

Effect of counseling program on early postpartum breast feeding by nursery mother

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Abstract

Background: Breast feeding is a learnt skill. Most primipara, if encouraged, and educated can successfully breast-feed. The aim of the present study was to assess the effect of postpartum breast feeding counseling program on the awareness of correct breast feeding.

Methods: This prospective study was conducted in, Sohag University Hospital, between March to December 2015, on 93 primiparous women who were interviewed to collect data through a questionnaire formulated by the researchers, for assessment of breast feeding knowledge (pre-test evaluation) and for administration of counseling program one hour after delivery. Those women were interviewed again 3 hours post-partum to assess knowledge (post-test evaluation) and the initiation of breast feeding after counseling program.

Results: The mean age of women in the present study was 24.3±6.9 years. The majority of women were house wives (57%), literate (84%), and intended for ≥2years birth spacing (77%). Counseling program to primiparous women resulted in significant higher % of correct general breast feeding knowledge, knowledge about breast fed babies and breast milk, as well as knowledge regarding special situations and problems during breast feeding.

Conclusions: Counseling breast feeding program in the early postpartum period is an effective method to encourage mother for breast feeding.

Keywords: *Counseling; Breast Feeding; Nursery Women; Postpartum.*

1. Introduction

Breastfeeding is defined by WHO as the 'normal way of providing infants with nutrients for healthy growth and development'. Exclusive breastfeeding is recommended for infants ≤ 6 months of age. Complementary feeding should be added till 2 years of life. Unfortunately, breast feeding is not a common worldwide practice (Spiby, et al., 2009).

It is suggested that, compared to formula fed infants, breastfed infants have associated with reduced mortality and morbidity and are at lower risk of infections, especially gastrointestinal infections in the first few months of life (Kramer, et al., 2003), as a result of presence of immunoglobulins, lactoferrin, oligosaccharides and anti-secretory peptides in breast milk. Furthermore, breast feeding may have a protective role against non-communicable diseases such as obesity, diabetes mellitus type I, and rheumatoid arthritis (Hanson et al., 2002).

A strong association is found between breastfeeding and performance in intelligence tests in adulthood, where longer breastfeeding duration (nine months) was found to affect intelligence even after adjustment for different family factors (Neilson & Michaelson, 2007). Breast feeding has also maternal benefits such as suppressed ovulation with improved child spacing, decreased postpartum hemorrhage, rapid uterine involution (Hoddinott, et al., 2008), decreased risk of breast cancer (Dennis, 2002), and higher bone mineral density (Blincoe, 2005). On the other hand, breast feeding has maternal disadvantages as discomfort, and tiredness (Kelleher, 2006).

It is important to know how to breast feed that doesn't always come naturally to Moms especially to primipara. It is a learnt skill. Most women, if encouraged, and educated can successfully breast-feed (Heird, 2007). Mothers should be instructed to know infant's feeding signs as rooting, lip smacking, sucking on fingers and putting hands to the mouth and offer the breast at this time. (Walker, 2011). Mothers who feel that their babies are satisfied with breastfeeding are more likely to breastfeed for a longer time (Cooke, et al., 2003). Effective breastfeeding technique involves the correct positioning of the infant to stimulate a reflex action that control the process of milk removal. This can be hindered by physical or emotional stresses (pain or anxiety) (Jones & Spencer, 2007).

2. The aim of the present study

to evaluate the knowledge and attitude of primipara towards breast feeding as well as the impact of postpartum breast feeding counseling program on the awareness of correct breast feeding.

3. Methods

3.1. Study design

This study was designed as a prospective study.

3.2. Setting

The present study was conducted in postpartum unit of obstetric and gynecological department, Sohag University Hospital. The normal or cesarean delivery was done in labor unit then the nursery women were transferred to the postpartum unit for one day. The present study included only primiparous women. The included women were interviewed for assessment of knowledge and attitude of nursery women towards breast feeding (pre-test evaluation) and for administration of counseling program one hour after delivery. Those women were interviewed again 3 hours postpartum to assess knowledge (post-test evaluation) and the initiation of breast feeding after counseling program.

