



Health service support for breastfeeding in the northern region of Ghana

Paul Armah Aryee,* Emmanuel Kodwo Mensah,¹ Amonu-Gyamfua Ampofo²

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^{1,2} Department of Community

Nutrition

School of Medicine and

Health Sciences

University for Development Studies

Tamale, Ghana

*Corresponding Author

Department of Community Nutrition

School of Medicine and

Health Sciences

University for Development Studies

Tamale, Ghana

paaryee@yahoo.com

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ABSTRACT

The Baby-Friendly Hospital Initiative (BFHI) is a global effort to improve the role of maternity services and to enable mothers to breastfeed their infants, thus ensuring the best start in life for their infants. The foundation for the BFHI is the Ten Steps to Successful Breastfeeding (BF).

It has been shown, however, that there is the tendency of health facilities backsliding and even reverting to the old patterns of maternity care and practices and may be ineffective and discouraging to successful BF practices. The study was therefore conducted to ascertain and measure the extent of compliance with the Ten Steps to BF in designated Baby Friendly Health facilities in the Northern Region of Ghana.

The study followed a cross-sectional design and was set in the Savelugu/Nanton, Tolon/Kunbungu Districts and Tamale Metropolis in the Northern Region. Nine (9) designated Baby Friendly facilities participated in the study; for which observation lists were completed and verified by interviewer-administered questionnaires to sixty-one (61) Health Care Workers (HCWs) and two hundred and seventy (270) breastfeeding mothers.

The overall compliance with the Ten Steps was 85.6% (S.E, 4.2%) indicating high compliance, with 66.7% of the health facilities being highly compliant whilst 33.3% were moderately compliant. During the study there were no posters or other materials promoting breast-milk substitutes, bottles and pacifiers displayed in the facilities.

The study highlighted a high degree of compliance with most of the BF policies (Ten Steps to successful breastfeeding) and of the correct implementation of these policies in the designated baby friendly health facilities. Nevertheless, some elements relevant to Steps 4 and 5 require further work to make the needed improvement.

Keywords: Baby-Friendly Health facility, Breastfeeding, Compliance, Ten steps, Ghana

INTRODUCTION

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) launched the Baby-Friendly Hospital Initiative (BFHI) in 1991 following the Innocenti Declaration of 1990.¹ This initiative is a global effort to improve the role of maternity services and to enable mothers to

breastfeed their infants, thus ensuring the best start in life for their infants. The BFHI is aimed at promoting, protecting and supporting breastfeeding and is based on ten best practice standards that must

be attained in order for a hospital or health service to be accredited as 'Baby Friendly'.^{1, 2}

The foundation for the BFHI is the Ten Steps to Successful Breastfeeding (**Table 1**).¹ The evidence for the effectiveness of the Ten Steps is substantial for most of the steps.^{3,5,6} The selective implementation of only some of the steps, however, may be ineffective and discouraging to successful BF

practices.⁷ The implementation and compliance with all of the Ten Steps, which includes strong policies and the adequate, relevant and practical training of personnel, continuing support to mothers and restriction on the use of breast-milk substitutes (BMS) to clearly defined medical reasons, most effectively increases and sustains exclusive breastfeeding (EBF).

Table 1. The WHO/UNICEF Baby-Friendly Hospital Initiative's Ten Steps to Successful Breastfeeding

<p>Every facility providing maternity services and care for newborn infants should:</p> <ol style="list-style-type: none"> 1. Have a written breastfeeding policy that is routinely communicated to all health care staff. 2. Train all health care staff in skills necessary to implement this policy. 3. Inform all pregnant women about the benefits and management of breastfeeding. 4. Help mothers initiate breastfeeding within a half-hour of birth. 5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants. 	<ol style="list-style-type: none"> 6. Give newborn infants no food or drink other than breastmilk, unless medically indicated. 7. Practise rooming-in: allow mothers and infants to remain together 24 hours a day. 8. Encourage breastfeeding on demand. 9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants. 10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.
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Breastfeeding; Source: WHO/UNICEF, 1991

A Swiss study supported the finding that infants born in a baby-friendly hospital are more likely to be breastfed for a longer period, particularly if the facility shows high compliance with the UNICEF guidelines⁴. Over the last 15 years approximately

20,000 hospitals in 156 countries around the world have been accredited as baby-friendly², including 22 baby-friendly health facilities in the Northern Region of Ghana⁸. In ensuring that EBF and BF in general is not compromised many countries have some form of

national BF authority and over 60 countries have laws or regulations implementing the International Code of Marketing of BMS.^{1,2,9}

The National Authorities responsible for the BFHI have however noted that there is the tendency for designated baby-friendly health facilities to backslide and even revert to the old patterns of maternity care and practices and may be ineffective and discouraging to successful BF practices^{2,12}. They have therefore requested UNICEF offices for guidance on how to maintain the Baby-Friendly standards.

