

Evaluation of breastfeeding promotion in Baby-Friendly Hospitals

Avaliação da promoção do aleitamento materno em Hospitais Amigos da Criança

Evaluación de la promoción de la lactancia materna en hospitales amigos del niño

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ABSTRACT

Objective: To evaluate the compliance to steps 4 to 10 of the Ten Steps Program to Successful Breastfeeding recommended by the Baby-Friendly Hospital Initiative (BFHI), created by World Health Organization (WHO).

Methods: Cross-sectional descriptive study of 100 mothers in the immediate post-partum period admitted to both BFHI accredited hospitals in Salvador (Northeast Brazil). Newborns that could not be exclusively breastfed were not included. The mothers were questioned about obstetric history, previous breastfeeding, prenatal care, and aspects related to The Ten Steps to Successful Breastfeeding. Interviewers used a questionnaire based on the BFHI Global Criteria. At least 80% of the mothers had to satisfactorily answer the questions related to each step in order to consider them complied. Descriptive statistics was used to evaluate the answers.

Results: The compliance was unsatisfactory for Step 4 (support to breastfeeding initiation immediately after birth – 58%), Step 5 (exclusive breastfeeding during hospitalization – 77%), and Step 10 (referral of mothers to a breastfeeding support group following discharge from hospital – 5%). Other steps showed a satisfactory result: Step 6 (offer of formula – 19%), Step 7 (practice of rooming-in – 91%) and Step 9 (no pacifiers and bottles use – 100%).

Conclusions: A satisfactory compliance with some aspects of the BFHI Global Criteria was noted, but more

discussions about strategies to keep the title of “Baby Friendly Hospital” are needed, since the compliance was poor regarding Steps 4, 5 and 10.

Key-words: breast feeding; health promotion; milk, human.

RESUMO

Objetivo: Avaliar o cumprimento dos Passos 4 a 10 dentre os Dez Passos para o Sucesso do Aleitamento Materno, preconizados pela Iniciativa Hospital Amigo da Criança (IHAC), criada pela Organização Mundial da Saúde (OMS).

Métodos: Estudo descritivo de corte transversal. Foram realizadas entrevistas com 100 puérperas nos dois hospitais credenciados pela IHAC em Salvador. Não foram incluídas mães ou recém-nascidos que não poderiam oferecer ou receber aleitamento materno exclusivo, respectivamente. Questionou-se sobre história obstétrica, aleitamento materno anterior, atendimento pré-natal e aspectos relacionados aos Passos Para o Sucesso do Aleitamento Materno. As questões foram elaboradas de acordo com os Critérios Globais para a IHAC. No mínimo 80% das mães deveriam responder de forma satisfatória às perguntas correspondentes a cada passo para que ele fosse considerado como cumprido. Foi feita descrição de frequências para avaliar as respostas.

Resultados: O cumprimento foi insatisfatório para o Passo 4 (suporte ao aleitamento materno após o parto – 58%),

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Passo 5 (aleitamento exclusivo durante a internação – 77%) e Passo 10 (encaminhamento para grupo de suporte ao aleitamento materno – 5%). Outros passos demonstraram bons resultados: Passo 6 (oferta de substitutos do leite materno – 19%), Passo 7 (prática do alojamento conjunto – 91%) e Passo 9 (não uso de chupetas e mamadeiras – 100%).

Conclusões: Houve boa aderência a alguns aspectos dos Critérios Globais da IHAC. Evidencia-se, no entanto, a necessidade de se ampliarem as discussões sobre os critérios para manter o título de “Hospital Amigo da Criança”, uma vez que os resultados foram insatisfatórios em relação aos Passos 4, 5 e 10.

Palavras-chave: aleitamento materno; promoção da saúde; leite humano.

RESUMEN

Objetivo: Evaluar el cumplimiento de los Pasos 4 a 10 entre los Diez Pasos para el Éxito de la Lactancia Materna, preconizados por la Iniciativa Hospital Amigo del Niño (IHAC), creada por la OMS.

