

**A STUDY TO COMPARE THE EFFECTIVENESS OF MEDICATED AND  
NON-MEDICATED SITZ BATH ON EPISIOTOMY WOUND HEALING AMONG  
POSTNATAL MOTHERS IN SELECTED HOSPITALS**

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**ABSTRACT**

**Background:** Many women experience no problems in healing from an episiotomy. The average vaginal episiotomy repair process takes about 4-6 weeks. The episiotomy wound can be healed by giving warm soaks and warm sitz bath. The use of sitz baths has been long advocated in the relief of perineal pain and wound care. Sitz bath is not a routinely practice in our Obstetrics ward settings in spite of it is being cost effective and less time consuming.

**Objective:** The main objective of present study was to assess the effectiveness of Medicated and Non-medicated Sitz bath on episiotomy wound among postnatal mother.

**Material and Methods:** A Comparative quantitative research approach with quasi experimental-multiple time series design was used to achieve the goal of the study. The mothers were selected by

using Non-probability convenience sampling technique from postnatal ward of tertiary care hospital. Total 60 mothers were recruited 30 in experiment group and 30 in control group. The data collection tool consists of two sections: Section A: Demographic tool, Section B: Standardized REEDA scale. The collected data was analyzed by using descriptive & inferential statistics.

**Results:** According to REEDA Scale, 1<sup>st</sup> day of chi-square test constant results of both groups. Mean REEDA value was  $15.0 \pm 0.0$  in both Experimental and Control group. Significant value was not possible as variable was constant on day one. Mean REEDA value was  $2.6 \pm 3.3$  in Experimental group and  $9.5 \pm 3.0$  in Control group. Overall to REEDA scale in experimental and control group in 1<sup>st</sup> day was constant and 5<sup>th</sup> day in experimental group and control group having 8.51 't' value. Hence, it's proved that Medicated Sitzbath is more effective than Non-medicated Sitz bath among postnatal mother with episiotomy wound.

**Conclusion:** The nurses working in maternity area should be aware about Medicated and Non-medicated sitz bath are effective for episiotomy wound healing in postnatal mothers and Medicated Sitz bath is more effective than the Non-medicated Sitz bath among postnatal mother with episiotomy wound.

**Key words:** Effectiveness, Medicated Sitz bath, Non-medicated Sitz bath, Postnatal mother with episiotomy wound.

## **INTRODUCTION**

Midwives have an important role to play in the care of perineal wounds following childbirth. It is important that midwives recognize the need for research based practice.<sup>1</sup> Sitz bath is a simple and easy method of treating episiotomy wound. As it takes less time, sitz bath is not a routine practice in our Obstetrics ward settings in spite of it being cost effective and less time consuming. The postnatal mother can do this independently in the home settings when they get discharged from the hospitals following the delivery.<sup>2</sup> A surgically planned incision on the perineum and the posterior vaginal wall during the second stage of labor is called episiotomy. Episiotomy is a surgical procedure that involves cutting the perineum (skin between the vagina and the anus) during labour to enlarge the vaginal opening.<sup>3</sup>

Many women experience no problems in healing from an episiotomy. Others experience a long vaginal episiotomy repair process rivaling a cesarean.<sup>4</sup> A sitz bath can also be used to treat hemorrhoids, prostate infections, anal and vaginal fissures, and ease the discomfort of genital herpes, and vaginal or bladder infection. Sitting in warm water allows more blood to reach the impacted area, promoting healing and helping with any discomfort. The episiotomy wound can be healed by giving warm soaks and warm sitz bath. A sitz bath uses the theory of hydrotherapy or water therapy.<sup>6</sup> Most of

the women have an episiotomy results in lot of problems with pain, incontinence and poor healing. The tissues around the vagina are tightly stretched when they are giving birth, and a cut can be made very easily.<sup>7</sup>

The potential side effects of an episiotomy are infection, bruising, swelling, bleeding, extended healing time, painful scar which may require a period of abstinence from sexual intercourse, future problems with in continence.