The purpose of this study was therefore to ascertain and measure the level of compliance with the BFHI standards by designated baby-friendly health facilities in the Northern Region of Ghana. The study focuses on the Ten Steps to Successful Breastfeeding, quantifies health facilities' breastfeeding support in line with each step to obtain an individual step score and composite support score to determine the level of compliance with each of the individual steps.

MATERIALS AND METHODS

Design and sampling

The study followed a cross sectional design and was conducted at facility level. Nine (9) baby-friendly designated facilities from the Tamale metropolis and 2 other districts in the Northern region of Ghana were randomly selected as the study settings. The nine facilities were; Tamale Teaching Hospital (TTH) in the Tamale Metropolis, Savelugu polyclinic, Nanton, Pong-Tamale and Tampion health centres in the Savelugu-Nanton district and Tolon, Kumbungu, Nyankpala and Dalun health centres in the Tolon-Kumbungu district. These were identified from lists provided by the Information Department of the Northern Regional Health Directorate. In the study, the full sampling frame was approached to participate.

Participants

A total sample size of three hundred and sixty (360) was estimated for this study. This comprised of 270 breastfeeding mothers and 90 health care workers (HCWs). This distribution was determined using the Baby Friendly Initiative monitoring tool requirement,

that is, a minimum of 30 breastfeeding mothers and 10 HCWs to be interviewed at each facility².

The participants were selected purposively from each of the nine facilities. The mothers were from ethnically diverse groupings and ranged in age from 18 to 42 years. Mothers present at the time of the visit who were in a condition to participate and who had had uncomplicated natural or Caesarean-section births, with infants from 0-24 months were included in the study.

Materials and procedure

The data-collection tool for the study was an open-ended interview questionnaire aimed at evaluating the implementation of each step at the facilities. The interview questions were adapted from the WHO Baby-Friendly Initiative (BFI) Monitoring Tool and designed by the investigators of this study. Interviewer-administered questionnaires for the HCWs were on training received on breastfeeding promotion and support; types and content of training related to infant feeding and those for mothers centered on their experiences at antenatal visits and in the maternity services regarding breastfeeding.

Human right

Permission was obtained from the managers of all the facilities visited. All the participants (both HCWs and mothers) provided informed consent prior to participating in the study. Any information provided was guaranteed to be confidential. Ethical approval was sought from the ethical committee of the School of Medicine and Health Sciences' of the University for Development Studies (UDS) in Tamale, Ghana.

Data analysis

All field data collected were analyzed using the Statistical Package for Social Sciences (SPSS, version 17) and Microsoft Excel. These instruments helped confirm answers to our research questions.

Elements from the observation lists and pooled responses from the questionnaires (from both HCWs and mothers) for each facility were allocated to the relevant step of the Ten Steps. The frequency of implementation was calculated both for each facility and overall. The HCWs' and mothers'

responses were not collected individually but as representative of each specific facility.

Percentage scores for each of the elements within the relevant step were calculated. Scores were also summed up for each facility for each step reflecting the degree to which the facility complied with the specific step. Mean scores and standard error of mean were calculated for each step's score. A grading scale was adapted by the investigators to interpret these scores²: a score less than 60.0% was classified as 'poorly compliant', 60.0% to 79.9% as 'moderately compliant', and 80.0% or greater as 'highly compliant'. The mean scores for each step were used

to calculate a total mean score representing all Ten Steps.

RESULTS

Socio-demographic characteristics of mothers and infants

Of the 9 eligible facilities, 270 mothers all agreed to participate and completed the survey, for a response rate of 100%. Table 2 below presents the socio-demographic characteristics of the mothers. The ages of the mothers studied ranged from 18 to 42 years. In terms of ethnicity, the Dagombas were the majority (83.0%) followed by the Gonjas, 23 (8.5%). The Dagaabas/Frafras were 18 (6.7%) and others comprising Walas and Akans were 5 representing 1.9% (Table 2).