Métodos: Estudio descriptivo de corte transversal. Fueron realizadas entrevistas con 100 puerperas en los dos hospitales acreditados en la IHAC en Salvador (Brasil). Se cuestionó sobre la historia obstétrica, lactancia materna anterior, atención prenatal y aspectos relacionados a los Pasos para el Éxito de la Lactancia Materna. Las cuestiones fueron elaboradas conforme a los Criterios Globales para la IHAC. Como mínimo, el 80% de las madres deberían contestar de modo satisfactorio a las preguntas correspondientes a cada paso para que se lo considerara cumplido. Se utilizó la descripción estadística de frecuencia en el SPSS 13.0 para evaluar las respuestas. No se incluyeron madres o recién nacidos que no podrían recibir lactancia materna exclusiva.

Resultados: El cumplimiento fue insatisfactorio para: Paso 4 (soporte a la lactancia materna después del parto – 58%), Paso 5 (lactancia materna exclusiva durante la internación – 77%) y Paso 10 (encaminamiento al grupo de apoyo a la lactancia materna – 5%). Otros pasos demostraron buenos resultados: Paso 6 (oferta de sustitutos de la leche materna – 19%), Paso 7 (práctica del alojamiento conjunto – 91%) y 9 (no utilización de chupos y biberones – 100%).

Conclusiones: Esos resultados demostraron buena adherencia a algunos aspectos de los Criterios Globales de IHAC. Se evidencia, sin embargo, la necesidad de ampliar las discusiones sobre los criterios para obtener y mantener

el prestigioso título de «Hospital Amigo del Niño», una vez que los resultados fueron insatisfactorios respecto a los pasos 4, 5 y 10.

Palabras clave: lactancia materna; promoción de la salud; leche humana; hospitales; Organización Mundial de la Salud.

Introduction

The benefits of breast feeding have been widely described in the literature. Human breast milk supplies ideal nutrition for the breastfeeding infant, eases the transition between intrauterine life and the outside world, strengthens affective ties between mother and child and creates no additional economic burdens for the family. Moreover, it protects the infant from infectious and autoimmune diseases, obesity, diabetes and is considered a significant public health measure since it reduces child morbidity and mortality over short and long time⁽¹⁾.

With the objective of promoting breastfeeding and avoiding early weaning, in 1989 the United Nations Children's Fund (Unicef), the World Health Organization (WHO) and other international organizations jointly developed a set of practices summarized in the Ten Steps to Successful Breastfeeding, a foundation of the WHO/Unicef Baby-Friendly Hospital Initiative (BFHI) formalized in 1990. These aimed at mobilizing healthcare professionals and hospital and maternity home staff to support, protect and promote breastfeeding⁽²⁻⁴⁾.

Studies evaluating the impact of the BFHI have highlighted the success of the initiative in increasing and prolonging breastfeeding^(5,6), improving the rate of exclusive breastfeeding⁽⁶⁻⁸⁾, establishing the early initiation of breastfeeding, reducing child morbidity and mortality, decreasing pre-lacteal feeding⁽⁹⁾, and reducing the rate of gastrointestinal infection, atopic eczema⁽⁹⁻¹¹⁾ and mastitis in mothers⁽¹¹⁾.

To obtain the title “Baby-Friendly Hospital”, Brazilian maternity hospitals must fulfill some requirements that include achievement of at least 80% of the global criteria established for each one of the ten steps⁽¹²⁾. In Salvador, of the 10 maternity hospitals at the time this study, only two were credited by the BFHI.

It is important to make continuous evaluation of the compliance of Baby-Friendly Hospitals to the “Ten Steps to Successful Breastfeeding” in order to identify the difficulties and design policies to maintain the quality of breastfeeding promotion and increase breastfeeding rates^(6,7). This is the

first study to evaluate the effects of this initiative in Salvador, Bahia, Brazil. Therefore, the objective of the present study was to evaluate compliance with steps 4-10 of the Ten Steps to Successful Breastfeeding in these two hospitals in the period of January and February 2007.

Method

A descriptive cross-sectional study was carried out in the two BFHI maternity hospitals in Salvador, Bahia, Brazil (Hospitals A and B) by interviewing mothers and obtaining data from the patient records. A script based on the self-appraisal questionnaire made available by the BFHI was used⁽¹³⁾.

Data were obtained on sociodemographic characteristics, past obstetric history, experiences with breastfeeding, delivery and hospitalization. The steps 1, 2 and 3 cover hospital policies, continuous education of the health professionals and prenatal assistance, respectively, and they were not evaluated in this study.