3.3. Sample

Ninety three primiparous women were included in the study. Data of those women were collected between March and December 2015 in the postpartum unit that are affiliated to Sohag University Hospital.

3.4. Data collection tools

The researchers formulated a questionnaire to collect data from primipara after delivery, regarding age, level of education, employment status, and residence. The applied questionnaire was also used to collect data regarding the effect of counseling program on breast feeding that was done by comparing pre-test and post-test data to assess correction of general knowledge of breast feeding, knowledge that deal with breast fed infants and special situations about breast feeding as well as data about the problems with breastfeeding and how to deal with.

3.5. Procedure

The present study was conducted by three researchers, with two doctoral degrees in obstetrics and gynecology nursing and one doctoral degree in community nursing. Primiparous women were interviewed one hour and three hours after delivery, via personal interviews. Each interview lasted 20 to 30 minutes.

3.6. Ethical considerations

The study was approved by scientific and local ethics committee of the Sohag Faculty of Nursing, Egypt. Written or oral informed consent was obtained from all women included in the study.

3.7. Statistical analysis

Descriptive data including means and percentages were used for socio-demographic characteristics, knowledge and attitude of breast feeding. Comparison of data (pre-test and post-test) were analyzed using chi-square test with graph prism statistical program. The significance level was considered as a p value < 0.05.

4. Results

4.1. Socio-demographic data

The mean age of women in the present study was 24.3±6.9 years. The majority of women were house wives (57%), literate (84%), intended for ≥2years birth spacing (77%), and practiced normal breast feeding (71%), for more than 6 months (86%) (Table 1).

4.2. General knowledge regarding breast feeding

Counseling program to primiparous women was found to result in statistically significant higher percentages of correct general knowledge about breast feeding after post test evaluation, as shown in (table 2).

4.3. Knowledge regarding breast fed infants and breast milk

Posttest evaluation showed statistically significant higher percentages of correct knowledge of primiparous women about the best ways to deal with breast fed babies (table 3) and to promote breast milk production (table 4).

4.4. Knowledge regarding special situations about breast feeding:

Regarding special situation that may face primipara during breast feeding (table 5), the used of counseling program resulted in statistically significant higher percentages of correct knowledge about breastfeeding in ill mothers, from one breast, for more than one baby, when return to work and during pregnancy.

4.5. Knowledge and attitude regarding breastfeeding problems

Table 6, showed that counseling intervention to primiparous women resulted in statistically significant higher percentage of correct knowledge and attitude regarding breastfeeding problems and how to deal with, after posttest evaluation.

Table 1: Socio- Demographic Data

Variable	No.	%
Age		
Range	14 - 43	
Mean±SD	24.3±6.9	
Occupation		
House wife	53	57.0
Work	40	43.0
Education level		
Illiterate	15	16.1
Read and write	12	12.9
Primary	5	5.4
Preparatory	10	10.8
Secondary	15	16.1
University	29	31.2
Master or doctoral degree	7	7.5

Table 2: Effect of Counseling Program on the Correction of General Knowledge Regarding Breast Feeding

