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## Factors Affecting the Sustainability of the Baby Friendly Hospital Initiative in Khartoum State, Sudan: A Cross-sectional Study

Rahman AA<sup>1\*</sup> and Alkhatim HS<sup>2</sup>

<sup>1</sup>Ministry of Health, Khartoum, Sudan

<sup>2</sup>Military Medical Corps, Omdurman, Sudan

\*Corresponding author: Amani Abdel Rahman, Ministry of Health, Khartoum, Sudan, Tel: 00249907493433; E-mail: [aaseed49@gmail.com](mailto:aaseed49@gmail.com)

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### Abstract

**Background:** The Baby Friendly Hospital Initiative (BFHI) is a global initiative aimed at protecting, promoting and supporting breastfeeding. In Sudan there were 25 Baby Friendly Hospitals in 2002, however only three were available in 2013. This study was done to identify the factors affecting the sustainability of the baby friendly hospital initiative in the accredited hospitals in Khartoum state (2013).

**Methods:** The study used qualitative approach to interpret the sustainability issues of the baby friendly hospital initiative in the accredited hospitals; namely: Alsaudi, Albanjadid and Ibrahim Malik hospital in Khartoum state. Three in-depth interviews were conducted with the nutritionists responsible for breastfeeding promotion. Six focus group discussions with the health care providers were also conducted, two in each hospital. Information about the sustainability issues of the BFHI was obtained. The data was analyzed manually using thematic analysis. The analysis revealed six main themes, tackling the sustainability issues of the BFHI.

**Results:** All the three hospitals were baby-friendly at the time of the study. Knowledge about the BFHI was limited. The healthcare providers were few in number and the turnover rate was high. Breastfeeding training was deficient; this negatively affected health education and practical support to the mothers. Monitoring and evaluation was irregular and was not going on as planned.

**Conclusion:** The study concluded that many factors affected sustainability of the BFHI. Paucity of breastfeeding training of the health care providers, especially the doctors at the obstetric and pediatric departments, was an important issue affecting the sustainability of the BFHI. Proper monitoring and evaluation was an important issue for well maintenance of the initiative.

**Keywords:** Baby; Friendly; Initiative; Sustainability; Training; Evaluation

### Background

Breastfeeding is the most natural and safe way to feed a newborn baby. It provides the exact combination of proteins, lipids, carbohydrates, minerals, vitamins, enzymes and living cells. Breastfeeding provides nutritional, immunological, psychological and economic benefits [1]. Exclusive breastfeeding is defined as no other food or drink, not even water, except breast milk to be given to the baby for the first 6 months of life. As a global public health recommendation, infants should be exclusively breastfed to achieve optimal growth, development and health.

The promotion and support of breastfeeding is a global priority with benefits for maternal and infant health. The Baby Friendly Hospital Initiative (BFHI) was launched in 1991 by the World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF). The initiative is a global effort to implement practices that protect, promote and support breastfeeding. To be designated as baby-friendly, a hospital should be approved by a review board that it successfully practices the ten steps to successful breastfeeding (Table 1). Since the BFHI began, more than 15,000 hospitals in 134 countries have been awarded Baby-Friendly status [2]. Although many hospitals in Khartoum were baby friendly in 2002, only three were available in 2013 [3].

To be designated baby-friendly, hospitals should be approved by an external review board that it successfully practices the ten steps to successful breastfeeding and these are:

Have a written breastfeeding policy

Train all health-care staff in skills necessary to implement this policy

Inform all pregnant women about the benefits and management of breastfeeding

Help mothers initiate breastfeeding within 30 minutes after birth
Show mothers how to breastfeed and how to maintain lactation
Give newborn infants no food or drink other than breast milk, unless medically indicated
Practice rooming-in, allowing mother and infant to stay together-24 hours a day
Encourage breastfeeding on demand
Give no artificial teats or pacifiers to breastfeeding infants
Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital

**Table 1:** The 10 steps to successful breastfeeding.

The BFHI aims to increase the numbers of babies who are exclusively breastfed worldwide. Globally it is known that delivery in a baby friendly hospital increases the rates of exclusive breastfeeding [4]. WHO estimated that over a million child deaths could be avoided each year through exclusive breastfeeding. Potentially many premature maternal deaths could also be prevented. Health care providers should promote and support breastfeeding to ensure that all infants are offered this ideal form of nutrition [5]. Exclusive breastfeeding for the first six months of life has the potential to prevent 13% of all deaths among children, aged less than 5 years, annually in developing countries [6].