Mothers with diseases that may block effective breastfeeding such as psychosis, shock, human immunodeficiency virus (HIV) or human T-cell lymphotropic virus (HTLV) or those with babies of very low birth weight infants (<1500g) or less than 32 weeks of gestational age were not included. Before interviews with the mothers, maternal and infants charts were examined regarding inclusion criteria. Mothers were included during the months of January and February, 2007.

The data obtained were analyzed by Statistical Package for the Social Sciences (SPSS) statistical software program, version 13.0. The questionnaires were filled out by medical students previously trained that visited, each maternity hospital on different days of the week until completing a total of 100 interviews. Data collection was made simultaneously in both hospitals.

The questionnaire included questions related to Step 4 (close skin contact of mothers with their babies after the delivery for at least one hour), Step 5 (showing mothers how to breastfeed, and how to maintain lactation even if they have to be separated from their infants), Step 6 (giving newborn infants no food or drink other than breast milk, unless medically indicated), Step 7 (allowing mothers and infants to remain together 24 hours a day in rooming in), Step 8 (encouraging breastfeeding on demand), Step 9 (no artificial teats or pacifiers are offered to breastfeeding infants), Step 10 (fostering breastfeeding support groups and referring mothers to them at hospital discharge). Some questions had an open form and the answers were then coded. Results were presented in total values for the two hospitals determining the obtained results of each one.

Sample size was calculated based on the prevalence of exclusive breastfeeding over one month by mothers who had delivered in BFHI-accredited hospitals (64% exclusive breastfeeding) compared to mothers who had delivered in non-accredited hospitals (39% exclusive breastfeeding). An alpha error of 0.05 was applied with a power of 0.80 resulting in a number of 70 individuals, which was increased to

Table 1 - Characteristics of the mothers interviewed in the study and their obstetric history

	Hospital A	Hospital B	Total
	n (%)	n (%)	%
Mothers interviewed	60 (60.0)	40 (40.0)	100.0
Worked outside home	22 (36.7)	27 (67.5)	49.0
Vaginal delivery	48 (80.0)	28 (70.0)	76.0
Had delivered a baby previously	33 (35.0)	14 (35.0)	47.0
Breastfed previous child	31 (51.7)	14 (35.0)	45.0
Breastfed previous child in the first 24 hours following delivery	30 (50.0)	12 (30.0)	42.0
Time of exclusive breast-feeding of the previous child			
Less than 3 months	12 (20)	5 (12.5)	17.0
3-6 months	14 (23.3)	9 (22.5)	23.0
>6 months	5 (8.3)	zero	5.0
Received prenatal care	55 (91.7)	39 (97.5)	94.0
Received information on breastfeeding during a prenatal care	43 (71.7)	23 (57.5)	66.0
Prenatal care at the same hospital of delivery (Baby-Friendly Hospital)	9 (15.0)	8 (20.0)	17.0
Received information on breastfeeding at prenatal care	7 (77.7)	5 (62.5)	70.6

100 participants to compensate for any losses and to increase the power of the study. All interviewers underwent a 20-hour training course for maternity hospital staff, aimed at strengthening their knowledge on the Ten Steps to Successful Breastfeeding and they were trained in standardized interviewing procedures. Data were obtained on patients' obstetric history and on any counseling on breastfeeding received during prenatal care, delivery or postpartum hospitalization.

Only those women who were at the hospital, whose discharge had already been authorized and who agreed to participate in the study and signed an informed consent form were interviewed. This study was approved by the Internal Review Board of the Universidade Federal da Bahia (UFBA).

Results

A total of 100 mothers were interviewed, 60 in maternity hospital A and 40 in B (Table 1). No woman refused to participate in the study. The mean age of the mothers was 25.0 ± 6.6 years (24.9 ± 7.1 in A and 25.6 ± 5.8 in B), 54.4%

were married or in a stable relationship with the father of their baby; 60% had completed high school (studied for twelve years at school) or had some high school education (studied for less than twelve years but more than nine years at school), 37% had never gone to school or had less than eight years at school and only 3.0% had attended university. The mean number of prenatal consultations was 6.1 ± 2.0 (6.1 ± 2.0 in A and 6.1 ± 2.1 in B). Further characteristics of the interviewed mothers, their obstetric history and their prenatal care are shown in Table 1.

With respect to the mother's previous intention to breastfeed, 99.0% had planned to breastfeed their babies (98.3% in A and 100% in B) and 79% wanted to breastfeed for more than six months (81.4% in A and 77.5% in B). During their stay in hospital, 86.0% of the participants received information on breastfeeding (76.7% in A and 100% in B) and 68.0% were told about the advantages of breastfeeding to mother and infants (66.7% in A and 70% in B).

