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The Effect of Health Care Providers Training on Exclusive Breastfeeding Trend at a Maternity Hospital in Sudan, 2014

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Abstract

Background: Exclusive breastfeeding remains a challenge in the developing world. Thus strengthening exclusive breastfeeding promotion is a necessity, in addition to capacity-building of the health care providers. This study aimed at assessing the trend of exclusive breastfeeding and the knowledge, attitude and skills of the health care providers regarding breastfeeding before and after training.

Methods: A quasi-experimental (non-randomized controlled) study was conducted in the Military Maternity Hospital (as an intervention) and Alribat Hospital (as a control) in Sudan, 2014. All health care providers were targeted by the study: 107 from the Military and 61 from Alribat hospital. Systematic random sample of mothers was evaluated to detect the effect of training on the exclusive breastfeeding trend. Data was collected from the health care providers by pre and post-test, observation check list for the skills of the midwives. Structured questionnaire for the mothers after delivery, and Follow-up phone questionnaires thereafter.

Results: The health care providers from the study and control hospital were comparable. Statistical analysis revealed insignificant differences between the two groups ($P>0.05$). Training resulted in significant improvement in health care providers' knowledge and attitude toward breastfeeding ($P<0.05$). The skills of the midwives in breastfeeding support improved dramatically after training. There were statistically significant differences in the trends of exclusive breastfeeding as was shown by Z-test, and P values <0.0001.

Conclusion: Breastfeeding training in the Military Maternity hospital resulted in significant improvement in health care providers' knowledge, skills, and attitude toward breastfeeding. This was reflected positively on the exclusive breastfeeding trend.

Keywords: Breastfeeding; Training; Knowledge; Attitude; Skills; Trend

Background

Under-5 mortality rate is a leading indicator of the level of child health and overall development in countries [1]. Globally, under-five mortality was reported to be 51 deaths per 1000 live births in 2011 [2]. According to Sudan Household Survey, 2010, under-five mortality rate was 78 per 1000 live birth in Sudan [3].

Exclusive breastfeeding (EBF) reduces child mortality due to illnesses [4]. It has the potential to prevent 13% of all annual deaths among children aged less than 5 years in developing countries [5]. In the developing world in 2010, the average exclusive breastfeeding rate was 40%. This was far below the widely accepted "universal coverage" target of 90% [6]. In the Eastern Mediterranean Region the rate of exclusive breastfeeding was also 40% [7]. 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% [8]. A longitudinal study conducted in Sudan, proved that breastfeeding initiation and duration were very good, but the exclusive breastfeeding rate was found to be only 40.0% [9].

The UNICEF/WHO training course appeared to be an effective tool for improving health professionals' breastfeeding knowledge, attitudes, and practices as concluded by a study done in Southern Croatia [10]. Sharon Corriveau studied the effect of introducing a breast-feeding-friendly protocol in a Virginia Pediatric Clinic. She found that more women breastfed their babies exclusively, and for longer periods, when supported and encouraged by their physicians and nurses [11]. In the Eastern Mediterranean Region exclusive breastfeeding promotion and training of the health care providers are of great importance to facilitate improvement of the exclusive breastfeeding rates [12].

In 2010 a study showed that breastfeeding counseling of the mothers increased the rates of exclusive breastfeeding in Khartoum state (Sudan). Further research to evaluate the

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effect of training of the health care providers on exclusive breastfeeding was suggested by that study.

Methods

Study design

This was a quasi-experimental study in which Military Maternity Hospital was assigned as a case and Alribat Hospital was assigned as a control **(Figure 1)**.