In the developing world in 2010, the average exclusive breastfeeding rate was 40%. This is far below the widely accepted “universal coverage” target of 90% [7]. In the Eastern Mediterranean Region the rate of exclusive breastfeeding was only 40% [8]. In Sudan; repeated household surveys showed that the rate of exclusive breastfeeding was 34% in 2006, and showed little improvement in 2010 by reaching 41% [9].

Globally, many studies were conducted to assess the sustainability issues of the BFHI. A qualitative study in New Zealand found that implementation of the initiative was multidimensional and faced many problems, especially the policy issue. Training of the health care providers was also facing problems. The authors stated that overcoming the barriers to the implementation of the baby friendly hospital is expected to be easier in small hospitals with stable health care providers [10]. Another study was done in Australia to assess health professionals’ perceptions of implementing the baby friendly health initiative. A qualitative approach (focus groups) was used. Despite strong support for the BFHI, the principles of this global strategy were interpreted differently by health professionals and further education and accurate information seemed necessary [11].

## Methods

The study was descriptive cross-sectional. It was an interpretative study utilizing qualitative methods (in-depth interviews and focus groups discussions).

## Study setting

The study was conducted in three hospitals. They were the only accredited baby friendly hospitals in Khartoum State at the time of the study. These hospitals were AlSaudi hospital in Althawra in Omdurman locality. Albanjadedee hospital in Alhaj Yousif area in East of the Nile locality, and Ibrahim Malik hospital in Alsahafa Shariq area,

Khartoum East locality. So all the baby friendly hospitals were included in the study.

## Study participants and recruitment

**The study population comprised two entities:** The first consisted of the nutritionists working as head of departments of nutrition in the study hospitals. Their number was one in each baby friendly hospital. They were responsible of monitoring the baby friendly hospital initiative, and coordinating breastfeeding promotion.

The second entity consisted of doctors, nurses, midwives, and nutritionists in the obstetric and pediatric sections of the three baby friendly hospitals.

Qualitative data was collected through in-depth interviews and Focus Group Discussions (FGDs). These were mainly about the ten steps to successful breastfeeding (Table 1). Presence of monitoring and evaluation of the BFHI was also assessed. The participants were also asked about their suggestions to improve the sustainability of the BFHI in their hospitals.

A written guide containing the main points for discussion (Table 2) was used during the in-depth interviews and focus group discussions.

## Data collection

Data was collected in the period from 30/10/2013 to 20/11/2013. In-depth interviews with the head of the nutrition department in each hospital were conducted by the researcher. Two FGDs were then held in each hospital, one with medical doctors (pediatricians, obstetricians, and family physicians) and the other with the nutritionists and nurses. The mini group technique was used. Each group was made up from (4-5) people. The time taken by each session ranged from 45 minutes to one hour. A moderator; expert in focus group discussions, and note taker; who is also well trained in this issue conducted the discussions. The researcher acted as an observer. In all data collection settings the notes were recorded manually.

Permission was taken from Khartoum state ministry of health to conduct the study, and a verbal consent was taken from each participant before conducting the interviews and FGDs.

The data was analyzed manually using thematic analysis. Information which seemed related was put in separate themes. Six themes were recognized: the first theme was the status of the hospital and the policy issue this was mainly discussed during the in-depth interviews. The second theme was the awareness about the BFHI and

opinions of the participants regarding the initiative. The third theme concentrated on the health care providers and breastfeeding training. The fourth theme was the breastfeeding support offered to the mothers. The fifth theme concerned monitoring and evaluation of the

BFHI. Lastly the suggestions to improve breastfeeding practice were included in the sixth theme.

What is the current state of your hospital regarding BFHI? What is your opinion about the BFHI?
Is there any written breastfeeding policy? If present; how is it going on?
What are your remarks regarding breastfeeding training in your hospital?
What do you think are the challenges that face you in helping the mothers to breastfeed
How is the monitoring and evaluation of the BFHI going on in the hospital?
What are your suggestions to improve the application and sustainability of the BFHI?