### **AIMS**

1. To assess the degree of episiotomy wound healing after the administration of Medicated Sitz bath among experimental group.
2. To assess the degree of episiotomy wound healing after the administration of Non-medicated sitz bath among control group.
3. To compare the effectiveness of Medicated and Non-medicated sitz bath on episiotomy wound healing among experimental and control group.

### **MATERIAL & METHODS**

A Comparative quantitative research approach with quasi experimental-multiple time series design was used to assess the effectiveness of Medicated & Non-medicated on episiotomy wound healing of postnatal mothers. The study was conducted at three tertiary care hospital of vadodara district. The participant includes 60 postnatal mothers with episiotomy wound which was selected by using Non probability convenient sampling technique according to inclusive criteria. The investigator used tool consists of two sections: Section A: Demographic tool, Section B: Standardized REEDA scale. After obtaining formal administrative approval from the concerning authorities and informed consent from the participants collected, the investigator has collected demographic data and given medicated sitz bath (Betadine) to experimental group (30 postnatal mothers) while non-medicated sitz bath to control group (30 postnatal mothers) for continuous 5 days. The rate of episiotomy wound healing was been assessed by Standardized REEDA scale after giving sitz on 1<sup>st</sup> and 5<sup>th</sup> day. Chi square was used to assess the degree of wound healing after administrations of medicated and non-medicated sitz bath in each aspect of REEDA scale and Mean, SD and paired T test were used to assess compare the effectiveness of Medicated and Non-medicated sitz bath on episiotomy wound healing among postnatal mothers.

### **RESULTS**

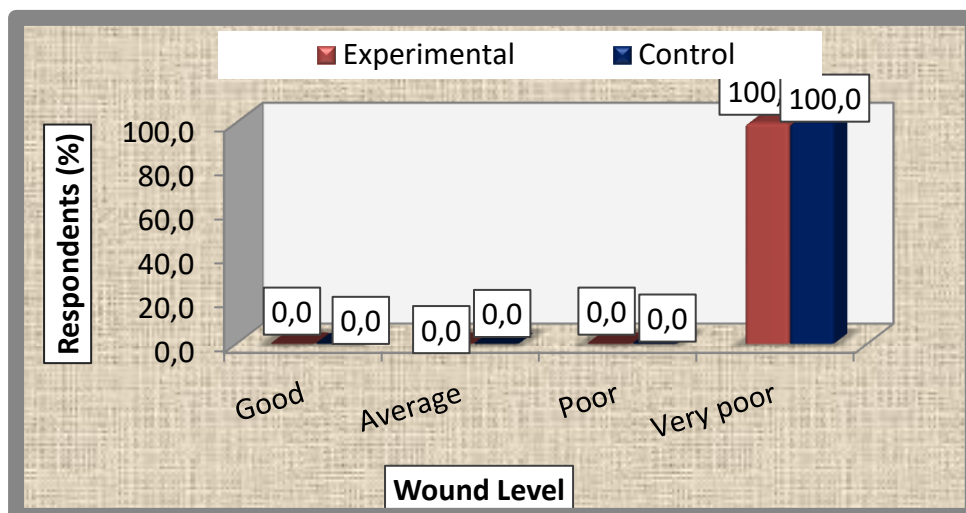
According to Table 1 data, higher respondents (53.3%) of experimental group noticed in the age group of 31-40 years as compared to 66.7 % were from control group. Further, 46.7 % of experimental group and 33.3% from control group identified from the age group of 21-30 years of age. Higher

percent (46.6%) in experimental group noticed as Hindu religion as compared to 43.3 % of respondents were from Muslim religion among control group Slightly higher respondents (63.3%) belongs to urban area as against 36.7 percent found in rural areas among control group 56.7 percent of respondents noticed in urban areas as compared to 43.3 percent noticed in rural areas among experimental group respondents. type of family 53.3 percent and 63.3 percent of respondents emerged from joint family among experimental and control group respondents respectively. slightly higher (46.7%) among experimental group and 36.7 percent noticed from nuclear type of family.