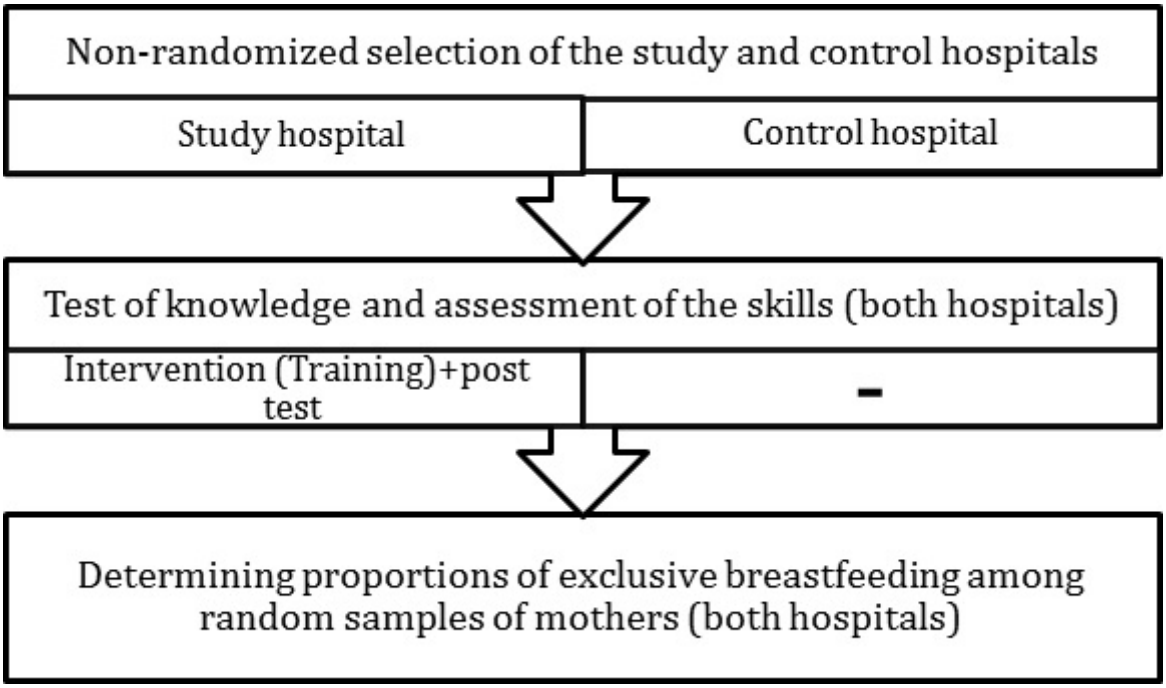

Figure 1 Study design

Study setting

The Military Maternity Hospital in Omdurman (the study hospital) had two labor rooms and 114 beds, of them 103 beds were in obstetric unit and 11 were in the nursery. Alribat hospital (the control) had two labor rooms and 54 beds, 42 in the obstetric unit and 12 in the nursery. In both hospitals no breastfeeding training was carried out before.

Study populations

In each hospital there were two study populations. The first was the health care providers of the obstetric and nursery units. This included doctors, nurses, midwives and nutritionists. The second population included mothers who delivered in the two hospitals and gave birth normally to a single infant with a gestational age of at least 37 completed weeks. Healthcare providers who received breastfeeding training before were excluded. Very ill mothers and mothers of very ill babies were also excluded.

Sample size and sampling techniques

All eligible health care providers were included in the study: 107 in the study and 61 in control hospital. For the mothers, the following formula was used assuming two equal sample sizes for the study and comparison groups, that is n1=n2.

$$\frac{(z_{1-\alpha/2}\sqrt{2p(1-p)}+z_1-\beta\sqrt{p_1(1-p_1)+(1-p2)^2}}{(\Delta)^2}$$

Where,

P1 was the EBF rate before the intervention=0.41 [8].

P2 was the expected EBF rate after the intervention; it was calculated by assuming an expected improvement by 50%. This was estimated according to a similar previous study [11]. The sample size was double-checked using the electronic calculator from the web site epitools [13]. The final sample size was: n1=n2=108. A systematic random sampling technique was applied to select mothers for interview in each hospital.

