

## A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF NORMAL SALINE DRESSING AND BETADINE SITZ BATH ON EPISIOTOMY WOUND HEALING AND EPISIOTOMY RELATED COMFORT AMONG PRIMIPARA MOTHERS IN SELECTED HOSPITAL AT ERODE DISTRICT

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### ABSTRACT

**Aim:** A comparative study to assess the effectiveness of normal saline dressing and betadine sitz bath on episiotomy wound healing and episiotomy related comfort among primipara mothers in selected hospital at Erode District.

**Methods:** The investigator adopted quantitative approach with Time series design with multiple institution treatment was used for this study. This design measures the effect on the experimental group, based on their state before the beginning of the experiment (pretest) and the difference achieved at the end of the experiment (posttest). There is no control group in this design. In this method pretest was assessed after 2hours of vaginal delivery and post test was assessed on the 24hrs, 48hrs and 72 hrs of intervention. Quasi experiments are like true experiments that involve an intervention. This design lack randomization, the signature of a true experiment. The signature of a quasi experimental design is an intervention is the absence of randomization. Time series with multiple institution of treatment is useful when the researcher wants to measure the effects of a treatment over a long period of time.

**Results:** The study reveals that level of wound healing was improved in pre test and post test group. It was found that there was significantly high improvement in wound healing after Normal saline dressing and Betadine sitz bath in the post test group. the calculated “t” value in experimental group-I was 32.450, which is greater than table value  $p < 0.001$ , and for experimental group-II the calculated “t” value was 30.476, which is greater than table value  $p < 0.001$ .

**Conclusion:** This definitely shows that Normal saline dressing is more effective than Betadine sitz bath in improving episiotomy wound healing among primi mothers.

**Keywords:** normal saline dressing, betadine sitz bath, episiotomy wound healing, primipara mothers

### INTRODUCTION

Pregnancy is wonderful and very joyful experience in all the women’s life. Becoming pregnant and giving birth to a baby is a wonderful moment and feeling of satisfaction and accomplishment in her

life.

Pregnancy, also known as gestation, is the time during which one or more offspring develops inside a woman. Childbirth typically occurs around 40 weeks from the start of the last menstrual period (LMP). A multiple pregnancy involves more than one offspring, such as with twins.<sup>3</sup> Pregnancy can

occur by sexual intercourse or assisted reproductive technology. This is just over nine months, where each month averages 31 days. When measured from fertilization it is about 38 weeks.

### NEED FOR THE STUDY

According to **WHO**, the number of normal delivery rate was very high 30-72% per 1000 births. The risk of perineal infections ranges from 2.8 % to higher than the 18%, The risk of infection can be high as 20 %. The world health organization has taken a clear stand against routine practice of episiotomy. The episiotomy infections are preventable and can be reduced by practicing clear delivery and post-natal care. Midwives have an important role in the care of episiotomy wound after child birth.

In the present situation, cost of medical treatment is a major issue influencing the patient and his treatment. Nowadays the medical insurance companies have started playing a major role in decision making regarding the treatment. Use of normal saline would be cost effective, easy to prepare, readily available and least damaging agent, as the healing occurs without local antibiotics or disinfectants. It does not alter the normal bacterial flora of the skin and has no effect on blood flow in capillaries and on collagen. It is not irritating or harmful to the mucous membrane and it acts as a palliative agent to aid granulation

### STATEMENT OF THE PROBLEM

A comparative study to assess the effectiveness of normal saline dressing and betadine sitz bath on episiotomy wound healing and episiotomy related comfort among primipara mothers in selected hospital at Erode District.”

### OBJECTIVES

- To assess the pre assessment level of healing of episiotomy wound among postnatal mothers in both experimental group I and experimental group II.
- To assess the post assessment level of healing of episiotomy wound among postnatal mothers in both experimental group I and experimental group II.
- To compare the pre assessment and post assessment level of healing of episiotomy wound among postnatal mothers in both experimental group I and experimental group II.
- To associate the post assessment level of healing of episiotomy wound among postnatal mothers with selected demographic variables.

