

A study on effectiveness of video assisted counselling in establishing and sustaining appropriate breast feeding practices

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ABSTRACT

Background and Aims: Breast milk is the only food for the neonate with vast benefits. Although breastfeeding process is natural but extensive research has revealed that mother requires active support for establishing and sustaining appropriate breast feeding practices. Due to high patient load, effective counselling of all pregnant ladies becomes a huge task. Video-assisted counselling has been tried for establishing and sustaining breastfeeding practices as it helps mothers to understand the procedure and process better as the video image is animated with a narrative voice. The objective is to study the effectiveness of video assisted breast feeding counselling in establishing and sustaining breast feeding practices. **Materials and Methods:** A Quasi experimental study was done in Obstetrics and Gynaecology department of BRD Medical College Gorakhpur from September 2019 to February 2020. Study subjects were pregnant ladies admitted in labour room for delivery. A total of 60 study subjects were allocated in Video-assisted breast feeding counselling group and same number in routine counselling group. Video-assisted counselling group breast feeding counselling was done with use of two videos (Video 1 is of 5 minute and 34 seconds duration and Video 2 is of 2 minutes and 50 seconds duration) demonstrations in labour room and post natal ward. Routine breast feeding counselling group received routine counselling as done by resident or consultants during their care. After the delivery the study participants were interviewed regarding their profile and breast feeding knowledge, motivation and behaviour and a scoring was done with Min. -0 to Max. 20 score. **Result:** Higher proportion of early initiation of breast feeding was observed in the video assisted counselling group as compared with the routine counselling group. The mean knowledge score of the subjects' video-assisted counselling group the mean knowledge score was significantly higher. Motivation of mother for breast feeding and improvement in their behaviour and skill in video-assisted counselling group was higher in comparison to routine counselling group. **Conclusion:** Video-assisted counselling was found effective in successful initiation and establishment of breast feeding.

Keywords: Counselling, early initiation of breast feeding, exclusive breast feeding

Introduction

Breast milk is the only food for the neonate with vast benefits. It not only protects infants from diarrhoea, pneumonia and

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malnutrition, but in the long run also protects from asthma, diabetes and chronic intestinal diseases.^[1] Breast feeding is recognised as an essential practice to ensure the health of child and mother. World Health Organization (WHO) has recommended initiation of breastfeeding within half an hour of birth and minimum 30 minutes of uninterrupted skin to skin contact between mother and infants.^[2] It should be practiced in at least 50% of caesarean delivered babies within half an hour of mother being able to respond. Despite the evidence

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of so many benefits and adoption of various WHO strategies on promotion of exclusive breastfeeding, only about 1-23%^[3] women are actually following it.

Although the breastfeeding process is natural, the decision to breastfeed is influenced by many varied factors, like, demographic variables, attitude and knowledge, doctor's advice and involvement and support from hospital staff and family members.^[4] Extensive research has revealed that mother requires active support for establishing and sustaining appropriate breast feeding practices. To ensure it, breast feeding counselling is being practiced in ANC OPD, labour room and maternity ward of OBG Department of B.R.D. Medical College, Gorakhpur. Similarly primary care physicians are in a unique position to promote, encourage, and support the establishing and sustaining appropriate breast feeding practices during their dealing with health problems of women and children.^[5]

Due to high patient load in these settings, effective counselling of all pregnant ladies becomes a huge task. To deal with such a type of problem, video-assisted counselling has been reported as a useful technique for establishing and sustaining breastfeeding practices. Video-assisted counselling helps mothers to understand the procedure and process better as the video image is animated with a narrative voice. The present study was planned to study the effectiveness of video assisted breastfeeding counselling in our setting with the intention that its result can be implicated by primary care physicians in their setting.

Aims and Objectives

1. To study the effectiveness of video assisted breast feeding counselling in establishing and sustaining breast feeding practices.

Null hypothesis

Video assisted breast feeding counselling has no effect on establishing and sustaining of appropriate breast feeding practices.