General knowledge regarding breast feeding	Pre					Post					P. value		
	Incorrect		Incomplete correct		Correct	Incorrect		Incomplete correct		Correct			
	No.	%	No.	%	No.	%	No.	%	No.	%			
Definition of breastfeeding?	0	0.0	0	0.0	93	100.0	0	0.0	0	0.0	93	100.0	<0.001
What is the method of breastfeeding?	18	19.4	34	36.6	41	44.1	8	8.6	11	11.8	74	79.6	<0.001
What are the complementary food and its relationship to breastfeeding?	27	29.0	32	34.4	34	36.6	10	10.8	15	16.1	68	73.1	<0.001
What is the harms of artificial feeding?	21	22.6	38	40.9	34	36.6	7	7.5	8	8.6	78	83.9	<0.001
How do you start breastfeeding?	21	22.6	19	20.4	53	57.0	6	6.5	5	5.4	82	88.1	<0.001
How can you prepare yourself for breastfeeding?	32	34.4	17	18.3	44	47.3	7	7.5	12	12.9	74	79.6	<0.001
What is the healthy diet for nursing mothers?	37	39.8	26	28.0	30	32.3	7	7.5	5	5.4	81	87.1	<0.001
How many times and duration of breastfeeding of your baby in each feed?	53	57.0	0	0.0	40	43.0	6	6.5	0	0.0	87	93.5	<0.001
Is important to breast feeding according to your baby desire ?	46	49.5	18	19.4	29	31.2	4	4.3	6	6.5	83	89.2	<0.001
What are the misconceptions that prevent breastfeeding?	64	68.8	0	0.0	29	31.2	6	6.5	0	0.0	87	93.5	<0.001
What is weaning , how you do and when you start it?	54	58.1	0	0.0	39	41.9	4	4.3	0	0.0	89	95.7	<0.001

Table 3: Effect of Counseling Program on the Correction of Knowledge Regarding Breast Fed Infants.

	Pre				Post				P. value				
	Incorrect		Incomplete correct		Correct		Incorrect			Incomplete correct		Correct	
	No.	%	No.	%	No.	%	No.	%		No.	%	No.	%
How can your child to put breast in his mouth tightly?	24	25.8	18	19.4	51	54.8	2	2.2	7	7.5	84	90.3	<0.001
How can you know that your child is stuck to the breast?	29	31.2	21	22.6	43	46.2	4	4.3	9	9.7	80	86.0	<0.001
What do you do when a child bites during breastfeeding?	66	71.0	0	0.0	27	29.0	9	9.7	0	0.0	84	90.3	<0.001
How you know if your child Obtained the adequacy of milk?	29	31.2	27	29.0	37	39.8	2	2.2	4	4.3	87	93.5	<0.001
What are the signs of hunger for your baby?	33	35.5	27	29.0	33	35.5	5	5.4	10	10.8	78	83.9	<0.001

Table 4: Effect of Counseling Program on the Correction of Knowledge Regarding Breast Milk.

	Pre					Post					P. value		
	Incorrect		Incomplete correct		Correct		Incorrect		Incomplete correct			Correct	
	No.	%	No.	%	No.	%	No.	%	No.	%		No.	%
What is the meaning of suction milk and how it done?	47	50.5	15	16.1	31	33.3	7	7.5	8	8.6	78	83.9	<0.001
What are the reasons and the signals of decrease in the amount of milk production?	44	47.3	23	24.7	26	28.0	5	5.4	10	10.8	78	83.9	<0.001
What you can do to increase the amount of milk?	33	35.5	34	36.6	26	28.0	3	3.2	3	3.2	87	93.5	<0.001

Table 5: Impact of Counseling Program on the Correction of Knowledge Regarding Special Situations about Breast Feeding

	Pre					Post					P. value		
	Incorrect		Incomplete correct		Correct		Incorrect		Incomplete correct			Correct	
	No.	%	No.	%	No.	%	No.	%	No.	%		No.	%
Do you continue breastfeeding Although there ill status?	42	45.2	0	0.0	51	54.8	4	4.3	0	0.0	89	95.7	<0.001
Can feeding from one breast only and how done ?	20	21.5	0	0.0	73	78.5	2	2.2	0	0.0	91	97.8	<0.001
Do you give up on breastfeeding when return to work?	72	77.4	0	0.0	21	22.6	8	8.6	0	0.0	85	91.4	<0.001
What are possible difficulties During breastfeeding?	53	57.0	8	8.6	32	34.4	5	5.4	2	2.2	86	92.5	<0.001
How done breastfeeding during pregnancy?	53	57.0	15	16.1	25	26.9	5	5.4	6	6.5	82	88.2	<0.001
What are the cases in which a mother have to see a doctor?	52	55.9	17	18.3	24	25.8	4	4.3	7	7.5	82	88.2	<0.001
If you can still breastfeeding if you have more than one baby?	50	53.8	0	0.0	43	46.2	7	7.5	0	0.0	86	92.5	<0.001
Can you breastfeeding after caesarean?	27	29.0	0	0.0	66	71.0	7	7.5	0	0.0	86	92.5	<0.001