### RESEARCH HYPOTHESES

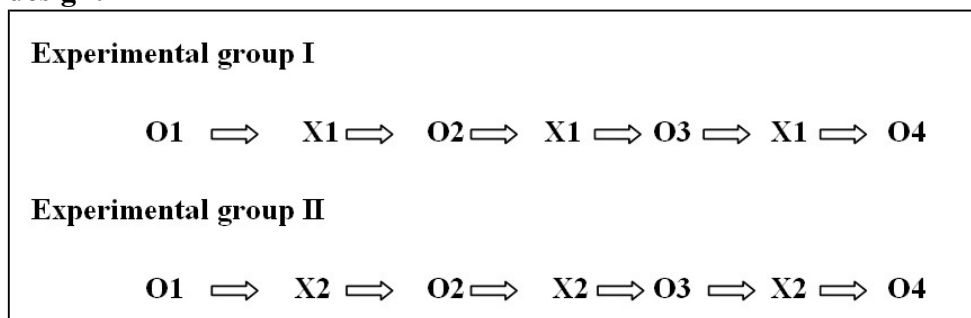
**H<sub>1</sub>**- There will be significant difference in the pre assessment and post assessment level of healing of episiotomy wound among postnatal mothers in experimental group I

**H<sub>2</sub>**-There will be significant difference in the pre assessment and post assessment level of healing of episiotomy wound among postnatal mothers in experimental group II

**H<sub>3</sub>**- There will be significant association in the post assessment level of healing of episiotomy wound among postnatal mothers with their selected demographic variables

### RESEARCH APPROACH

Quasi Experimental, Time series design with multiple institution treatment was used for this study.

**Time series design:**

Where,

$O_1$  – Pretest

$O_2, O_3, O_4$  - Post test Observations

$X_1$  – Intervention (Normal Saline Dressing)

$X_2$  – Intervention (Betadine Sitzbath)

**SETTING OF THE STUDY**

The study was conducted in the obstetrics and gynecology ward of Care 24 Medical Center and Hospital, Erode.

**VARIABLES OF THE STUDY**

**Dependent variable:** Episiotomy pain and wound healing.

**Independent variable:** Normal Saline Dressing and Betadine Sitzbath.

**STUDY POPULATION**

The population selected for this study was postnatal mothers admitted in postnatal ward.

**SAMPLE AND SAMPLE SIZE**

Total sample composed of 60 Primi postnatal mothers who had undergone episiotomy, fulfilling the selection criteria from Care 24 Medical Center and Hospital at Erode. The sample was divided in to two groups. Among them 30 samples were assigned to experimental Group I, remaining 30 samples were assigned to experimental Group II.

**SAMPLING TECHNIQUE**

Convenient sampling technique

**CRITERIA FOR SAMPLE SELECTION**

The sample was selected based on the following inclusion and exclusion criteria.

**Inclusion Criteria**

1. Primi postnatal mothers
2. Postnatal mothers with episiotomy
3. Postnatal mothers who are willing to participate
4. Postnatal mothers who are present during the time of study

**Exclusion Criteria**

5. Postnatal mothers who are seriously ill
6. Postnatal mothers with both episiotomy and Perineal tear
7. Postnatal mothers with puerperal infection
8. Postnatal mothers who have obstetric complications like GDM and PIH etc.

## RESEARCH TOOL AND TECHNIQUE

The method and procedures employed for the collection of data are called technique and instrument used are called tool. The tool consists of two sections.

### Section - A: Demographic profile

To assess the demographic profile, the structured interview schedule was used. It comprised of demographic data of episiotomy wound healing such as age, educational status, occupation, family income, religion, gravida, mode of delivery, type of family. No score was given to this demographic profile. The data was used for descriptive statistics.

### Section - B: REEDA scale as assessment of episiotomy wound healing.

REEDA acronym is used as a nursing tool when evaluating an episiotomy wound which is invented by **Nancy Davidson – (1974)**. REEDA stands for **Redness**, **Edema**, **Ecchymosis** (purplish patch of blood flow), **Discharge**, and **Approximation** (closeness of the skin edges). This tool is used to assess healing based on a 3 point scale; a score of 3 signifies an assessment of very poor wound healing.

## CONTENT VALIDITY

The content validity of the tool was corrected by five experts (4 nursing experts and 1 medical expert). There was no change made in the standardized tool.

## RELIABILITY

The reliability of REEDA scale was assessed by inter-rater reliability method and Karl Pearson co-efficient formula. The tool was found to be reliable (0.83).