Methods

Study design: Quasi experimental design was adopted for present study. **Study duration:** It was conducted from September 2019 to February 2020 in Obs. and Gyn. department of BRD Medical College, Gorakhpur. **Study setting:** Obstetrics and Gynaecology department of BRD Medical College Gorakhpur. **Study subjects:** Study subjects were pregnant ladies admitted in labour room for delivery and willing to participate in study and agreed for written informed consent. Study subjects with delivery of sick neonate or still birth and sick mother or HIV positive mother were excluded in due course of study. **Sample size:** It was calculated on basis of assumption that an increase in the primary outcome i.e., successful initiation and establishment of breast feeding measures from 70% in control group i.e., routine counselling group to 90% in experimental group i.e., video assisted breast feeding counselling group. The sample size was

based on 95% Confidence Interval and 80% of power of study. The **calculated sample size**^[6] was 59 in each group and a total of 118 study subjects in both groups. A total of 60 study subjects per group were included in present study.

Recruitment and allocation of study participants

Participants after recruitment were asked to give informed consent. Thereafter they were allocated one by one in to 2 groups (Group-A and B) alternatively. Group-A is video-assisted breast feeding counselling group and Group-B is routine counselling group.

Intervention of video-assisted counselling group

Group-A i.e., video-assisted counselling group breast feeding counselling was done by a assigned resident doctor of Obs. and Gynae. department with use of two videos demonstrations in labour room and post natal ward. Video demonstration with counselling by that assigned resident doctor was ensured. Details of video demonstration was as following-

Video 1 is of 5 minute and 34 seconds duration. It explains advantages of breast feeding, early initiation of breast feeding and exclusive breast feeding. It explains all important points regarding the correct positioning and attachment of breast feeding.

Video 2 is of 2 minutes and 50 seconds duration. It explains advantages of breast feeding, exclusive breast feeding and complementary feeding.

Control group

Group- B Subjects receives the routine breast feeding counselling as done by residents and consultants during their care.

Data collection

After the delivery, the study participants were interviewed by a Pre-designed and Pre-tested questionnaire. The questionnaire was divided into two parts. Part-A includes questions regarding demographic profile of study subjects and Part-B was regarding assessment of breast feeding in terms of knowledge, motivation and behaviour as following-

Breast feeding Knowledge	Total five questions	Min. Score-0, Max. Score-5
Breast feeding Motivation	Five point Likert scale	Min. Score-0, Max. Score-5
Breast feeding Behaviour and Skill	Proper positioning (4 points)	Min. Score-0, Max. Score-4
	Proper attachment (4 points)	Min. Score-0, Max. Score-4
	Effective suckling	Min. Score-0, Max. Score-2
Total Score		Min. Score-0, Max. Score-20

Data analysis

The results thus obtained were compiled and analyzed statistically using Chi-square test as per the SPSS statistical package.

Ethical clearance

Ethical clearance was given by Institutional Ethics Committee on 27/07/2019 for present study.

Observations

Profile of study subjects in both intervention (Group-A) and control group (Group-B) are compared in Table 1. Mean maternal age was comparable between group A (Mean age = 27.4 Years) and Group-B (Mean Age: 28.9 years). Higher proportion of mothers in the group-A (68%) had not completed secondary education compared with the group B (72%). Majority of mothers in both groups were housewives. Majority of study subjects have crossed 37 weeks of gestational age at the time of delivery in both groups. A little higher proportion of mothers in Group-A were multipara (78%) as compared to Group-B (72%). Proportion of delivery by LSCS was a little higher in Group-A (31%) as compared to Group-B (26%).

The infant feeding knowledge and motivation of the mothers in both the intervention (Group-A) and control group (Group-B) are shown in Table 2. A significantly higher proportion of mothers in the intervention group (Group-A) reported knowledge about early initiation of breast feeding as compared with the control group (93.3% vs. 78.3%, $P = <0.05$). 86% of mothers in Group-A have adequate knowledge regarding exclusive breast feeding and its duration as compared to 65% in case of control group (Group-B). Mothers in both intervention and control group knows breast milk as best food for their child. Significantly higher proportion of mothers in the intervention group (Group-A) reported knowledge about complimentary feeding as compared with the control group (80.0% vs. 65.0%, $P = <0.05$). A significantly higher proportion of mothers in the intervention group (Group-A) believes breast milk as best food for baby and motivated for breast feeding as compared with the control group (91.6% vs. 75%, $P = <0.05$).

