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ROLE BABY FRIENDLY HOSPITAL INITIATIVE ON KNOWLEDGE AND PRACTICES OF NURSING MOTHERS

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Abstract:

Introduction: Breastfeeding is a natural way of feeding to a new born baby. Breast Milk contains natural that a baby needs for first few months of life and it is quickly digested. WHO & UNICEF in 1996 launched a Baby Friendly Hospital initiative.

Methods: This cross section comparative study conducted from March 2008 to December 2008 to evaluate the role of Baby Friendly Hospital Initiative on feeding and weaning practices of nursing mothers, at Civil Hospital Hyderabad a Baby Friendly Hospital and Govt Bhtai Hospital Latifabad a Non Baby Friendly Hospital. A sample size of 784 nursing mothers with children under two years attending Pediatric Department and Immunization Clinic is selected by Non Probability Convenience sampling technique. **Results:** Feeding practices in BFHI group was better in some aspects of not giving pre-lacteal feeds (81% vs. 37%), longer duration exclusive breast feeding up to four months (79% vs. 27%), up to six months (31% vs. 8%), initiation of breast feeding within one hour of birth was better in non BFHI group (65% vs. 45%). **Conclusion:** Baby Friendly Hospital initiative has beneficial effect on some feeding practices of mothers and duration of exclusive breastfeeding.

Keywords: Breast feeding; Baby Friendly Hospital Initiative; Exclusive breast feeding; Pre-lacteal feed; Pakistan; Weaning. Accepted: 11/23/2011 Published: 03/01/2012

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Introduction

Breastfeeding is a natural way of feeding a newborn baby. Breast milk quickly and easily digestible, containing all nutrients baby needs for the first few months of life. A number of studies have amply demonstrated the important role that breastfeeding plays in child survival [1]. Relative risk (R/R) of death due to diarrhea in non breastfed compared to breastfed infants is 25 times more in children under two years of age. Relative risk of death due to lower respiratory tract infections is 3 times more in children under two months old and two times more in those between 3 - 11 months. Similarly relative risk of morbidity is 6.9 times more for diarrhea; it is 5- 6 times more for acute lower respiratory tract infections and three times more for hospitalization in the first year of life [2-3-4].

Enabling mothers to establish and sustain exclusive breastfeeding for 6 months WHO and UNICEF

recommended Initiate Breastfeeding within first hour of life; Exclusive breastfeeding (Infant receives only breast milk without any additional food or drink not even water); Breastfeeding on demand (As many times as child wants, day and night) and No use of bottles, teats or pacifiers [5]. WHO and UNICEF in 1996 launched the Baby Friendly Hospital Initiative to strengthen maternity practices to support breastfeeding. The foundation for the BFHI are the Ten Steps to Successful Breastfeeding described protecting, promoting and supporting breastfeeding; a joint WHO / UNICEF statement [6]. In 1990 the Ten Steps were accepted as the central theme of innocent declaration and later that year endorsed at the world summit on children. In 1996 WHO / UNICEF launched a major international campaign to encourage all hospitals with maternity services to accept the ten steps as basic newborn and infant care policies and procedures.

The Baby Friendly Hospital Initiative (BFHI) is considered as one of the most successful international effort ever performed to protect, promote and support breastfeeding [7]. Karamer et al. identified in his study that Breast milk promotes sensory and cognitive development and protects the infant against infectious and childhood illnesses such as diarrhea or pneumonia and helps for a quicker recovery during illness [8]. The BFHI attempts to check the causes of infant mortality and morbidity. Malnutrition, infection, diarrheal diseases and particularly the effects of unhygienic bottle-feeding practices have raised a global infant mortality. Infant and children are likely to suffer permanent growth failure and development impairments just because they were not breastfed [9-10].

WHO and UNICEF Baby Friendly Hospital initiative was established to implement the goals of the Innocenti Declaration, which calls for global breastfeeding and the removal of obstacles to breastfeeding within the health care system, at the workplace, and in the community [10].