Table 6: Impact of Counseling Intervention on the Correction of Knowledge and Attitude Regarding Breastfeeding Problems

Breastfeeding problems	Knowledge and attitude about breastfeeding problem				Nursing intervention						P. value		
	Incorrect		Correct		pre		post		Incorrect			Correct	
	No.	%	No.	%	No.	%	No.	%	No.	%		No.	%
Sore nipples	87	93.5	6	6.5	87	93.5	6	6.5	8	8.6	85	91.4	<0.001
Cracking of the nipple	88	94.6	5	5.4	89	95.7	4	4.3	5	5.4	88	94.6	<0.001
Flat nipple	91	97.8	2	2.2	91	97.8	2	2.2	9	9.7	84	90.3	<0.001
Inflammation of areola	85	91.4	8	8.6	89	95.7	4	4.3	8	8.6	85	91.4	<0.001
Mastitis	93	100.0	0	0.0	93	100.0	0	0.0	7	7.5	86	92.5	<0.001
Breast abscess	91	97.8	2	2.2	93	100.0	0	0.0	6	6.5	87	93.5	<0.001
Engorgement	80	86.0	13	14.0	82	88.2	11	11.8	8	8.6	85	91.4	<0.001
Pain during breast - feeding	88	94.6	5	5.4	88	94.6	5	5.4	7	7.5	86	92.5	<0.001
High temperature	89	95.7	4	4.3	89	95.7	4	4.3	8	8.6	85	91.4	<0.001

5. Discussion

The main reason cited by mothers for keeping on breast feeding, is knowing its benefits. Fortunately, findings from the Infant Feeding Survey (2005) (The national Information System, 2010), confirmed that the majority of mothers (80%) had knowledge of the health benefits of breastfeeding.

On the other hand, mothers (especially those in developing countries including Egypt) have reported misconceptions regarding breastfeeding as being 'painful', 'restrictive', 'inconvenient', or adversely affecting body figure (Hoddinott, 2000 & Marshall et al., 2007).

These false beliefs emphasize the need of counseling of correct breastfeeding knowledge to increase the rate breastfeeding practice (Dungy, et al., 2008), as mothers (especially primipara) who may not have the chance to see a child suckled before, would have no evidence to support their breast feeding experiences (Britton, et al., 2007).

Where the social beliefs (especially in developing countries) was not supportive, breastfeeding mothers were in bad need of counseling program to support breast feeding, as approved by reported studies (Dyson et al., 2010 & Shaker et al., 2004).

Hospital interventions before, during and after delivery can affect the type of infant feeding regardless of socio-demographic factors (Brown et al., 2002 & Kruse et al., 2005). Health workers have also been noted as sources of information on infant feeding. Dusdieker et al, (1985), suggest that health care providers have influence on the infant feeding choices in women who were 'undecided' or had 'weak convictions'.

It was found that mothers who attended antenatal care and mothers who had no prenatal care at all had lower rates of exclusive breastfeeding on discharge (Kiernan & Picket, 2006).

On the other hand, well trained health care professionals positively influence the mother's post natal experience and breastfeeding habits (Tappin et al., 2006), with early initiation of breastfeeding after delivery. Therefore, the present study was conducted at 1 hour and 3 hours postpartum.