**Table 2:** Focus groups/interviews-key prompts.

## Results and Discussion

### The first theme: status of the hospital at the time of the study and the policy issue

All the in-charge persons mentioned that their hospitals were baby-friendly at the time of the study. One of them added the need for re-evaluation *"The hospital has a breastfeeding policy. It deserved the certificate once, but recertification is now needed"* (Alsaudi hospital). In all three hospitals a written breastfeeding policy was present (The 10 steps to successful breastfeeding) but the application was partial, as commented on by interviewees: *"The breastfeeding policy is available, however, it is not fully transformed into actions"* (Alban Jadeed hospital). This was attributed to the fact that most of the health care providers did not have enough knowledge and skills that help them to understand and apply the policy. The results of a study conducted in Australia showed that the different interpretation of the principles of the BFHI by health professionals may lead to lower rates of implementation. Hence further education and accurate information was recommended [11].

### The second theme: awareness about the BFHI and opinions of the participants

Some of the participants were fully aware about the BFHI. The rest either had little or no knowledge about it. The participants who knew about it mentioned that the BFHI is good and useful if fully applied. A minority of these did not have enough knowledge to tell their opinion. Most of the doctors were not having enough knowledge about the BFHI and its policy *"it's up there on the stand in the reception, also in poster format in every room in our postnatal areas and in every area in the hospital"* (Alsaudi hospital).

A study done in Cape Town also demonstrated variable levels of knowledge among hospital staff regarding BFHI. The majority of the participants, however, showed positive attitude towards the initiative [12]. Although the study was done in non-accredited hospitals in Cape Town, still there was similarity with the situation in the accredited hospital in Khartoum. This could be attributed to the high turnover of the staff and the little in-service breastfeeding training they received.

### The third theme: issues concerning the health care providers needed for application of the policy

Those were found to be unstable, with a high turn-over rate: *"Only few of the present health care providers were available at the time their hospital received the award of the BFHI"* (Albanjadeed hospital).

There seemed to be shortage in the nutritionists, midwives, and sisters in the three hospitals: *"we need health care providers assigned especially to promote breastfeeding"* (Ibrahim Malik hospital). Ciccone et al. found in a study conducted in Italy that feasibility of incorporating care managers in the health care system can result in tangible improvement in the clinical parameters of the patients enrolled in the study and better control of their disease. The model under assessment in that study was concerned with care of patients with chronic illnesses [13]. The idea of the model is still viable and can be applied in the context of breastfeeding promotion because of the combined efforts of the health care providers, and the health team approach. Trained health managers can play an important role in the promotion, protection and support of breastfeeding. In this way better implementation and sustainability of the BFHI can take place.

Breastfeeding training of the health care providers was deficient. When the training process was discussed in more details, most of the participants commented that it is intermittent, unscheduled, and sometimes absent especially training of the doctors *"Training of the health care providers is crucial in order to get the certificate again"* (Alsaudi Hospital).

Training of the other health care providers took place as workshops usually held outside the hospital. The nutritionists were the main ones involved in these trainings. In the baby friendly hospitals, however, training was held by the nutritionists. The doctors were not usually involved in such trainings. *"Doctors will accept training only when it is conducted by doctors"* (Alsaudi hospital). There was also lack in the breastfeeding promotion lectures in general. Most of the participants mentioned that they did not receive any breastfeeding training in all the three hospital. This highlighted the importance of in-service training. The same was mentioned in 2010 in a study done in Southern Croatia, that the health professionals received minimal in-service training regarding breastfeeding [14].

To identify the factors influencing health care providers' adoption of the BFHI; a survey was conducted in Canada. The researchers elicited issues similar to those in this study, regarding the health care

providers. The most important issues were the knowledge and skills. The Canadian study recommended effective interventions aimed at promoting the adoption of the BFHI. Increased training for health care providers; was one of these recommendations [15].

#### **The fourth theme: breastfeeding support provided to the mothers**

In all three hospitals rooming in and breastfeeding on demand were common practices. Health education to the mothers was deficient. Most of the participants mentioned that health education was not going on as scheduled. This was attributed to the shortage of qualified health care providers, and the scarcity of in-service training. These factors also affected the practical help offered to the mothers in order to breastfeed properly during their stay in the hospital.

Most of the doctors mentioned that they provide help for the lactating mothers when they are asked. But they do not follow any protocol or strategy for that "*Only If there is a problem regarding breastfeeding we intervene*" (Ibrahim Malik hospital). This could be attributed to the fact that the doctors were not receiving enough breastfeeding training.

