

Research Article

A study to evaluate the impact of breast crawl method on Initiation of breastfeeding

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“You will never change your life until you until you change something you do daily”

Mike Murdock

Abstract

Introduction: Breastfeeding is the best investment to uplift the economy of any country. Investing on the future generation not only secure the future of a country but also strengthen the wellbeing of its countrymen. To decrease the rate of newborn morbidity and mortality early initiation of breastfeeding is a very effective measure. **Objectives:** The objectives of the study are to evaluate the impact of breast crawl method on Initiation of breastfeeding between control and interventional group. **Methods:** A Quantitative research approach was used for the study. A quasi-experimental design with non-probability convenience sampling was used to select 60 mothers and newborn pairs. Which were distributed into two groups: Interventional and control both contains 30 mothers and new-borns . The research Study was conducted in the labor room of Govt. hospital, Dehradun. Breast Crawl method was intervened in the experimental group whereas routine method was carried out in the control group. Initiation of breastfeeding was assed using LATCH breastfeeding assessment scale. Data was recorded and compared between the two groups. **Results:** Study results exhibit that there was significant reduction in time of initiation of breastfeeding among new-born in the interventional group. **Conclusion:** Therefore, Breast Crawl method is a beneficial intervention which promotes early initiation of breastfeeding. Hence this can be implemented as a universal practice to upgrade the health of future generations.

Key words: Effectiveness, Breast crawl, initiation of breastfeeding

Introduction

The first known fundamental right of a child is breastfeeding. It's not only provide nutrition to the newborn but also helps to strengthen his immunity. Early initiation of breastfeeding is very essential for the proper growth and development of a baby. The survival of the infant also depends upon the timing, duration and frequency of breastfeeding. In developing countries, regular and interrupted breastfeeding is the single most cost-effective measure for reducing child mortality.¹

Breastfeeding is an evidence based , effective technique for preventing obesity, diabetes, infections, cardiovascular disease, developmental delays, and mortality in infants, as well as safeguarding the mother from breast cancer , diabetes, post partum depression etc.²

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Despite the fact that the global number of infant fatalities has decreased from 5 million in 1990 to 2.4 million in 2019, children are at the greatest risk of death during the first 28 days of their lives. In 2019, the newborn period accounted for 47 percent of all deaths among children under the age of five, with almost one-third dying on the day of birth and nearly three-quarters dying within the first week of life.³

India ranks first among the Top 10 countries with the highest number (thousands) of newborn deaths, 2019 with 522 deaths per thousands.(WHO)³

UNICEF and WHO recommends initiation of uninterrupted breastfeeding within half an hour of birth. As soon as the baby is born it should be given on prone position onto the mother's abdomen to crawl and initiate baby led latch. This phenomenon is called as breast crawl.⁴ the newborn recognizes her mother before birth through the amniotic fluid. The amniotic fluid present on the hands and the smell of the chemical liberates from the Montgomery tubercle is similar to liquor amine which guides of the baby towards the mothers breast and initiate the first breastfeed.⁵

Objectives

1. To assess initiation of breastfeeding in experimental group.
2. To assess initiation of breastfeeding in control group.
3. To compare initiation of breastfeeding among control and experimental group.
4. To associate the findings with selected demographic variables in experimental and control group.

Hypothesis

H0:- There will be no significant difference on initiation of breastfeeding among experimental and control group.

H1:- There will be no significant association between initiation of breastfeeding and selected demographic variables in the experimental group.

Methodology

Research Approach

A Quantitative approach was selected for the present study.

Research Design

Experimental Research Design Using Quasi Experiment which is a subtype of Experimental design.

Setting of the study

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The study was conducted in the labor ward of Government Hospital, Dehradun, Uttarakhand.

Population

All Parturient mothers and their newborns, fulfilling the inclusion criteria, admitted in the labor ward of Government Hospital, Dehradun, Uttarakhand.

Sample and Sampling technique

60 mothers and newborn pairs selected by convenient sampling equally divided into two groups. 30, in experimental and 30 in control group.