A study in 2005 examined the effect of the Baby Friendly Hospital initiating (BFHI) on the breastfeeding rates in Taiwan and analyzed factors related to BFHI qualification. In conclusion study indicates that health policy intervention has a significant impact on increasing the breastfeeding rates in Taiwan [8]. American Academy of Pediatrics survey concludes that pediatricians have significant educational needs in the area of breast feeding management [11]. Lack of knowledge about breastfeeding on the part of health personnel represents a major barrier to improve child health in developing countries. The knowledge, attitude and practice of health workers play major role for successful breast feeding policy implementation. A study has shown that there was general lack of awareness of some major recommended practices in the hospital to promote and sustain breastfeeding [12].

Baby Friendly Hospital is not a snappy slogan but it is a standard of care. "Baby Friendly" is a designation; a maternity site can receive by demonstrating to external assessors, compliance with the Ten Steps Successful Breastfeeding. The Baby Friendly Initiative has increased breastfeeding rates, reduced complications and improved mother's health care experiences [13].

A study conducted in Taiwan to examine the impact of hospital environment on breastfeeding rates during maternal hospitalization. It revealed that Baby Friendly hospitals have the highest breastfeeding rates this can serve as a reference to the government and medical institutions in efforts to promote breastfeeding [14]. A study conducted in Bangladesh revealed that duration of exclusive breastfeeding is longer among mothers who have been delivered in a Baby Friendly Hospital than those mothers who have been delivered in a not designated Baby Friendly Hospital [15]. A comparative study at a teaching hospital of Calcutta before and after adoption of baby friendly hospital initiative was conducted. The study revealed that BFHI made a significant overall reduction in

the time gap between the birth and the first breast feeding in all types of deliveries [16].

It is confirmed that knowledge of mother regarding breastfeeding has most important implication for the health of the newborn infants. A study done in Pakistan showed delay in start of breastfeeding was an important factor in lactation failure [17]. A study conducted at Rawalpindi Medical College also showed that 60% of babies were given some pre-lacteal feeds including honey and ghutti [18]. Another study concluded that considerable efforts need to be put with specifically targeted interventions in the training health personnel and society [19]. A study conducted at Karachi showed that although 57% of mothers had good knowledge about feeding patterns and practices but their attitudes are not very positive i.e. only 30% had highly positive attitudes. It was also seen that even if the attitude is positive and the knowledge is sufficient, the practices are not willing or desirable (only 27% mothers were with positive practices) [20]. In Pakistan exclusive breastfeeding prevalence is only 16 percent at 4 months of age, so extensive efforts are needed to improve this situation. The rational of our study is to find out the effect of Baby Friendly Hospital Initiative on the knowledge and practices of mothers regarding feeding and weaning. In this backdrop, present study was aimed at nursing mother to evaluate the role of Baby Friendly Hospital Initiative on their feeding and weaning practices.

Materials and Methods

It is a cross section comparative study done from March 2008 to December 2008 in two settings. Civil Hospital Hyderabad a baby friendly hospital and Govt Bhtai Hospital Latifabad a Non Baby Friendly Hospital. A sample size of 784 nursing mothers with children under two years attending Pediatric Department and Immunization Clinic is selected by Non Probability Convenience sampling technique. Four researchers recorded on specifically developed Performa

Ethical Consideration: The study obtained ethical clearance from the Ethical Review Board of the Institute of Child and Mother Health, Hyderabad, Pakistan. The study was completed in compliance with the Helsinki Declaration. The data were treated with highest possible confidentiality. *Data analysis:* Data was entered in Epi-info version 3.0 and analyzed on SPSS 10. Initially frequencies were run to identify and correct the missing values and errors if any. Proportion and percentages of all variables are calculated. To establish association between variables Chi square test was applied accordingly. During inferential analysis we compared the responses given by mothers in both hospitals. A probability level (p value) of ≤ 0.05 was considered to be statistically significant.

Results

Out of 784 mothers interviewed 442 (56.4%) have deliveries in Baby Friendly Hospital (BFH) and 342 (43.6%) in non Baby Friendly Hospital (Non BFH).