World Health Organization (Geneva: WHO., 1998).assigned 10 steps of successful breast feeding, including "help mothers initiate breast feeding within one hour of birth". In the present study the primiparous women were interviewed one hour after delivery, for assessment of knowledge towards breast feeding (pre-test evaluation) and for administration of counseling program. The interview at 3 hour postpartum was done to assess breast feeding knowledge (post-test evaluation) after counseling.

The impact of counseling program on breast feeding was assessed by comparing pre-test and post-test data. The present study showed that counseling program to primiparous women resulted in statistically significant higher percentage of correct general knowledge about breast feeding, and correct knowledge about breast milk and dealing with breast fed babies, about special situation in breast feeding and regarding breastfeeding problems. The increased percentage of correct breast feeding knowledge was translated into initiation of breast feeding of all study women. This is confirmed by studies that have shown that mothers who were confident and less anxious because of correct breast feeding

knowledge, were more likely to start breastfeeding and keeping on it for longer time (Dennis, 2002). Other studies also stated that effective intervention such as counseling breast feeding program that could be applied at postnatal periods was found to be an effective mean of improving the initiation of breastfeeding (Britton, et al., 2007).

Future studies are needed to investigate the benefits of breastfeeding to families and the health care sector, dealing with breast feeding related problems and the psychosocial aspects associated with infant feeding (Renfrew et al., 2005).

6. Conclusions

The mother plays a major role in breast feeding and should be supported in her responsibility. Counseling breast feeding program in the early postpartum period is an effective tool to correct misconceptions and to encourage mother for breast feeding.

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Conflict of interest

The authors have no conflicts of interest to disclose.

References

- [1] Blincoe AJ. (2005), the health benefits of breastfeeding for mothers. *British Journal of Midwifery*; 13(6):398-401. <http://dx.doi.org/10.12968/bjom.2005.13.6.18361>.
- [2] Britton C, McCormick FM and Renfrew MJ. (2007). Support for breastfeeding mothers. *Cochrane Database of Systemic Reviews*.
- [3] Brown S, Small R, Argus B, Davis PG and Krastev A. (2002), early postnatal discharge from hospital for healthy mothers and term infants. *Cochrane Database of Systematic Reviews* (3) Art.No:CD002958. <http://dx.doi.org/10.1002/14651858.CD002958>.
- [4] Cooke, M., Sheehan, A. and Schmied, V.(2003), A Description of the relationship between breastfeeding experiences, breastfeeding satisfaction, and weaning in the first 3 months 22 Postpartum Breastfeeding Support after birth. *Journal of Human Lactation*; 19(2): 145-146.
- [5] Dennis C. (2002), Breastfeeding initiation and duration: A 1990-2000 literature review. *Journal of Obstetric Gynaecologic and Neonatal Nursing*; 31(1):12-32. <http://dx.doi.org/10.1111/j.1552-6909.2002.tb00019.x>.
- [6] [Dungy CI, McInnes RJ and Tappin DM, (2008), Infant feeding attitudes and knowledge among socioeconomically disadvantaged women in Glasgow. *Maternal and Child Health*; 12:312-322.
- [7] Durisdieker LB, Booth MB, Seals BF, and Ekwo EE. (1985), Investigation of a model for the initiation of breastfeeding in primigravida women. *Social Science and Medicine*; 20(7):695-703. [http://dx.doi.org/10.1016/0277-9536\(85\)90058-9](http://dx.doi.org/10.1016/0277-9536(85)90058-9).
- [8] Dyson L, Green J, Renfrew M, McMillan B. and Woolridge M. (2010) Factors influencing the infant feeding decision for socio-economically deprived pregnant teenagers: the moral dimension.

