Baby-Friendly Hospital Initiative: evaluation of the Ten Steps to Successful Breastfeeding

Iniciativa Hospital Amigo da Criança: avaliação dos Dez Passos para o Sucesso do Aleitamento Materno
Iniciativa Hospital Amigo del Niño: evaluación de los Diez Pasos para el Éxito de la Lactancia Materna

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ABSTRACT

Objective: To assess the performance of the Ten Steps to Successful Breastfeeding in an university hospital.

Methods: Descriptive and quantitative research, in which 103 people were interviewed in the outpatient prenatal clinic, in the maternity-ward and in the Neonatal Intensive Care Unit of a university hospital in Vitória, Southeast Brazil. The “Institutional Self-Evaluation Questionnaire” of the Baby Friendly Hospital Initiative was applied. Using this tool, the outcome was measured by the concordance index (CI) proposed by the World Health Organization and by the United Nations Children’s Fund.

Results: Although the hospital does not have a policy that addresses promotion, protection and support for breastfeeding, 93.3% of the mothers had contact with their babies immediately after birth (step 4), 83.3% of the professionals guided mothers how to breastfeed (step 5), 86.6% of the neonates did not receive any food or drink other than breast milk (step 6), 100% of babies were housed together with their mothers (step 7), 83.3% of the women were encouraged for breastfeeding on demand (step 8) and 100% of the infants did not use bottles or pacifiers (step 9).

Conclusions: 60% of the steps were completed by the hospital. The greatest difficulty was to inform pregnant women about the importance and the management of breastfeeding (step 3). Therefore, visits to pregnant women are recommended, in order to prepare them for breastfeeding and to explain about the infants’ healthy feeding habits.

Key-words: breast feeding; maternal-child health services; health promotion.

RESUMO

Objetivo: Realizar a autoavaliação de um hospital universitário sobre os Dez Passos para o Sucesso do Aleitamento Materno.

Métodos: Pesquisa descritiva e quantitativa. Entrevistaram-se 103 pessoas no ambulatório de pré-natal, na maternidade e na Unidade de Terapia Intensiva Neonatal de um hospital universitário de Vitória, Espírito Santo. Utilizou-se o “Questionário de Autoavaliação dos Hospitais” da Iniciativa Hospital Amigo da Criança e o resultado foi computado pelo índice de concordância (IC) proposto pela Organização Mundial da Saúde e pelo Fundo das Nações Unidas para a Infância.

Resultados: Apesar de o hospital não ter uma política que contemple a promoção, a proteção e o apoio à amamentação, 93,3% das mães tiveram contato com seus bebês imediatamente após o parto (passo 4); 83,3% dos profissionais mostraram às mães como amamentar (passo 5); 86,6% dos neonatos não receberam alimento ou bebida além do leite humano (passo 6), 100% dos bebês estavam alojados conjuntamente com suas mães (passo 7); 83,3% das mulheres receberam o incentivo do aleitamento sob livre demanda (passo 8) e 100% dos recém-nascidos receberam cuidados sem o uso de mamadeiras e chupetas (passo 9).

Conclusões: 60% dos passos foram cumpridos pelo hospital. A maior dificuldade foi informar as gestantes sobre a importância e o manejo da amamentação (passo 3).
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Logo, recomendam-se discussões com as gestantes a fim de prepará-las para amamentar, elucidando os aspectos de uma alimentação saudável para seus filhos.

Palavras-chave: aleitamento materno; serviços de saúde materno-infantil; promoção da Saúde.

RESUMEN

Objetivo: Realizar la autoevaluación de un hospital universitario sobre los Diez Pasos para el Éxito de la Lactancia Materna.

Métodos: Investigación descriptiva y cuantitativa. Se entrevistaron 103 personas en el ambulatorio de prenatal, en la maternidad y en la Unidad de Terapia Intensiva Neonatal de un hospital universitario de Vitória, Espírito Santo (Brasil). Se utilizó el “Cuestionario de Autoevaluación de los Hospitales” de la Iniciativa Hospital Amigo del Niño y el resultado fue computado por el índice de concordancia (IC) propuesto por la Organización Mundial de la Salud y por el Fondo de las Naciones Unidas para la Infancia.

