

# A Study to Assess the Effectiveness of Betadine Sitz Bath on Perineal Injury and Vaginal Tear among Post-Natal Mothers at SMVMCH, Puducherry

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**Abstract:** *Background:* The aim of this study was to estimate the incidence of second-degree perineal tears, obstetric anal sphincter injuries (OASI), and high vaginal tears in primiparous women. The pregnancy characteristics, hereditary factors, obstetric management and delivery process are associated with the incidence of perineal injury and vaginal tears. *Methods:* True-experimental design (posttest only without control group design) was adopted for this study by using purposive sampling technique was selected, sample size was 30 postnatal mothers with perineal injury and vaginal tear were selected from the postnatal ward. The data collection periods were six weeks. Investigator selected a post-natal mother with perineal injury and vaginal tear for assessing the episiotomy wound by REEDA scale and NUMERICAL pain scale *Results:* In Post-test shows moderate 24 (80%) and mean post-test score  $p$  value  $<0.005$  level of significant. The data shown that, the level of pain score calculated “ $r$ ” value of 0.531, “ $p$ ” value of 0.002. Shown highly statistically significant different in effectiveness on betadinesitz bath among postnatal mothers. The correlation between pain and level of perineal wound injury was calculated by “ $p$ ” value of  $p=0.002$ . *Conclusion:* The study shows that betadinesitz bath was effective in episiotomy wound healing among postnatal mothers with perineal injury and vaginal tear.

**Keywords:** obstetric anal sphincter injuries (OASI), REEDA scale and NUMERICAL RATING scale

## 1. Introduction

The perineum is the area of skin between the opening of the vagina and the anus. It is typically between 2 to 5 centimeters long. The perineum connects with the muscles in the lower pelvis (referred to as the pelvic floor muscles). An episiotomy is a surgical incision in the perineal region performed during detachment of the fetal head, to prevent extensive vaginal tears, and involves incision of muscles of the perineal body, mucosa and skin.

**First-degree tear:** The least severe of tears, this small injury involves the first layer of tissue around the vagina and perineal area.

**Second-degree tear:** This second level of this injury is actually the most commonly seen tear during childbirth. The tear is slightly bigger here, extending deeper through the skin into the muscular tissue of the vagina and perineum.

**Third-degree tear:** A third-degree tear extends from your vagina to your anus. This type of tear involves injury to the skin and muscular tissue of the perineal area, as well as damage to the anal sphincter muscles. These muscles control your bowel movements.

**Fourth-degree tear:** This is the least common type of tear during childbirth. Extending from the vagina, through the perineal area and anal sphincter muscles and into the rectum, this injury is the most severe type of tear. During childbirth, several women may have trauma to the perineum, a large part of them come to the maternity ward to give birth for the first time, and perineal tears are the most common

complications during pregnancy.

**The World Health Organization (WHO) recommends** values between 10% and 30%. According to the Royal College of Obstetrics and Gynecology, 9 out of 10 mothers will have a perineal tear. A sitz bath or hip bath is a bath in which a person sits in water up to the hips. It is used to relieve discomfort and pain. The term sitz bath is derived from the German word Sitz bath, meaning a bath (Bad) in which one sits. Sitz baths may either be warm or cool. Warm baths are recommended for reducing the itching, pain and discomfort. An ordinary bathtub can be filled with 3 to 4 inches (7.6 to 10.2cm) of hot water about 110°F (43°C) and sat in for 15–20 minutes or until the water cools down. Sitz bath is one of the easiest and more effective ways to ease pain. lessen discomfort associated with a painful condition in the pelvic area.

### Aim of the study

The aim of the study to assess the effectiveness of betadine sitz bath on perineal injury and vaginal tear among postnatal mothers.

### Objectives:

- To assess the conditions of episiotomy wound among postnatal mother's.
- To assess the effectiveness of betadinesitz bath on perineal injury and vaginal tear among postnatal mothers.
- The find out the association between the level of perineal injury and vaginal tear among postnatal mothers with their selected demographic and obstetrics variables.

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**Hypotheses**

- **H1:** There will be significant difference between the post test scores by betadinesitz bath on perineal injury and vaginal tear among post-natal mothers.
- **H2:** There will be significant association between the mean post test score on betadinesitz bath on perineal injury and vaginal tear among post-natal mothers with their selected demographic variables.

**2. Methodology****Approach**

A Quantitative approach

**Research Design**

True experimental design (Post-test only, without control group) design.

**Research Setting:**

The study will be conducted in postnatal ward in Sri Manakula Vinayagar Medical College and Hospital, Puducherry. It's consists of 1050 - bedded hospital in Puducherry.

Selected for the study on the basis of.

- Feasibility of the conducting the study.
- Availability of the sample.

**Tool Description:**

The tool was designed into three sections.

**Section-I**

To assess the demographic variables, it comprised of age, religion, educational status, occupation, family income, type of family, residency.

**Section -II**

Baseline Perform which comprise of items for obtaining obstetrical variables of postnatal mothers like Gravida, type of episiotomy, length of episiotomy, duration of labour, infant birth weight, degree of tear, mode of delivery and fetal presentation.