Table 2 summarizes the main findings with respect to breastfeeding information at delivery and post-partum periods. The compliance was worst for Step 4 (Place babies in skin-to-skin contact with their mothers immediately

Table 2 - Results of the evaluation of Steps 4 to 10 of the Ten Steps to Successful Breastfeeding in two hospitals accredited to the Initiative Baby Friendly Hospital in Salvador

	Hospital A	Hospital B	Total
	n (%)	n (%)	n (%)
Mothers interviewed	60 (60.0)	40 (40.0)	100 (100.0)
<i>Step 4</i>			
Was allowed to hold the newborn in the delivery room	36 (60.0)	22 (55.0)	58 (58.0)
For more than 30 minutes	8 (13.3)	7 (17.5)	15 (15.0)
Helped to initiate breastfeeding at this time	2 (3.3)	9 (22.5)	11 (11.0)
<i>Step 5</i>			
Shown how to hold the newborn and how to put the baby to the breast	40 (66.7)	37 (92.5)	77 (77.0)
Instructed how to remove excess milk from the breasts	22 (36.7)	16 (40.0)	38 (38.0)
Shown how to remove milk manually	32 (53.3)	23 (57.5)	55 (55.0)
<i>Step 6</i>			
Newborn received supplementary food	7 (11.7)	12 (30.0)	19 (19.0)
<i>Step 7</i>			
Infant remained in the room with the mother throughout hospitalization	56 (93.3)	35 (87.5)	91 (91.0)
Rooming-in initiated in the 1 st hour after delivery	32 (53.3)	30 (75.0)	62 (62.0)
<i>Step 8</i>			
Encouraged to breastfeed on demand	46 (76.6)	31 (77.5)	77 (77.0)
<i>Step 9</i>			
Infants received pacifiers or bottles	0 (0.0)	0 (0.0)	0 (0.0)
Mothers instructed not to offer pacifiers or bottles to the child	34 (56.7)	30 (75.0)	64 (64.0)
<i>Step 10</i>			
Referred to a breastfeeding support group following discharge from hospital	5 (8.3)	0 (0.0)	5 (5.0)

following birth for at least an hour and encourage mothers to recognize when their babies are ready to breastfeed, offering help if needed), Step 5 (Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants), and Step 10 (Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic did not reach a minimum of 80% required by BFHI. Table 2 shows also that Steps 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) and Step 9 (Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants) showed 80% or more of compliance. With respect to the supplementation of breast milk (Step 6), foods given were: human milk bank (47.4%), formulas (36.8%), oral glucose solution (36.8%), didn't know what kind of food (42.1%). In both maternity hospitals, supplementary food was given in cups or syringes and it was prescribed by the physician in all cases except for one, given by a nurse. With respect to Step 7, compliance was high; nonetheless, in only 62.0% of the cases this contact was initiated in the first hour following delivery. With respect to Step 8 (Encourage breastfeeding on demand), this practice was stimulated in 77.0% of cases; however, 42% of women received instructions to wake the baby whenever their breasts were full or if he/she slept for more than two hours (21.6% in Hospital A and 72.5% in Hospital B) and 36% were encouraged to wake the infant to feed if their breasts were very full (20% in Hospital A and 60% in Hospital B).

Discussion

It has been well established that full compliance with the Ten Steps to Successful Breastfeeding is important to guarantee the initiation and maintenance of prolonged breastfeeding^(5,6). A large proportion of the mothers interviewed had poor education or were pregnant with their first child. It has been shown that the lack of experience with breastfeeding negatively affects initiation of breastfeeding and its continuity⁽¹⁴⁻¹⁶⁾. For these mothers, encouragement, instruction and continued support would counterbalance the prevalent negative factors⁽¹⁶⁾.

The data obtained regarding breastfeeding of the previous child and the desire to breastfeed the present one are in agreement with current Brazilian statistics⁽¹⁷⁾. According to

the latest study on the prevalence of breastfeeding in Brazilian state capital cities, the practice is becoming increasingly popular⁽¹⁸⁾. Nevertheless, the Unicef/WHO goals with respect to exclusive breastfeeding have not yet been achieved worldwide due to early weaning⁽¹⁷⁾. To decrease the incidence of early weaning and to increase the prevalence of exclusive breastfeeding, initiatives such as ensuring compliance with the Ten Steps to Successful Breastfeeding⁽¹⁸⁾, encouraging breastfeeding during prenatal care⁽¹⁹⁾, implementing the international code for the commercialization of breast milk substitutes⁽²⁰⁾ and the adoption of legislation designed to protect breastfeeding, such as the new law that increases maternity leave in Brazil to six months⁽²¹⁾, are of utmost importance.