Descriptive socio-demographic results in BFH: 77.4% (n=342) mothers belonged to age group of 21 to 30 years, 15.4% (n=68) were above 31 years and 7.2% (n=32) were of 20 years or less. 96.4% were housewives and working mothers are 3.6% (n=16). 43% (n=190) mothers belonged to income group of above 5000 rupees per month while 29% (n=129) were with monthly family income of below 3000 rupees per month while 28% (n=123) had income between 3000 to 5000 PKR per month. 38.7% (n=171) mothers were having their first baby and 13.3% (n=59) mothers had five or more children and 48% (n=212) had 2 to 4 children. History of death of one child in 11.6% (n=49) of mothers and 10.7% (n=65) has lost more than one child was in of mothers. Majority of babies in BFH settings were infant 93.9% (n=415).

Descriptive socio-demographic results in Non BFH: 71.9% (n=246) mothers belonged to age group of 21 to 30 years, 12.6% (n=43) were above 31 years and 15.5% (n=53) were of 20 years or less. 88% (n=338) were housewives and working mothers are 1.2% (n=4). 9.9% (n=34) mothers belonged to income group of above 5000 rupees per month while 59.9% (n=205) were with monthly family income of below 3000 rupees per month while 30.1% (n=103) had income between 3000 to 5000 PKR per month. 23.1% (n=79) mothers were having their first baby and 20% (n=70) mothers had five or more children and 45.8% (n=193) 8% (n=212) had 2 to 5 children. History of death of one child in 9.6% (n=33) of mothers and 2.1% (n=7) has lost two or more children. Majority of babies in BFH settings were infant 83.3% (n=285).

Descriptive results of feeding practices in BFH: 45% (n=199) babies given breastfeed within one hour of birth, 30.3% (n=134) within four hours, 6.3% (n=28) within 12 hours and 12.5% (n=57) were given breastfeed after 24 hours of birth.

Descriptive results of feeding practices in Non BFH: 65.5% (n=224) babies given breastfeed within one hour of birth, 20.5% (n=70) within four hours and 9.6% (n=33) were given breastfeed after 24 hours of birth.

Descriptive results of knowledge about feeding in BFH: 95% (n=420) of mother accepted that antenatal counseling about breastfeeding was done. Similarly 98.9% (n=437) mothers of this group believed that breastfeeding is beneficial.

Most of the mothers 70.8% (n=313) had knowledge about the bottle-feeding is harmful but 29.2% (n=129). The source of this knowledge was claimed to be self study 40.5% (n=179), health staff 32.6% (n=144), family 8.4% (n=37), previous experience 5.7% (n=25).

Descriptive results of knowledge about feeding in Non BFH: No antenatal counseling regarding breastfeeding was given to 64% (n=218) mothers while 36% (n=124) were counseled about breast feeding. However 95.6% (n=327) mothers believed that breastfeeding is beneficial.

Most of the mothers 96.2% (n=329) had knowledge about the bottle-feeding is harmful. The source of this knowledge was claimed to be self study 18.4% (n=63), health staff 45.9% (n=157), family 21.6% (n=74), media 5.6% (n=19) and previous experience 6.1% (n=21).

Table 1: Variables Responses About advantages of breastfeeding for child in BFH

Variables	Number (n=442)	Percentage %
Pure milk	69	15.6
Mother remain relax, happy, satisfied	215	48.6
No chest or breast pain	31	07
No breast cancer	31	07
Increases love to baby	19	4.3
Time saving	15	3.4
No pregnancy	18	4.1

Table 2: Variables Response About disadvantages of bottle feeding in BFH

Variables	Number (n=442)	Percentage %
Loose motions	157	35.5
Cause of bad health to child	166	37.6
Cause of infections to child	61	13.8
Problem of making milk	169	37.6
Difficulty in keeping bottle clean	79	17.9
Expensive	26	5.9
Fear of harm to baby	42	9.5
Family financial problem	116	26.2
Family financial problems due to disease	145	32.8

Table 3: Variables Responses About advantages of breastfeeding for child in Non BFH