**Section – III**

The wound score was assessed by REEDA SCALE and NUMERIC RATING SCALE. The wound score system includes wound healing of perineal and vaginal tear, was assessed by redness, edema, ecchymosis, discharge, and approximation of wound healing.

**Scoring Interpretation**

The scoring from 0-3 and it is used to assess the wound healing.

- 0 - None
- 1 - Mild
- 2 - Moderate
- 3 - Severe

**The level of wound healing was interrupted as follows:**

Observational checklist of REEDA Scale is scored as good

healing -0, mild healing 1-5, moderate healing 6-10 and poor healing 11- 15.

**Table 1:** Level of wound healing

Level of Infection	Score	Percentage%
Good Healing	0	0
Mild Healing	1-5	7-33
Moderate Healing	6-10	34-66
Poor healing	11-15	67-100

**Numeric Rating Scale:**

**The level of pain was interrupted as follows.**

Observational checklist of NUMERIC RATING Scale is scored as no pain-0, mild pain 1-3, moderate pain: 4-7 and severe pain: 8-10.

**Score**

- 0 : No pain
- 1- 3 : Mild pain
- 4-6 : Moderate pain
- 7-10 : Severe pain

**Data Collection Procedure**

The data collection done with the permission obtained from authorities of research committees. 30 postnatal mothers were selected by using purposive sampling techniques and according to the inclusion and exclusion criteria, investigator introducing herself and explain the purpose of the study. The tool consists of demographic variables, obstetrical variables, REEDA scale and NUMERICAL RATING scale were administered to respondents data was collected.

**3. Results and Discussion**

Frequency and percentage wise distribution of demographic variable shows that the proportion of the postnatal mother were age group of 18- 25 years (43.3%). Most of the postnatal mother was Hindu 20 (66.7%). Most of the postnatal mother was residence 16(53.3%). majority of the mothers were type of the family 19 (63.3%). Majority of the mother's income of the family 17 (56.7%). most of mothers completed graduate 13 (43.3) in education.

**Table 2:** Frequency and percentage wise distribution to assess the effectiveness of betadinesitz bath on perineal injury and vaginal tear by using NUMERICAL pain scale among postnatal mothers

Level of pain	Post test	
	f	%
No pain	0	0
Mild	0	0
Moderate	24	80
Severe	6	20
Overall	30	100

Table-5 shows that frequency and percentage of wise distribution of level of pain by using betadine sit bath. In posttest majority of the postnatal mother's was moderate pain 24 (80%), severe pain 6(20%) and overall, 30(100%) respectively.

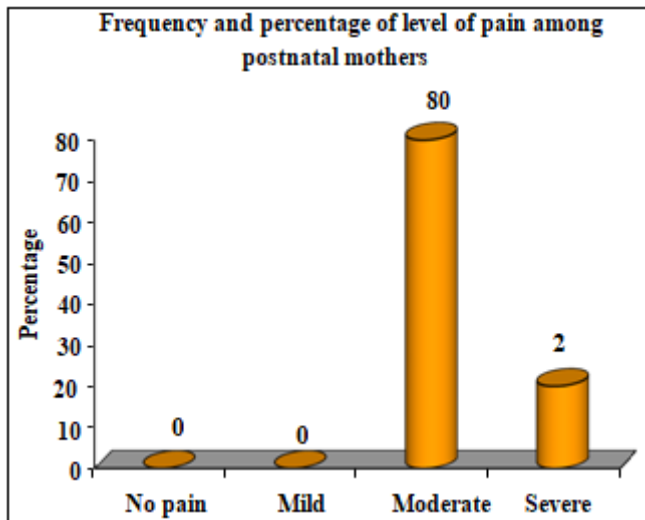


Figure 1

Table 3: Frequency and percentage wise distribution to assess the effectiveness of betadinesitz bath on perineal injury and vaginal tear by using REEDA scale among postnatal mothers

Episiotomy wound. Healing	Post test	
	f	%
Good healing	2	6.7
Mild healing	28	93.3
Moderate healing	1	0
Poor healing	0	0
Overall	30	100

Table -3 show the frequency and percentage wise distribution of wound healing in mild 28 (23.3%), good wound healing was 2(6.7%)

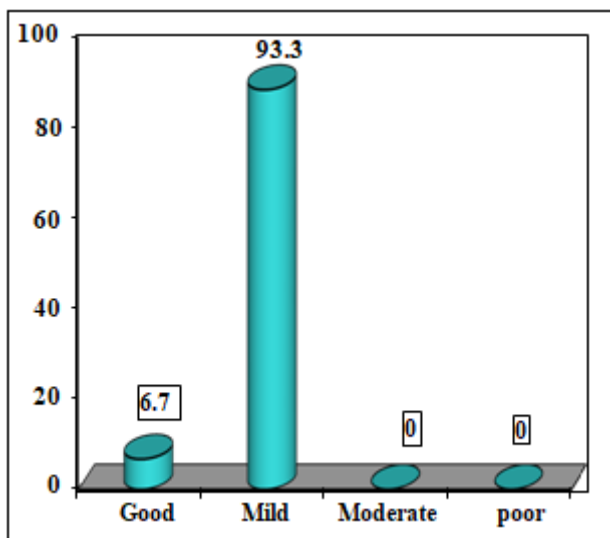


Figure 2: Frequency and percentage wise distribution to assess the effectiveness of betadine sitz bath on perineal injury and vaginal tear REEDA SCALE among post-natal mothers

Table 4: Correlation between numerical pain scale and episiotomy wound healing

	r value	p-value
Level of pain and level of Perineal Wound healing	0.531	0.002**(HS)

Table-4: displayed that the calculated “r” value in posttest was 0.531 and p-value is 0.002. Which is highly significant in correlation of episiotomy wound healing and level of pain among post-natal mothers.