Data collection tool

- To collect demographic data, interview technique was used.
- To assess initiation of breastfeeding LATCH breastfeeding Scale⁶ was used.

Data Collection Process

In the initial phase a written permission has been taken from CMS, Govt. Hospital, Dehradun, Uttarakhand to conduct research study inside labor room. The Nursing Superintendent, and labor room staff has been intimated regarding the study. Consent has been taken from all the mothers. The mothers in the experimental group were explained regarding procedure of breast crawl. Soon after delivery, the newborn was assessed using APGAR score. Newborn with APGAR score above 6 were included in the study.. After checking the Apgar score of the baby, if the baby is well and no complications present after showing the baby to the mother the baby is put on the mother's abdomen in prone position. The baby and the mother was covered by a cloth to prevent hypothermia. The baby was well supported by the mother and a staff nurse. 30 minutes were given to the baby in the interventional group to crawl. After the achievement of latching, LATCH scale is used for assessing the initiation of breastfeeding.

Results

Section I :-Description of samples according to their demographic profile

N= 60

S.NO.	Socio- Demographic Characteristics	Experimental Group (N=30)		Control Group (N=30)	
		Frequency	Percentage	Frequency	Percentage
1.	Age In Years				
	19- 21	10	33.33	6	20
	22-24	8	26.66	12	40
	25-27	7	23.33	6	20
	28-30	5	16.66	6	20

2.	Educational status				
	Post Graduation graduation	7	23.33	4	13.33
	Higher secondary	9	30	9	30
	High school	7	23.33	5	16.66
	No formal education	3	10	5	16.66
		4	13.33	7	23.33
3.	Gravida				
	Primi	16	53.33	10	33.33
	Multi	14	46.77	20	66.67
4.	APGAR Score				
	7	7	23.33	5	16.66
	8	10	33.33	9	30
	9	9	30	11	36.33
	10	4	13.3	5	16.66
5.	Gender				
	Male	14	46.77	20	66.66
	Female	16	53.33	10	33.34

Table – 1- frequency & percentage distribution of samples according to their demographic data.

Analysis of demographic data revealed that majority of mothers (33.33%) in the experimental group were between 19-21 year age group and in control group majority of mothers (40 %) were between 22-24 year age group. In regard to educational status of mother majority of mothers (40%) in both group were graduate. In view to gravida 53.33% mothers in experimental group were Primi gravid whereas 66.67% mothers in control group were multi Para. Majority of the Newborn (33.33%) Apgar score was 8 in experimental group whereas in control group maximum of 36.33% newborn score 9 on Apgar scale. In the aspect of gender in the experimental group 53.33 % newborns were female and 66.66 % newborns were male in control group.

Section- II:- Initiation of breastfeeding in experimental group:- The analysis revealed that 73.33% newborns in the experimental group score excellent on LATCH scale and 26.66% score average.