Data collection tools and techniques

Four tools were used to collect data. A structured questionnaire to interview the health care providers before and after intervention (pretest and posttest on the same day of the training). The same questionnaire was done once in the control hospital. Another structured questionnaire was used to

interview mothers immediately after delivery to assess the method of feeding. A checklist which was adapted from WHO baby friendly hospital assessment tools [14] was used to assess the midwives' skills with regards to breastfeeding. Then a follow-up phone questionnaire to the mothers was used to enquire about feeding at month one, two, three, and six after discharge.

All tools were pretested for ambiguity and readability with a convenience sample in Khartoum teaching hospital. A total of fifty tests were filled by direct interviews with doctors, nurses, midwives, and nutritionists in the obstetric and nursery departments. The test took about twenty minutes to be completed each time. After this pretest the questions were adjusted to be clear and understandable, this included the attitude question in which a standard Likert scale could not fit so it was simplified.

Data was collected by the researcher and two trained data collectors who were supervised by a field supervisor. In-office check was carried out by the researcher, immediately after receiving the data to ensure accuracy, correctness, completeness, and relevance.

The post-intervention data was collected after 6 weeks after the training in both hospitals. This continued for one month until the two samples were completed. The mothers were followed up by the researcher through phone interviews.

The intervention

The intervention comprised two modalities: training workshops and bed side training. The contents of the workshop training were as below,

Contents of the workshops:

1. Basic anatomy and physiology of the breast.
2. Role of breastfeeding and human milk in maintaining health and preventing disease.
3. Definition and importance of exclusive breastfeeding, and its correlation with optimal health outcomes.
4. Positioning of the baby and latch on the breast and the effective suck.
5. Initiation of breastfeeding soon after delivery.
6. Ways to help lactating mothers with breast or nipple problems.
7. Conditions of illness of the mother or infant.
8. Potentially adverse outcomes for infants and mothers who do not breastfeed.
9. Potential problems associated with the use of human milk substitutes.
10. Breastfeeding counseling.
11. Role of the baby friendly hospital to support breastfeeding.
12. Way to help a mother to express her breast milk by hand.
13. Ways to help a mother with 'not enough milk, or with a baby who is refusing to breastfeed.

The bed-side training covered breastfeeding counseling, positioning the baby, latching the baby correctly to the breast and demonstration of the effective suckling. All the training materials were adapted from the WHO Breastfeeding Training Manual [14], and Infant and Young Child Feeding Counseling Integrated Course [15].

Data analysis

The comparability of the respondents from the study and control hospitals regarding their characteristics: job mix, years of experience, age distribution, and their marital status and if they had children or not was checked. Their Knowledge and attitude towards exclusive breastfeeding were also compared. The responses to the knowledge and attitude questions were given grades of good, fair, or poor before entry this was adapted from the WHO Baby friendly hospital assessment tool [14]. *Chi-squired* test was performed and P-value <0.05 was considered significant. Regarding the baseline assessment of the skills, there was no observed help for the mothers in either hospital before training.

The proportions of exclusive breastfeeding at discharge from the hospital, at one, two, three, and six month were compared between the samples of mothers from the two hospitals using the Z-test. Data was checked after entry, monitored by the researcher, before analysis. The entered data was analyzed using the software statistical package for social science (SPSS) version 11.5 and Epitools [13].

Ethical approval

The study was approved by the ethical committee of the Sudanese medical specialization board (SMSB). Permission from state ministry of health and the concerned hospitals was also obtained. Verbal consent from all the participants was also ascertained.

Results

168 health care providers, 38 midwives, and 218 mothers were included in this study. The two groups of participants (2 hospitals) were comparable regarding age, marital status and having children or not and the working experience **(Table 1 and Table 2)**.

There was no statistically significant difference regarding the distribution of age, marital status and having children or not, and Job title distribution in the two hospitals. Z-test showed insignificant values in most of the scores.

No statistically significant difference in baseline knowledge of the health care providers P>0.05 the difference in knowledge before and after training however was statistically significant P-value <0.0001 **(Table 3)**. Regarding attitude variables, there was also statistically significant difference

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after training(p<0.05) **(Table 4)**. After training showed a difference just significant statistically P=0.049 **(Table 4)**.

