

The Impact of the Baby Friendly Hospital Initiative on Breastfeeding Practices in Ilesa

TA Ogunlesi*, IOF Dedeke**, JAO Okeniyi⁺, GA Oyedeji⁺⁺

Summary

Ogunlesi TA, Dedeke IOF, Okeniyi JAO, Oyedeji GA. The Impact of the Baby Friendly Hospital Initiative on Breastfeeding Practices in Ilesa. *Nigerian Journal of Paediatrics* 2005; 32:45.

Background: Information on the Baby Friendly Hospital Initiative (BFHI) appears to be limited to tertiary health facilities to which most women lack access. Similar information on the initiative from non-tertiary health establishments should also be useful

Objective: To compare breastfeeding practices of mothers in Ilesa, with their exposure to the BFHI.

Methods: A cross-sectional survey. Mothers of children aged from birth to 24 months were interviewed using an open-ended questionnaire. Their awareness of the BFHI and previous contacts with a "Baby Friendly" hospital were compared with the time of commencement of breastfeeding, pre-lacteal feeding, exclusive breastfeeding and age of their children at the commencement of complementary feeding and at cessation of breastfeeding.

Results: Out of the 262 mothers studied, 200 (76.3 percent) were aware of the baby friendly initiative (BFI). One hundred and four mothers (39.7 percent) had had contact with a "Baby Friendly" hospital. Previous contact with a "Baby Friendly" hospital was associated with the commencement of breast feeding within one hour of birth ($p=0.000000$), lower rate of pre-lacteal feeding ($p=0.000000$) and higher rate of exclusive breastfeeding for the first six months of life ($p=0.000005$). Mothers who were aware of the BFI but had no contact with a "Baby Friendly" hospital had significantly lower incidence of commencement of breastfeeding within one hour of birth ($p=0.000000$) and exclusive breastfeeding ($p=0.000006$) compared with those who had contact with a "Baby Friendly" Hospital.

Conclusion: Previous contact with a "Baby Friendly" hospital confers an advantage in terms of appropriate breastfeeding practices. The involvement of the communities in the BFI may further enhance these practices.

Introduction

WITH the introduction of the Baby Friendly Hospital Initiative (BFHI) ¹ in Nigeria in 1992, tertiary and very few secondary health institutions providing antenatal and maternity services were used as the platform on which mothers would be educated about the initiative. These were designated "Baby Friendly" hospitals. Of the 1,354 "Baby Friendly" hospitals in West and

Central Africa as at 2002, 1,147 were in Nigeria.² The initiative apparently presumed that most mothers would come in contact with these specially designated hospitals and be exposed to better education on breastfeeding. However, the reported pattern of utilization of maternity services in Nigeria, like in other developing countries, suggested otherwise.³ This is one major limitation of the initiative. Expectedly, a recent study showed that mothers who had contact with "Baby Friendly" hospitals breastfed their infants better than others.⁴

The Wesley Guild Hospital (WGH), Ilesa, is a designated "Baby Friendly" hospital providing antenatal and maternity services to at least, three out of the 36 states in the country. Mothers attending the antenatal and immunization clinics at the WGH as well as those who delivered their infants in this hospital, were routinely counselled according to the 'Ten Steps to Successful Breastfeeding'. In recent

Olabisi Onabanjo University, Sagamu

Department of Paediatrics

* Lecturer

Wesley Guild Hospital, Ilesa

Department of Paediatrics

** Senior Registrar

Obafemi Awolowo University, Ile - Ife

Department of Paediatrics and Child Health

⁺ Lecturer

⁺⁺ Professor

Correspondence: Dr TA Ogunlesi

E-mail: tinuade_ogunlesi@yahoo.co.uk

times, there has been a decline in the utilization of this hospital's services due to economic reasons.⁵ This presumably resulted in a progressive reduction in the number of mothers who had been in contact with this "Baby Friendly" hospital. Therefore, this study aimed at comparing the breastfeeding practices of mothers in Ilesa, with their exposure to the BFHI.

Subjects and Methods

This was a cross-sectional survey of mothers of children aged 24 months and below, who attended the general paediatric outpatients clinic of the WGH, Ilesa between January 17 and March 21, 2005. Using an open-ended questionnaire, the information

on breast milk after 12 months of age was determined.

The subjects were grouped according to their awareness of the BFHI and their contact with WGH. The groups were compared for their breastfeeding practices. To eliminate the effect of contact on awareness, mothers who were aware of the BFHI but had no contact with WGH were also separately compared with those who had contact and those who were not aware. Data was analyzed with SPSS version 11.0 and Computer Programme for Epidemiologists (PEPI). Odds ratios (OR) with 95% Confidence Interval (CI) were used to describe significance; p values less than 0.05 in two-tailed tests were accepted as significant.

