EFFECTIVENESS OF BREAST CRAWL ON INITIATION OF BREASTFEEDING AMONG NEWBORN AND MOTHER'S SELF SATISFACTION IN A TERTIARY CARE HOSPITAL, KOCHI

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ABSTRACT: *Introduction: Breast milk is a divine gift for a baby and breast feeding is the nature's best way to nurture the newborn. Immediately after the delivery breast feeding encourages the bonding of the mother to her baby. The International Organizations like WHO, UNICEF and WABA recommend that breast feeding should be initiated in the first hour of birth. One of the methods for early initiation of breast feeding was breast crawl. Breast crawl is the natural instinctive behaviour of the newborn and everything in breast crawl is perfectly designed by nature. The present study intends to evaluate the effectiveness of breast crawl technique on initiation of breast feeding among newborns and mothers self-satisfaction in a tertiary care hospital, Kochi. Objectives: The study was performed to evaluate the effectiveness of breast crawl on initiation of breast feeding among newborns, compare the time of initiation of breast feeding among newborns in two groups and assess the self-satisfaction of mothers in experimental group. Materials and Methods: A quasi experimental study, with Post-Test only Control group design and quantitative approach conducted in labour room of AIMS, Kochi among 60 full term newborns and born through normal vaginal delivery and selected by using non-probability purposive sampling technique. Among the 60 newborns, 30 were allocated to both experimental and control group. The breast crawl technique proposed by UNICEF IN 2018 was performed to experimental group and assessed the initiation of breast feeding by LATCH breast feeding assessment tool. Routine hospital care and health education regarding importance of breast feeding was given to the control group. Results: The mean LATCH breast feeding score was 8.87±0.681 in experimental group and 6.50±0.861 in control group which was found to be significant at p<0.001. About the time duration for initiation of breastfeeding among the two groups, the mean score was 34.57±5.5 in experimental group and 75.23±4.6 minutes in control group which was found to be significant with p<0.001. Among the mothers in the experimental group, 57% were highly satisfied, 43% were moderately satisfied and none of the mothers had less satisfaction. Conclusion: Breast crawl technique was found to be effective in breast feeding initiation among the newborn and increased maternal satisfaction among experimental group and expressed that breast crawl was totally a new experience and will suggest it to others. Clinical Significance: Based on the study findings, breast crawl technique can be implemented and practiced in clinical settings for initiation of breast feeding among newborns.*

KEYWORDS: Breast Crawl, Initiation of Breast Feeding, Maternal Satisfaction, LATCH, Breast Feeding

INTRODUCTION

Breastfeeding is considered as the best and natural method of feeding the newborn by their mothers. It is nature's gift to a mother to give the best gift to her baby. The neonates for whom breastfeeding is initiated within half an hour have higher survival rate.[1] Early initiation of breast feeding helps to increase the mother and baby bonding relation.[2] In the present context, the risk of neonatal and infant deaths were largely reduced by promoting the early breast feeding initiation and exclusive breast feeding.[3] The breast crawl is used as one of the techniques for early breast feeding initiation. Like any other mammal's babies, the human babies also can move and find their mother's breast to start initial feeding. Soon after birth and the newborns are placed on their mother's abdomen, they have the ability to find their mother's breast all on their own and to decide when to take the first breastfeed. This is called the 'Breast Crawl.' It was first delineated in 1987 at the Karolinska Institute in Sweden. [4] WHO, UNICEF, and BFHI documented explanations about the breastfeeding initiation which is related to the process of the 'Breast Crawl' and illuminated properly on its practice. The breastfeeding initiation would naturally follow the 'Breast Crawl' pattern and they recommended 'Breast Crawl' as one of the practices which helps for initiating breastfeeding.[6] Nowadays most of the health care workers in maternity services do not practise the WHO recommendation for early breastfeeding initiation to all newborn immediately afterbirth. The BFHI fourth step is not properly practised and implemented even in accredited 'Baby Friendly' maternity services, in its true spirit. Because ofthis, the early initiation of breast feeding is often delayed. Under this situation, the awareness and practice of the Breast Crawl is highly beneficial for early breastfeeding initiation.[4] Thus, the investigator decided to analyse how effective the breast crawl is on early breastfeeding initiation among newborns and self-satisfaction of mothers. The present study signifies the effectiveness of breast crawl and how it helps in early initiation of breast feeding among newborns.