Table 1 Distribution of the participants in the study and control hospitals according to socio-demographic characteristics

Variables	Study hospital Freq. (%)	Control hospital Freq. (%)	Z-score	P-value
Age group				
20-30 years	63 (58.9)	34 (55.7)	0.4	0.6864
31-40 years	18 (16.8)	13 (21.3)	0.7	0.4695
41-50 years	26 (24.3)	14 (23.0)	0.2	0.8492
Having children				
Yes	47 (43.9)	31 (50.8)	0.9	0.3885
No	60 (56.1)	30 (49.2)	0.9	0.3885
Experience in years				
<5	59 (55.1)	28 (45.9)		0.2511
10-Jun	17 (15.9)	20 (32.8)		0.011
11 – 15	7 (6.5)	1 (1.6)		0.1498
16 - 20	7 (6.5)	5 (8.2)		0.6802
21 - 25	8 (7.6)	2 (3.3)		0.2605
26 or more	9 (8.4)	5 (8.2)		0.964

Table 2 Distribution of the participants in the study and control hospitals according to job title distribution

Job title	Study hospital Freq. (%)	Control hospital Freq. (%)	Z-score	P-value
Doctor	34 (31.8)	25 (41)	1.2	0.2297
Nurse	42 (39.2)	14 (23)	2.1	0.0322
Midwife	22 (20.6)	16 (26)	0.8	0.4207
Nutritionist	9 (8.4)	6 (10)	0.3	0.7272

Comparison of breastfeeding management skills of the midwives before and after training in the study hospital showed marked improvement after training from nil to 100%.

Outcome of the intervention

The follow up was done for 108 mothers from the study hospital and 110 mothers from the control hospital. Z-Statistical test showed significant differences in proportions of EBF at discharge, one, two, three, and 6 months in the study compared to the control hospital. P-value <0.0001 **(Table 5)**.

Discussion

The health care providers from the study and control hospitals were comparable regarding the distribution of age groups, and the working experience.

Most of the participants were young health care providers of little experience. This may reflect the general population's health workforce structure, and hence the need for training that can give a good yield of knowledge, which in turn will be reflected on their attitude and practices. This composition may also reflect the turnover rate; this issue was highlighted in a study conducted in New Zealand, in which the turnover seemed to be one of the factors affecting the proper implementation of the breastfeeding policy [16].

Table 3 Knowledge differences pre and post-intervention in the study hospital

Knowledge variables and grading	Pre intervention Freq. (%)	post intervention Freq. (%)	Chi square	P- value
Exclusive breastfeeding				
good Knowledge poor knowledge	26 (24.3) 81 (75.7)	56 (52.3) 51(47.7)	17.794	<0.0001
Benefits to mothers				
Good knowledge Fair knowledge Poor knowledge	23 (21.5) 16 (15.0) 68 (63.6)	50 (46.7) 23 (21.5) 34 (31.8)	22.576	<0.0001
Proper positioning				
Good knowledge Fair knowledge Poor knowledge	17 (15.9) 19 (17.8) 71 (66.4)	66 (61.7) 24 (22.4) 17 (15.9)	62.645	<0.0001
The proper latch				

Good knowledge Fair knowledge Poor knowledge	17 (15.9) 17 (15.9) 73 (68.2)	66 (61.7) 19 (17.7) 22 (20.6)	56.418	<0.0001
The effective suck				
Good knowledge Poor knowledge	17 (15.9) 90 (84.1)	67 (60.7) 40 (37.4)	48.993	<0.0001
Problematic nipples				
Good knowledge Fair knowledge Poor knowledge	8 (7.5) 22 (20.5) 77 (72.0)	57 (53.3) 28 (26.1) 22 (20.6)	68.214	<0.0001
Fissured nipples				
Good knowledge Poor knowledge	11 (10.3) 96 (89.7)	38 (35.5) 69 (64.5)	19.296	<0.0001
Engorgement				
Good knowledge Fair knowledge Poor knowledge	8 (7.5) 8 (7.5) 91 (85.0)	52 (48.6) 24 (22.4) 31 (29.0)	69.775	<0.0001
Shape of the breast				
Good knowledge Fair Knowledge Poor knowledge	50 (46.7) 7 (6.6) 50 (46.7)	87 (81.3) 1 (0.9) 19 (16.8)	28.420	<0.0001
Night feeding				
Good knowledge Poor knowledge	24 (22.4) 83 (77.6)	74 (69.2) 33 (30.8)	47.062	<0.0001
Effect of formula				
Good knowledge Poor knowledge	30 (28.0) 77 (72.0)	76 (71.0) 31(29.0)	39.555	<0.0001
Improper latch				
Good knowledge Fair knowledge Poor knowledge	4 (3.7) 18 (16.8) 85 (79.5)	32 (29.9) 41 (38.3) 34 (31.8)	52.601	<0.0001