Table I
Analysis of Contact with WGH and Feeding Practices*

Feeding Practices	Contact		p values
	Yes n = 104	No n = 158	
Onset of breastfeeding within the first one hour of life	70 (67.3)	28 (17.7)	OR = 4.56, CI = 5.16 - 17.83 p = 0.000000
Children still receiving breast milk after 12 months of age	14/43 (32.6)	35/83 (42.2)	OR = 0.93, CI = 0.39 - 2.22 p = 0.853
Pre-lacteal feeding	16 (15.4)	80 (50.6)	OR = 5.64, CI = 2.93 - 10.99 p = 0.000000
Exclusive breastfeeding	37 (35.6)	19 (12.0)	OR = 0.25, CI = 0.13 - 0.48 p = 0.000005
Age (months) (Mean \pm SD) at commencement of supplementary feeding	5.4 \pm 1 n = 90	5.6 \pm 2.1 n = 126	t = 0.79 p = 0.432
Age (months) Mean \pm SD at cessation of breastfeeding	15.1 \pm 2.9 n = 49	14.6 \pm 2.3 n = 29	t = 0.84 p = 0.403

*WGH - Wesley Guild Hospital.

Figures in parentheses are percentages of the total number n.

gathered included the ages of the children and their mothers, the parity of the mothers, the place where antenatal care was received and the place of delivery. History of contact with the WGH as well as awareness about the principles of the BFHI were also obtained from the mothers. Contact with WGH was defined as previous visit to the WGH for antenatal care and/or delivery. The time of commencement of breastfeeding, pre-lacteal feeding, exclusive breastfeeding, age of the children at the commencement of complementary feeding and age at cessation of breastfeeding were also recorded. In addition, the proportion of children who were still

Results

General characteristics of the mothers and children

The ages of the 262 mothers studied ranged between 18 and 43 years with a mean [\pm SD] of 29.3 [\pm 5.3] years. The ages of their children also ranged between 0.1 and 24 months with a mean [\pm SD] of 11.7 [\pm 6.2] months. There were 66 (25.2 percent), 70 (26.7 percent), 82 (31.3 percent) and 44 (16.8 percent) children in the six months and under, seven to 12 months, 13 to 18 months and 19 to 24 months age groups, respectively. There were 152 males and 110 females (M: F = 1.4:1).

Eighty (30.5 percent) mothers were primipara while the remaining 182 (69.5 percent) were multi- and grand multipara. While 16 (6.1 percent) mothers did not receive any form of antenatal care, the others received such care at various centres: WGH 100 (38.2 percent), primary health centres 55 (21.0 percent), private clinics 34 (13.0 percent), churches 33 (12.6 percent), general hospitals 22 (8.4 percent), and traditional birth homes - two (0.8 percent). Seventy one (27.1 percent) of the children were delivered at the WGH; other places of delivery included: churches

significantly higher proportion of infants whose mothers had contact with WGH commenced breastfeeding within one hour of birth ($p=0.000000$), did not have pre-lacteal feeding ($p=0.000000$) and were exclusively breastfed for the first six months ($p=0.000005$). However, the mean (SD) ages of the infants at commencement of complementary feeding ($p=0.432$) and cessation of breastfeeding ($p=0.403$) were similar in both groups. The proportions of children aged above 12 months who were still on breast milk in both groups were similar ($p=0.853$).

Table II
Maternal Awareness of BFI*, Contact with WGH** and Feeding Practices

Feeding Practices	Aware but no Contact n = 96	Contact n = 104	p values
Onset of breastfeeding within the first one hour of life	26 (27.1)	70 (67.3)	OR = 0.18, CI = 0.09 - 0.35 p = 0.00000
Children still receiving breast milk after 12 months of age	16/51(31.4)	14/43 (32.6)	OR = 1.07, CI = 0.41 - 2.82 p = 0.881
Pre-lacteal feeding	51 (53.1)	16 (15.4)	OR = 6.23, CI = 3.05 - 12.87 p = 0.00000
Exclusive breastfeeding	11 (11.5)	37 (35.6)	OR = 0.23, CI = 0.10 - 0.52 p = 0.00006
Mean age (months) ± SD at commencement of supplementary feeding	5.1 ± 1.8 n = 76	5.4 ± 1.4 n = 90	t = 1.21 p = 0.229
Mean age (months) ± SD at cessation of breastfeeding	14.1 ± 1.9 n = 35	15.1 ± n = 29	t = 1.66 p = 0.103

*BFI - Baby Friendly Initiative. **WGH - Wesley Guild Hospital. Figures in parentheses are percentages of the total number n.

