



ISSN: 0975-833X

RESEARCH ARTICLE

EFFECT OF SITZ BATH IN REDUCTION OF EPISIOTOMY PAIN AND WOUND HEALING  
AMONG POSTNATAL MOTHERS

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ARTICLE INFO

Article History:

Received 09<sup>th</sup> December, 2014  
Received in revised form  
04<sup>th</sup> January, 2015  
Accepted 17<sup>th</sup> January, 2015  
Published online 26<sup>th</sup> February, 2015

Key words:

Episiotomy,  
Episiotomy pain,  
Sitz bath therapy,  
Episiotomy wound healing,  
Postnatal mothers.

ABSTRACT

Postnatal women are prone for puerperial infection and any trauma such as episiotomy, tear, laceration can increase the tendency for the development of infection, pain and discomfort in the postnatal period which can be reduced by proper hygienic measures, especially perineal care, therapeutic cleansing soak, such as warm water sitz bath for rapid healing. Considering this, a quasi experimental study was undertaken to assess the effectiveness of sitz bath in reduction of episiotomy pain and wound healing among postnatal mothers admitted in postnatal units of DMC&H and Deep Hospital, Model town, Ludhiana, Punjab. The sample consisted of 60 postnatal mothers with episiotomy (30 in each experimental group and 30 in control group). Experimental group received sitz bath and control group received routine care. Assessment of pain was done with Numeric pain rating scale and assessment of wound healing was done with Modified Davidson REEDA scale. The findings revealed that application of sitz bath was effective in relieving episiotomy pain and improving wound healing ( $p=0.001$ )

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INTRODUCTION

The postpartum period is a crucial stage for both the mother and baby. Generally postpartum women experience relatively little discomfort and are most concerned with rest, relieving perineal discomfort and learning about the new born care (Collins, 2000) Pain causes stress and hamper the women's ability to give care to their infant. Perineal pain is most commonly associated with vaginal delivery with episiotomy (Juith Turner, Labour and delivery, <http://www.line.com/>). The care of episiotomy is an important aspect of postnatal care and sitz bath is one of the most popular methods of relieving episiotomy discomfort and pain (Ian Donald, 2001).

Objective

To compare the effectiveness of sitz bath in reduction of episiotomy pain and wound healing among postnatal mothers in both experimental and control group.

MATERIALS AND METHODS

This quasi experimental study was performed on 60 postnatal mothers with episiotomy who have completed 24 hrs after delivery in selected hospitals (DMC&H and Deep Hospital,

Ludhiana) using inclusion and exclusion criteria by convenience sampling technique. Written consent was also obtained from postnatal mothers. Assessment of episiotomy pain and wound healing was done before intervention and 1 hr after sitz bath application twice a day at 6 hrs interval for 3 consecutive days. The control group received only routine care and persistent attendance of the investigator. SPSS software was used to analyze the data. The means of two groups were compared by t-test and p- value less than 0.05 was considered significant.

RESULTS

Sample Characteristics

As per distribution, slightly more than half of the subjects 53.3% of control group and slightly less than half of the subjects 46.7% of experimental group were in the age group of 25-29 years. 50% subjects of control group and 86.7% of experimental group had education up to graduation or above level. 73.3% of experimental group and 80.0% of control group were house wives, equal no of subjects 76.7% in both control group and experimental group were from urban habitat. 86.7% of control group and 50% of experimental group were vegetarian. Related to the patient stay, equal no of subjects 86.7% in both control group and experimental group were staying in general ward. Furthermore, as per chi square test, it has been shown that both groups were homogeneous in relation to all socio demographic characteristics except in case of education and dietary pattern.

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**Table 1. Pre and post interventional comparison of mean score of episiotomy pain among postnatal mothers in experimental and control group**

		(N=60)		
Pre intervention score	Groups	Mean± SD	Mean %age	t-test
	Experimental group	5.20± 2.17	52%	t = 0.515
	Control group	4.90 ± 2.33	49%	p = 0.485 <sup>NS</sup>
Post intervention day 1	Experimental group	4.40± 1.56	44%	t = 0.569
	Control group	4.63 ± 1.60	46.3%	p = 0.494 <sup>NS</sup>
Post intervention day 2	Experimental group	2.36± 1.47	23.6%	t = 4.78
	Control group	4.13 ± 1.38	41.3%	p = 0.297 <sup>NS</sup>
Post intervention day 3	Experimental group	0.73± 0.78	7.3%	t = 6.44
	Control group	2.73 ± 1.50	27.3%	p = 0.05*

\*Significant (p<.05) NS= non significant (p>.05) SD= Standard deviation  
n =30 postnatal mothers in each experimental and control group  
Maximum pain score = 10 and minimum pain score = 0 (as per numerical pain rating scale)  
(Post intervention assessment is done at 1 hour gap after Sitz bath therapy)

