



A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF BETADINE SITZ BATH AND HALITE SALT SITZ BATH ON EPISIOTOMY PAIN AND WOUND HEALING AMONG POSTNATAL MOTHERS

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Abstract :

The postpartum period begins immediately after childbirth. During postpartum, women experience discomfort and pain. The pain is mainly associated to perineal area which is the mostly associated after vaginal delivery with episiotomy. Inadequate management of episiotomy wound can causes infections and longer hospital stay and it may also delays in maternal and child bonding. Sitzbath are the common practices and effective method for perineal wound healing and reducing the episiotomy pain. Sitzbath warm water increases blood flow to the perineal area, this promote faster healing. The objective of the study is to evaluate the effectiveness of betadine sitzbath by comparing pre-test and post-test score on episiotomy pain and wound healing among postnatal mothers, to evaluate the effectiveness of halite salt sitzbath by comparing pre-test and post-test score on episiotomy pain and wound healing among postnatal mothers and to compare the effectiveness of betadine sitzbath and halite salt sitzbath on episiotomy pain and wound healing among postnatal mothers. An evaluative approach was adopted for the present study. The research design adopted for the study was quasi experimental pre-test post-test only design. The samples selected for the study were 30 by using non probability purposive sampling technique where 15 for Experimental group I and 15 for Experimental group II. Data was collected by using Numerical Pain rating scale to assess the level of episiotomy pain and Davidson's REEDA scale to assess the stages of episiotomy wound healing. In the present study shows that the comparison between the Experimental group I and Experimental group II, shows a significant difference and it was calculated by using unpaired t-test. The degree of freedom was 28 and the value for unpaired t-test was $6.67=0.000015(P<0.05)$. So, hypothesis (H3) accepted for the above mentioned objectives and they are significant at 0.05 level.

KEY WORDS: Assess, Effectiveness, Betadine Sitzbath, Halite Salt Sitzbath, Episiotomy Pain, Wound Healing, Postnatal Mothers.

INTRODUCTION

Child birth, as such is a joyous event, both for the women and the family and for the care giver. The women had to suffer a lot during pregnancy and child birth. In this situation, surgical (episiotomy) is done by nurse or the obstetrician to facilitate easy and safe delivery.

The postpartum period begins immediately after childbirth as the mother's body, including hormone levels and uterus size, returns to a non-pregnant state. The terms puerperium, puerperal period, or immediate postpartum period are commonly used to refer to the first six weeks following childbirth. The World Health Organization (WHO) describes the postnatal period as the most critical and yet the most neglected phase in the lives of mothers and babies; most maternal and newborn deaths occur during this period. Therefore, postpartum period is a crucial stage for both the mother. Generally, postpartum women experience relatively little discomfort and pain. 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. At present, regular sitzbaths are one of the methods for treating episiotomy wounds. The concern of health personnel during this period should be to provide comfort to her, help her in relieving pain and to prevent infection. Enhancing healing of episiotomy wound is one of the major concerns after a normal delivery. A sitzbath is a warm, shallow bath that cleanses the perineum, which is the space between the rectum and the vulva. Sitzbath's warm water increases blood flow to the perineal area, this promote faster healing. A sitzbath also relieves itching, irritation, minor pain. For a warm water sitzbath, the water should be 94° to 98° Fahrenheit. A warm water sitzbath should be between 105° to 110° Fahrenheit, immersed in the bath for about 15 to 20 minutes.

NEED OF THE STUDY :

Necessary attention should be given to ensure adequate pain relief for all parturients who had episiotomy, and the policy of restrictive use of episiotomy should be fully implemented in the department in line with the best practices and evidence-based recommendations. This will further reduce the incidence of episiotomy rate as well complications that may arise from it and ensure a positive pregnancy experience for pregnant women.

OBJECTIVE OF THE STUDY :

1. To evaluate the effectiveness of betadine sitzbath by comparing pre-test and post-test score on episiotomy pain and wound healing among postnatal mothers.
2. To evaluate the effectiveness of halite salt sitzbath by comparing pre-test and post-test score on episiotomy pain and wound healing among postnatal mothers.
3. To compare the effectiveness of betadine sitzbath and halite salt sitzbath on episiotomy pain and wound healing among postnatal mothers.

ASSUMPTIONS

The study assumes that:

1. Betadine sitzbath may enhance the healing process of episiotomy wound.
2. Halite salt sitzbath may enhance the healing process of episiotomy wound.

HYPOTHESIS

All hypotheses were tested at 0.05 level of significance.

H₁: There will be a significant difference between the pre-test and post-test level of episiotomy pain and wound healing among postnatal mothers receiving betadine sitzbath.

H₂: There will be significant difference between the pre-test and post-test level of episiotomy pain and wound healing among post natal mothers receiving halite salt sitzbath.

H₃: There will be significant differences between post-test level of episiotomy pain and wound healing among postnatal mothers receiving betadine sitzbath and halite salt sitzbath.