Table 4 Attitude differences pre and post-intervention in the study hospital

Attitude variable and grading	**Pre intervention Freq. (%)**	**post intervention Freq. (%)**	**Chi square**	**P- value**
Exclusive breast feeding for 6month is the ideal practice				
Agree Disagree	94 (87.9) 13 (12.1)	102 (95.3) 5 (4.7)	3.882	0.049
The Baby friendly Hospital initiative promotes exclusive breastfeeding				
Agree Disagree	8 (7.5) 99 (92.5)	37 (34.6) 70 (65.4)	23.665	<0.0001

This was very clear in the trend graph **(Figure 2)**.

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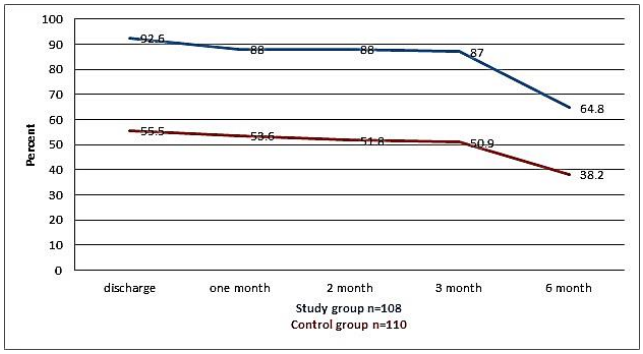

Figure 2 Trend of exclusive breastfeeding in study compared to control facilities

Table 5 Z-Statistical test of proportions of exclusive breastfeeding at discharge, one, two, three, and 6 months in the study compared to control hospital

Exclusive breast feeding	Study hospital Freq. (%)	Control hospital Freq. (%)	Z-score	P-value
At discharge	100 (92.6)	61 (55.5)	6.2	<0.0001
At one month	95 (88)	59 (53.6)	5.6	<0.0001
At 2 months	95 (88)	57 (51.8)	5.8	<0.0001
At 3 months	94 (87)	56 (50.9)	5.8	<0.0001

The health care providers were also comparable regarding marital status and having children or not. This lessens confounding by previous knowledge about breastfeeding. Their breastfeeding knowledge was also comparable; statistical analysis revealed insignificant difference between the two groups (P>0.05). None of the participants received the baby friendly hospital training before, this was usually the case as was mentioned in the Croatian study done to assess the effectiveness of the WHO's breastfeeding training course. Breastfeeding training was not well maintained after graduation and it was not conducted in a continuous manner [10].

Conducting the breastfeeding training resulted in significant improvement in health care providers' breastfeeding knowledge. The statistical test was highly significant (P<0.05). These findings were supported by the results of a non-randomized controlled study conducted in Italy which have shown that training for three days with a course including practical sessions and counseling skills was effective in changing hospital practices, knowledge of health workers, and breastfeeding rates [17]. Another study conducted in Pennsylvania school of nursing supported the findings because it proved that breastfeeding training increased the knowledge and improved the practice [18]. Regarding health care providers' attitude towards exclusive breastfeeding for 6 month there was a significant difference between the study and control groups, with the former group more in favor: this may be attributed to information bias. After training the difference was just significant (P=0.049), and this can be attributed to the fact that attitude needs longer time and more effort to show a more pronounced statistically significant difference. This situation is similar to what happened in a Canadian hospital, when an educational intervention study was conducted to improve the knowledge, attitude, and practice of breastfeeding among the hospital staff, although changes were noticed in the knowledge and practice, no change in breastfeeding attitudes was noticed (*P*=0.80) [19].