MATERIALS AND METHODS

A quasi-experimental study was conducted in the labour room of AIMS, Kochi with Post Test only Control group design and quantitative approach. The study was conducted among 60 newborns that were full term and born through normal vaginal delivery. By using non-probability purposive sampling technique, the study samples were selected and among the 60 newborns, 30 were assigned to the control group and 30 were in the experimental group. The breast crawl technique was performed immediately after delivery for a minimum of 60 minutes among experimental group, whereas the control group was given routine hospital care and education regarding the importance of breast feeding. The demographic and clinical variables of the mother and newborn were assessed by using a semi structured questionnaire and demographic data were collected from the samples, and clinical data written from the clinical records. The LATCH breastfeeding assessment tool was used for evaluating the breast feeding initiation among newborns and a three-point rating scale was used to check the self satisfaction of mothers in the experimental group during their recovery period. The breast crawl was assessed for the activities of the baby during crawling, total time duration taken by the baby for crawling, time of breastfeeding initiation and for time of breast crawl initiation.

RESULTS

Demographic and Clinical Data of Mother and Baby

In this section, demographic and clinical data of the mother and baby was organized and categorized as frequency and percentage, and were summarized in Table 1, Table 2 and Table 3.

Effectiveness of Breast Crawl on the Initiation of Breastfeeding by LATCH Assessment Tool

The LATCH breastfeeding scores of the experimental and control groups were analysed using Independent 't' test and depicted in Table 4 and Figure 1. The means of LATCH breastfeeding scores for the experimental group and control group are 8.87±0.681 and 6.50±0.861 respectively, its corresponding p-value is 0.000 which is less than 0.001; thereby, null hypothesis is rejected. The experimental group had a significantly higher LATCH breastfeeding score than the control group.

Comparison of the Time Duration for the Initiation of Breastfeeding among the Control and Experimental Groups

The time duration initiating the breastfeeding of experimental and control group was analysed by Independent 't' test and summarized in Table 5 and Figure 2. The time duration was noticed by direct observation method. The time duration for breastfeeding initiation was 34.57±5.52 (experimental group) and 75.23 ± 4.68 (control group). The study findings show thatthe time durations among the two groups were statistically significant with a p-value of 0.000, which is lesser than 0.001. Hence, it concludes that the time to initiate breastfeeding is shorter among the experimental group and the average time taken by this technique was 34 minutes when weighed up with routine hospital procedure. Therefore, the breast crawl technique is effective and helpful in achieving breastfeeding initiation.

Description of Mother's Self Satisfaction in the Experimental Group

This section deals with the assessment of mother's self satisfaction in the experimental group after breast crawling with the help of a three-point rating scale with 10 items, including 6 positive and 4 negative statements with reverse scoring. The maximum score for rating scale is 30 and minimum score is 10. Based on the score obtained, it is interpreted as highly satisfied (24–30), moderately satisfied (17–23) or less satisfied (10–16). Statistical analysis by using frequency and percentage is used and depicted in Table 6 and Figure 3.

DISCUSSION

The effectiveness of breast crawl on breastfeeding initiation was evaluated by comparing the LATCH breastfeeding score among the experimental and control groups. The present study findings are similar with reported literature[7]. The study results interpreted that the experimental group had a significantly higher LATCH breastfeeding score than the control group. As reported, a quasi-experimental study on 60 mothers with normal labour outcomes [n=30 (experimental) and n=30 (control)] was found to have a LATCH breastfeeding score of 9.1 ± 1.28 and 5.8 ± 1.28 respectively, having p-value of 0.05 level[7], whereas our study

showed a p-value of 0.000 at 0.001 level which is highly significant than the quasi experimental study[7].

The present study compared the time duration for breastfeeding initiation among the experimental and control groups, noticed by direct observation. The mean time taken for the initiation of breastfeeding was 34.57 ± 5.525 in the experimental group and 75.23 ± 4.688 in the control group, found to be statistically significant with a p-value of 0.000 at 0.001 level. A similar study conducted to assess the effect of breast crawl on initiation of breastfeeding and initial weight loss among newborns [8] clearly showed that the mean time taken in minutes was 17.84 ± 4.01 in the interventional group and 110.80 ± 59.08 for the control group, which was significant at 0.001 level.It was found that the result of the present study is more consistent with the result of the related literature. About the assessment of self satisfaction of mothers in the experimental group, 57% of mothers were highly satisfied, 43% of them were moderately satisfied and none among those in the experimental group was less satisfied. These findings are congruent with another study results done by Reshma P[9] et al. on the effectiveness of skin to skin contact between mother and baby at birth on maternal and neonatal outcomes; it was found that skin to skin contact was helpful in increasing the maternal satisfaction among the experimental group as there was as a result an increased maternal satisfaction among the mothers in the experimental group with a U-value of 11.5 at p-value > 0.05 level.