Resultados: A pesar que el hospital no tiene una política que contemple la promoción, la protección y el apoyo a la amamantación, el 93,3% de las madres tuvo contacto con sus bebés inmediatamente después del parto (paso 4); el 83,3% de los profesionales mostró a las madres cómo amamantar (paso 5); el 86,6% de los neonatos no recibió alimento o bebida que no la leche humana (paso 6); el 100% de los bebés estaba alojado conjuntamente con sus madres (paso 7); el 83,3% de las mujeres recibió el incentivo de la lactancia bajo libre demanda (paso 8); y el 100% de los recién nacidos recibió cuidados sin el uso de biberones y chupetes (paso 9).

Conclusiones: El hospital cumplió con 60% de los pasos. La dificultad más grande fue informar a las gestantes sobre la importancia y el manejo de la amamantación (paso 3). Luego, se recomiendan discusiones con las gestantes a fin de prepararlas para amamantar, elucidando los aspectos de una alimentación sana para sus hijos. La ausencia de entrenamiento para los profesionales y de una política que defienda la lactancia se refleja en la carencia de orientaciones sobre la amamantación, influenciando el destete temprano.

Palabras clave: lactancia materna; servicios de salud materno-infantil; promoción de la Salud.

Introduction

In 1990, in order to promote successful breastfeeding, the World Health Organization and the United Nations Children’s Fund implemented the Baby-Friendly Hospital Initiative (BFHI)(1), a program that mobilizes maternity health care professionals to make changes in routines and conducts based on the completion of the “Ten Steps to Successful Breastfeeding”(2,3) (Chart 1).

Introduced by the Brazilian Ministry of Health (BMH) in 1992, with the support of state and municipal departments, the BFHI qualifies professionals by performing evaluations and encourage hospitals to seek accreditation(3,4). In addition to becoming a referral for other health institutions, accreditation enables the hospital linked to the Brazilian Unified Health System to receive financial incentive for obstetric procedures, paid by the BMH, according to Ordinance GM 1117, of June 07, 2004(5), which is a unique initiative in the world(4).

Chart 1 - Ten Steps To Successful Breastfeeding proposed by the World Health Organization and the United Nations Children’s Fund in 1990

| Step 1 | Have a written breastfeeding policy that is routinely communicated to all health care staff |
| Step 2 | Train all health care staff in skills necessary to implement this policy |
| Step 3 | Inform all pregnant women about the benefits and management of breastfeeding |
| Step 4 | Help mothers initiate breastfeeding within half an hour of birth |
| Step 5 | Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants |
| Step 6 | Give newborn infants no food or drink other than breast milk, unless medically indicated |
| Step 7 | Practice rooming-in: allow mothers and infants to remain together 24 hours a day |
| Step 8 | Encourage breastfeeding on demand |
| Step 9 | Give no artificial teats or pacifiers to breastfeeding infants |
| Step 10 | Foster the establishment of breastfeeding support groups and refer mothers to them or discharge from the hospital or clinic |
The hospital or health care unit with maternal-child services that is interested in becoming Baby-Friendly is firstly required to evaluate its current practices regarding the “Ten Steps to Successful Breastfeeding.” To that end, the responsible for the hospital institution should complete the self-assessment tool provided by the State Health Department (SHD) and obtain at least 80% of approval in the global criteria established for each step. This evaluation allows managers and heads of hospital units to make an initial appraisal and analyze the practices that encourage or discourage breastfeeding, so that they can request for a global evaluation later.

Currently, the BFHI have more than 20 thousand accredited hospitals in nearly 156 countries. In Brazil, in 2010, this number reached 335 hospitals, with four accredited in the state of Espírito Santo, Southeastern Brazil. The Hospital Universitário Cassiano Antônio de Moraes, located in Vitória, capital city of Espírito Santo, does not have this certification. In view of the foregoing, this study evaluated a university hospital to analyze its maternity policies and practices regarding the “Ten Steps to Successful Breastfeeding.”

Method

This is a descriptive and quantitative study conducted in a university hospital in Vitória. The institution provides health care services with wide social repercussion, assisting the population of the state itself and of the neighboring regions of the states of Bahia and Minas Gerais. Additionally, it is a referral center for high complexity cases and for primary and secondary health care, with outpatient services.