In the present study, difficulties were observed in implementing Step 4, Step 5 and Step 10 of the Ten Steps to Successful Breastfeeding. Other studies have reported more problems with Step 2 (not dealt with in this evaluation), Step 5 and Step 10^(22,23).

The percentage of mothers who received information about the advantages of breastfeeding was unsatisfactory. When the team is inadequately trained, its members are unable to provide information to mothers on the advantages of breastfeeding. Studies that evaluated the BFHI in Brazil reported unsatisfactory results with respect to Step 2, which deals with team training^(17,22,24). During health care, personal contact, visual contact and attentive listening, while the information about breastfeeding is given, are very important and should be implemented not only in the maternity hospital but also during prenatal care and at subsequent doctor's visits^(25,26).

With respect to Step 4, some mothers reported the episiorrhaphy and the delay in being transferred to the rooming-in apartments as obstacles to early skin-to-skin contact with their baby. Other studies have reported similar results⁽⁷⁾. Early skin-to-skin contact and initiation of breastfeeding has been shown to affect its duration following discharge from hospital⁽²⁷⁾.

Guidance on the techniques of appropriate positions, how to manually remove milk and how to store the product should be given to all mothers in order to guarantee breastfeeding in situations when the mother and the child need to be apart, in order to help prevention of mastitis⁽¹¹⁾ and to stimulate donations to breast milk banks⁽²⁸⁾. All these recommendations are part of Step 5. Compliance with this step was unsatisfactory, and this has also been reported in other studies carried out in Brazil^(17,24).

Satisfactory compliance with Steps 6 and 9 is indicative of good compliance with current legislation. Since 1988, regulations have taken place in Brazil to penalize companies that supply artificial milk to maternity hospitals free of charge or at a low cost, those that advertise breast milk substitutes abusively or stimulate the use of pacifiers or feeding bottles⁽²⁹⁾. Few mothers were informed about the need to avoid giving pacifiers or bottles to their babies. Compliance of Step 7 was satisfactory; however, a relatively small proportion of mothers initiated breastfeeding within an hour of delivery, thereby hampering initiation of adequate breastfeeding⁽²⁷⁾.

With respect to breastfeeding on demand (Step 8), the compliance rate was closed to the expected for the BFHI (77%). Only around 40% of the mothers were instructed to wake up the infant if their breasts were very full or if the baby had been sleeping for a long time. Although these information are not a part of the Global Criteria for the BFHI⁽¹²⁾, not waking up the babies when they sleep for a long time could reduce the intake of breast milk, turning these children more prone to clinical problems^(27,29,30).

Regarding Step 10, it should be noted that only 5% of the mothers interviewed were referred to some form of breastfeeding support group following discharge from hospital. This type of referral would help the prevention of

early weaning⁽¹⁷⁾ by allowing the mothers the opportunity to seek advice from healthcare professionals and share their problems and solutions⁽²⁵⁾. This measure should be mandatory in BFHI⁽¹²⁾. It is important to start at hospital the orientation about the infant's correct nutrition and the need for continuous support following discharge.

This study collected information by questionnaires applied to mothers and may be subjected to information bias, especially in relation to Step 4 that demanded from the mother time perception about the immediate post-partum period. Another limiting aspect of the study was related to the selection of participating mothers regarding inclusion criteria and acceptance in participating. Therefore, results are representative of answers of motivated mothers to participate in the research and probably more motivated to breastfeed their babies.

Using the BFHI criteria adopted by Unicef/WHO and the Brazilian Ministry of Health, compliance was achieved in only three of the seven steps evaluated. Those were Step 6, Step 7 and Step 9, which refer to breast milk substitutes, rooming-in and to the use of pacifiers and bottles. These results highlight the need for periodic training programs for health professionals and reevaluation of the credited maternity hospitals, as well as wider discussions on the criteria for obtaining and maintaining the prestigious title of "Baby Friendly Hospital".

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