babies in the same system <sup>(21)</sup>. In another study, RI in the nursing home was a factor for the protection of exclusive breastfeeding <sup>(22)</sup>. With regard to women's opinion about this practice, the study revealed that 96% of the mothers approved of this system and 66% alleged that RI favored breastfeeding <sup>(23)</sup>.

#### STEP 8 – Encourage breastfeeding on demand.

Breastfeeding on demand favors greater milk production as it increases the frequency of stimulation of the breasts. This could be proved in a study in which the newborn who breastfed more than seven times, consumed a larger quantity of mother's milk and lost less weight <sup>(24)</sup>.

The most recent research related to this step was conducted with the aim of investigating the volume and consumption of milk in babies from one to six months of age exclusively breastfed on demand. The sample consisted of 71 mothers and babies, in which each child was breastfed 11  $\pm$ /- 3 times per day. There was no change in the frequency of breastfeeding with age, and no significant difference in frequency between children of the male and female gender. The mean number of breast feeding episodes at the most productive breast was higher than the at the less productive breast. The majority of babies (64%) breastfed between one and three times a night. It was concluded that breastfeeding on free demand should be encouraged<sup>(25)</sup>.

# STEP 9 – Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.

The use of artificial teats or pacifiers is a common practice worldwide, frequently encouraged by professionals and laypersons. In this connection, various studies have demonstrated their negative impact on the success of breastfeeding. Research conduced in São Paulo with 22,188 babies under the age of four months, about pacifier use, revealed that its prevalence was 61.3%. The early introduction of pacifiers in babies under a month old was associated with the interruption of exclusive breastfeeding, and breastfeeding, and the prevalence of the feeding bottle was higher among babies who used pacifiers <sup>(26)</sup>. Other studies demonstrated that the use of a pacifier was associated with nipple confusion, difficulty in beginning breastfeeding, malocclusion of the teeth, increase in the incidence of otitis <sup>(27)</sup> in addition to representing a two times higher risk of not being EBF<sup>(28)</sup>.

### STEP 10 – Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

This step suggests that mothers should be referred to breastfeeding support groups. The literature found on the subject identified different forms of support. The Literature Review conducted with the inclusion of 19 studies on counseling mothers about breastfeeding in the post-natal period, or in the pre- and post-natal periods, showed that instructions at different times led to significant changes in breastfeeding rates and represented important support for mothers after being discharged from hospital <sup>(29)</sup>. Some studies showed that professional support was effective in increasing the duration of breastfeeding and in reducing early weaning <sup>(30)</sup>, and so was the contribution made by visits from trained <sup>(31)</sup> and laypersons<sup>(30)</sup>. Another study pointed

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out that the support of laypersons did not increase the duration of breastfeeding<sup>(32)</sup>. With regard to husbands, women who perceived their preference for breastfeeding presented greater probability of EBE after discharge from hospital than those who perceived their husband's preference for formula <sup>(33)</sup>. The Baby Friendly Basic Unit Initiative strategy for the promotion and maintenance of BF determined changes in the prevalence of BF<sup>(34)</sup>. Participation in groups before and after the birth was not shown to be significant with regard to the duration of EBF in the first three months <sup>(35)</sup>.

#### CONCLUSION

By means of the studies presented, it was verified that the Baby Friendly Hospital Initiative has been shown to be effective in increasing the practice of breastfeeding in many regions of the world. The changes in hospital practices, such as training the staff, instructing pregnant mothers, early initiation of breastfeeding, support during hospitalization, non routine use of other liquids or artificial milk, Rooming-in, free demand, prohibiting advertising and distribution of infant formulas, teats and pacifiers, have contributed to the reduction in early weaning, and could consequently diminish infant morbimortality.

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