The maternity unit has a rooming-in policy, allowing mothers to remain together with their newborns 24 hours a day. In 2010, there were 834 deliveries, 61.8% of which were cesarean sections. The unit has also a human milk bank, which performs the collection, processing and quality control of the milk to subsequent distribution, according to medical prescription, in addition to strengthening breastfeeding promotion.

The study was approved by the Research Ethics Committee of Universidade Federal do Espírito Santo (position no. 104/10). The “Institutional Self-Evaluation Questionnaire”, from the journal *Iniciativa Hospital Amigo da Criança*, was applied for data collection. The questionnaire includes 59 closed questions; however, in order to facilitate data collection and organization, it was subdivided into five specific questionnaires for each respondent.

The questionnaire was applied between May and June 2011 in the premises of the Prenatal Outpatient Clinic, the Maternity Ward/Rooming-In Unit and the Neonatal Intensive Care Unit (NICU). The number of respondents followed the recommendations of the Questionário de Autoavaliação de Hospitais da IHAC – Módulo 4. Respondents were randomly selected, as recommended by the same document.

All participants were informed on the purpose of the study and signed a written informed consent. A total of 103 people were interviewed, divided into 30 recently delivered mothers with a minimum of six hours postpartum and about to be discharged from hospital, 20 of which underwent vaginal delivery and ten cesarean section; 30 randomly selected members of the health care staff that assists mothers and babies, including six nurses (two volunteers), 12 nursing technicians/assistants, six neonatologists (four residents), two speech therapists, three obstetricians (two residents) and one anesthetist; ten members of the non-clinical staff (support: cleaning, nutrition, management); nursing managers of prenatal and maternity units, and of the NICU; ten mothers of babies admitted to the NICU and 20 pregnant women with more than 32 weeks’ gestation who attended to at least two prenatal visits. Newborns in the maternity ward/rooming-in unit and in the NICU were observed, as well as the practices of the staff working in these services.

Finally, the result was measured by the concordance index (CI), the percentage corresponding to the affirmative answers to the global criteria for each step. It is important to emphasize that the set of questions should be properly answered by at least 80% (IC) of respondents in order for the item to be considered completed. Data analysis was based on BFHI evaluator’s handbook.

Results

To facilitate the understanding of the results, we decided to present them in ten sub-items, according to the steps proposed by the self-assessment tool (Chart 1).

- **Step 1:** The maternity service does not have a breastfeeding policy that addresses the Ten Steps to Successful Breastfeeding.
- **Step 2:** The Institution does not have written documents with the content of training courses for breastfeeding promotion and support, confirming what 64.4% of staff members informed regarding the lack of breastfeeding training and of baby-friendly practices. 86.6% of staff members properly answered to at least four questions about breastfeeding support and promotion. 33.3% of respondents correctly mentioned at least two topics that should be discussed with a pregnant woman if she expressed the
intention of offering something other than breast milk.

• Step 3: To evaluate this step, the nurse responsible for the prenatal care service was interviewed. Subsequently, information was confronted with the answers of 20 pregnant women in the third trimester of pregnancy who attended to at least two visits at the service. The hospital provides prenatal care. The nurse responsible for the service pointed out that pregnant women are not informed about the importance and the management of breastfeeding during visits; in addition, there were no records of this topic on medical charts. This information was reinforced by pregnant women, since 80% reported not being familiar with the subject. According to the nurse, the outpatient records of prenatal follow-up are not made available to the hospital staff that will perform the delivery. Another relevant data show that professionals do not consider woman’s intention to breastfeed when deciding about the use of sedatives and analgesics during delivery, although being aware of the effects of these drugs on breastfeeding. The nurse also states that future mothers are not protected from commercial promotion, whether oral or written, and emphasizes that no group meetings are held with pregnant women to deal with any topic. Confirming this information, 100% of respondents said they did not receive guidance on bottle feeding. Moreover, 90% of the pregnant women who had access to prenatal care were not able to describe the risks of offering complementary food along with breast milk during the first six months of infant’s life, which confirms the information provided by the nurse. It was also found that, in 90% of the interviews, pregnant women were not able to describe the importance of early skin-to-skin contact with their children and the value of rooming-in.