Table 2. Socio-demographic characteristics of mothers (N= 270)

Characteristics	Description	Number	Percentage (%)
Age group	18-22yrs	25	9.3
	23-27yrs	115	42.6
	28-32yrs	105	38.9
	33-37yrs	14	5.2
	38-42yrs	11	4.1
	None	97	35.9
Formal Educational level	Primary	109	40.4
	JHS	61	22.6
	SHS	0	0
	Tertiary	3	1.1
Occupational distribution	Farming	112	41.5
	Trading	76	28.1
	Teaching	3	1.1
	Unemployed	79	29.3
Tribe	Dagomba	224	83.0
	Gonja	23	8.5
	Dagaabas/Frafras	18	6.7
	Others	5	1.9

Source: Field Survey, May/June, 2012

While 97 (35.9 %) mothers did not have any formal education; the rest had some level of formal education: primary, 109 (40.4%), JHS, 61 (22.6 %), and tertiary, 3 (1.1 %). The occupational distribution showed that 41.5% of the mothers were engaged in farming, 28.1% in trading, 1.1% in teaching and 29.3% were unemployed. Two hundred and fifty-one (93.0%) of the mothers were Muslims whilst

Christians were 19 (7.0%). All the mothers interviewed were married.

The ages of their children ranged from 0 to 24 months. There were 236 (87.4%), 29 (10.7%) and 5 (1.9%) within the age groupings of 0-6 months, 7-12 months and 19-24 months respectively. There were also 123 (45.6%) males and 147 (54.4%) females.

General characteristics of health care workers

Of the ninety (90) HCWs, sixty one (61) participated and completed the questionnaires representing a response rate of 67.8% (n=61/90). A total of thirty-two representing (52.5%) of them were nurses; 5 (8.2%) were midwives, with 2 (3.3%) being medical assistants (MAs), whilst 20 (32.7%) were Health Extension Officers and others comprising of Disease Control Officers and Pharmacists were 22 (36.1%). Out of these, 16% and 84% were males and females respectively.

Training Received By Staff with Respect to the BFHI Requirement

Of the 61 HCWs who completed the questionnaires, 48 (78.7%) had received an 18 hour training including a minimum of three (3) hours supervised clinical experience whilst 13 (21.3%) had not been trained.

However, a multiple response question on aspects of training not received by the 48 trained staff showed, 6.2%, 79.2%, 72.9% and 75% had not received training for Breastfeeding promotion and support, supporting the non-breastfeeding mother, Mother friendly care and HIV and infant feeding respectively.

Analysis of the Ten Steps to Successful Breastfeeding

The degree of compliance with each of the ten steps was determined by calculating overall means and standard error of the mean [S.E] for each step's score. The total mean score of 85.6% [4.2%] for all the selected facilities (representing the Northern Region) indicated the degree of compliance at the time of the study as "Highly compliant" according to the scale for the study. The results have been further illustrated in Figure 1 below.