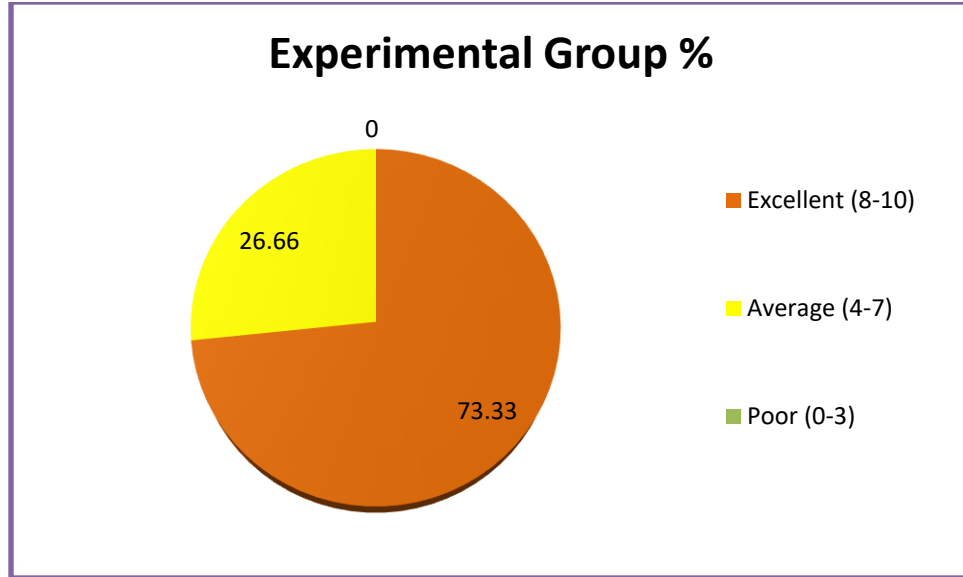


Fig:- 01 Percentage distribution of Initiation of breastfeeding in experimental group.

Section. III:- Initiation of breastfeeding in control group:- The analysis of data revealed that 73.33 % newborns score average on latch scale including 10 % scoring excellent and 16.66 % newborn score poor on Latch scale in control group.

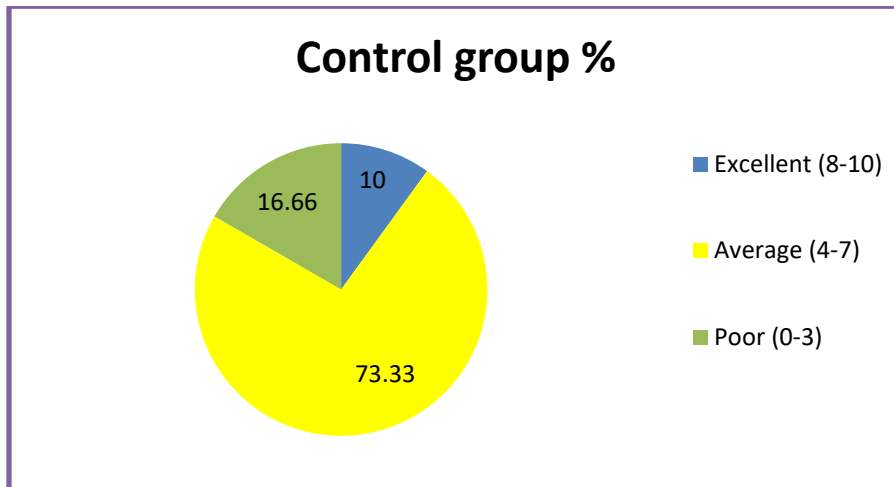


Fig:- 02 Percentage distribution of Initiation of breastfeeding in control group.

Section. IV:- Comparison of initiation of breastfeeding among control and experimental group

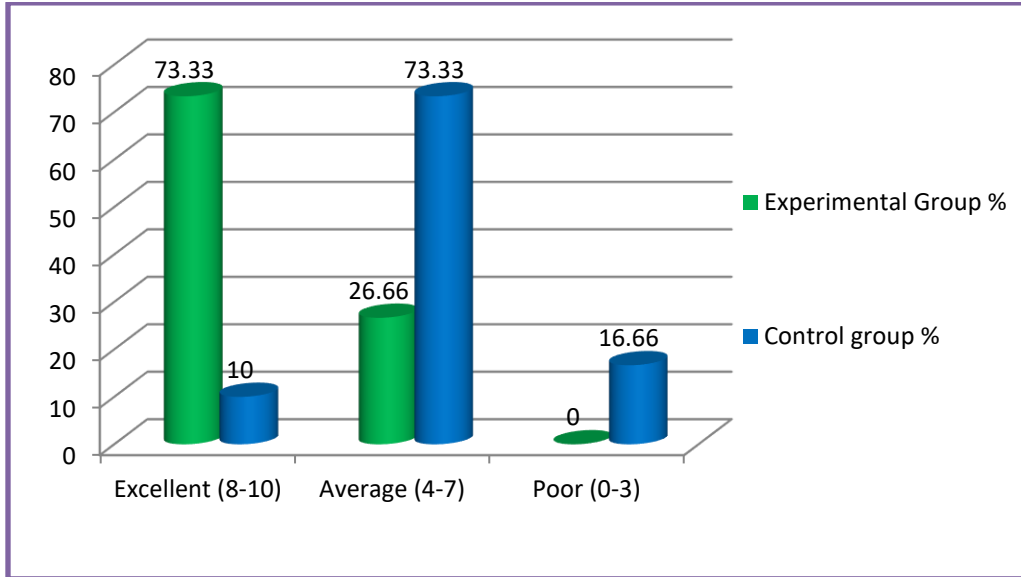


Fig:- 03;- Percentage distribution of comparison of LATCH Breastfeeding score in experimental and control group.