## DATA COLLECTION PROCEDURE

Before starting the study the investigator obtained written permission to conduct the study from the hospital authority as well as from unit chief and ward in-charge staff. Data collection was done within the given period of 4 weeks. The researcher personally explained the purpose of the study and established good rapport with the post natal mothers before giving the intervention assured confidentiality. The data was collected from each sample as follows: First, the sample was selected according to the convenience of the researcher into two groups. As a pre assessment, the researcher assessed the level of episiotomy wound status using REEDA scale in both groups. For the experimental group I, the episiotomy wound was cleaned with sterile gauze dipped into normal saline solution from forchette to anus three times with different sterile gauze. Repeat the procedure for twice a day for three days at 8 hours of interval. By the end of the third day, immediately after the intervention, assess the level of healing of the episiotomy wound by REEDA scale.

For the experimental group II betadine sitzbath filled two third (4 liters) of the sitz basin with clean hot water and added with 5-6 drops of 10% betadine solution. The temperature of the water is 105<sup>0</sup>F to 110<sup>0</sup>F and is checked with lotion thermometer. Place the sitzbath basin on toilet commode. Instruct

the mother to empty her bladder and clean the perineal area from front to back manner before sitzbath. Immersed the Perineal area into the basin for 20 minutes duration. It should be administered 2 times a day in every morning and evening with 12 hours interval and the level of healing of episiotomy wound is assessed with the help of REEDA scale

The mean pre assessment and post assessment scores of experimental group I and experimental group II are compared for the effectiveness. The above said procedure was done in three phases.

### Phase – I

The researcher assessed the pre assessment level of healing of episiotomy wound by using REEDA scale in both experimental group I and experimental group II.

### Phase - II

For experimental group I the researcher applied the normal saline on episiotomy wound twice in a day at the interval of 8 hours for three days. In experimental group II the researcher applied betadine sitzbath twice a day at the interval of 12 hours for three days given by the researcher.

### Phase - III

In experimental group I and experimental group II the researcher assessed the post assessment level of healing of episiotomy wound by the end of 3<sup>rd</sup> day immediately after the last intervention by using REEDA scale.

## ORGANISATION OF THE DATA

Data collected were organized under the following sections.

9. **Section A:** Frequency and percentage distribution of demographic variables and obstetrical variables among the postnatal mothers.
10. **Section B:** Comparison of the pre test and post test level of wound healing scores among postnatal mothers in experimental group –I.
11. **Section C:** Comparison of the pre test and post test level of wound healing scores among postnatal mothers in experimental group –II.
12. **Section D:** Association between post test level of wound healing scores among mothers in experimental group-I and experimental group- II with their selected demographic variables.

### SECTION - A:

**Table – 1: Frequency and percentage distribution with postnatal mothers in experimental group I and II (N= 30)**

S. No	Demographic Variables	Experimental Group-I		Experimental Group-II	
		N	%	N	%
1.	Age				
	a. 18 to 21 years	06	20.0	08	26.7
	b. 22 to 25 years	14	46.6	14	46.6
	c. 26 to 29 years	09	30	06	20

	d. Above 29 years	01	3.4	02	6.7
<b>2.</b>	<b>Religion</b>				
	a. Hindu	13	43.3	13	43.3
	b. Christian	10	33.3	12	40.0
	c. Muslim	04	13.4	03	10.0
	d. Others	03	10.0	02	6.7
<b>3.</b>	<b>Education</b>				
	a. Non formal	04	13.3	04	13.3
	b. High School	12	40.0	12	40.0
	c. Graduate	08	26.7	10	33.3
	d. Post Graduate	06	20.0	04	13.4
<b>4.</b>	<b>Occupation</b>				