In the study hospital before training and in the control hospital as well, there was no documented breastfeeding support by anyone of the observed cadre, after training however all the midwives were counseling the mothers, and also helped them to initiate breastfeeding correctly within an hour after birth. An interventional study conducted in Denmark supports these findings. A training program improved the practice of the health workers and their support to breastfeeding mothers [20].

Regarding the effect of training on the proportions of exclusive breastfeeding, the percentages at initiation, as well as the trend over time were remarkably higher in the study compared to the control hospital. Many studies support this; an intervention study was performed in India, education given to health professionals on the benefits of early breast feeding greatly increased the number of babies breast fed within 24 hours. From this study it was concluded that a single explanation can change mothers' behavior, but education for health professionals needs to be reinforced regularly to maintain the program's effect, this study augmented the research findings [21].

This was also clear in an observational study conducted to examine the effect of the Baby Friendly Hospital Initiative on breast feeding rates in Scotland, it was concluded that being born in a hospital that held the award increased the chance of being breast fed [22]. Another study conducted in Switzerland found that Infants born in baby-friendly hospitals were more likely to be breastfed for a longer time than those born in non-baby-friendly facilities [23]. Although the results of the mentioned two studies may be affected by the other steps of the baby friendly hospital initiative, the results of these studies still seem to be related to our findings; because training of the health care providers is a major component of the initiative.

Even the trend of exclusive breastfeeding was found to be affected by training of the health care providers. There was an observable difference between the trends in the study and control hospitals. These observed differences were statistically significant as was shown by Z-test. The P values were <0.0001. The same effect was noticed in a study from developing countries when statistically significant upward trends in EBF under two months and under six months were evident. The differences were observed only during the period following BFHI implementation, and not before [24]. The findings of a systematic review concluded that breastfeeding interventions such as the BFHI are better than usual care in supporting breastfeeding. Although meta-analysis of those studies suggested multi-component approach rather than training as

an isolated intervention [25]. The outcome of our study resembles more closely the outcome of a study conducted in a middle income urban population; they also found statistically significant differences in breastfeeding rates when those were compared before and after the intervention [26]. The findings of the Millennium Cohort Study done in UK also supported the findings of our study, although in that study it was found that BFHI support affected the initiation but not the duration of exclusive breastfeeding [27]. A study conducted in Virginia USA found that more women breastfed their babies exclusively, and for longer periods, when supported and encouraged by trained staff [11].

Some opposing opinions were also found in the literature saying that training alone is not enough to increase the rates of exclusive breastfeeding; for example Fairbank et al. found that training health professionals as a standalone intervention did not produce statistically significant increases in initiation rates. They concluded that there is limited evidence to show that intensive lactation training courses for health professionals alone can have an effect on breastfeeding initiation rates. A package of interventions including training, however, may be more likely to influence attitudes and promote breastfeeding [28].

There was an observable downward inclination of the trend graph after the first three month. This can be attributed to other factors which come into play and affect exclusive breastfeeding. This highlights the importance of continuing support to the mothers in the community. This is also supported by the findings of a randomized trial conducted in Brazil. The results of that study added weight to previous evidence that a combination of systems (in the hospital and in the community) is needed so that mothers can receive continuing help. Ultimately this can help to sustain the increased rates of exclusive breastfeeding [29].

Conclusion

Breastfeeding training resulted in significant improvement in health care providers' knowledge, attitude and skills of breastfeeding support. This was reflected positively in the exclusive breastfeeding trend.

Recommendations

Decision makers are recommended to consider breastfeeding courses as part of under and post graduate curricula.