CONCEPTUAL FRAMEWORK

The conceptual framework of the present study is based on the comfort theory developed by Katharine Kolkaba in 1990s. This theory describes comfort as existing in 3 forms: relief, ease and transcendence. It also describes the contexts in which patient comfort can occur such as physical, environmental and sociocultural. The concept of comfort theory is expressed in terms of health care needs, nursing interventions, intervening variables, enhanced comfort, health seeking behavior and institutional integrity.

RESEARCH METHODOLOGY

STUDY VARIABLES

Independent variable:

Betadine sitzbath and halite salt sitzbath.

Dependent variable:

Episiotomy pain and Wound healing.

Demographic Variable:

Age, religion, education status, occupation, monthly income, type of family, place of living, parity and co-morbid health conditions, cleaning of perineal area, type of sanitary napkin used during postnatal, source of information on sitzbath during postnatal period.

POPULATION

Accessible population:

The accessible population of the present study included postnatal mothers who were admitted in OBG ward of Vydehi Hospital, Bangalore

SAMPLE SIZE

The sample for the present study was 15 postnatal mothers in Experimental group I (Betadine sitzbath) and 15 postnatal mothers in Experimental group II (Halite salt sitzbath)

SAMPLING TECHNIQUE

Non-probability purposive sampling technique was used to select the sample. The data was collected from 30 postnatal mothers.

SAMPLING CRITERIA

Inclusion criteria:

- Postnatal mothers who have undergone normal vaginal delivery with episiotomy wound.
- Postnatal mother who are willing to participate in the study.
- Postnatal mothers after 6-7 hours of delivery.

Exclusion criteria:

- Postnatal mothers who had undergone delivery with perineal tear or trauma.
- Postnatal mothers who had postnatal complications.
- Postnatal mother who have undergone normal vaginal delivery without episiotomy wound.
- Postnatal mothers who have co-morbid conditions like diabetes mellitus, hypertension, bleeding disorders.

DATA COLLECTION INSTRUMENTS

Following instruments were used to collect the data:

- Numerical Pain rating scale to assess the level of episiotomy pain.
- Davidson's REEDA scale to assess the episiotomy wound healing.

DATA COLLECTION PROCESS

An evaluative approach was adopted for the present study. The research design adopted for the study was quasi experimental pre-test post-test only design. The samples selected for the study were 30 by using non probability purposive sampling technique where 15 for Experimental group I and 15 for Experimental group II. Data was collected by using Numerical Pain rating scale to assess the level of episiotomy pain and Davidson's REEDA scale to assess the stages of episiotomy wound healing. The researcher seek the permission and authorization from the concerning authorities and conducted the study at Vydehi Institute of Medical Science and Research centre. Samples were selected on basis of Inclusion/Exclusion criteria. The sample size had been informed about the study and researcher entrusted confidentiality of their responses. Written consent had been obtained from the entire sample. Pre-test was conducted using the Numerical Pain rating scale to assess the level of episiotomy pain and Davidson's REEDA scale to assess the stages of episiotomy wound healing. Sitzbath was performed for each experimental group I and Experimental group II. Experimental group I undergone Betadine sitzbath and Experimental group II undergone Halite salt sitzbath. The intervention was given after 6-7 hours of delivery, twice a day and both the groups receive the sitzbath for 3 consecutive days. In Experimental group I, 4 litre of warm water having temperature of 105°F to 110°F added with 5ml of 10% betadine solution sitzbath was prepared in which the perineal area was submerged for a period of 15-20 minutes. Whereas, in Experimental group II, 4 litre of warm water having temperature of 105°F to 110°F added with 1-2. teaspoons(10gms) of halite saltsitzbath was prepared and perineal area was submerged for 15-20 minutes. Post-test was done on the 3rd day of using Numerical pain rating scale for episiotomy pain and Davidson's REEDA scale for episiotomy wound healing. All participants co-operated well during the data collection period. The data collected were compiled for analysis.

Descriptive and inferential statistics were used for the analysis and tabulation of data. Descriptive statistics used were frequency, percentage, mean, standard deviation, and presented graphically. Comparison of the effectiveness of betadine sitzbath and halite salt sitzbath was done by paired "t" test and unpaired "t" test. To test the hypothesis level of significance was set at 0.05.

RESULT :

The table 5.2 depicts the comparison of overall post-test score of symptoms of betadine sitzbath on episiotomy pain and wound healing.

Data was presented for Experimental group I, receiving betadine sitzbath. For episiotomy pain, the mean for pre-test was for calculated for pre-test was 1.17 and the post-test was 0.93. The mean difference is 1.27 whereas, Standard 7.93 and post-test was calculated 5.38. The standard deviation for pre-test was 0.68 and the post-test value was 0.83. The mean difference was 2.13. Whereas; the Standard deviation difference was 0.15. The Paired “t” test calculated for episiotomy pain score was 12.53. In 28 degree of freedom at 0.05 level of significance the table value is 2.05. So, hypothesis1 accepted and it is significant. For wound healing (**REEDA**) score the mean for pre-test was 3.2 and the post-test was 1.93. The standard deviation deviation difference is 0.24. The Paired “t” test calculated value was 10.58. In 28 degree of freedom at 0.05 level of significance the table value is 2.05. So hypothesis1 accepted and it is significant.