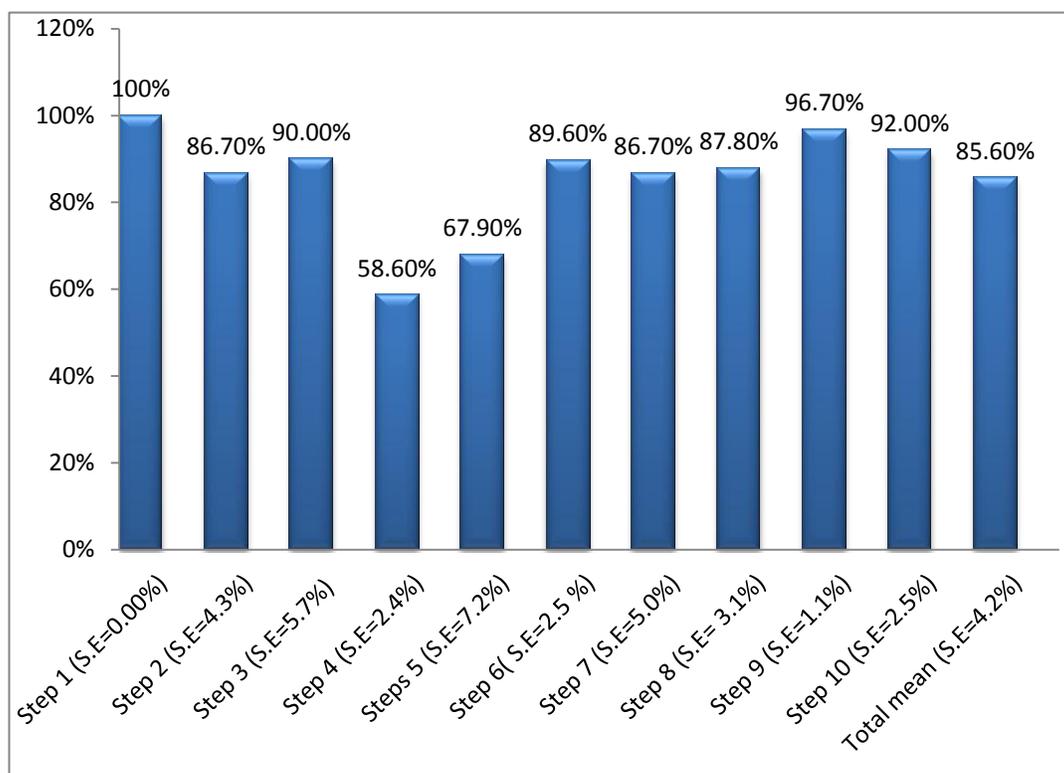


Figure 1 Mean and ranking scores for the Ten Steps in BF health facilities

< 60.0% - Poorly compliant, 60.0%-79.9 - moderately compliant and 80.0% or greater - highly compliant

Facility Degree of Compliance

Lower mean scores reflecting mostly "poorly compliant" outcomes were noted for Step 3 in Pong-

Tamale (46.7%), Step 5 in Kunbungu (50.0%), Savelugu (59.2%) and TTH (42.5%) and Step 4 with

scores of 53.3%, 54.0%, 57% and 44.0% in Dalun, Tampion, Nanton and Nyankpala facilities

respectively. These results have been presented in Table 3 below.

Table 3. Step Score and Degree of Compliance with the Ten Steps for each BFH Facility

Baby-friendly facilities, Step and Mean Scores and Ranking									
Steps	Dalun	Kunbunu	Tampion	Nanton	Pong-Tamale	Savelugu	Nyankpala	Tolon	TTH
1	100**	100***	100***	100***	100***	100***	100***	100***	100***
2	91.7***	100***	71.4**	90.0***	100***	94.4***	90.0***	80.8***	62.5**
3	93.3***	100***	93.3***	96.7***	46.7*	100***	100***	83.3***	96.7***
4	53.3*	64.0**	54.0*	57.3*	62.7**	66.0**	44.0*	60.7**	65.3**
5	88.3***	50.0*	90.8***	98.3***	41.7*	59.2*	61.7**	78.3**	42.5*
6	86.7***	83.3***	90.0***	93.3***	96.7***	96.7***	73.3**	93.3***	93.3***
7	100***	100***	90.0***	90.0***	60.0**	100***	70.0**	96.7***	73.3**
8	93.3***	96.7***	86.7***	90.0***	90.0***	86.7***	71.7**	100***	75**
9	96.7***	93.3***	95.0***	98.3***	100***	100***	90***	100***	96.7***
10	100***	96.7***	100***	91.7***	85.0**	100***	81.7***	83.3***	90.0***
Mean	90.3%	88.4%	87.1%	90.6%	78.3%	90.3%	78.2%	87.6%	79.5%

*Poorly compliant, **moderately compliant, ***highly compliant. Source: Field Survey, May/June, 2012

Categorization of Health Facilities by levels of compliance

The table below (Table 4) indicates that overall six (6) facilities (66.7%) were "Highly Compliant" and three

representing (33.3%) were in the "moderately compliant" category while no facility fell in the "poorly compliant" category according to the scale for the study.

Table 4. Categorization of health facility (N=9)

Category	Number of facilities (%)	Mean score
Highly compliant	6 (66.7%)	89.1%
Moderately compliant	3 (33.3%)	78.7%

Source: Field Survey, May/June, 2012

Among the highly complied steps were the following: Step 1; all the health facilities surveyed had written breastfeeding policies displayed in all the areas that served mothers, infants or children. The possible reason may be the continuous use and referral to these policies for routine prenatal education. Also, health care workers and mothers' responses indicated that prenatal education was available in all the facilities providing mothers with information about the benefits and management of breastfeeding during ante-natal sessions. Step 3, as indicated above has been given priority as results also show that 38 (93.80%) HCWs have been trained on breastfeeding promotion and support.