CONCLUSION

Based on the findings of the study, it can be concluded that breast crawl was effective in breastfeeding initiation among newborns and the mothers were highly satisfied with the breast crawl technique, expressing that breast crawl was a totally new experience and they would suggest it to others. With the help of the breast crawl technique, within one hour of birth, most of the newborns could start their feeding. These are some of the WHO recommendations to encourage breastfeeding. Thus, the breast crawl technique is one of the most effective and easiest methods which can be practiced or implemented by all midwives for early breastfeeding initiation right after the delivery of the newborns.

Limitations

1. Breast crawl must be initiated soon after delivery, but in our study, due to hospital policies, breast crawl was initiated after 5–10 minutes of delivery, i.e., after immediate new-born care.

2. The sampling technique used in this study was non-probability purposive sampling.

3. Dropouts happened in this study as the mothers in the second stage of labour shifted for emergency caesarean delivery and maternal and newborn complications.

Acknowledgement

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APPENDIX

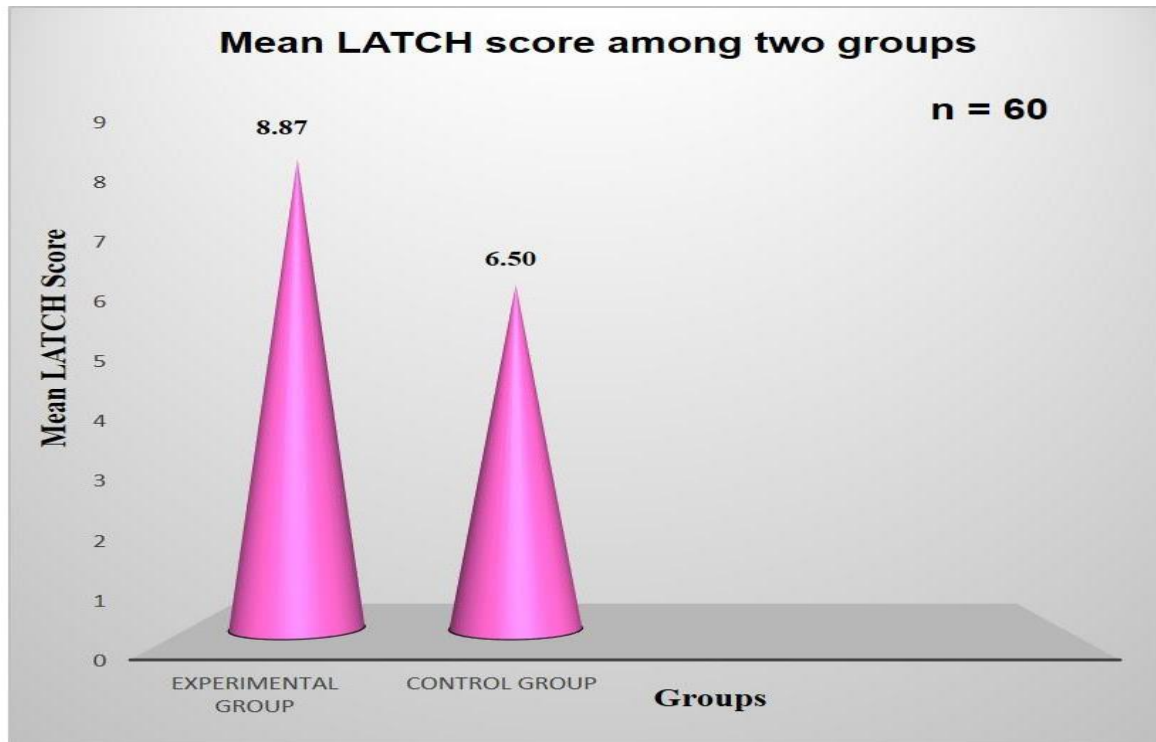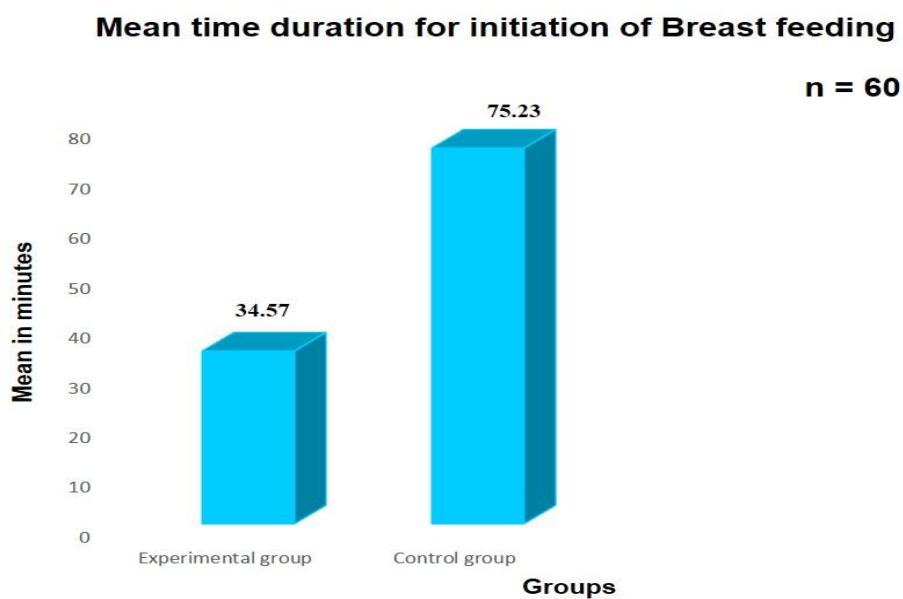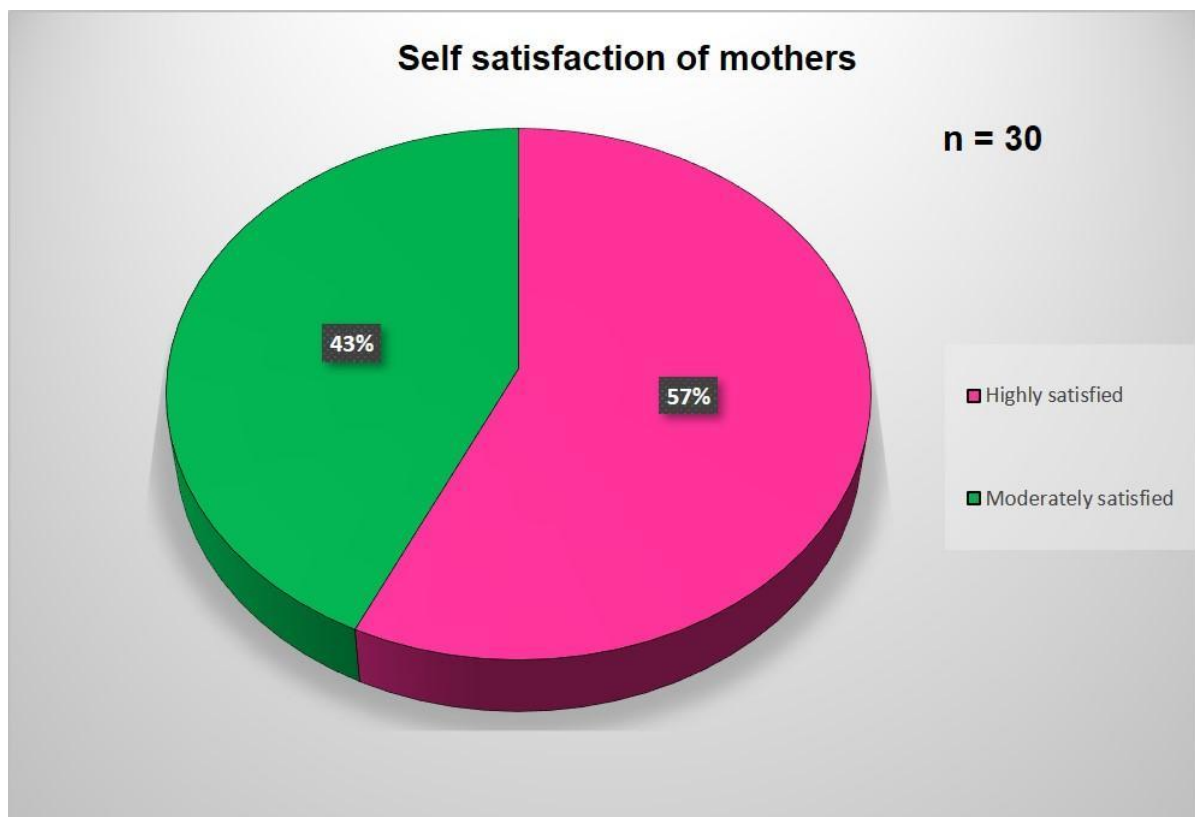**Figure 1: The comparison of Latch score among experimental and control group; corresponding p-value is 0.000, which is less than 0.001.**

Figure 2: Mean time duration for the initiation of breastfeeding among the

experimental and control groups; corresponding p-value is 0.000, which is less than 0.001.