	a. House wife	18	43.3	10	33.3
	b. Farmer	04	13.4	08	26.7
	c. Others	13	43.3	12	40.0
<b>5</b>	<b>Residential Status</b>				
	a. Rural	18	60	16	53.3
	b. Urban	12	40	14	46.7
<b>6</b>	<b>Type of Family</b>				
	a. Joint	10	33.3	06	20
	b. Nuclear	20	66.7	24	80
<b>7.</b>	<b>Family Income</b>				
	a. < 10,000	02	6.7	01	3.3
	b. 10001-20000	05	16.7	02	6.7
	c. 20001-30000	14	46.6	13	43.3
	d. > 30001	09	30.0	14	46.7
<b>8.</b>	<b>Hemoglobin Level</b>				
	a. < 10 gms	15	50.0	13	43.3
	b. 10-12 gms	10	33.3	13	43.3
	c. > 12 gms	05	16.7	04	13.4
<b>9.</b>	<b>Known Medical Problem</b>				
	a. Yes	0	0.0	0	0.0
	b. No	30	100.0	30	100.0
<b>10</b>	<b>Mode of Delivery</b>				
	a. NVD	15	50.0	23	76.7
	b. Forceps	10	33.3	05	16.7
	c. VAD	05	16.7	02	6.6
<b>11.</b>	<b>Type of Incision</b>				
	a. LT. Medio Lateral	21	70.0	19	63.3
	b. RT. Medio Lateral	09	30.0	11	36.7
<b>12.</b>	<b>Suture Material</b>				
	a. Chromic Catgut	22	73.3	25	83.4
	b. Silk	02	6.7	01	3.3
	c. Vicryl	06	20.0	04	13.3
<b>13.</b>	<b>Type of pad</b>				
	a. Hospital made	15	50.0	12	40.0

	b. Commercial	10	33.3	08	26.7
	c. Home made	05	16.7	10	33.3
<b>14.</b>	<b>No. of Pads used</b>				
	a. 3-4 pads	07	23.3	04	13.3
	b. 5-6 pads	18	60.0	25	83.4
	c. > 6 pads	05	16.7	01	3.3
<b>15.</b>	<b>Baby Weight</b>				
	a. 2.1-2.5 kgs	03	10.0	02	6.7
	b. 2.6- 3.0 kgs	06	20.0	08	26.7
	c. 3.1- 3.5 kgs	18	60.0	18	60.0
	d. > 3.5 kgs	03	10.0	02	6.6

**Table 4.1** shows the demographic variables among primi postnatal mothers in both experimental group I & II such as, age, religion, education, occupation, residential state, family income, hemoglobin level, known medical problem. Obstetrical variables such as mode of delivery, type of incision, suture material, type of pad, no. of pads used, baby weight.

Regarding **age**, in experimental group I, majority 14 (46.6%) of primi mothers belongs to age group of 22-25 years, and 09 (30%) of primi mothers belongs to 26-29 years, and 06 (20%) of primi

mothers belongs to 06 (20%), and 1 (3.4%) were belongs to above 29 years. In experimental group II majority 14 (46.6%) of primi mothers belongs to 22-25 years, and 08 (26.7%) of primi mothers belongs to 18-21 years, and 06 (20%) of primi mothers belongs to 26-29 years, and 02 (6.7%) of primi mothers belongs to above 29 years of age.

Regarding **religion**, in experimental group I, majority 13 (43.3%) of primi mothers belongs to Hinduism, 10 (33.3%) of primi mothers belongs to Christians, 04 (13.4%) of primi mothers belongs to Muslims, and 03 (10%) of mothers belongs to other religious. In experimental group II, majority 13 (43.3%) of primi mothers belongs to Hinduism, 12 (40%) of primi mothers belongs to Christians, 03 (10%) of primi mothers belongs to Muslims, and 02 (6.7%) of primi mothers belongs to other religions.

Regarding **education**, in experimental group I, majority 12 (40%) of primi mothers belongs to high school, 08 (26.7%) of primi mothers belongs to graduates, 06 (20%) of primi mothers belongs to post graduates, and 04 (13.3%) belongs to non formal education. In experimental group II, majority 12 (40%) of primi mothers belongs to high school, 08 (33.3%) of primi mothers belongs to graduates, 04 (13.3%) of primi mothers belongs to non formal education, and 04 (13.3%) of primi mothers belongs to post graduates.

Regarding **occupation**, in experimental group I, majority 13 (43.3%) of primi mothers belongs to house wives, 13 (43.3%) of primi mothers belongs to other occupation, and 04 (13.4%) of primi mothers belongs to formers. In experimental group II, majority 12 (40%) of primi mothers belongs to other works, 10 (33.3%) of primi mothers belongs to house wives, 08 (26.7%) of primi mothers belongs to farmers.

Regarding **residential status**, in experimental group I, majority 18 (60%) of primi mothers belongs to rural and 12 (40%) of primi mothers belongs to urban. In experimental group II, 16 (53.3%) of primi mothers belongs to rural and 14 (46.7%) of primi mothers belongs to urban.

