



## A Prospective Observational Study to Assess the Impact of Breastfeeding on Postpartum Pain After Vaginal and Cesarean Delivery Among the Multiparous Women in A Selected Hospital, Mangaluru.

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### ABSTRACT

Pregnancy is a time of joy and excitement. Most of the women are aware of the minor disorders during pregnancy, but they are unaware of the discomforts occurring after delivery. Aim: To assess the impact of breastfeeding on postpartum pain after vaginal and cesarean delivery among the multiparous women. Materials and methods: A prospective observational design study was conducted with a purpose to determine the impact of breastfeeding on postpartum pain. A simple random technique was used to recruit 60 multiparous women. The Numerical pain Rating Scale was administered to the 60 subjects and advised to mark perineal or incisional pain and cramping pain five minutes before, during and five minutes after each breastfeeding up to five breastfeed per day for three consecutive days in the diary. Simultaneously demographic and obstetric data, LATCH scale and medications chart were maintained by the investigator. Results: The findings of the study revealed that there was no significant difference in incisional pain or perineal pain but cramping pain was significantly increased during as compared with before or after breastfeeding in both the vaginal and cesarean delivery cohorts. Conclusion: cramping pain was significantly increased during as compared with before or after breastfeeding in both the vaginal and cesarean delivery cohorts.

### KEYWORDS

IMPACT; BREASTFEEDING; POSTPARTUM PAIN; VAGINAL AND CESAREAN DELIVERY

### Introduction

Breastfeeding is like a hike through the woods: Natural but not always simple. In fact it can be challenging, breathtaking and full of the unexpected.<sup>1</sup> Postpartum is a significant time for the mother, baby and family. As health practitioners, it is imperative that we are more attentive to the postpartum women that serving. Caring for the mother in a loving way will help to restore strength, vitality, muscle tone, mental clarity and an overall sense of wellbeing.<sup>2</sup>The mother adapting with the new baby is a long process. As the mother continues through their adaptation, both physically and physiologically, it is essential to have adequate knowledge regarding the impact of breastfeeding on postpartum pain.

### Objective

To determine the impact of breastfeeding on incisional, perineal and cramping pain after vaginal and cesarean delivery among the multiparous women.

### Hypothesis

The hypothesis will be tested in 0.05 level of significance.

**H1:** There is a significant difference in the postpartum pain score of multiparous women with normal vaginal delivery and cesarean delivery before, during and after breastfeeding.

### Method

A prospective observational study was conducted from 1<sup>st</sup> to 28<sup>th</sup> of February 2016. Multiparous women after vaginal and cesarean delivery were selected by simple random technique and they were grouped by lottery method for the three consecutive days. Along with baseline and obstetric data, LATCH score, Numerical Pain Rating score was assessed for three days

for five consecutive breastfeeds per day. The study was conducted in postnatal wards of the maternity unit.

**Data collection process:** The investigator obtained a formal written permission from the concerned authority of the hospital. The purpose of the study, method of data collection and time duration were explained to the subjects. An informed written consent was obtained from the respondent indicating their willingness to participate in the study. Multiparous women who met the inclusion criteria were instructed regarding the procedure. A diary consisted of baseline and obstetric data, LATCH scale, Numerical Pain Rating Scale and medications chart was administered to the 60 multiparous women 12 to 24 hours after vaginal delivery with episiotomy and 24 hours after cesarean delivery. The multiparous women were advised to mark perineal or incisional pain and cramping pain as any number between 1-10 according to the intensity of the pain 5 minutes before, during and 5 minutes after each breastfeeding up to five breastfeed per day for three consecutive days in the Numerical Pain Rating Scale consisted in the diary. Simultaneously demographic and obstetric data, LATCH scale and medications chart in the diary were maintained by the investigator. The time taken for the completion of the diary on assessment of postpartum pain was three days.

### Results

The obtained data was analyzed using repeated measures of ANOVA and paired t-test.