Variables	Number (n=342)	Percentage %
Pure milk	39	11.4
Mother remain relax, happy, satisfied	107	31.3
No chest or breast pain	42	12.3
No breast cancer	19	05.6
Increases love to baby	27	12.3
Time saving	26	7.9
No pregnancy	22	06.4
No bad health to mother	27	07.9
Money saving	319	93.3

Table 4: Variables Responses About disadvantages of bottle feeding in Non BFH

Variables	Number (n=342)	Percentage %
Loose motion	199	58.2
Cause of bad health to child	94	27.5
Cause of infections to child	36	10.5
Problem of making milk	184	53.8
Problem for everybody in family	121	35.4
Family financial problem	302	88.3

Table 5: Variables responses about weaning in BFH

Variables	Number (n=442)	Percentage %
Sources of knowledge		
Self study	177	40
Health staff	100	22.6
Previous experience	79	17.9
Family	64	14.5
About needs of child		
Good growth	173	39.1
Food is necessary with milk	165	37.5
Want more to eat	45	10.2
Insufficient milk	59	13.3
About needs of mother		
Rest to mother and comfort	128	29
Happiness to all	34	07.7
Healthy child happy mother	153	34.6
Child demand satisfied	26	05.9

Descriptive results of knowledge about weaning in BFH: 56.8% (n=251) believed to start weaning at four months of age while other mothers answered as at three months 7% (n=31), at six months 32.4% (n=143) and at one year 2.9% (n=13)

Descriptive results of knowledge about weaning in Non BFH:

69.3% (n=237) know that weaning should start at four months of age while 24.3% (n=83) stated at six months of age, 3.2% (n=11) at three month and 2.9% (n=10) at one year of age.

Inferential results:

Comparison of different variables was done in these two groups.

Mother's education was compared in BFH and Non BFH settings. In BFH setting out of 442 mother 86.4% (n=382) were literate and 13.6% (n=60) were illiterate. While in Non BFH setting out of 342 mothers 77% (n=263) were literate and 23% (n=79) were illiterate. The results were significant with Chi. Square value 11.99 and $p < 0.01$.

Table 6: Variables responses about weaning in Non BFH

Variables	Number (n=342)	Percentage %
<i>Sources of knowledge</i>		
Health staff	137	40.1
Self study	66	19.3
Family	81	27.7
Previous experience	27	07.9
<i>About needs of child.</i>		
Good growth	223	65.2
Want more to eat	89	26
Insufficient milk	73	21.3
<i>About needs of mother</i>		
Rest to mother, comfort	207	60.5

Table 7. Comparison of optimal breastfeeding practices in babies delivered at BFHI and NON BFHI centers

Comparison of optimal breast feeding practices in BFH and Non BFH babies							
Feeding practices		BFHI MOTHERS n=442 (%)		NON BFHI MOTHERS n=342 %		Chi square value	P value
Pre-lacteal Feeds	Not given	360	81.4	128	37.4	158.9	<0.01
	Given	82	18.6	214	62.6		
Start of breast feeding	Within 1 hr	201	45.4	224	65.5	31.14	<0.01
	After 1 hr	241	54.6	118	34.5		
Duration of exclusive breast feeding	Up to 4 months	349	78.9	93	27.2	210.1	<0.01
	< 4 months	93	21.1	249	72.8		
Duration of exclusive breast feeding	Up to 6 months	136	30.7	29	8.5	57.6	<0.01
	< 6 months	306	69.3	313	91.5		

*BFH: Baby friendly hospitals**Non BFH: Not designated baby friendly hospitals*

Ten Steps to Successful Breastfeeding was standard for optimal breastfeeding practices. Frequency of Pre-lacteal feeds was more at BFHI group. Initiation of breast feeding within one hour was better in Non BFH group. The duration of exclusive breastfeeding were compared till four months. The results were significant and babies born at BFH were exclusively breast fed longer than non BFH group. Exclusive breastfeeding rates till 6 months in two groups were compared and found significantly better in BFHI group (Table 7).

Education status of mothers and feeding practices were cross tabulated. We found no difference in pre-lacteal feeding practices of educated and not educated mothers.