- Birth*; 37 (2):141-149. <http://dx.doi.org/10.1111/j.1523-536X.2010.00394.x>.
- [9] Hanson L, Korotkova M. And Håversen L, (2002), Breastfeeding, a complex support system for the offspring. *Paediatrics International*; 44:347-54. <http://dx.doi.org/10.1046/j.1442-200X.2002.01592.x>.
- [10] Heird C W. (2007), the feeding of infants and children sited in Nelson Textbook of Pediatrics; 18th edition, SAUNDER, ELSEVIER (215- 218).
- [11] Hoddinott P. and Pill R. (2000), a qualitative study of women's view about how health professionals communicate about infant feeding. *Health Expectations*; 3(4):224-233. <http://dx.doi.org/10.1046/j.1369-6513.2000.00108.x>.
- [12] Hoddinott P, Tappin D. and Wright C. (2008), Breastfeeding (Clinical Review). *British Medical Journal*; 336:881-7. <http://dx.doi.org/10.1136/bmj.39521.566296.BE>.
- [13] Jones E and Spencer SA. (2007), the physiology of lactation. *Paediatrics and Child Health*; 17(6):244-248. <http://dx.doi.org/10.1016/j.paed.2007.03.001>.
- [14] Kelleher CM. (2006), the physical challenges of early breastfeeding. *Social Science and Medicine*; 63:2727-38. <http://dx.doi.org/10.1016/j.socscimed.2006.06.027>.
- [15] Kiernan K and Pickett KE. (2006), Marital status disparities in maternal smoking during pregnancy, breastfeeding and maternal depression. *Social Science and Medicine*; 63:335-346. <http://dx.doi.org/10.1016/j.socscimed.2006.01.006>.
- [16] Kramer MS, Guo T. and Platt RW (2003), Infant growth and health outcomes associated with 3 months compared to 6 months of exclusive breastfeeding. *American Journal of Clinical Nutrition*; 78:291-5.
- [17] Kruse L, Denk CE, Feldman W. and Mojta R. (2005), Comparing socio - demographic and hospital influence on breastfeeding initiation. *Birth*; 32 (2):81-84. <http://dx.doi.org/10.1111/j.0730-7659.2005.00349.x>.
- [18] Marshall JL, Godfrey M. and Renfrew MJ. (2007), being a 'good' mother: mothering, breastfeeding and merging identities. *Social Science and Medicine*; 65:2147-2159. <http://dx.doi.org/10.1016/j.socscimed.2007.06.015>.
- [19] Neilson L and Michaelsen KF. (2007), Advances in our understanding of the biology of human milk and its effects on the offspring. *Journal of Nutrition*; 437:503S-510S.
- [20] Renfrew, M., Dyson, L. and Wallace, L.W. (2005) The Effectiveness of Health Interventions to Promote the Duration of Breastfeeding: Systematic Review. National Institute for Health and Clinical Excellence, London.
- [21] Shaker I, Scott JA. And Reid M. (2004), Infant feeding attitudes of expectant parents: breastfeeding and formula feeding. *Journal of Advanced Nursing*; 45(3):260-268. <http://dx.doi.org/10.1046/j.1365-2648.2003.02887.x>.
- [22] Spiby H, McCormick F. And Wallace L, (2009), a systematic review of education and evidence based practice interventions with health professionals and breastfeeding counselors on duration of breastfeeding. *Midwifery*; 25:50-61. <http://dx.doi.org/10.1016/j.midw.2007.01.006>.
- [23] Tappin DM, Britten J, McInnes R. and Broadfoot M. (2006), the effect of health visitors on breastfeeding in Glasgow. *International Breastfeeding Journal*; 1:11. <http://dx.doi.org/10.1186/1746-4358-1-11>.
- [24] The National Information Centre, IFF Research. Infant feeding survey report (2010), http://www.ic.nhs.uk/webfiles/publications/003_Health_Lifestyles/IFS_2010_early_results/IFS_2010_headline_report_tables2.pdf.
- [25] Walker, M. (2011), First 24-48 hours: common challenges. Breastfeeding management for the clinician: using the evidence. Sudbury, MA: Jones and Bartlett.
- [26] World Health Organization: (1998) ten steps to successful breast feeding. Geneva:WHO.