Notable in this study is the fact that 89.6% of mothers indicated that they gave only breast milk and not supplemental feeds to their newborns and infants (0-6months); and if they did, it was medically indicated conforming to step 6. In line with step 9, 100% of the mothers reported they had not given any artificial teats or pacifiers to breastfeeding infants. These outcomes perhaps may be attributed to routine prenatal education on the risk of giving water, formula or other supplements to infants in the first six (6) months as well as the negative impact that any artificial teats or pacifiers may have on the overall infant health and breastfeeding outcomes. With respect to community support, i.e., the establishment of breastfeeding support groups and

referring mothers to them on discharge from the hospital or clinic (Step 10), most mothers indicated that they have been given advice on where to get help with breastfeeding and could list at least one appropriate way to get help.

The study however has revealed that some responses indicated deficit with the BFHI criteria, including policies and practices. For instance, 47.8% of mothers had been taught how to express breast milk and only 25.9% of mothers held their babies skin to skin. The delays in holding of babies within the recommended period were attributed to bathing of the babies, mothers' inability to hold babies because they had not recovered from anaesthesia in the case of caesarean sections or mother didn't have much energy to hold babies. Another reason was that the child needed help/observation.

DISCUSSION

In an effort to ascertain and measure the extent to which the designated baby-friendly health facilities in the Northern Region meet and comply with the baby friendly standards i.e. the Ten Steps to Successful Breastfeeding, the degree of compliance with each of the ten steps was determined by calculating overall means and standard error of the mean [S.E] for each step's score.

The study illustrated a high degree of compliance with most of the BF policies (Ten Steps to successful breastfeeding) stemming from the correct implementation of these policies in the designated baby friendly health facilities. The high compliance and implementation with the BFHI in these health facilities is contrary to the concerns raised by the BFHA². Such levels of compliance may be effective and encourage successful BF practices as well as increase the initiation of exclusive breastfeeding⁹. There is also the likelihood of mothers in these BF facilities especially in those that show high compliance with the BFHI guidelines breastfeeding longer⁴, as well as establish and sustain exclusive breastfeeding¹⁰. This will have a substantial effect on BF practices by mothers in these facilities which assure optimal feeding and eventually ensure that infants are given the best start in life. Clearly, the large number of mothers reporting the practice of

EBF and not using pacifiers and teats point to effective implementation of some steps.

The high degree of compliance observed in this study for most of the designated facilities can be compared to the findings of the Massachusetts Breastfeeding Coalition survey¹¹ on how Massachusetts hospitals were doing with respect to breastfeeding practices. The Massachusetts survey indicated that Sixty percent (60%) of hospitals were high or medium-high implementers of the Ten Steps. However it is very likely that variations in the individual step compliances may differ as capacities and resources for implementation of the policies are fraught with different challenges.

Some facilities were seen as poorly compliant or poor implementers of steps 4 and 5 which concerned with policies aimed at providing strategic information and service to mothers in support of BF. These were poorly executed as large numbers of the staff in these designated facilities had not received appropriate training.

CONCLUSION AND RECOMMENDATIONS

The study highlighted a high degree of compliance with most of the BF policies (Ten Steps to successful breastfeeding) reflecting the level of implementation of these policies in the designated baby friendly health facilities. However, compliance with some elements relevant to steps 4 and 5 require further work to make needed improvements.

In addition, the study illustrates excellent scores for steps 1, 3, 9 and 10, and 66.7% and 33.3% of the facilities were highly compliant and moderately compliant respectively.

RECOMMENDATIONS

- Facilities doing poorly in the various elements relevant to the Ten Steps and other baby friendly criteria should be supported to do further work to make needed improvement.
- Hospital administrators should monitor breastfeeding policies based on BFHI criteria, and support all staff in receiving ongoing, refresher and scheduled breastfeeding education. This training will help to effectively promote and

support breastfeeding and maintain or improve the momentum and credibility of the BFHI and

eventually ensure that infants are given the best start in life.

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