The education status of mother and the time of start of breastfeeding were compared and the results were significant. Illiterate mothers were better in starting breast feeding within one hour. The education status of mother and exclusive breastfeeding rates at 4 months of age were compared and found statistically significant. Cross tabulation was done to compare exclusive breast feeding till six months of age in literate and illiterate mothers. However we could not establish any association between education and practice (Table 8).

Table 8. Comparison of optimal breastfeeding practices in literate and illiterate mothers

COMPARISON OF OPTIMAL BREAST FEEDING PRACTICES IN LITRERATE AND ILLITERATE MOTHERS							
Feeding practices		LITRERATE MOTHERS N=645 (%)		ILLITERATE MOTHERS N=139 %		Chi square value	P value
Pre-lacteal Feeds	Not given	408	63.2	80	57.6	1.6	0.123
	Given	237	36.8	59	42.4		
Start of breast feeding	Within 1 hr	331	1.3	94	67.6	12.2	<0.01
	After 1 hr	314	48.7	45	32.4		
Duration of exclusive breast feeding	Up to 4 months	381	59	61	43.9	10.7	<0.01
	< 4 months	264	41	78	56.1		
Duration of exclusive breast feeding	Up to 6 months	139	21.6	26	18.7	0.56	0.267
	< 6 months	506	78.4	113	81.3		

BFH: Baby friendly hospitals

Non BFH: Not designated baby friendly hospitals

The source of knowledge about advantages of breastfeeding was compared in BFHI and Non BFHI group. The sources of knowledge were divided into two groups: from health staff and from all other sources including family, media, previous experience, etc. The source was hospital staff in 35.5% (n= 157) of BFHI group and 36.8% (n= 126) of Non BFHI group. The Chi. Square value was 0.146 and p= 0.37 which is not significant.

The source of knowledge for disadvantages of bottle feeding was compared in BFH group 35.5% (n=158) the

source was health staff and in non BFH group 46.5% (n=159) the source was health staff. The results were significant with Chi Square value 9.24 and p< 0.01.

The knowledge about start of weaning time was compared in BFH and Non BFH groups the results were significant with Chi Square value of 27.86 and p< 0.01. Knowledge to start weaning at four months of age was better in the non BFHI group while knowledge to start weaning at six month of age was better in BFHI group (Table 9).

Table 9. Comparison of mother's knowledge start of weaning in BFH and Non BFH centers

COMPARISON OF MOTHERS KNOWLEDGE ABOUT START OF WEANING IN BFH AND NON BFH CENTRES							
Feeding practices		BFH MOTHERS n=442 (%)		NON BFH MOTHERS n=342 %		Chi square value	P value
START OF WEANING	AT 4 MONTHS	253	57.2	237	69.3	11.9	<0.01
	OTHER THAN 4 MONTHS	189	42.8	105	30.7		
START OF WEANING	AT 6 MONTHS	143	32.3	84	24.6	5.7	0.01
	OTHER THAN 6 MONTHS	299	67.7	258	75.4		

BFH: Baby friendly hospitals

Non BFH: Not designated baby friendly hospitals

Discussion

Main outcome of our study is the Baby Friendly Hospital Initiative has beneficial effect on some feeding and weaning practices of mothers. There are studies favoring the beneficial role of BFHI but few studies having some reservations [21-22].

The first few days after delivery are very important. Mothers are more likely to succeed and continue breastfeeding if at this time proper guidance is provided. As soon as baby is delivered, let the mother hold him close and the mother should be encouraged to let the baby suckle [23]. Our study has shown that practices of the pre-lacteal feeds are poor. A small number of babies got pre-lacteal feeds in BFHI setup while in Non BFHI setup more than half of the babies were given honey, ghutti, etc. as pre-lacteal feeds. These results are almost similar to a study conducted at Lahore where 60% of the babies were given pre-lacteal feeds [18]. Giving pre-lacteal feeds is our cultural trend. A study conducted of Karachi showed that giving pre-lacteal feeds was a deeply entrenched tradition. Women of all age group in the said study considered giving a lick of honey after birth to be religious injunction [24]. So our results of Non BFH setting are in accordance to other Pakistan based studies [25-26-27].