59 (22.5 percent), homes 41 (15.7 percent), private clinics 39 (14.9 percent), general primary health centres 37 (14.1 percent), hospitals 11 (4.2 percent), and traditional birth homes - four (1.5 percent).

Contact with WGH and breastfeeding practices

Only 104 (39.7 percent) mothers had contact with the WGH while 158 (60.3 percent) did not. All the mothers who had contact with WGH claimed to be aware of breastfeeding according to BFI while 96 (60.8 percent) of the 158 who did not have contact with WGH were aware. Table I shows that a

Awareness of the BFI and breastfeeding practices

Two hundred (76.3 percent) mothers were aware of breastfeeding according to the BFI while 62 (23.7 percent) were not. All the mothers who were not aware of the BFI also did not have contact with WGH whereas 104 (52.0 percent) of those who were aware had contact with WGH.

Table II compares the breastfeeding practices of mothers who were aware of the BFI but had no contact with WGH and mothers who were aware and had contact with WGH. Significantly lower proportions of mothers who were aware but had

no contact with WGH commenced breastfeeding within the first hour of birth and practised exclusive breastfeeding within the first six months of life ($p=0.000000$ and $p=0.000006$, respectively). On the contrary, a significantly higher proportion of mothers who were aware but had no contact with WGH practised pre-lacteal feeding ($p=0.000000$). However, the mean ages at the commencement of complementary feeding and at the discontinuation of breastfeeding were similar in both groups ($p=0.229$ and $p=0.103$, respectively). The rate of breast milk feeding after the age of 12 months was also similar in both groups ($p=0.881$).

In Table III, a comparison of the breastfeeding practices of mothers who were aware of the BFI but had no contact with WGH and mothers who were both unaware and had no contacts with WGH, is made. A significantly lower proportion of mothers who were not aware commenced breastfeeding within the first hour of birth ($p=0.00013$). The incidence of exclusive breastfeeding within the first six months of life and pre-lacteal feeding was similar in both groups ($p=0.785$ and $p=0.436$, respectively). The mean ages of children of mothers who were not aware were significantly higher at the commencement of complementary feeding and at the discontinuation of breastfeeding than those of mothers who were aware but had no contact ($p = 0.003$ and $p = 0.035$, respectively). A significantly higher proportion of the children of mothers who

were not aware of BFI were breast fed beyond 12 months of age ($p=0.012$).

Discussion

The focus of this study included the impact the Baby Friendly Initiative (BFI) had on breastfeeding practices, the maternal awareness of the initiative and the socio-demographic factors that might increase this awareness. The breastfeeding practices were assessed against the WHO/ UNICEF ten steps to successful breastfeeding. The higher number of mothers who knew about the BFI compared to the number of those who had been in contact with the "Baby Friendly" hospital suggests other sources of information about the BFI apart from the "Baby Friendly" hospital. The formal and informal interactions between different health facilities and individuals in the community may explain this. Unfortunately, the information provided in such circumstances may not be adequate. Previous utilization of antenatal and maternity services at the WGH appears to encourage good breastfeeding practices. This is similar to the findings in studies at Ile - Ife,⁴ and in Bangladesh.⁶ The gains of the BFI are not limited to the developing world as a recent Scottish study suggested that delivery in "Baby Friendly" hospitals increased the rate of breastfeeding.⁷

The similarity between mothers with and without contact with the "Baby Friendly" hospital with

Table III

Maternal Awareness of the BFI* and Feeding Practices

Feeding Practices	Aware but no	Not Aware	p values
	Contact n = 96	n = 62	
Onset of breastfeeding within the first 1 hour of life	26 (27.1)	2 (3.2)	OR = 11.14, CI = 2.42 - 70.95 p = 0.00013
Children still receiving breast milk after 12 months of age	16/51 (31.4)	19/32 (59.4)	OR = 0.31, CI = 0.11 - 0.86 p = 0.012
Pre-lacteal feeding = 0.436	51 (53.1)	29 (46.8)	OR = 1.29, CI = 0.65 - 2.57 p
Exclusive breastfeeding	11 (11.5)	8 (12.9)	OR = 0.87, CI = 0.30 - 2.57 p = 0.785
Mean age (months) \pm SD at commencement of supplementary feeding	5.1 \pm 1.8 n = 76	6.2 \pm 2.3 n = 50	t = 3.00 p = 0.003
Mean age (months) \pm SD at cessation of breastfeeding	14.1 \pm 1.9 n = 35	15.6 \pm 2.8 n = 14	t = 2.17 p = 0.035

respect to the proportion of children aged above 12 months who were still on breast milk and the timing of cessation of breastfeeding suggests that they had a common social background, which discouraged prolonged breastfeeding. Prior to the advent of the BFI, secondary and tertiary education were associated with early cessation of breastfeeding in northern Nigeria.⁸ This may be related to the occupational demands on highly educated women. Unfortunately, mothers with low formal education even when unemployed, tend to imitate the breastfeeding practices of the highly educated ones. Interestingly, mothers who were not aware of the BFI tended to breastfeed longer than those who were aware but had no contact with WGH. This observation might have arisen from the likelihood that mothers who were aware of the initiative were also highly educated and employed.⁸