• Step 4: According to the BFHI\(^6\), this step is interpreted as: “putting babies in direct contact with their mothers immediately after birth for at least one hour and encourage mothers to identify if their baby is ready to be breastfed, offering help if needed.” Of the 29 randomly selected mothers who underwent vaginal and cesarean section without general anesthesia, 93.3% said that their babies were exclusively breastfed. Of the 30 babies observed, 86.6% did not receive any food or drink other than human milk; in addition, 83.3% of the mothers reported that their babies were exclusively breastfed.

• Step 7: In postpartum wards, 100% of the babies were housed together with their mothers, not taking into account that pregnant women are not informed about the importance and the management of breastfeeding during visits; in addition, there were no records of this topic on medical charts. This information was confronted with the answers of 20 pregnant women in the third trimester of pregnancy who attended to at least two visits at the service. The hospital provides prenatal care. The nurse responsible for the service pointed out that pregnant women are not informed about the importance and the management of breastfeeding during visits; in addition, there were no records of this topic on medical charts. This information was reinforced by pregnant women, since 80% reported not being familiar with the subject. According to the nurse, the outpatient records of prenatal follow-up are not made available to the hospital staff that will perform the delivery. Another relevant data show that professionals do not consider woman’s intention to breastfeed when deciding about the use of sedatives and analgesics during delivery, although being aware of the effects of these drugs on breastfeeding. The nurse also states that future mothers are not protected from commercial promotion, whether oral or written, and emphasizes that no group meetings are held with pregnant women to deal with any topic. Confirming this information, 100% of respondents said they did not receive guidance on bottle feeding. Moreover, 90% of the pregnant women who had access to prenatal care were not able to describe the risks of offering complementary food along with breast milk during the first six months of infant’s life, which confirms the information provided by the nurse. It was also found that, in 90% of the interviews, pregnant women were not able to describe the importance of early skin-to-skin contact with their children and the value of rooming-in.
account mothers whose babies were admitted to the NICU. Confirming this criterion, 100% of the mothers said that they remained together with their infants 24 hours a day. Only 53.3% of the mothers reported that their babies remained with them immediately after birth. Of the ten mothers who underwent C-section or other procedures with general anesthesia, 80% remained together with their babies and/or were housed together with them as soon as they were considered able to meet newborn’s needs.

- **Step 8:** When the 30 recently delivered mothers were asked about newborn’s feeding, 20% of them reported that they received guidance on how to recognize baby’s signs of hunger. However, none of them were able to mention at least two of these signs and 83.3% were stimulated to feed their children whenever and for how long the babies wanted.

- **Step 9:** All babies observed in postpartum rooms/wards did not use bottles and pacifiers, corroborating the report of 100% of the interviewed mothers.

- **Step 10:** The questions of this step aimed to identify if the hospital referred mothers to breastfeeding support groups on discharge. Thus, 66.6% of the recently delivered mothers were informed about where to receive support to breastfeed their babies after discharge and correctly mentioned a source of support.

Table 1 summarizes the situation of each step based on the concordance index proposed by the BFHI. With the non-completion of steps 1, 2, 3 and 10, the hospital achieved a concordance index of 60% of approval for the ten steps.

**Discussion**

Data indicated that six out of the ten steps are completed by the hospital, showing that, despite the lack of a policy to protect breastfeeding, the institution adopts infant’s feeding practices that are in accordance with current scientific evidence[6-11]. A study carried out with 137 Baby-Friendly Hospitals in Brazil[12] revealed that steps 1, 3, 6, 7, 8 and 9 are the most completed by institutions, a fact that is in agreement with the findings of the present research, which shows the completion of steps 4, 5, 6, 7, 8 and 9.

Breastfeeding experiences a positive impact when influenced by hospital routines and by training professionals in lactation management[13]. Having a policy that addresses the “Ten Steps to Successful Breastfeeding” is important to accredit the maternity facility as a Baby-Friendly Hospital and to guide professionals on appropriate infants’ feeding practices, in order to ensure the continuation of lactation up to six months[14]. Thus, in order to complete steps 1 and 2, the hospital should elaborate an infant feeding policy addressing the ten steps, in accordance with the Brazilian Norm for Commercialization of Foods for Infants and Children in Early Infancy, Nipples, Pacifiers and Feeding Bottles (Norma Brasileira de Comercialização de Alimentos para Lactentes e Crianças de Primeira Infância, Bicos, Chupetas e Mamadeiras, NBCAL). It is important to disseminate this information to all health care staff and to train professionals on “baby-friendly” practices[15].