Our results clearly show that BFHI is very successful in preventing pre-lacteal feeds, however in Non BFHI setup pre-lacteal feeds are still significantly practiced.

One of the most important steps in successful breastfeeding is the initiation of breastfeeding within ½ to 1 hour. Our study has shown that in BFH setting only half of the babies were given breastfeed within one hour of birth. While in the Non BFH more than half babies were started breastfeeding within one hour. Our results are comparable to a study conducted at Bahawalpur where most of the babies were started breastfeeding after significant delay [25].

The delay in the initiation of breastfeeding in Non BFH setup is explainable as it coincides with our general cultural setup. However in BFHI setup, our results differ from recommended standards. There may be some explanation to this like at present BFHI setup are large hospitals where high risk deliveries are conducted and some of these babies are kept in neonatal units for observation and treatment. Therefore medical & surgical reasons may be a barrier to early start of breastfeeding [26]. Our study has shown that exclusive breastfeeding rates of four months are significantly high in BFH setting (78.9% in BFH versus 27.2% in Non BFH settings).

These results are comparable with other studies conducted locally and internationally (5.5% versus 28.5%) [26-29]. A cohort study conducted at Brazil showed that BFHI was probably the main factor for improvement of breastfeeding rates [32]. Promotion of Breastfeeding Intervention Trial (PROBIT) showed that experimental intervention has increased duration and degree (exclusivity) of breastfeeding [8]. Similarly a Chinese study also showed that certified Baby Friendly Hospitals have high rates of breastfeeding [14]. A study done in Glasgow Scotland showed that a baby born at BFHI setup is more likely to be exclusively breastfed [35]. A similar result was also shown in a study conducted at Dhaka Bangladesh and also in other studies [13-15-30-31-32].

The present study reflects that still exclusive breastfeeding is practiced significantly till four months of age which is not in accordance to new recommendations of six months. These results are comparable to a study conducted at CMH Multan [33].

In present study almost all the mothers were having some knowledge about the benefits of breastfeeding and disadvantages of bottle feeding. But their practices were different from their knowledge more markedly in Non BFH setup. These results are comparable with a study conducted at Karachi [20]. Similar results about feeding practices were found in another study [34].

The overall impact of our study is that BFHI has some beneficial effect on feeding practices of mothers. But only some aspects are better taken care off.

In a study some participants mentioned, health care professionals can sometimes be a negative influence when they provide women with inconsistent, inaccurate, inadequate, or conflicting breastfeeding information and recommendations. It is therefore important to ensure that health professionals are properly trained with respect to breastfeeding and that women have access to optimal services consistent with the Baby Friendly Hospital Initiative [36].

Hospitals and work places without facilities for breastfeeding can be detrimental for breastfeeding. Cohen and Mrtek showed that women employed by businesses that are "breastfeeding friendly" were able to maintain a breastfeeding regimen for at least six months at rates comparable to the rate of women who are not employed outside home [37].

Thus the emphasis on the known health advantages of human milk or the discovery of additional health benefits of breast-feeding should continue to be discussed because they may tip the balance in favor of breast-feeding for some women. Nevertheless, it may ultimately be more important to increase the amount of information provided to women (and girls and boys) about the practical aspects of the breast feeding process (e.g., ease of night feeding, fathers ability to feed mother's milk by bottle, lower cost, strategies to control leaking) then to rely solely on the positive health outcomes related to breast-feeding [38].

Conclusion:

Baby Friendly Hospital initiative has a beneficial effect on some feeding practices of mothers and duration of exclusive breastfeeding. Although exclusive breastfeeding rates at 4 months are encouraging but they rapidly fall for 6 months Most of mothers whether delivered at BFHI settings or Non BFHI settings have adequate knowledge about feeding and weaning but their practices are different from their knowledge. The sources of knowledge in both settings BFHI and Non BFHI were mainly health staff, self study and previous knowledge. The contribution media is minimal. *Acknowledgement:* Our heartiest acknowledgements to Medical Superintendents of Civil Hospital Hyderabad and Govt Bhtai Hospital Latifabad for providing every possible administrative help.