**Section I:** Assessment of perineal pain, incisional pain and cramping pain among the multiparous women after vaginal and cesarean delivery were analyzed using repeated measures of ANOVA. It shows that there was no significant difference in

the perineal pain and incisional pain score five minutes Before, During and five minutes After breastfeeding ( $p > 0.05$ ) and there was a gradual decrease in the mean score of perineal pain and incisional pain from 1<sup>st</sup> to 15<sup>th</sup> feed. It also suggests that there was a significant difference in the cramping pain 5 minutes Before, During and 5 minutes After breastfeeding among the normal vaginal delivery and cesarean delivery cohorts in all the 5 feeds per day for 3 days ( $p = .001$ ). The mean score of cramping pain were more During breastfeeding in comparison to the five minutes Before and five minutes After breastfeeding.

**Section II:** Impact of breastfeeding on perineal pain, incisional pain and cramping pain were analyzed using Paired t- test.

**Table 1** depicts that the mean score of perineal pain and incisional pain among the multiparous women after Normal Vaginal Delivery and Cesarean Delivery 5 minutes Before breastfeeding from 1<sup>st</sup> day was higher than the after feed of 15<sup>th</sup> feed on 3<sup>rd</sup> day. The p value was  $< 0.05$  level at  $t_{(29)}$ . The null hypothesis H0 there is no significant difference in the postpartum pain score of multiparous with Normal Vaginal Delivery and Cesarean Delivery Before, During and After breastfeeding was rejected and the research hypothesis (H1) was accepted and inferred that there is a significant difference in the perineal and incisional postpartum pain of multiparous with Normal Vaginal Delivery and Cesarean Delivery Before, During and After breastfeeding. The mean score of cramping pain among the multiparous women with Normal Vaginal Delivery and Cesarean Delivery 5 minutes before breastfeeding from 1<sup>st</sup> day was higher than the after feed of 15<sup>th</sup> feed on 3<sup>rd</sup> day. The p value was  $> 0.05$  level at  $t_{(29)}$ . The null hypothesis H0 there is no significant difference in the postpartum pain score of multiparous with Normal Vaginal Delivery and Cesarean Delivery Before, During and After breastfeeding, was accepted and the research hypothesis (H1) was rejected and inferred that there is no significant difference in the cramping postpartum pain of multiparous with Normal Vaginal Delivery and Cesarean Delivery Before, During and After breastfeeding.

**Discussion**

The findings of the study was congruent to a prospective observational study where the perineal pain was significantly increased after breastfeeding and cramping pain was significantly increased during as compared with before and after breastfeeding.<sup>3</sup>The findings similar to a randomized, placebo-controlled, double-blinded study where the effect of analgesics reduces the intensity of cramping pain.<sup>4</sup> Another prospective cohort study where it shows that the cesarean delivery was associated with higher levels of pain, more unpleasant pain, more lateralized pain than normal vaginal delivery.<sup>5</sup>So the investigator assumed that oxytocin surge during breastfeeding is more which increases cramping pain than five minutes before breastfeeding and five minutes after breastfeeding.

**Conclusion**

The following conclusions were made based on the findings of the study:

The breastfeeding had an impact on perineal pain among Normal Vaginal Delivery women and incisional pain among Cesarean Delivery women from 1<sup>st</sup> before feed to after feed of 15<sup>th</sup> feed. Breastfeeding gradually reduces the postpartum pains of the women as number of feeds continues in a day.

Cramping pain was significantly increased during breastfeeding as compared with before and after breastfeeding in both the vaginal and cesarean delivery cohorts, though there was no difference between five minutes before 1<sup>st</sup> feed and five minutes after last feed.

**Table 1: Impact of breastfeeding on perineal pain, incisional pain and cramping pain among the multiparous women after Normal Vaginal Delivery and Cesarean Delivery N=30**

	Before 1 <sup>st</sup> feed	After 15 <sup>th</sup> feed	Mean difference	t	P
	Mean ± SD	Mean ± SD			
<b>Women</b>					
<b>Normal Vaginal Delivery</b>					
<b>Perineal pain</b>	2.1 ± .50	.26 ± .44	1.86	17.8	.001*
<b>Cramping pain</b>	.40 ± .67	.20 ± .40	.20	1.98	.056
<b>Cesarean Delivery</b>					
<b>Incisional pain</b>	4.63 ± .80	2.96 ± .31	1.66	12.83	.00*
<b>Cramping pain</b>	.30 ± 1.11	.16 ± .37	.13	.59	.55

$t_{(29)} = 2.05$   
 $p < 0.05$  level of significance

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