This study shows that mothers who had previous contact with WGH had better breast feeding practices. Although awareness of the BFI is good, it is not enough without contact with a "Baby Friendly" hospital. The breastfeeding indices (with the exception of initiation of breastfeeding within one hour of birth) of mothers who were aware of the BFI but had no contact with WGH were not remarkably different from those of mothers who were not aware of the BFI. This greatly underscores the advantage of detailed counselling and audiovisual demonstrations offered by the "Baby Friendly" hospital. It is therefore, not surprising that mothers who were unaware of the BFI, delayed the introduction of complementary feeds probably because they were not aware that weaning could commence from the age of four months.⁹

Since most women in the country lack access to the "Baby Friendly" hospitals, it is imperative to involve the other tiers of health care in the implementation of the initiative. Nigerian studies have shown that workers in non-teaching health facilities had poor knowledge of the BFHI¹⁰ and that adequate training of these health workers was helpful in improving breast feeding practices.¹¹

Although, the 'Women and Children Friendly Health Services Initiative' is expected to improve the accessibility and utilization of hospital services,¹² direct involvement of the communities in the implementation of the BFI would enhance the gains of the initiative. The benefits of the involvement of the community in the BFI was shown in Bangladesh where the indices of breastfeeding improved remarkably following a community-based intervention.¹³ The incorporation of the principle of

"Baby Friendly" communities into the national health policy may be helpful.

Acknowledgement

The assistance of Drs AO Adesina, LO Isola and PB Kuti is hereby acknowledged.

References

1. WHO/ UNICEF. Protecting, promoting and supporting breast feeding – the special role of maternity services. A joint WHO/ UNICEF Statement. WHO, Geneva: 1989.
2. UNICEF. Current Status of Baby Friendly Hospital Initiative – March 2002. Available at the website <http://www.unicef.org/programme/breastfeeding/assets/statusbfhi.pdf>. Accessed on March 7, 2005.
3. Ogunlesi TA. The pattern of utilization of prenatal and delivery services in Ilesa, Nigeria. *Internet J Epidemiol* 2005; 2
4. Ojofeitimi EO, Esimai OA, Owolabi OO, Oluwabusi O, Olaobaju OF, Olanuga TO. Breast feeding practices in urban and rural health centres: impact of baby friendly hospital initiative in Ile – Ife, Nigeria. *Nutr Health* 2000;14:119–25.
5. Owa JA, Osinaike AI, Makinde OO. Trends in utilization of obstetric care at Wesley Guild Hospital, Ilesa, Nigeria. Effects of a depressed economy. *Trop Geogr Med* 1995;47:86-8.
6. Alam MU, Rahman M, Rahman F. Effectiveness of baby friendly hospital initiative on the promotion of exclusive breast feeding among the Dhakar city dwellers in Bangladesh. *Mymensingh Med J* 2002; 11:94-9.
7. Broadfoot M, Britten J, Tappin DM, Mackenzie JM. The Baby Friendly Hospital Initiative and breast feeding rates in Scotland. *Arch Dis Child Fetal Neonatal Ed* 2005;90:F114–6.
8. Ighogboja IS, Odumodu CU, Olarewaju RS. Breastfeeding pattern in Jos, Nigeria, before baby-friendly hospital initiative. *J Trop Pediatr* 1996;42:178–9.
9. Ogbu CN. Policy of exclusive breastfeeding for six months: a re-examination. *Nig J Pediatr* 2001; 28:53–60.
10. Okolo SN, Ogbonna C. Knowledge, attitude and practice of health workers in Keffi local government hospitals regarding Baby-Friendly Hospital Initiative (BFHI) practices. *Eur J Clin Nutr* 2002;56:438–41.

11. Davies-Adetugbo AA, Adebawa HA. The Ife South Breastfeeding Project: training community health extension workers to promote and manage breastfeeding in rural communities. *Bull World Health Organ* 1997;75:322-32.
12. Federal Ministry of Health and UNICEF: Women and Children Friendly Health Service (WCHS) Initiative in Nigeria. National Guidelines and Protocols, 2003.
13. Haider R, Ashworth A, Kabir I, Huttly SR. Effect of community-based peer counsellors on exclusive breastfeeding practices in Dhaka, Bangladesh: a randomized controlled trial. *Lancet* 2000;356:1643-47.