**TABLE – 1 Classification of postnatal mothers by Demographic Characteristics**

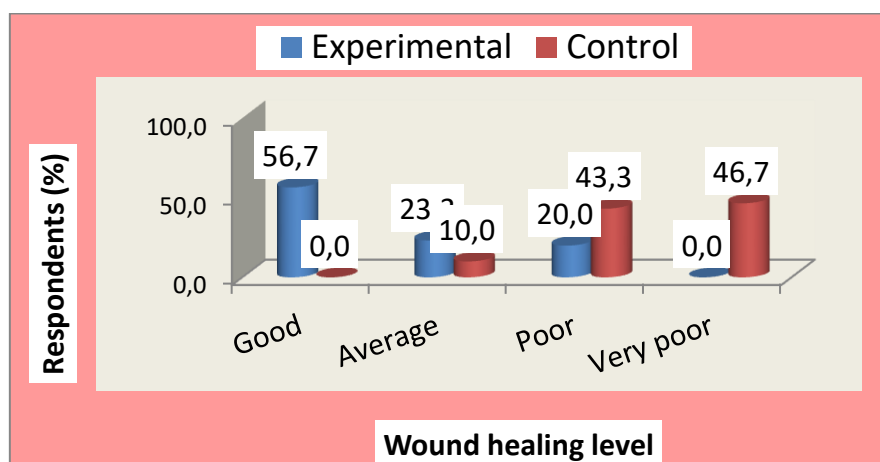
| Characteristics | Category      | Respondent         |      |               |      |
|-----------------|---------------|--------------------|------|---------------|------|
|                 |               | Experimental group |      | Control group |      |
|                 |               | N                  | %    | N             | %    |
| Age (years)     | 21 – 30       | 14                 | 46.7 | 10            | 33.3 |
|                 | 31 – 40       | 16                 | 53.3 | 20            | 66.7 |
| Religions       | Hindu         | 14                 | 46.6 | 9             | 30.0 |
|                 | Christian     | 8                  | 26.7 | 8             | 26.7 |
|                 | Muslim        | 8                  | 26.7 | 13            | 43.3 |
| Residence       | Urban         | 17                 | 56.7 | 19            | 63.3 |
|                 | Rural         | 13                 | 43.3 | 11            | 36.7 |
| Education       | Master Degree | 6                  | 20.0 | 5             | 16.7 |
|                 | Degree        | 3                  | 10.0 | 0             | 0.0  |
|                 | High School   | 10                 | 33.3 | 10            | 33.3 |
|                 | School        | 8                  | 26.7 | 8             | 26.7 |
|                 | Illiterate    | 3                  | 10.0 | 7             | 23.3 |
| Types of Family | Joint         | 16                 | 53.3 | 19            | 63.3 |
|                 | Nuclear       | 14                 | 46.7 | 11            | 36.7 |
| Total           |               | 30                 | 100  | 30            | 100  |

Figure 1 depicts the respondent's degree of episiotomy wound healing after 1st day of administering sitz bath in experimental and control groups had found that (100%) of respondents both in experimental and control groups found with very poor wound level. Almost same status noticed between experimental and control groups with respect to wound level ( $\chi^2 = 0.00^{NS}$ ).



**Fig. 1: Classification of Respondents on 1<sup>st</sup> day Episiotomy wound healing degree in Experimental and Control group**

Figure-2 indicates the classification of respondents on 5th day episiotomy wound healing level among experimental and control groups. It can be seen from the findings that 56.7 percent of respondents from experimental group found good healing followed by 23.3 percent with average and 20.0 percent with poor wound healing. With respect to control group 46.7 percent found with very poor healing as compared to 43.3 percent with poor healing and only 10.0 percent with average wound healing. It is evident from statistical findings that the wound healing level between experimental and control group found to be significant ( $\chi^2 = 35.18^*$ ).