Step 3 does not meet BFHI criteria, since 80% of pregnant women said that they were not familiar with the importance and the management of lactation. It is essential that mothers are instructed about the proper latch-on to breastfeed already in the prenatal period, because having this information contributes to successful breastfeeding[14,15]. Hence, the lack of guidance about breastfeeding during pregnancy may result in breast problems related to lactation and thus influences early weaning[15].

Following the premise that guidance about breastfeeding in the prenatal period positively reflects on the rates of maintenance of exclusive breastfeeding, it is suggested to conduct individual and group discussions with pregnant women, in order to prepare them to breastfeed and explain about healthy infant feeding.

With regard to the forth step, according to Carvalho and Tamez[16], the first contact between mother and child, already in the delivery room, is an experience that has a beneficial effect on breastfeeding, because, from the first half an hour of life on, there is the onset of newborn reflexes, making lactation easier. However, the maternity unit of the evaluated hospital allows infants to remain in the “baby unit” for observation during more than one hour, which may lead to prolonged fasting and thus to hematologic dysfunctions, such as jaundice[16].

In normal delivery, whenever possible, newborn’s care should be provided close to the mother, until both are able to be transferred to the rooming-in unit, with the establishment of a physical and emotional bond. This is the ideal situation, because it gives the opportunity to the early interaction that allows the mother to initiate breastfeeding within the first half an hour of birth, ensuring a better long-term performance[17].

A total of 80% of professionals taught and demonstrated to mothers how to express milk, preventing breast problems such as engorgement. These practices meet BFHI criteria established for step 5.

In Northeastern, Middle-Western and Southeastern Brazil, step 6 is completed by ten out of the 13 states investigated, highlighting the decrease in the use of breast milk substitutes in Brazilian maternity units and hospitals[12]. Although the
hospital evaluated in this study complies with what is required for completing this step, the institution does not keep medical records about the reason why and for how long infant formula was given, which is necessary to meet acceptable medical reasons to supplement or replace breast milk.\(^6\) The possibility of roaming-in contributes to on demand breastfeeding, allowing infants to suckle without following a restricted schedule, determining their own pace regarding the frequency and duration of feeds, so that lactation is fully established before hospital discharge.\(^18,19\) The issue of pacifiers and bottles should be highlighted, since all mothers reported that they were not used, confirming the observations conducted in the roaming-in unit.

By referring mothers to breastfeeding support groups, the hospital ensures the continuation of breastfeeding.\(^20\) Mothers mentioned the hospital human milk bank as a support group to this practice. Although not being considered a group, mothers took the milk bank as a reference when they needed help to breastfeed. It is possible to improve the quality of breastfeeding support groups by providing consultancy services by phone, to offer help and clarify doubts, especially in the first days postpartum.\(^3,27\) Instructions about breastfeeding provided by health care professionals are essential for the success and continuation of lactation. The first step to accreditation should be considered the improvement of all staff, since, like the mothers, professionals should know and be convinced of the benefits and the importance of breastfeeding. Thus, a well-trained and prepared staff strongly influences the incidence of breastfeeding in the community in which it acts.

After the self-evaluation, it is suggested to start the accreditation process, with the creation of a Breastfeeding Committee, in order to organize the health unit for BFHI implementation and monitoring. This team would be responsible for coordinating accreditation activities and organizing the training of professionals.

Finally, this diagnosis is considered to promote discussions and changes regarding breastfeeding in the hospital, contributing to improve breastfeeding conditions and allowing its continuation for up to six months.

