



## A Comparative Study to Evaluate the Effectiveness of Crushed Ice Pack Application and Sitz Bath on Episiotomy Pain and Wound Healing Among Postnatal Mothers

A. Pratheepa<sup>1</sup>, D. Lalithamani<sup>2</sup>, K. Revathi<sup>3</sup>, N. Kannimozhi<sup>4</sup>

<sup>1</sup>Lecturer, SNS College of Nursing, Coimbatore.

<sup>2</sup>Associate Professor, SNS College of Nursing, Coimbatore.

<sup>3</sup>Assistant Professor, SNS College of Nursing, Coimbatore.

<sup>4</sup>Lecturer, SNS College of Nursing, Coimbatore.

\*Corresponding author's: A. Pratheepa

Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 14 Dec 2023	<p>An episiotomy is an incision made in the perineum- the tissue between the vaginal opening and the anus during child birth. Pain at the episiotomy site is more distressing for the mother during postnatal period. An ice pack application or warm shallow bath (sitz bath) may increase comfort and promotes healing. The main aim of this present study was to compare the effect of Crushed ice pack application and Sitz bath on episiotomy pain and wound healing among postnatal mothers. A Matched group design was adopted in this study. By using Non probability purposive sampling technique 22 postnatal mothers with episiotomy were selected as samples at Ramakrishna Hospital, Coimbatore and 11mothers were assigned randomly to each group I and group II. Episiotomy pain was assessed by using Numerical Pain Intensity scale and Wound healing was assessed by using Davidson REEDA scale. Group I received crushed ice pack application and Group II received sitz bath. Intervention was given for 10 minutes twice a day for three consecutive days from first postnatal day. Data were analysed by using descriptive and inferential statistical methods. The statistical analysis revealed that the calculated mean scores of episiotomy pain in the group I and group II was 1.72 and 2.9 respectively and the mean difference is 1.2 with the standard deviation of group I and group II was 0.64 and 0.53 respectively. The calculated 't' value 11.3 was greater than the table value of 2.086 at 0.05 level of significance. The calculated mean scores of episiotomy wound healing in the group I and group II was 1.54 and 1.81 respectively and the mean difference is 0.27 with the standard deviation of group I and group II was 0.5 and 0.6 respectively. The calculated 't' value 2.6 was greater than the table value of 2.086 at 0.05 level of significance. Finally, the study concluded that the crushed ice pack application was more effective than sitz bath in reducing the level of episiotomy pain and promotes wound healing among postnatal mothers.</p>
CC License CC-BY-NC-SA 4.0	<b>Keywords:</b> Crushed ice pack application, Sitz bath, Episiotomy pain, Episiotomy wound healing, Postnatal mothers.

### 1. Introduction

Labour is defined as a series of events that takes place in the genital organs in an effort to expel the viable products of conception out of the womb through the vagina into the outer world. (Pillitteri, 2010). The events of labour are divided into four stages. From these stages of labour process particularly in the second stage of labour the mother experiences one of the most profound changes in their lives. During second stage (pushing) the perineum plays a vital role in the birth of the baby. (Joy, 2013)

Episiotomy is done to enlarge the vaginal introitus to facilitate easy and safe delivery of the foetus, minimize overstretching, rupture of perineal muscles and fascia. (Jocab, 2008) Episiotomy is a common surgical procedure performed during second stage of labour. This is to widen the perineum and prevent severe perineal tears (Dutta, 2004).

### Need For the Study

Worldwide, the incidence of episiotomy was ranged from 20% to 62.5%. The World Health Organization (WHO) recommends an episiotomy rate of 10% for normal deliveries (Mohamed and El-Nagger, 2012). The application of an ice pad for twenty minutes on episiotomy wound of primiparous mothers can be effective in reducing perineal pain and in improving the wound healing (Senol and Aslen, 2017; Wilbert, 2017). A sitz bath or hip bath is a bath in which a person sits in water up to the hips. Sitz bath is one of the oldest, cheapest and safest treatments for curing many common ailments. (Potter and Perry, 2001) Therefore, this study compares the efficacy of cold application and sitz bath for relieving Episiotomy pain and possibly increasing mothers' comfort in the early postpartum period after vaginal delivery and improving independent nursing practices.

### **Statement Of the Problem**

A Comparative Study to Evaluate the Effectiveness of Crushed Ice Pack Application Vs Sitz Bath on Episiotomy Pain and Wound Healing among Postnatal Mothers at Selected Hospital, Coimbatore.

### **Objectives Of the Study**

1. To assess the level of episiotomy pain among postnatal mothers.
2. To assess the episiotomy wound healing among postnatal mothers.
3. To compare the effect of Crushed ice pack application and Sitz bath on episiotomy pain among postnatal mothers.
4. To compare the effect of Crushed ice pack application and Sitz bath on episiotomy wound healing among postnatal mothers.
5. To find out the association between episiotomy pain and wound healing with selected variables of postnatal mothers.

### **Hypotheses**

**H<sub>1</sub>:** There is a significant difference in the level of episiotomy pain in group I and group II after crushed ice pack application and sitz bath.

**H<sub>2</sub>:** There is a significant difference in the level of episiotomy wound healing in group I and group II after crushed ice pack application and sitz bath.

## **2. Materials And Methods**

### **Research approach:**

Quantitative research approach was adopted for this study

### **Research Design:**

Matched group experimental design was adopted in this study.

### **Research setting:**

The study was conducted in postnatal ward of Sri Ramakrishna hospital Coimbatore.

### **Population:**

Postnatal mothers who have undergone normal vaginal delivery with episiotomy at Sri Ramakrishna Hospital, Coimbatore during the study period.