Figure 3: Percentage of distribution of self satisfaction of mothers in the Experimental Group

Table 1: Distribution of demographic variables of the mothers   **(n=60)**

Sl. No	Demographic data	Experimental group		Control group	
		f	%	f	%
1.	**Age**				
	19 – 24 Years	11	37	13	43
	25 – 30 Years	13	43	10	34
	31 – 36 Years	6	20	6	20
	≥ 37 Years	0	0	1	3
2.	**Educational status**				
	Primary	0	0	1	3
	Secondary	2	7	1	3
	Higher secondary / diploma	7	23	9	30
	Graduation	18	60	17	57
	Post graduation / Above	3	10	2	7
3.	**Occupational status**				
	Homemaker	13	43	13	43
	Daily labour	3	10	5	17
	Professional	11	37	10	33
	Business	1	3	2	7
	Government service	2	7	0	0
4.	**Age at marriage**				
	≤ 18 Years	2	7	2	7
	19 – 22 Years	17	57	13	43
	23 – 26 Years	8	26	14	47
	27 – 30 Years	3	10	1	3
5.	**Type of marriage**				
	Maternal relation	1	3	2	6
	Paternal relation	1	3	0	0
	Non-consanguineous	28	94	28	94
6.	**Type of family**				
	Nuclear family	19	63	20	67
	Joint family	11	37	10	33
7.	**Family income/month (Rs.)**				
	5,001 – 10,000/-	3	10	1	3
	10,001 – 15,000/-	9	30	13	43
	Above Rs.15,001/-	18	60	16	54
8.	**Diet pattern**				
	Vegetarian	8	27	8	27
	Mixed diet	22	73	22	73
9.	**Residence**				
	Rural	14	47	11	37
	Urban	16	53	19	63

Table 2: Distribution of clinical variables of the mothers (n = 60)

Sl. No	Clinical variables	Experimental group		Control group	
		f	%	f	%
1.	**Age at menarche**				
	10 – 12 Years	8	27	9	30
	13 – 15 Years	22	73	21	70
	16 – 18 Years	0	0	0	0
2.	**Gestational age of mother**				
	37 Weeks	4	13	5	17
	38 Weeks	11	37	12	40
	39 Weeks	12	40	11	36
	40 & above Weeks	3	10	2	7
3.	**Order of pregnancy**				
	Primigravida	18	60	18	60
	Multigravida	12	40	12	40
	If multi,				
	Second	8	27	9	30
	Third /More	4	13	3	10
4.	**Maternal complication during the time of delivery**				
	Yes	0	0	0	0
	No	30	100	30	100
5.	**History of chronic illness during the time of pregnancy**				
	Yes	10	33	6	20
	No	20	67	24	80
	If Yes,				
	Diabetes mellitus	7	23	3	10
	Hypertension	0	0	3	10
	Thyroid problems	3	10	0	0

Table 3: Distribution of demographic and clinical variables of the newborns (n = 60)

Sl. No	Demographic and clinical variables of the newborn	Experimental group		Control group	
		f	%	f	%
1.	**Baby gender**				
	Male	10	33	10	33
	Female	20	67	20	67
2.	**Birth weight**				
	2.5 – 3.0 Kg	20	67	19	63
	3.1 – 3.6 Kg	9	30	11	37
	≥ 3.7 Kg	1	3	0	0
3.	**APGAR score**				
	7 – 10	60	100	60	100

Table 4: Comparison of LATCH breastfeeding score among the control and experimental groups (n = 60)

Group	LATCH Score		t - Value	P - Value
	Mean	S. D		
Experimental Group	8.87	0.681		
Control Group	6.50	0.861	11.805	**0.000**

Table 5: Mean time duration for the initiation of breastfeeding among the control and experimental groups (n = 60)

Time duration for initiation of breast feeding	Experimental group		Control group		t-Value	P-Value
	Mean	S. D	Mean	S. D		
	34.57	5.52	75.23	4.68	30.73	**0.000**

Table 6: Description of self satisfaction of mothers in the experimental group (n = 60)

Self satisfaction of mothers in the experimental group	Highly satisfied		Moderately satisfied		Less satisfied	
	f	%	f	%	f	%
	17	57	13	43	0	0