Regarding **type of family**, in experimental group I, majority 20 (66.7%) of primi mothers belongs to nuclear family and 10 (33.7%) of primi mothers belongs to joint family. In experimental group II, majority 24 (80%) of primi mothers belongs to nuclear family, and 06 (20%) of primi mothers belongs to joint family.

Regarding **family income**, in experimental group I, majority 14 (46.6%) of primi mothers belongs to 20,001-30,000, 09 (30%) of primi mothers belongs to above 30,000, 05 (16.7%) of primi mother belongs to 10,001-20,000, and 02 (6.7%) of primi mothers belongs to below 10,000. In experimental group II, majority 14 (46.7%) of primi mothers belongs to above 30,000, 13 (43.3%) of primi mothers belongs to 20,001-30,000, 02 (6.7%) of primi mothers belongs to 10,001-20,000 and 01 (3.3%) off primi mothers belongs to below 10,000.

Regarding **hemoglobin level**, in experimental group I, majority 15 (50%) of primi mothers belongs to less than 10gms, 10 (33.3%) of primi mothers belongs to 10-12gms and 05 (16.7%) of primi mothers belongs to above 12gms. In experimental group II, majority 13 (43.3%) of primi mothers belongs to 10-12gms, 13 (43.3%) of primi mothers belongs to less than 10gms, and 04 (13.4%) of primi mothers belongs to above 12gms.

Regarding **known medical problems**, in experimental group I, majority 30 (100%) of primi mothers belongs to no known medical issues. In experimental group II, majority 30 (100%) of primi mothers belongs to no known medical issues.

In Obstetrical variables, mode of deliver, in experimental group I, majority 15 (50%) of primi mothers belongs to normal vaginal delivery, 10 (33.3%) of primi mothers belongs to forceps delivery, 05 (16.7%) of primi mothers belongs to vacuums assisted delivery. In experimental group II, majority 23 (76.7%) of primi mothers belongs to normal vaginal delivery, 05 (16.7%) of primi mothers belongs to forceps delivery and 02 (6.6%) of primi moths belongs to vacuum assisted delivery.

Regarding **type of incision**, in experimental group I, majority 21 (70%) of primi mothers belongs to left Medio-lateral, and 09 (30%) of primi mothers belongs to right Medio-lateral incision. In

experimental group II, majority 19 (63.3%) of primi mothers belongs to left Medio-lateral and 11 (36.7%) of primi mothers belongs to right Medio-lateral incision.

Regarding **suture material used**, in experimental group I, majority 22 (73.3%) of primi mothers belongs to chromic catgut, 06 (20%) of primi mothers belongs to Vicryl material, 02 (6.7%) of primi mothers belongs to silk material. In experimental group II, majority 25 (83.4%) of primi mothers belongs to chromic catgut, 04 (13.3%) of primi mothers belongs to Vicryl and 01 (3.3%) of primi mothers belongs to silk material.

Regarding **type of Perineal pad use**, in experimental group I, majority 15 (50%) of primi mothers belongs to hospital made pads, 10 (33.3%) of primi mothers belongs to commercial pads, and 05 (16.7%) of primi mothers belongs to homemade pads. In experimental group II, majority 12 (40%) of primi mothers belongs to hospital made pads, 10 (33.3%) of primi mothers belongs to homemade pads, and 08 (26.7%) of primi mothers belongs to commercial pads.

Regarding **number of pads used**, in experimental group I, majority 18 (60%) of primi mothers belongs to 5-6 pads a day, 07 (23.3%) of primi mothers belongs to 3-4 pads a day, and 05 (16.7%) of primi mothers belongs to above 6 pads a day. In experimental group II, 25 (83.4%) of primi mothers belongs to 5-6 pads a day, 04 (13.3%) of primi mothers belongs to 3-4 pads a day, and 01 (3.3%) of primi mothers belongs to above 6 pads a day.

Regarding **baby weight**, experimental group I, majority 18(60%) of primi mothers belongs to 3.1-3.5 kgs, 06 (20%) of primi mothers belongs to 2.6-3 kgs, 03 (10%) of primi mother belongs to 2.1-2.5 kgs, and 03 (10%) of primi mothers belongs to above 3.5 kgs. In experimental group II, 18 (60%) of primi mothers belongs to 3.1-3.5 kgs, 08 (26.7%) of primi mothers belongs to 2.6-3 kgs, 02 (6.7%) of primi mothers belongs to 2.1-2.5 kgs, 02 (6.6%) of primi mothers belongs to above 3.5 kgs.