Fig:- 03 depict that in experimental group after initiation breast crawl 73.33 % newborn had excellent LATCH breastfeeding score and 26.66 % Newborns had average LATCH breastfeeding score. Whereas in control group Only 10 % newborns score excellent followed by 73.33% average and 16.66 % had poor LATCH breastfeeding score. Hence the analysis reveals that the results of initiation of breastfeeding by breast crawl method in experimental group were better as compared to control group.

Table. 2:- ‘t’ test for comparison of initiation of breastfeeding among control and experimental group

Groups	Mean	SD	df	P Value
Experimental	8.10	1.4	58	.00
Control	5.27	1.83	55	

Table 2: Shows the relationship between both experimental and control group. Paired t test was applied with the help of SPSS21. Above table show the relationship between experimental and control group latch time as the calculated value (0.00) is less than tabulated value (0.05). The mean LATCH breastfeeding score in experimental group was 8.10 and in control group it was 5.27.

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Hence the hypothesis Ho that there will be no significant difference on initiation of breastfeeding among experimental and control group is rejected.

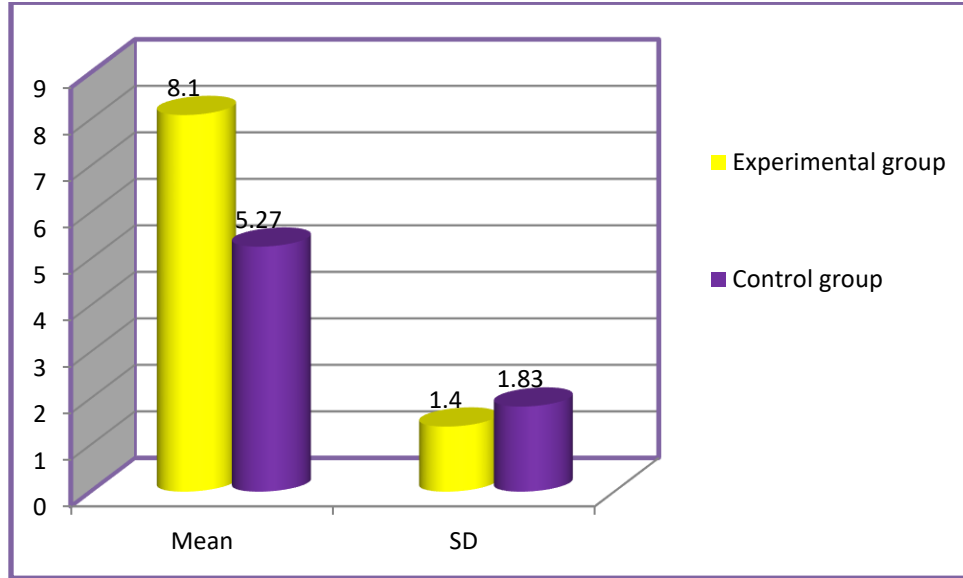


Fig:- 04:- Percentage distribution of comparison of Initiation of Breastfeeding between experimental and control group.