Recommendations:

Baby Friendly Hospital Initiative should be expanded to all over the country. Every health facility with maternity services should be included in BFHI. As still significant no of delivered are conducted at home, TBA, LHV's and LHW's should be involved in BFHI. BFHI should be a part of undergraduate and postgraduate, medical and nursing curriculum.

References

- 1- Jalil F, Breastfeeding beliefs and practices current status Pakistan Pediatric Journal 1998 March Volume 22, No. 1:22 – 23.
- 2- Victora CG, Smith CL. Infant feeding and deaths due to diarrhea, a case control study. American J Epidemiol 1989;129: 1032-41.
- 3- Brown KH, Black RE, Lopez de Romana (Infant feeding practices and their relationship with diarrhea and disease in Husear *Lima) Peru. Pediatrics 1989; 83: 31-40.
- 4- Ashraf RN, Jalil F, Zaman S, Hauson LA. Breast-feeding and protection against neonatal sepsis in a high-risk population. Arch Dis Child 1991; 66:488-90.
- 5- World Health Organization. Protecting, Promoting and Supporting Breastfeeding; The Special Role of Maternity Services. A Joint WHO/UNICEF Statement WHO: 1211 Geneva Switzerland; 1989.
- 6- Naylor A J Baby-Friendly Hospital initiative. Protecting, promoting and supporting breast feeding in twenty – first century. Pediatr Clin North Am. 2001; 48:475-83.
- 7- Chalmers B. The Baby Friendly Hospital Initiative: where next? BJOG2004;111:198-199.
- 8- Kramer M et al. Promotion of breast feeding intervention trial. A randomized trial in the republic of Belarus. Journal of American Medical Association 2001, 285 (4): 413-420.
- 9- Sial IP. Redefining infant care – the Baby-Friendly Hospital Initiative. Health Millions 1999 Jul-Aug; 25 (4): 28-9.
- 10- Palmer G. The importance of breast feeding training. Afr Health 1996; 18 (4): 15
- 11- Schanler RJ, O'Connor KG, Lawrence RA. Pediatricians' practices and attitudes regarding breast feeding promotion. Pediatrics 1999; 103 (3): E 35
- 12- Okolo SN, Ogbonna C. Knowledge, attitude and practice of health workers in Keffi local government hospitals regarding Baby Friendly Hospital initiative (BHFI) practices. Eur J Clin Nutr 2002; 56: 438-41.
- 13- Philipp BL, Radford A. Baby-Friendly: snappy slogan or standard of care? Arch Dis Child Fetal Neonatal Fd, 2006 Mar; 91 (2):F145-9.
- 14- Chu KH, Taj CJ, Chien LY. The Relationship between in-hospital breastfeeding rates and hospital type. Hu Li Za Zhi, 2005 Dec; 52 (6): 40-8.
- 15- Alam MU, Rahman M, Rahman F. Effectiveness of baby friendly hospital initiative on the promotion of exclusive breast feeding among the Dhaka city dwellers in Bangladesh: Mymensingh Med J 2002; 11: 94-9.
- 16- Dashupta A, Bhattacharya S, Das M, Chowdhury KM, Saha S. Breast feeding practices in a teaching hospital of Calcutta before and after the adoption of BFHI (Baby Friendly Hospital Initiative). J Indian Med Assoc 1997; 95: 169-71, 195.