Although the number of mothers' support groups was satisfactory, meetings with these support groups were irregular. This was attributed to shortage in health care providers and lack of monetary incentives needed to run these meetings.

This is comparable to the results of the Australian study. It showed that a practice development approach may lead to more support to the mothers and better breastfeeding outcomes. It was found that although education alone may improve breastfeeding knowledge, skills and practices, it is not enough. The study concluded that an integrated program of education and practice change can better improve breastfeeding rates [11].

#### **The fifth theme: monitoring and evaluation of the BFHI**

Although it was done, the monitoring and evaluation of the baby friendly hospital initiative was mostly infrequent and irregular. This could have affected the sustainability of the BFHI in the accredited hospitals in Khartoum state.

The Nicaraguan experience demonstrated this very clearly. They studied the effect of applying evaluation standards on the sustainability of the BFHI. Many evaluation standards contributed to the success and sustainability of the initiative there [16].

#### **The sixth theme: suggestions to improve the practice**

First the in-charge persons suggested the following points to improve the application and sustainability of the BFHI in their hospitals:

- Increasing the knowledge about the baby-friendly hospital initiative.
- Continuous breastfeeding training of the health care providers, especially the doctors. "Patients tend to believe what the doctors say" (Alsaudi hospital).
- Availing computers for keeping data and in addition to the multi-media needed for the training.
- Availing budget for breastfeeding promotion.

- Well trained health care providers should also be available especially for the task of breastfeeding promotion.
- Availing pamphlets to increase the awareness about the breastfeeding policy.

These suggestions were similar to those pointed out in randomized controlled trials conducted in the Americas, Asia, and Sub-Saharan Africa. Those studies also concluded that the application of the baby friendly hospital initiative should be evidence based, and this will not come without the scientific, evidence based knowledge about the policy and its application [17].

The doctors mentioned the following points to improve the sustainability of the BFHI:

- Continuous training of the health care providers especially the doctors "we need to know more about the BFHI" (Alban Jadeed hospital)
- Incorporating the breastfeeding training in the undergraduate curricula
- Distribution of educational materials like posters and booklets
- Continuous monitoring and evaluation of BFHI
- "Monitoring and evaluation should be done according to the plan." (Ibrahim Malik hospital)
- Breastfeeding promotion through the media
- Availing monetary incentives for breastfeeding support
- Training of the doctors especially those from the obstetric or pediatric departments
- Cooperation between the doctors and other health workers
- Training of the sisters and nurses
- Distribution of written guidelines about breastfeeding management to the health care providers

These opinions stressed the importance of training. They were reinforced by the results of an interventional study conducted in India. The study showed that education for health professionals needs to be done regularly to maintain the baby friendly hospital initiative [18].

From all these discussions it became clear that the policy issue should be clarified to all the health care providers and their knowledge should be increased by continuous training. These same points were discussed qualitatively in New Zealand. A study conducted there found that implementation of the baby friendly hospital initiative was multidimensional and faced many problems especially the policy issue and training of the healthcare providers. The authors stated that overcoming the barriers to the implementation of the baby friendly hospital is expected to be easier in hospitals with stable health care providers. Concerning the issue of training of the health care providers; the authors found that many organizational issues affect this matter; the instability of the staff was pointed out to be one of the important issues [10].

#### **Conclusion**

- Many Factors seem to affect the sustainability of the baby-friendly hospitals in Khartoum (Sudan).
- Paucity of breastfeeding training of the health care providers, at the obstetric and pediatric departments, outstands as the main factor affecting the sustainability of the BFHI in Khartoum state.
- Insufficient monitoring and evaluation have negative effect on the sustainability of the BFHI.

## Recommendations

- Continuous training of the health care providers, especially the doctors in the obstetric and pediatric departments.
- Breastfeeding promotion through lectures, seminars, and distribution of written materials.
- Incorporating competent health care providers in the health care system, to act as care managers concerned with breastfeeding support.
- Continuous monitoring and evaluation of the ten steps to successful breastfeeding and hence the BFHI.
- Further research to assess the effectiveness of innovative ways of breastfeeding support, the incorporation of care managers as an example.

## Authors' Contributions

The first author was the researcher. The research was done as a partial fulfillment for the degree of MD degree in Community Medicine. The second author was the supervisor.

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