Table 3:- Association between Initiation of breastfeeding with selected socio demographic characteristics in experimental group (N=30)

S.NO.	Socio-Demographic Characteristics	frequency	percentage	LATCH score		Chi Square
				Excellent	Average	
1.	Age In Years					.05
	19- 21	10	33.33	5	5	
	22-24	8	26.66	5	3	
	25-27	7	23.33	7	0	
	28-30	5	16.66	5	0	
2.	Educational status					.43
	Post Graduation	7	23.33	6	1	
	graduation	9	30	6	3	
	Higher secondary	7	23.33	6	1	
	High school	3	10	1	2	
	No formal	4	13.33	3	1	
3.	Gravida					0.002
	primi	16	53.33	8	8	
	Multi	14	46.77	14	0	
4.	APGAR Score					

	7.	7	23.33	5	2	.98
	8.	10	33.33	7	3	
	9.	9	30	7	2	
	10.	4	13.3	3	1	
5.	Gender					.22
	Male	14	46.77	12	2	
	Female	16	53.33	10	6	

Table 3:- Depicts the association between Latch breastfeeding score and their selected socio demographic characteristics, all the data were calculated at the 95% CI. So the calculated value less than/equal to 0.05 was considered as significant. As the Age and Gravida of mother were significantly associated with latch time as the Chi Square value is less than 0.05. No association was found in other selected Socio demographic characteristics and latch time.

Discussion

The study results revealed that the Initiation of breastfeeding in experimental group after breast crawl intervention was Excellent. The data showed that majority of newborn (73.33%) scores excellent in the experimental group. Whereas in control group, majority of newborn (73.33%) scores average followed by 16.66% newborn who score poor on Latch scale in control group. The comparison of Initiation of breastfeeding in experimental group and control group data exhibits that mean LATCH breastfeeding score (8.10) was excellent in experimental group 8.10 as compared to control group which was 5.27. The association of latch breastfeeding with demographic variables reveals that demographic variable Age of mother and Gravida was found to have significant association with breast crawl.

The findings of the present study are supported by a similar study done by Sindhu Thomas (2018)⁷ to assess the Impact of Antenatal Counseling and Breast Crawl on Lactation Growth Development and Incidence of Common Infections among Infants reports that the LATCH breastfeeding assessment score was 8.33 with an SD of 0.837 where as in non-interventional group it was 4.06 with a SD of 1.643.

This study findings was substantiated by another study conducted by Righard and Alade (2012)⁸ revealed that initiation of breastfeeding of newborn by breast crawl was effective ($p < 0.001$).

Conclusion

Breast crawl is a very effective and evidence based practice to initiate early breastfeeding. It provides benefit to both the mother and the newborn. It can be a very useful strategy in reducing the neonatal and maternal morbidity and mortality. Breast crawl is cost effective and economical method and can be easily implemented with a small training. Every maternity facility should recommend breast crawl as a routine practice in their settings. And encourage the staff, mothers and families to go for natural birth with very minimal pharmacological interventions.

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Bibliography

1. Black R, Victora C, Walker S, Bhutta Z, Christian P, Onis M, et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet*. 2013;382(9890):427–51. [https://doi.org/10.1016/S0140-6736\(13\)60937-X](https://doi.org/10.1016/S0140-6736(13)60937-X).
2. Binns C, Lee M, Low WY. The long-term public health benefits of breastfeeding. *Asia Pac J Public Health*. 2016;28(1):7–14. <https://doi.org/10.1177/1010539515624964>.
3. <https://www.who.int/news-room/fact-sheets/detail/newborns-reducing-mortality>
4. Marchlewska-Koj, Anna; Lepri, John J.; Müller-Schwarze, Dietland (2012-12-06). *Chemical Signals in Vertebrates 9*. Springer Science & Business Media. p. 419. ISBN 9781461506713.
5. Moore ER, Bergman N, Anderson GC, Medley N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev*. 2016 Nov25; 11: CD003519.
6. Jenson, Wallace & Kelsay (1994). LATCH: A breastfeeding charting system and documentation tool. *JOGNN*, 23(1):29.
7. Thomas, S., Mohanty, N., & Dasila, P. (2018). Effect of breast crawl on initiation of breast feeding. *Manipal Journal of Nursing and Health Sciences*, 4(2), 1-5.
8. Righard L and Alade MO. Effect of delivery room routines on success of first breastfeed. *Lancet*. 336 (8723); 1990: 1105-7.