## SECTION - B:



**Table - 4.2: Frequency and percentage distribution of pre test and post test level of episiotomy wound healing scores among postnatal mothers in experimental group - I**

Group	Test	Mild		Moderate		Severe		Unpaired "t" test
		F	%	F	%	F	%	
Experimental group-I	Post test	21	70	9	30	0	0	5.256 DF=58
Experimental group-II	Post test	25	83.3	5	16.7	0	0	

The above **Table 4.2** shows the frequency and percentage distribution of pre test and post test level of wound healing among primi postnatal mothers. With this regard before normal saline dressing 27 (90%) of mothers had moderate level of infection and in post test level of wound healing 21 (70%) of mothers had mild infection. In experimental group-II before betadine sitz bath 24 (80%) of mothers had moderate level of infection, and in post test level of wound healing 25 (83.3%) of mothers had mild level of infection.

**Table - 4.3: Comparison of mean, standard deviation and paired "t" value between pre test and post test score on wound healing in experimental group-I**

Group	N	Wound healing	Mean	SD	Mean difference	Paired "t" test	Table value
I	30	Pre test	21.2	2.302	19.4	32.450	8.61 (p< 0.01)
		Post test	1.8	0.622			

DF= 59

p< 0.01

**\*Significant**

The above **Table 4.3** shows the effectiveness of normal saline dressing in episiotomy wound healing in experimental group I pre test and post test group. in pre test group mean and SD score were  $21.21 \pm 2.302$  respectively. In post test group mean and SD score were  $1.8 \pm 0.622$  respectively. The calculated "t" test value was 32.450 which is greater than table value 0.001.

Hence the research hypothesis was **rejected**. It was evident that there is an improvement in wound healing after normal saline dressing.

**SECTION - C:**

**Table - 4.4 Comparison of mean, standard deviation and paired "t" value between pretest and post test score on wound healing in experimental group II**

Group	N	Wound healing	Mean	SD	Mean difference	Paired "t" test	Table value
II	30	Pre test	20.8	2.280	18	30.476	8.61 (p< 0.01)
		Post test	2.8	0.836			

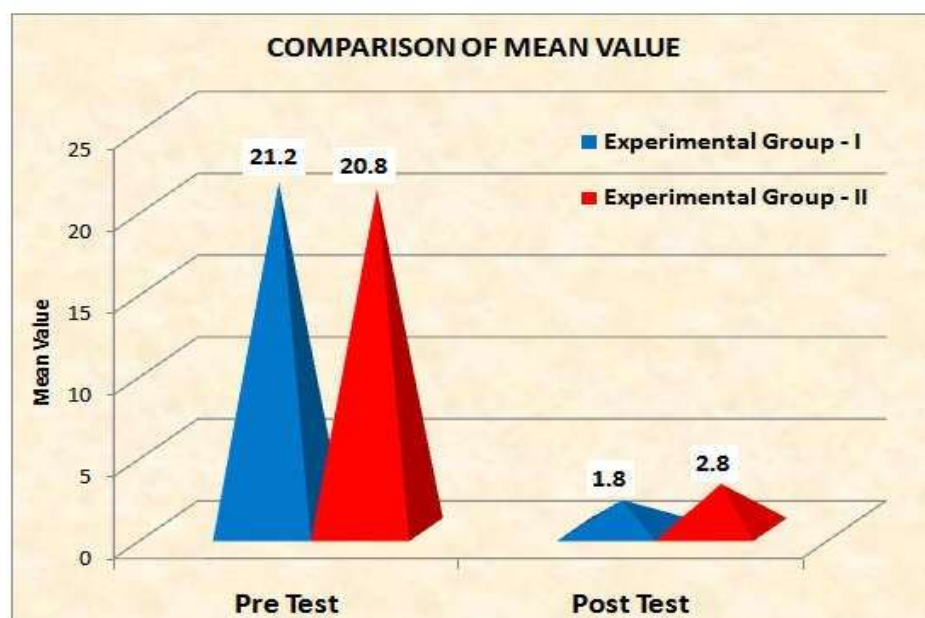
DF= 59

p< 0.01

**\*Significant**

The above **Table 4.4** shows the effectiveness of normal saline dressing in episiotomy wound healing in experimental group I pre test and post test group. in pre test group mean and SD score were  $20.8 \pm 2.280$  respectively. In post test group mean and SD score were  $2.8 \pm 0.836$  respectively. The calculated “t” test value was 30.476 which are greater than table value 0.001.