**Fig. 2: Classification of Respondents on 5<sup>th</sup> day Episiotomy wound healing degree in Experimental and Control group**

The each REEDA's aspect wise level of episiotomy wound healing in experimental and control group was depicted on table 2. The overall 1st day episiotomy wound scores of experimental and control

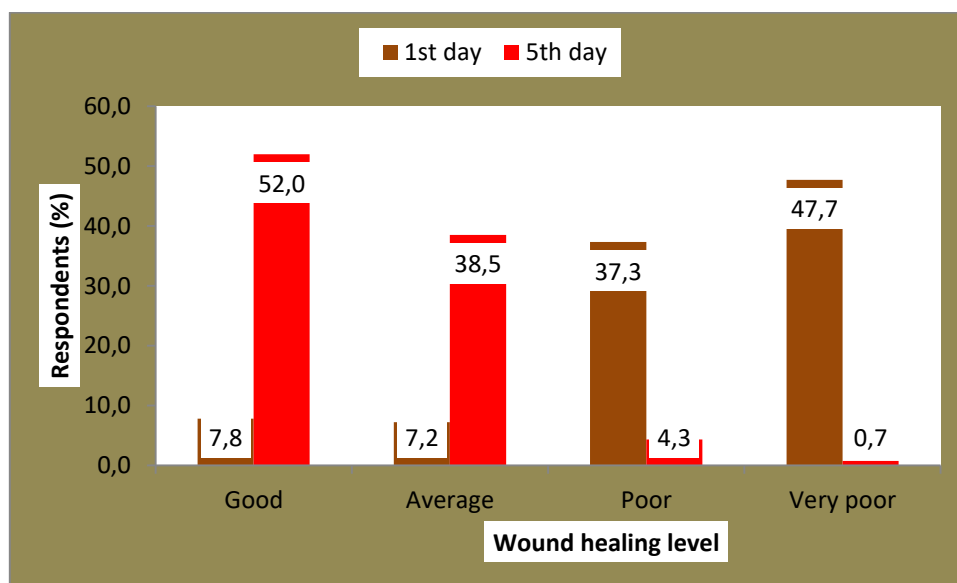
groups. The result indicates that the overall 1st day episiotomy wound scores found cent percent in both experimental and control groups. Further, t-test reveals the difference between experimental and control group found to be non-significant ( $t=0.00^{NS}$ ). The Overall 5th day episiotomy wound response of experimental and control groups shown in Table-7. It is seen from the result that the wound response found to be only 17.3 percent which is towards good healing among experimental group as compared to 63.6 percent healing response which is towards poor and average among control group. The data subjected for test indicate the difference in wound healing is comparatively better in experimental group compared to control group and found statistically significant ( $t=8.51^*$ ).

**TABLE 2: Classification of Respondents on 5<sup>th</sup> day on Episiotomy wound healing of Experimental and Control group**