A significantly higher proportion of early initiation of breast

feeding was observed in the Video assisted counselling Group-A (31.6% of mothers initiated within 30 minutes after delivery and 43.3% within 1 hour of delivery) as compared with the Routine counselling Group-B (initiation within 30 minutes was done only in 8.33% and with in 1 hour in 26.6% of cases) [Table 3].

The breast feeding behaviour and skill of the mothers in both the in both Video assisted counselling (Group-A) and routine counselling group (Group-B) are shown in Table 4. A significantly higher proportion of mothers in Video assisted counselling (Group-A) showed skill of breast feeding position as compared with routine counselling group (Group-B). Similarly significantly higher proportion of mothers in video assisted counselling (Group-A) reported breast feeding attachment skills as compared with routine counselling group (Group-B). A significantly higher proportion of baby's in video-assisted counselling (Group-A) showed effective breast suckling in comparison of routine counselling group (Group-B) (80.0% vs. 66.6%, $P = <0.05$).

The mean knowledge score of the subjects in routine counselling group was 2.8 with standard deviation (SD) of 1.1 [Table 5] while in video-assisted counselling group the mean knowledge score was significantly higher (3.9 out of 5) with SD of 0.6. So the results reveal that motivation of mother for breast feeding and improvement in their behaviour and skill in video-assisted counselling group was higher in comparison to routine counselling group.

Discussions

Counselling and supportive interventions by healthcare professionals play important role in establishing and sustaining breast feeding. The healthcare setting has been noted as a critical space for establishing breastfeeding or not and as a source for breastfeeding knowledge. Inconsistent and inadequate counselling by health workers was

Table 1: Comparison of profile of study subjects in both the Video assisted counselling (Group-A) and routine counselling group (Group-B)

Profile	Video assisted counselling Group-A	Routine counselling group Group-B	P
Age			
Mean and SD Years	27.4 +- 7	28.9 +- 5.2	>0.05
Education %			
Secondary school and Lower	68%	72%	>0.05
Senior secondary and Above	32%	28%	
Occupation			
Employed	14%	22%	>0.05
Self employed or Housewife	86%	78%	
Gestational age at delivery (Weeks)	38.9 +- 1.1	39.1 +- 0.09	>0.05
Parity			
Primipara	22%	28%	>0.05
Multipara	78%	72%	
Route of delivery			
Vaginal delivery	69%	74%	>0.05
LSCS	31%	26%	

Table 2: Comparison of infant feeding knowledge and motivation of the mothers in both Video assisted counselling (Group-A) and routine counselling group (Group-B)

Knowledge	Video assisted Counseling Group-A		Routine Counseling group Group-B		P
	n (60)	Percentage	n (60)	Percentage	
Know about early initiation of breast feeding	56	93.33	47	78.33	<0.05
Know about exclusive BF	52	86.67	41	68.33	<0.05
Know about duration of exclusive BF	51	85.00	49	65.00	<0.05
Know that breast milk is best	53	88.33	47	78.33	>0.05
Know about when to start complimentary feeding	48	80.00	39	65.00	<0.05
Motivation					
Believes breast milk as best food for baby and motivated for breast feeding	55	91.67	45	75.00	>0.05

Table 3: Comparison of early initiation of breast feeding in both Video assisted counselling (Group-A) and routine counselling group (Group-B)

Duration of initiation of breastfeeding after delivery	Video assisted counseling Group-A		Routine counseling group Group-B		P
	Number	(Percentage)	Number	(Percentage)	
Within 30 minutes:	19	31.67	5	8.33	
30 minutes to 1 hour:	26	43.33	16	26.67	
More than 1 hour	15	25.0	39	65.0	<0.05

Table 4: Comparison of breast feeding behaviour and skill of the mothers in both Video assisted counselling (Group-A) and routine counselling group (Group-B)

Breast feeding behavior and Skill	Video assisted counseling Group-A		Routine counseling group Group-B		P
	n (60)	Percentage	n (60)	Percentage	
Baby's head and body straight	49	81.67	40	66.67	<0.05
Baby's body turned towards mother, nose opposite the nipple	47	78.33	39	65.00	<0.05
Baby's body touching mothers abdomen	43	71.67	34	56.67	<0.05
Baby's whole body well supported	51	85.00	33	55.00	<0.05
Baby's mouth wide open	47	78.33	38	63.33	>0.05
Baby's lower lip everted	51	85.00	34	56.67	<0.05
Upper areola more visible than lower	46	76.67	35	58.33	<0.05
Baby's chin touching the breast	42	70.00	32	53.33	<0.05
Baby's cheeks are full and not hollow	45	75.00	37	61.67	<0.05
Baby's suckles, pause and suckles in regular deep sucks	48	80.00	40	66.67	<0.05