Hence the research hypothesis was **rejected**. It was evident that there is an improvement in wound healing after normal saline dressing.



## MAJOR FINDINGS OF THE STUDY

The first objectives was assess the pre assessment level of healing of episiotomy wound among postnatal mothers in both experimental group I and experimental group II

**Table 4.3** shows that pre test post assessment level of healing of episiotomy wound based on REEDA scale in experimental group-I. On the pre test 30 postnatal mothers 19 (63.3%) had mild infection, 10 (33.3%) had moderate infection, 1 (3.4%) had severe infection.

In post test shows 25 (83.3%) of primi mothers had no infection, 4 (13.4%) of primi mothers had mild infection, 1 (3.3%) of primi mothers had moderate infection and 0 (0%) of primi mothers had severe infection.

The second objectives was assess the post assessment level of healing of episiotomy wound among postnatal mothers in both experimental group I and experimental group II

**Table 4.4** shows that pre test and post assessment level of healing of episiotomy wound based on REEDA scale in experimental group-II. On the pre test 30 post natal mothers 20 (66.7%) had mild infection, 8 (26.7%) had moderate infection, and 2 (6.6%) had moderate infection.

In post test shows 26 (86.6%) of primi mothers had no infection, 3 (10%) of primi mothers had mild infection, 1 (3.3%) of primi mothers had moderate infection and 0 (0%) of primi mothers had severe infection.

### **The third objective was find the association between the post assessment level of healing of episiotomy wound among postnatal mothers with selected demographic variables**

**Table 4.5** reveals that there is significant association between the effectiveness of normal saline dressing on episiotomy wound healing among primi mothers with age, religion, education, occupation, residential state, type of family, family income, hemoglobin level, known medical problems, mode of delivery, type of incision, suture material used, type of pad, no. of pads used, and baby weight

Hence the effectiveness of normal saline dressing and betadine sitz bath on healing of episiotomy wound among primi postnatal mothers in experimental group-I and experimental group-II on the demographic variables like age, religion, education, occupation, residential state, type of family, family income, hemoglobin level, known medical problems, mode of delivery, type of incision, suture material used, type of pad, no. of pads used, and baby weight.

On the whole, the study confirmed that the assumption which was formulated at the beginning was factual and the study was effective in healing episiotomy wound among primi mothers through normal saline dressing and betadine sitz bath in selected hospitals in Erode.

**Enyew Woretaw, et al., (2021)** Institutional-based cross sectional study was conducted among 410 delivered mothers from March 1 to April 30, 2020. We recruited study participants using systematic random sampling technique. Data were entered to data version 3.1 and exported to STATA version 14 for statistical analysis. Stepwise backward elimination was applied for variable selection and model fitness was checked using Hosmer and Lemshows statistics test. Adjusted odds ratio with the corresponding 95% confidence interval was used to declare the significance of variables. The magnitude of episiotomy practice was found 44.15% (95% CI 39.32–48.97). Vaginal instrumental delivery (AOR 3.04, 95% CI 1.36–6.78), Perineal tear (AOR 3.56, 95% CI 1.68–7.55), age between 25 and 35 (AOR 0.11, 95% CI 0.05–0.25), birth spacing less than 2 years (AOR 4.76, 95% CI 2.31–9.83) and use of oxytocin (AOR 2.73, 95% CI 1.19–6.25) were factors significantly associated with episiotomy practice.

## **CONCLUSION**

13. Normal saline dressing found to be an effective nursing intervention in improving level of wound healing than Betadine sitz bath among primi mothers.
14. The findings of the study enlighten the fact that Normal saline dressing and Betadine sitz bath can be used as a cost effective nursing intervention in improving level of episiotomy wound healing among primi mothers.
15. Except type of family and type of incision no other demographic variable selected by researcher showed association with level of wound healing among primi mothers in experimental group-I.
16. Except mode of delivery and type of incision no other demographic variable selected by researcher showed association with level of wound healing among primi mothers in experimental group-II.
17. Effectiveness of Normal saline dressing and Betadine sitz bath in improving level of wound healing can be increased with regular practice.