The table 5.3 depicts the comparison of overall post-test score of symptoms of halite salt sitzbath on episiotomy pain and wound healing

Experimental Group II Halite salt sitzbath	PRE-TEST SCORE		PRE- TEST SCORE		ENHANCEMENT		PAIRED t-TEST
	MEAN	SD	MEAN	SD	MEAN	SD	
Pain Score	7.87	0.96	4.2	0.91	3.67	0.05	14.68
REEDA Score	3.67	0.77	1.27	0.57	2.4	0.2	19

Data was presented for Experimental group II, receiving halite salt sitzbath. For episiotomy pain, the mean for pre-test was for calculated 7.87 and post-test was calculated 4.2. The standard deviation for pre-test was 0.96 and the post-test value was 0.91. The mean difference was 3.67 whereas; the Standard deviation difference was 0.05. The Paired “t” test calculated for episiotomy pain score was 14.68. In 28 degree of freedom at 0.05 level of significance the table value is 2.05. So, hypothesis1 accepted and it is significant. For wound healing (**REEDA**) score the mean for pre-test was 3.67 and the post-test was 1.27. The standard deviation for pre-test was 1.77 and the post-test was 0.57. The mean difference is 2.4 whereas, Standard deviation difference is 0.2. The Paired “t” test calculated value was 19. In 28 degree of freedom at 0.05 level of significance the table value is 2.05. So hypothesis1 accepted and it is significant.

Experimental Group I (Betadine sitzbath)	PRE-TEST SCORE		POST- TEST SCORE		ENHANCEMENT		PAIRED t-TEST
	MEAN	SD	MEAN	SD	MEAN	SD	
Pain scale	7.93	0.68	5.38	0.83	2.13	0.15	12.53
REEDA scale	3.2	1.17	1.93	0.93	1.27	0.24	10.58

Table 5.4: depicts the the effectiveness of Betadine sitzbath and Halite salt sitzbath on episiotomy pain.

EFFECTIVENESS	BETADINE SITZBATH		HALITE SALT SITZBATH		UNPAIRED t-TEST
	MEAN	SD	MEAN	SD	
PRE-TEST	7.93	0.68	7.87	0.96	t= 5.23 P= 0.001 df= 28
POST-TEST	5.38	0.83	4.2	0.91	
PAIRED t-TEST	12.53 df=14		14.68 df= 14		Significant

For Experimental group I, effectiveness of Betadine sitzbath for pain score was calculated. The mean value of pre-test score was 7.93 and for post-test score were 5.38. The mean difference of Betadine sitzbath for both pre-test and post-test was 2.55. The standard deviation for pre-test was 0.68, and the post-test was 0.83. The difference in standard deviation for both pre-test and post-test was 0.15, the paired "t" test calculated value for pain score was 12.53. Whereas, in Experimental group II, effectiveness of Halite salt sitzbath for pain score was calculated. The mean value for pre-test score was 7.87, whereas post-test score was 4.2. The mean difference for both pre-test and post-test score was 3.67. The standard deviation for pre-test score was 0.96 and the post-test score was 0.91. The calculated difference of standard deviation value was 0.05. The calculated value for paired "t" test for Experimental group II for the pain score was 14.68. And the unpaired "t" test calculated value for pain score in experimental group I and II was 5.23.

Hence, both Betadine sitzbath and Halite salt sitzbath are significant in reducing the episiotomy pain, but halite salt sitzbath is much more effective comparing to Beatdine sitzbath in reducing the episiotomy pain.

Table 5.5: Depicts the effectiveness of Betadine sitzbath and Halite salt sitzbath on episiotomy wound healing.

In the above table 5:5, presented the wound healing score. For Experimental group I, effectiveness of Betadine sitzbath for wound healing (REEDA) score was calculated. The Mean value for study of pre-test score was calculated at 3.02 and post-test score was 1.93. The mean difference of Betadine sitz bath for both pre-test and post-test score was 1.27. The standard deviation for pre-test was 1.17, whereas the post test was 0.93. The difference in standard deviation for both pre-test and post-test was 0.24 and the paired "t" test calculated value for wound healing was 10.58. Whereas, in Experimental group II, mean value for pre-test score was 3.67 and post-test score was 1.27. The Mean difference for both pre-test and post-test score was 2.04. The standard deviation for pre-test score was 0.77 whereas, the post-test score was 0.57. The calculated difference of standard deviation value was 0.20. The calculated value for paired "t" test for Experimental group II was 19. The unpaired "t" test calculated value for wound healing in Experimental group I and Experimental group

II was

EFFECTIVENESS	BETADINE SITZBATH		HALITE SALT SITZBATH		UNPAIRED t-TEST
	MEAN	SD	MEAN	SD	
PRE-TEST	3.2	1.17	3.67	0.77	t= 6.67 P= 0.000015 df= 28
POST-TEST	1.93	0.93	1.27	0.57	
PAIRED t-TEST	10.58 df=14		19 df=14		Significant.

6.6.

Hence, both Betadine sitzbath and Halite salt sitzbath have significant effect on episiotomy wound healing, but halite salt sitzbath is much more effective comparing to Beatdine sitzbath in enhancing the episiotomy wound healing.

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