### **Sampling technique:**

Non probability purposive sampling technique was adopted.

### **Sample size:**

Total 22 patients were selected for this study.

### **SAMPLING CRITERIA**

#### **Inclusion criteria**

- Primi and multiparous postnatal mothers with episiotomy.

#### **Exclusion criteria**

- Mothers who were diagnosed to have gestational diabetes mellitus.
- Postnatal mothers who have not given consent were excluded from the study.

## Data Collection Procedure

Purposive sampling technique was used to select the samples. 22 mothers with episiotomy were selected and assigned alternatively into group I and group II. Group I received Crushed ice pack application and group II received Sitz bath which was given twice a day for three consecutive days. Level of episiotomy pain was assessed immediately after each intervention in both the groups by using Numerical Pain Intensity Scale. Level of Episiotomy wound healing was assessed before intervention in first postnatal day and after intervention in third postnatal day by using Davidson REEDA scale.

### Section -I

**Table 1:** Demographic and obstetrical profile of postnatal mothers (n = 22)

S.NO	VARIABLES	NUMBER OF PATIENTS			
		Experimental group (n=30)		Control group (n=30)	
		Frequency	Percentage %	Frequency	Percentage %
1	Age in years				
	20-25	3	27	5	45
	26-30	7	64	5	45
	31-35	1	9	1	10
2	Educational				
	HSC	1	9	1	9
	Graduate	8	73	8	73
	Postgraduate	2	18	2	18
3	Religion				
	Hindu	10	90	10	90
	Muslim	1	10	1	10
4	Monthly income				
	20000-40000	2	18	4	37
	40001-60000	8	73	5	45
	60001-80000	1	9	2	18
5	Gravida				
	Primigravida	6	55	8	73
	Multigravida	5	45	3	27
6	Indication of episiotomy wound				
	Maternal exhaustion	7	64	8	73
	Shorten of 2 <sup>nd</sup> stage of labour	4	36	3	27
7	No of episiotomy sutures				
	5 sutures	2	18	1	10
	6 sutures	5	45	4	36
	7 sutures	3	27	4	36
	8 sutures	1	10	2	18
8	Types of episiotomies wound				
	Right medio lateral	7	64	5	45
	Left mediolateral	4	36	6	55

### Section -II

**Table 2** Comparison on Level of Episiotomy Pain in Group I and Group II after the Application of Crushed Ice Pack and Sitz Bath among Postnatal Mothers

S. No	Experimental Group	Mean	Standard Deviation	Mean difference	Calculated 't' Value	Table Value
1	Group I	1.72	0.64	1.2	11.3 ***	2.086
2	Group II	2.9	0.53			

\*\*\*significant at 0.001 level

### Section -III

**Table 3** Comparison on Level of Episiotomy wound healing in Group I and Group II after the Application of Crushed Ice Pack and Sitz Bath among Postnatal Mothers

S. No	Experimental Group	Mean	Standard Deviation	Mean difference	Calculated 't' Value	Table Value
1	Group I	1.54	0.5	0.27	2.6	2.086
2	Group II	2.9	0.53			

\*\*\*significant at 0.001 level

### 3. Results and Discussion

#### Comparison on level of episiotomy pain in group I and group II after application of crushed ice pack and sitz bath

The mean episiotomy pain score of Group I was 1.72 and group II was 2.9 with the standard deviation of 0.64 and 0.53 respectively with mean difference of 1.2. The calculated value was 11.3 which was more than the table value. Hence it showed that crushed ice pack application was effective in reducing episiotomy pain than sitz bath among postnatal mothers.

A Quasi -Experimental Study conducted by Wilbert, (2015) to compare to evaluate the effectiveness of cold application and sitz bath among 30 postnatal mothers. An application of Cold gel pad therapy in experimental group I and Infra-red-light therapy in experimental group II on episiotomy wound healing and pain for three days. The results showed that, the application of Cold gel pad therapy was found to be an effective. ( $p < 0.05$ ).

### 4. Conclusion

The mean episiotomy wound healing of group I was 1.54 and group II was 1.81 with the standard deviation of 0.5 and 0.6 respectively with mean difference of 0.27. The calculated value was 2.6 which was more than the table value. Hence it showed that crushed ice pack application was effective in promoting episiotomy wound healing than sitz bath among postnatal mothers.

### References:

1. Dutta.D.C., (2004).” Textbook of Obstetrics”, (4thed). Calcutta: New central book agency. Pg 568-571
2. Jacob A.A Comprehensive Text Book of Midwifery. 2nd edition, New Delhi, Jaypee Brothers Medical Publishers; 2008. 149-152
3. Joy, (2013) Retrieved on 15 March at <http://thejoyofthis.com/2013/03/15/birthsensations-and-protecting-the-perineum-through-it-all>.
4. Mohamed HA., & El-Nagger NS, (2012) Effect of self-perineal care instructions on episiotomy pain and wound healing of postpartum women, Journal of American science,8(6) 640-650
5. Pillitteri A. Maternal and child bearing & child rearing family. 6th edition. Philadelphia, Wolters Kluwer Lippincotts; 2010; P.429-430.
6. Potter PA, Perry AG. Fundamentals of Nursing. 5th edition. New Delhi, Published by Harcourt (India) Private Ltd.; 2001. P.1593.
7. Senol Dk & Aslan E (2017) The effects of cold application to the perineum on pain relief after vaginal birth, journal of Asian nursing research
8. 08.Wilbert C J, (2017) Effectiveness of cold gel pad therapy versus Infra-red-light therapy on episiotomy pain and wound healing process among postnatal mothers at selected hospital, Madurai, International journal of sciences and research (IJSR)6(3) ISSN (online): 2319-7064