| Aspects       | Wound healing Level | Scores | Classification of Respondents |      |                |      | $\chi^2$ Value |
|---------------|---------------------|--------|-------------------------------|------|----------------|------|----------------|
|               |                     |        | Experimental (n=30)           |      | Control (n=30) |      |                |
|               |                     |        | N                             | %    | N              | %    |                |
| Redness       | Good                | 0      | 17                            | 56.7 | 0              | 0.0  | 36.80*         |
|               | Average             | 1      | 9                             | 30.0 | 12             | 40.0 |                |
|               | Poor                | 2      | 4                             | 13.3 | 15             | 50.0 |                |
|               | Very poor           | 3      | 0                             | 0.0  | 3              | 10.0 |                |
| Edema         | Good                | 0      | 18                            | 60.0 | 0              | 0.0  | 27.75*         |
|               | Average             | 1      | 8                             | 26.7 | 13             | 43.3 |                |
|               | Poor                | 2      | 4                             | 13.3 | 14             | 46.7 |                |
|               | Very poor           | 3      | 0                             | 0.0  | 3              | 10.0 |                |
| Ecchymosis    | Good                | 0      | 18                            | 60.0 | 0              | 0.0  | 35.11*         |
|               | Average             | 1      | 10                            | 33.3 | 8              | 26.7 |                |
|               | Poor                | 2      | 2                             | 6.7  | 16             | 53.3 |                |
|               | Very poor           | 3      | 0                             | 0.0  | 6              | 20.0 |                |
| Discharge     | Good                | 0      | 18                            | 60.0 | 0              | 0.0  | 31.15*         |
|               | Average             | 1      | 8                             | 26.7 | 10             | 33.3 |                |
|               | Poor                | 2      | 4                             | 13.3 | 9              | 30.0 |                |
|               | Very poor           | 3      | 0                             | 0.0  | 11             | 36.7 |                |
| Approximation | Good                | 0      | 18                            | 60.0 | 0              | 0.0  | 36.00*         |
|               | Average             | 1      | 9                             | 30.0 | 6              | 20.0 |                |
|               | Poor                | 2      | 3                             | 10.0 | 12             | 40.0 |                |
|               | Very poor           | 3      | 0                             | 0.0  | 12             | 40.0 |                |

**DISCUSSION**

The Present study has evident from the findings (Figure 3) that cent percent (100%) of respondents in experimental found to very poor on 1st day. It can be seen from the findings that 56.7 percent of respondents from experimental group found good healing followed by 23.3 percent with average and 20.0 percent with poor wound healing on 5th day. There is a considerable shift very poor to higher degree of average and good wound healing from 1st day to 5th day establishing statistical significance ( $\chi^2 = 60.00^*$ ).



**Figure 3: Classification of Respondents on 1<sup>st</sup> day and 5<sup>th</sup> day on Episiotomy wound healing of Experimental group**

It has been seen from the findings that the wound response found to be only 100.0 percent which is towards very poor on 1st day as compared to only 17.3 percent wound response on 5th day which is towards average among experimental group. The data subjected for paired t-test indicate the effectiveness in the performance of healing from 1st day to 5th day found statistically significant ( $t=20.50^*$ ). It is evident from the findings that cent percent wound response noticed in all the aspects of episiotomy during 1st day among experimental group. Further on 5th day the wound scores for redness found to be 18.9 percent as compared to Edema (17.8%), Ecchymosis (15.6%), Discharge (17.8%) and approximation (16.7%). However, wound healing from 1st day to 5th day found considerably higher in Redness (81.1%), Edema (82\2.2%), Ecchymosis (84.4%), Discharge (82.2%) and Approximation (83.3%). The data subjected for paired t-test reveals that the effectiveness of wound healing from 1st day to 5th day found to be statistically significant at 5 percent level ( $p<0.05$ ) in all the aspects of episiotomy. This study also revealed that there was significant association

between the age and residence of the participants with level/degree of wound healing on 5<sup>th</sup> day in experimental group.

A similar comparative study conducted by GladisP George found that application of Betadine sitz bath was effective in relieving episiotomy pain and improving wound healing than the warm water sitz bath.<sup>7</sup> A study was undertaken by Amandeep & et al revealed that application of sitz bath was effective in relieving episiotomy pain and improving wound healing (p=0.001).

**Ethical approval:**

Since the study involved human subjects, a formal ethical approval received from Sumandeep Vidyapeeth institutional ethical committee.

**Informed Consent:**

Informed consent was obtained from participants and assured for anonymity.

**Conflict of Interest:**

The authors declare no conflict of interest.

**Funding:**

The study is not funded by any external sources and all expenses were borne by the investigators.

**CONCLUSION**

The nurses working in maternity area should be aware about Medicated and Non-medicated sitz bath are effective for episiotomy wound healing in postnatal mothers and Medicated Sitz bath is more effective than the Non-medicated Sitz bath among postnatal mother with episiotomy wound.

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