**Table 2. Pre and post interventional comparison of mean score of episiotomy wound healing among postnatal mothers in experimental and control group**

		(N=60)		
Pre intervention score	Groups	Mean± SD	Mean %age	t-test
	Experimental group	8.26± 2.033	82.6%	t = 1.124
	Control group	7.73 ± 1.617	77.3%	p = 0.048*
Post intervention day 1	Experimental group	7.83± 1.821	78.3%	t = 0.462
	Control group	7.63 ± 1.519	76.3%	p = 0.161 <sup>NS</sup>
Post intervention day 2	Experimental group	5.60± 1.868	56%	t = 0.306
	Control group	5.46 ± 1.479	54.6%	p = 0.238 <sup>NS</sup>
Post intervention day 3	Experimental group	2.70± 0.651	27%	t = 1.808
	Control group	3.23 ± 1.478	32.3%	p = 0.01*

\*Significant (p<.01) NS= non significant (p>.05) SD= Standard deviation  
n =30 postnatal mothers in each experimental and control group  
Maximum score 11-15 = No Healing and Minimum score 0= Complete Healing (as per REEDA scale)  
(Post intervention assessment is done at 1 hour gap after Sitz bath therapy)

Table 1 describes the pre and post interventional comparison of mean score of episiotomy pain among postnatal mothers in experimental and control group. Pre-interventional mean score of episiotomy pain of experimental group (5.2000 ± 2.17) was significantly higher than that of control group (4.9000 ± 2.33). While on 3rd day of post intervention, of mean score of episiotomy pain of experimental group (0.7333 ± 0.78) was significantly lesser than that of control group (2.7333 ± 1.50) Hence, it can be concluded that experimental group had greater decrease in mean score of episiotomy pain on 1st, 2nd, 3rd day of post intervention which was statistically significant (p=0.001) as compare to control group. So, as the day progresses, episiotomy pain decreases with continuous application of Sitz bath. Table 2 describes the pre and post interventional comparison of mean score of episiotomy wound healing among postnatal mothers in experimental and control group. It depicts that pre-interventional mean score of episiotomy wound healing of experimental group and control group were (8.266 ± 2.033) and (7.733 ± 1.617) respectively. On 3rd day of post intervention, mean score of episiotomy wound of experimental group (2.700 ± 0.651) was significantly lesser than that of control group (3.233 ± 1.478) which shows that the application of Sitz bath was effective in improving episiotomy wound healing with progression of days.

## DISCUSSION

The findings of present study revealed that pre-interventional mean score of episiotomy pain in experimental group was

5.20±2.17 which decreased to 0.73±0.78 on day 3 after applying sitz bath therapy, whereas in control group pre interventional mean score of episiotomy pain was 4.90±2.33 which decreased only up to 2.73±1.50 on day 3 (p=0.005) respectively as supported by [Vijayalakshmi \(2010\)](#) who showed that pre-interventional mean score of episiotomy pain in experimental group was 2.9±0.9 decreased to 0.02±0.09 whereas in control group pre interventional mean score of episiotomy pain was 4.9±0.8 which decreased only up to 2.1±0.938. Findings of the present study revealed that pre-interventional mean score of episiotomy wound healing in experimental group was 8.26±2.03 which decreased to 2.70±0.65 after applying sitz bath therapy on day 3, whereas in control group pre interventional mean score of episiotomy wound healing 7.73±1.61 which decreased only up to 3.233±1.47 on 3 day (p=0.001) respectively as supported by [Sophia Michel \(2006\)](#) who showed that the reduction of mean score from 4.7 to 0.015 and SD from 0.66 to 0.3737. Hence, it can be concluded that experimental group had greater change in mean score of episiotomy pain and wound healing on day of post-intervention, day 2 and day 3 which was statistically significant as compared to control group. Thus, the application of sitz bath therapy was more effective in relieving episiotomy pain and improving wound healing.

## Conclusion

The findings of present study concluded that both the experimental and control group were statistically homogenous (p>0.05). Application of sitz bath therapy had significant

reduction in episiotomy pain as mean score of episiotomy pain got decreased from  $5.20 \pm 2.17$  to  $0.73 \pm 0.78$  in experimental group and  $4.90 \pm 2.33$  to  $2.73 \pm 1.50$  in control group ( $p=0.05$ ). Application of sitz bath therapy had significant improvement in episiotomy wound healing as mean score of episiotomy wound healing got decreased from  $8.26 \pm 2.03$  to  $2.70 \pm 0.65$  in experimental group and  $7.73 \pm 1.61$  to  $3.233 \pm 1.47$  in control group ( $p=0.001$ ) Experimental group had greater change in mean score of episiotomy pain and wound healing on 1st, 2nd and day 3rd day of post-intervention which was statistically significant ( $p=0.001$ ) as compared to control group.

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