- 17- Rehman UH, FazilM,Ambren A. Maternal perceptions and practices about breast feeding. *Medical Channel* 2000; 9:20-4.
- 18- Sultana A, Mir Ali M, Rizwana S, Trends of Breastfeeding current assessment *The professional* Vol. 6 No. 03 July, August, September 1999 : 359 – 362.
- 19- Afzal M F, Saleemi MA, Asghar MF et al, I study of knowledge attitude and practice of mothers about breastfeeding in children. *Annals* Vol. 8 No. 1 Jan – Mar 2002: 28 – 29.
- 20- Mufti Kehkashan, Infant feeding practices knowledge attitude ad practices of Infant feeding amongst mothers, *Annals Abbasi Shaheed Hospital, Karachi Med. Dent. Coll. Vol.:* 7, 2002: 322-324
- 21- Andreassen M, Bale M, Kaaresen Pl, Dahi LB. Breastfeeding in Tromso before and after the baby-friendly hospital initiative. *Tidsskr Nor Laegeforen*, 2001 Nov 10; 121 (27): 3154-8.
- 22- Coutinho SB, de Lira PL, de Carvalho Lima M, Ashworth A. Comparison of the effect of two systems for the pr0motion of exclusive breastfeeding. *Lancet*, 2005 Sep 24-30; 366 (9491): 1094-100.
- 23- Mustansar M, Breast feeding, *The Professional: Vol.* 06(01); 1999:3-6.
- 24- Badaruddin SH, Inam SMB, Ramzan ali S, Hendricks K, Constraints to adoption of appropriat breast feeding practices in a squatter settlement in Karachi , Pakistan, *JPMA*,47:63; 1997:63-67.
- 25- Khichi GQK, Channar MS, WaraichE, Bajwa SN, Patterns of breast feeding in children under two years of age in Bhawalpur, *PJMS*, Vol. 17(2); 2001:94-98.
- 26- Butt MA, Chaudhry MY, Mustansar M , Breastfed and non-breastfed Infants: Patterns of Morbidity and Mortality, *The Professional*, Vol. 05 (03);1993 : 474-382.
- 27- Rana T F, Mahmood S, Ahmed M. First Feed Given to the New Born Babies-A Survey in an Urban Community of Lahore. *Annals of K.E. Medical College Lahore* 2005 Oct-Dec; Vol. 11 No.4:555-557.
- 28- Rowe-Murray JH, Fisher RWJ. Baby Friendly Hospital Practices;Cesarian Section is a Persistent Barrier to Early Initiation of Breastfeeding. *Birth* 2002 June 29; 2 124-131.
- 29- Phillip, Barbara L , Merewood, Anne, Miller, Lisa W, et al, Baby friendly Hospital Initiative Improves Breastfeeding Initiation Rates in a US Hospital Setting, *Pediatrics*, 2001. Vol. 108(03); 151- 4.
- 30- Hofander Y. Breastfeeding and the Baby-Friendly Hospitals Initiative (BFHI): organization, response and outcome in Sweden and other countries. *Acta Paediatr*, 2005 Aug; 94 (8): 1012-6.
- 31- Merten S, Dratva J, Ackermann-Liebrich U. Do baby-friendly hospital influence breastfeeding duration on a national level? *Pediatrics*, 2005 Nov; 116 (5): e 702-8.
- 32- Braun G, Luiza M, Guigliani,Elsa RJ, Soares M, Emllia M, et al, Evaluation of impact of the baby-friendly Hospital initiative on rates of breast feeding , *American Journal of Public Health*, 2003 Vol 93(08);1277-79.
- 33- Afzal M,Quddosi I A,Iqbal M,Sultan M. Breast Feeding Patterns In A Military Hospital. *JCPSP* 2006.Vol. 16(2) 128-131.
- 34- Ibrahim S, Ansari N S .Factors Associated with Failure of Exclusive Breast Feeding .*J Of Surgery Pakistan* Vol. 11 (1) 24-26
- 35- Broadfoot M, Britten J, Tappin DM, MacKenzie JM, The Baby-Friendly Hospital Initiative and breastfeeding rates in Scotland. *Arch Dis Child Fetal Neonatal Ed.* 2005 Mar; 90 (2): f114-6
- 36- Caroline Lamontagne, Anne-Marie Hamelin, Monik St-Pierre. The breastfeeding experience of women with major difficulties who use the services of a breastfeeding clinic: a descriptive study. *Int Breastfeed J.* 2008; 3: 17.
- 37- Cohen R, Mrtek MB. The impact of two corporate lactation programs on the incidence and duration of breast-feeding by employed mothers. *Am J Health Promot.* 1994; 8:436–441.
- 38- Losch M, Dungy CI, Russell D, Dusdieker LB. Impact of attitudes on maternal decisions regarding infant feeding. *J Pediatr.* 1995 Apr; 126(4):507-14.