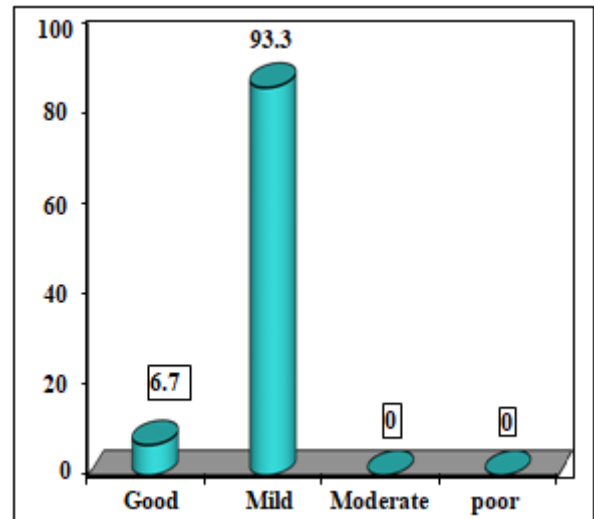


Figure 3: Frequency and percentage wise distribution to assess the effectiveness of betadine sitz bath on perineal injury and vaginal tear REEDA SCALE among post-natal mothers

Table 5: Correlation between Numerical Pain Scale and Episiotomy Wound Healing

	“r” value	p-value
Level of pain and level of Perineal Wound healing	0.531	0.002**(HS)

Table- 5: displayed that the calculated “r” value in posttest was 0.531 and p-value is 0.002. Which is highly significant in correlation of episiotomy wound healing and level of pain among post-natal mothers.

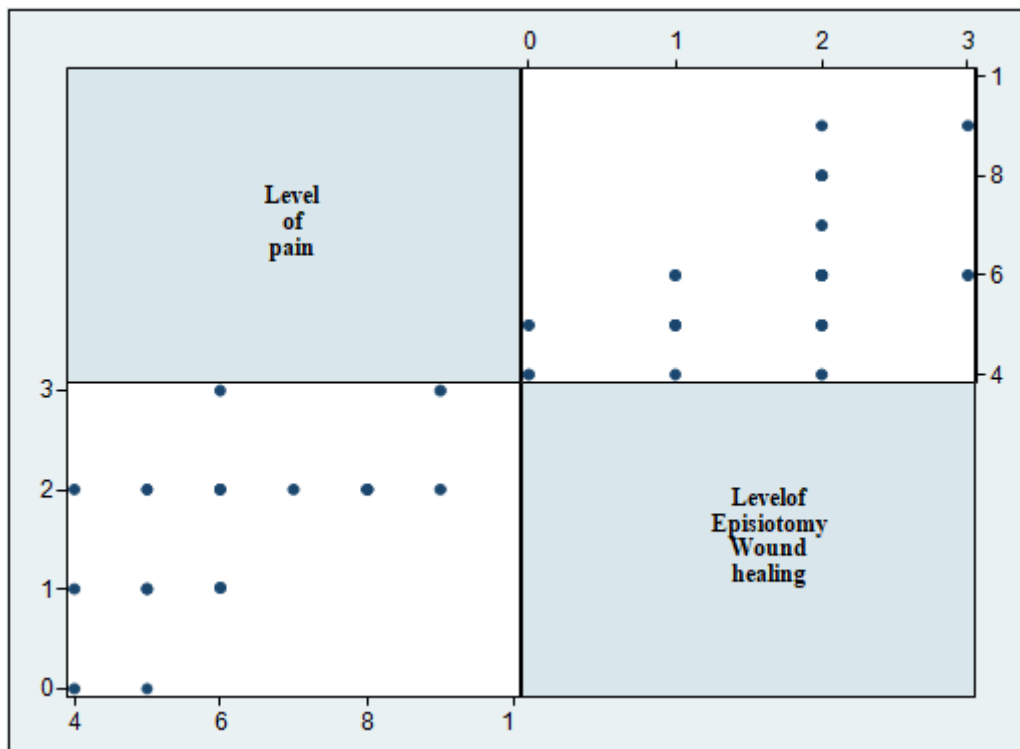


Figure 4: Correlation between pain and episiotomy wound healing

#### 4. Conclusion

The true-experimental research design was selected for this study, shows that betadinesitz bath was effective in episiotomy wound healing among postnatal mothers with perineal injury and vaginal tear.

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