Raising the awareness of the health care providers about the importance of breastfeeding; through continuous training.

More research is suggested; to know the influence of household, community and cultural practices/beliefs on EBF. This can guide policy makers in planning appropriate and adequate interventions at community level to improve EBF trends.

References

1. Hosseinpoor AR, Harper S, Lee JH, Lynch J, Mathers C (2015) International shortfall inequality in life expectancy in women and in men, 1950–2010. Bulletin of the World Health Organization 90: 588-594.
2. http://www.unicef.org/mdg/index_55515.htm
3. http://www.sd.undp.org/content/sudan/en/home/countryinfo/
4. http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/
5. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS (2003) How many child deaths can we prevent this year? The Lancet 362: 65-71.
6. Cai X, Wardlaw T, Brown DW (2012) Global trends in exclusive breastfeeding. Int Breastfeed J 7: 12.
7. http://www.emro.who.int/health-topics/breastfeeding/index.html
8. http://apps.who.int/gho/data/view.main.NUT1730
9. Onsa ZO, Ahmed NMK (2013) Impact of Exclusive Breastfeeding on Growth of Sudanese Children. Pakistan Journal of Nutrition 13: 99-106.
10. Zakarija I Burmaz T (2010) Effectiveness of the UNICEF/WHO 20-hourCourse. Croat Med J 2010 51: 396-405.
11. https://www.nursing.virginia.edu/news/son/name, 8047,en.aspx
12. World Health Organization (2011) Technical consultation on scaling up nutrition in the Eastern Mediterranean Region. Accessed On July 26, 2016.
13. http://epitools.ausvet.com.au/content.php?page=z-test-2
14. whqlibdoc.who.int/.../2009/9789241594967_eng.pdf
15. www.who.int/nutrition/publications/infantfeeding/9789241594745/
16. Moore T (2007) Implementing Baby Friendly Hospital Initiative policy: the case of New Zealand public hospitals. Int Breastfeed J 2: 8.
17. Cattaneo A (2001) Effect on rates of breast feeding of training for the Baby Friendly Hospital Initiative. BMJ 323: 1358.
18. Spatz D (2005) Advocacy for Breastfeeding: Making a Difference One Community at a Time. J Human Lacta 21: 186-190.
19. Martens P (2000) Does Breastfeeding Education affect Exclusive Breastfeeding Rates. J Human Lacta 16: 309-318.
20. Kronborg H, Vaeth M, Olsen J, Harder I (2007) Health visitors and breastfeeding support: influence of knowledge and self-efficacy. Eur J Pub Health 18: 283-288.
21. Prasad B (1995) Impact and sustainability ofa "baby friendly" health educationintervention at a district hospital in Bihar, India. BMJ 310: 621-623.
22. Broadfoot M (2005) The Baby Friendly Hospital Initiative and breast feeding rates in Scotland. BMJ 90: 114.
23. Merten S, Dratva J, Ackermann-Liebrich U (2005) Do Baby-Friendly Hospitals Influence Breastfeeding Duration on a National level. Pediatrics 116: 702-708.

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24. Sheryl W (2009) Exploring the impact of the Baby-Friendly Hospital Initiative on trends in exclusive breastfeeding. Int Breastfeed J 4: 11.

25. Chung M, Raman G, Trikalinos T, Lau J (2008) Interventions in Primary Care to Promote Breastfeeding: An Evidence Review for the U.S. Preventive Services Task Force 149: 565-582.

26. Shinwell ESM, Shani M (2006) The Effect of Training Nursery Staff in Breastfeeding. Breastfeeding Medicine 1: 247-252.

27. Bartington GL (2006) Are breastfeeding rates higher among mothers delivering in Baby Friendly accredited maternity units in the UK. Int J Epidem 35: 1178-1186.

28. http://www.gserve.nice.org.uk/nicemedia/documents/breastfeeding_evidencebriefing.pdf

29. Coutinho LM, Ashworth A (2005) Comparison of the effect of two systems for the promotion of exclusive breastfeeding. The Lancet 366: 1094-1100.