Table 5: Comparison of Knowledge, motivation and behaviour skill score the mothers in both Video assisted counselling (Group-A) and routine counselling group (Group-B)

Variable	Video assisted counseling Group-A		Routine counseling group Group-B		Mean change in score	T-test (p-value)
	Mean score	SD	Mean score	SD		
Knowledge	3.9	0.6	2.8	1.1	1.1	<0.05
Motivation	4.1	0.4	3.1	0.9	1.0	<0.05
Behaviour and skill for successful BF	7.8	1.2	5.6	1.6	2.2	<0.05
Overall score	16.2	2.1	12.4	2.9	3.8	<0.05

most often associated with abandoning EBF. Confused mothers often referred back to lay knowledge and direct observations of their children's growth in a context where they were not given clear and consistent messages Present study provides evidence on use of video-assisted counselling in establishing and sustaining breast feeding. Effectiveness was assessed in terms of knowledge, motivation and practice of breast feeding by lactating mother in video assisted

counselling Vs routine counselling group. The infant feeding knowledge and motivation of the mothers in the video-assisted counselling was found better than routine counselling group. (Knowledge about early initiation of breast feeding was 93.3% vs. 78.3%, $P = <0.05$).

The study of Hafsa Raheel *et al.*^[7] (2018) reported that significantly higher proportion of mothers who received breast

feeding education has knowledge of breast feeding (64%) in comparison to who didn't (48%). Present study revealed that significantly higher proportion of mothers of video assisted counselling group had breast feeding knowledge and motivation (93%). Emily L Tuthill *et al.*^[8] (2019) in their study used IMB model as intervention for establishing and sustaining breast feeding and reported that 83% of mothers educated by using this model had breast feeding knowledge and motivation but it is lower when compared with proportion of mothers of video assisted counselling as intervention (93%).

The study of Gami N^[9] *et al.* (2013) says that there is major lack of knowledge among Indian females, regarding importance of early initiation as well as how to breastfeed. A significantly higher proportion of mothers of Video assisted counselling Group reported early initiation of breast feeding (74.9% of mothers initiated breast feeding up to 1 hour of delivery) as compared to the mothers of routine counselling group B (initiation of breast feeding with in 1 hour of delivery in 34.9% of cases). Similar to present study Bhatt S *et al.*^[10] (2012) indicated that implementation of ante and postnatal support programs, along with antenatal counselling programs among low income women, had increased the breastfeeding initiation rate.

Overall study found that mothers in Video assisted counselling (Group-A) showed good breast feeding behavioural skills as compared with routine counselling group (Group-B). In a systematic review by Sara Jewett *et al.* (2019)^[11] including the studies regarding breast feeding practices published since 1980 to 2018 reported that postnatal support from healthcare settings and knowledge of breastfeeding benefits is influential in establishing and sustaining breast feeding practices. They also concluded that majority of interventions showed statistically significant improvements in breast feeding practices with few exceptions as playing of videos for one time only. Study of Haider *et al.* (2010)^[12] highlights the impact of peer counselling in Bangladesh and found that 70% of the mothers in the intervention group practiced EBF.

Conclusion

In comparison to routine counselling method, video-assisted breast feeding counselling method was found to be significantly effective method in improving the breast feeding knowledge regarding early initiation of breast feeding, exclusive breast feeding and duration of EBF. A significantly higher proportion of mothers counselled by Video assisted breast feeding counselling method believes breast milk as best food for baby and motivated for breast feeding. Early initiation of breast feeding was observed in higher proportion of mothers counselled by Video assisted counselling method as compared with the Routine counselling group Group-B. Correct breast feeding behaviour and skill was observed in significantly higher proportion of mothers counselled by video assisted counselling method.

Key-Massage

Video-assisted counselling was found effective in enhancing the breast feeding knowledge motivating the mothers for breast feeding and improving the skill and behaviour required for successful initiation and establishment of breast feeding.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given use of clinical information for research & publication purpose. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflict of interest.

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