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**References**

1. Novaes JF, Lamounier JA, Franceschini SC, Priore SE. Effects of breastfeeding on children’s health in the short and long run. J Brazilian Soc Food Nutr 2009;34:139-60.
2. Fundo das Nações Unidas pela Infância [homepage on the Internet]. Iniciativa Hospital Amigo da Criança [cited 2010 Dec 20]. Available from: http://www.unicef.org/brazil/p/atividades_9994.htm
3. Fundo das Nações Unidas para a Infância; Organização Mundial da Saúde. Iniciativa Hospital Amigo da Criança: revista, atualizada e ampliada para o cuidado integrado. Módulo 1 - histórico e implementação. Brasília: Ministério da Saúde; 2008.
4. Brasil - Ministério da Saúde [homepage on the Internet], IHAC [cited 2010 Jan 28]. Available from: http://portal.saude.gov.br/portal/saude/visualizar_texto.cfm?idt=24229
5. Brasil - Ministério da Saúde. Portaria nº 1.117, de 07 junho de 2004. Brasília: Ministério da Saúde; 2004.
6. Fundo das Nações Unidas para a Infância - Organização Mundial da Saúde. Iniciativa Hospital Amigo da Criança: revista, atualizada e ampliada para o cuidado integrado. Módulo 4 - autoavaliação e monitoramento do hospital. Brasília: Ministério da Saúde; 2010.
7. Centro de Estudos do Hospital Universitário Cassiano Antônio de Moraes. Estatística Anual. Vitória: Centro de Estudos do Hospital Universitário Cassiano Antônio de Moraes; 2010.
8. Fundo das Nações Unidas para a Infância - Organização Mundial da Saúde. Iniciativa Hospital Amigo da Criança: revista, atualizada e ampliada para o cuidado integrado. Módulo 1 - histórico e implementação. Brasília: Ministério da Saúde; 2011.
9. Marques RF, Lopez FA, Braga JA. O crescimento de crianças alimentadas com leite materno exclusivo nos primeiros 6 meses de vida. J Pediatr (Rio J) 2004;80:99-105.
10. Nascimento MB, Issler H. Breastfeeding in premature infants: in-hospital clinical management. J Pediatr (Rio J) 2004;80 (Suppl 5):S163-72.
11. Brasil - Presidência da República. Lei nº 11.265, de 3 de janeiro de 2006. Regulamenta a comercialização de alimentos para lactentes e crianças de primeira infância e também a de produtos de puericultura correlatos. Brasília: Diário Oficial da União; 2006.
12. Araújo MF, Otto AF, Schmitz BA. First assessment of the Ten Steps for the Maternal Breast-feeding Success complicity in Baby-Friendly Hospitals in Brazil. Rev Bras Saude Matern Infant 2003;3:411-9.
13. Coutinho SB, Lima MC, Ashworth A, Lira PI. The impact of training based on the Baby-Friendly Hospital Initiative on breastfeeding practices in the Northeast of Brazil. J Pediatr (Rio J) 2005;81:471-7.
14. Souza MJ, Barnabé AS, Oliveira RS, Ferraz RR. The importance of instructing pregnant women in pregnancy breastfeeding: factor for reduction of painful process of breast. ConScientiae Saude 2009;8:245-9.
15. Demitto MO, Silva TC, Páschoa AR, Mathias TA, Bercini LO. Directions on breast feeding in prenatal care: an integrative review. Rev Rene 2010;11:223-9.
16. Carvalho MR, Tanez RN. Amamentação: bases científicas para a prática profissional. Rio de Janeiro: Guanabara Koogan; 2002.
17. Rego JD. A leiteamento materno. São Paulo: Atheneu; 2001.
18. Brasil - Ministério da Saúde. Programa Nacional de Avaliação de Serviços de Saúde. Portaria GM/MS nº 1.016, de 26 de agosto de 1993. Aprova as normas básicas para a implantação do sistema “Alojamento Conjunto”. Brasília: Ministério da Saúde; 1993.
19. Mello MR, Sá MB, Costa MT. Seguimento de um grupo de mães que utilizaram o sistema alojamento conjunto (SAC): manutenção do aleitamento materno. Pediatrias (Sao Paulo) 1997;19:81-6.
20. Almeida GG, Spiri WC, Juliani CM, Paiva BS. Breastfeeding protection, promotion and support at an university hospital. Cienc Saude Coletiva 2008;13:487-94.
21. Lee F. Se Disney administrasse seu hospital: 9º coisas que você mudaria. Porto Alegre: Artmed; 2008.