## **BOOKS REFERENCES**

1. Barker L M (2001). **A text book of Midwifery for nurses in India**, 1st edition. India. Orient Longmans.
2. Cunningham et al (2001). **Williams Obstetrics**, 21st edition. New York: Mc Graw Hill Medical publishing division.
3. D C Dutta (2001). **Text book of Obstetrics: Injuries to birth canal**. 6th edition. Calcutta: New

- central book agency.
4. Daftary, (2004). "**Manuel of obstetrics**", (1st edition.). New Delhi: Elsevier India private ltd. Pp 204.
  5. Diane M. Fraser, Margaret A Cooper (2019). **Myles Textbook for Midwives Perineal problems**. (5th edition). Philadelphia: Churchill Livingstone.
  6. Dutta. D.C., (2004). "**Text book of Obstetrics**", (4th edition). Calcutta: New central book agency. Pp 568-571.
  7. Eason E., Feldman P. (2001). **Much ado about a little cut: Is Episiotomy worthwhile? Obstetrics & Gynecology**, 2nd edition. London: Mosby publications.
  8. Eason E., Feldman P. (2020). **Obstetrics & Gynecology**, (2nd edition). London: Mosby publications.
  9. Fraser D. M. et. al., (2003), **Myles text book of midwives**, (14th edition), Edinburgh; Churchill, Livingstone.
  10. Gloria Hoffman Wolds. (2013) **Contemporary maternity nursing: providing perineal comfort**. (1st edition) Missouri: Mosby year book.
  11. Gloria Hoffman Wolds. (2021) **Contemporary maternity nursing: providing Perineal comfort**. (1st edition) Missouri: Mosby year book.
  12. Gurumani. N, (2005). "**An Introduction To Bio-statistics**" (2nd edition). Chennai:
  13. Polit. D.F., (2008). "**Introduction to Nursing Research**", (8th edition.). Philadelphia: Lippincott Publications. Pp 344-345, 592.
  14. Shehnaz torkzahari (2018). **Faculty of midwifery and nursing**. Sheer Bahesi University of medical science. Teharen, Iran.
  15. Walker P (2018). **Episiotomy issues for practice: Wound care nursing**. London: Churchill publications.

## JOURNAL REFERENCES

16. Aikins Murphy, Feinland JB (2022) Perineal Outcomes in a home birth setting. Birth, 25 (4): pp.226-234.
17. Bannerji Kaveri & Mukherjee Soma (2022) Episiotomy should be given in all Primi gravid as – A Debate. Obstetrics and Gynecology Today, 4(5): pp.327-331.
18. Banta, D. and Thacker, S.B, (2009). "The medical properties of neem leaf; areview", Britt, 9(1), 25-30.
19. Beger. D (2000), Postpartum teaching priorities the view points of nurses and Mothers, Journal of Obstetrics, Gynecological and Neonatal Nursing, 27 (2), 161.
20. Calvert. Et al (2000), Review minimizing postpartum parvia of research pertaining to perineal care in child bearing women. Journal of advanced nursing, 32 (2) 407
21. Coats ET. Al (2002), A comparison between midline and Medio lateral episiotomies. British Journals of obstetrics and gynecology, 87, 407.
22. Dhanalakshmi. J. (2010). "Best Remedial Measure for episiotomy", Nightingale Nursing times, 12(5). Pp 12-16.
23. Dimitrov A., et.al (2003) Causes for healing complications in episiotomy, Article in Bulgarian, 40 (4), 17-21
24. Sally I.L. (2003), Episiotomy repair -immediate and long term squeal. A prospective randomized study of three different methods of repair. British journals of obstetrics and gynecology, 93, 1920.
25. Srisangchai. P. (2007). "The benefits of neem leaf extract", The Journal of wound care, 102(4). Pp 17-19.
26. Venkadalakshmi. (2010) "effect of neem leaf extract", The Nursing Journal Of India., 86. (4), 7-12.
27. World Health Organization. (2020) "Women At Risk Of Complicating Deliveries", Nightingale Nursing times, (4) 10. Pp 46-47.

**INTERNET REFERENCES**

28. <http://www.ajpmonline.org>
29. <http://www.babycentreindia.com/au/massage.html>
30. <http://www.bookself.com>
31. <http://www.episiotomy.guide>
32. <http://www.google.com>
33. <http://www.medline.com>