

A Study to Assess the Effectiveness of Sitz Bath on Episiotomy Wound Healing and Pain Among the Postnatal Mothers at Selected Hospitals, Lucknow

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ABSTRACT

The study was a true experimental (post test only design). The problem stated as “a study to assess the effectiveness of sitz bath on episiotomy wound healing and pain among the postnatal mothers at selected hospitals, Lucknow. The present study was conducted to assess the wound healing and pain of postnatal mothers on episiotomy. The design was true experimental posttest only design. A total 60 postnatal mothers (30 postnatal mothers in experimental group) and (30 postnatal mothers in control group) who meet the inclusion and exclusion criteria were selected as samples from the selected hospitals, Lucknow. The samples were selected by using simple random (table method) sampling technique. The investigator first introduced herself to the samples and developed rapport with them. After the selection of samples, the interview was being conducted with the instrument. The statistical analysis revealed that there is significant difference between post test levels of wound healing and pain scores of experimental group indicated the given sitz bath was effective.

KEYWORDS: *Sitzbath, Epiostomy, Woundhealing, Postnatal Mothers.*

INTRODUCTION

Giving birth is a life-changing event in a woman's life and has a long-lasting impact on her life, both physically and mentally. It is the most joyful experience for her and her entire family, but at the same time, several complications in the postnatal stage, including perineal pain, breast engorgement and headache, can cause the mother severe physical and psychological distress and reduce her quality of life.

Episiotomy is a surgically planned incision of the perineum and the posterior vaginal wall in the second stage of labour. It is one of the most commonly performed surgical procedures in the world. Throughout the different historical moments of care assistance, the practices of care for women in labor have been changing. The institutionalization of labor in the last century brought about a range of routine procedures, which resulted in the medicalization of the birth process.

Episiotomy is characterized by a perineal incision, in order to enlarge the vulva, Establishing it self as a

practice of routine used in child birth. The recommendation of the World Health Organization is a restricted use of episiotomy, without exceeding the rate of 10% of cases, and being only indicated in cases of signs of fetal distress; insufficient labor progress; the threat Of third-degree tear(including third degree laceration in previous delivery).

Scientific evidences show that the routine use of episiotomy is associated with several side effects such as section or extension of the section to the anal sphincter, unsatisfactory anatomic results, vaginalprolapse, rectal vaginal fistula, increase in blood loss and bruising, pain and swelling, infection and dehiscence and sexual dysfunction. Never the less, proper and restrict use presents good results such as lower risk of vaginal and perineal trauma, less healing complications, urinary incontinence, dyspareunia and others.

However, the use of episiotomy without clinical recommendation is still a common practice. Studies

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show that health professionals remain rooted in concepts that differ from scientific evidence-based results. What 's more, the professionals don't explain the medical procedures to the women and their families, which shows disrespect for citizenship, for without knowing the implications and the scientific evidence supporting each procedure, women are unable to decide on clinical management and become dependent on the professional decision.

Different approaches can be adopted to reduce these complications in the post-partum period, including cleanliness, cold packs, sitz bath, kegel exercises, perineal care and topical application of dry heat-infrared lamp therapy. Of all these approaches, infrared lamp therapy and sitz baths are the two most effective and commonly used for episiotomy pain relief and wound healing.

BACKGROUND OF THE STUDY

According to, World Health Organization (WHO) recommends an episiotomy rate of 10% for all normal deliveries. It is prescribed selectively for women who have past history of lower genital tract surgeries and for women who requires assisted vaginal deliveries. For the women in labor episiotomies may be given on emergency basis when there are presumed imminent perineal tear scar of lower genital tract, operative vaginal delivery, macrosomia and tight perineum.

According to WHO, the first published account of episiotomy in a medical journal was in 1810, but it took another hundred years for it to become a normal part of obstetric practice. There are earlier reports from London in 1741. There has been considerable debate about the place of episiotomy - more often fuelled by pre conceptions than evidence.

- In the early 1970s it was often advocated that there were two reasons for episiotomy; one was a primigravida, and the other a previous episiotomy. In other words, every vaginal delivery should be accompanied by episiotomy.
- It was argued that this reduced the risk of tears and subsequent problems from prolonged bearing down, such as prolapsed. The evidence for the latter was somewhat tenuous.
- The uncritical liberal use of episiotomy was opposed by consumer groups, including the National Childbirth Trust, and the severe high rates of episiotomy have been reversed.

The rate of episiotomy in England decreased from 51% in 1975 to 15% in 2010-11, although this is only an approximate comparison because the statistics methodology was changed in 2006.

The overall rates for third-degree and fourth-degree perineal tears in England in 2011- 2012 were.

- Primiparous: 4% following spontaneous vaginal delivery and 6.9% following instrumental delivery.
- Multiparous: 1.4% following spontaneous vaginal delivery and 2.5% following instrumental delivery.

NEED FOR THE STUDY

Motherhood is a beautiful process, where by mothers safely delivers a child. It is the magic of creation. Care must be given to ensure safe birth. Safe motherhood initiative announced in the year 1987 had set targets to reduce maternal mortality by 50% one decade. The safe motherhood aims at enhancing the quality of life and women through adoption of a combination of health and non-health strategies. Glazer et al (1996), as cited by Calvert and Fleming (2000) have addressed the extent and causes of morbidity by self-reported questionnaire. Their conclusions are that maternal postnatal morbidity is extensive and that it is unrecognized by health professional. 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.

Episiotomy is an incision made on the perineum during a vaginal delivery to facilitate. Although its use in childbirth has steadily declined in recent decades, literature says in developed countries like United States and United Kingdom, episiotomy rates has decreased to 8% to 10% but actual use remains common in many hospital settings. Our institution being a tertiary care teaching hospital, the incidence of episiotomies per month is approximately 40%-70% while the rate of restrictive groups are 27.6%.

Journal of American science [2012] Most women have some degree of discomfort during the first few postpartum days. One of ten common causes of discomfort is episiotomy. Nursing interventions are intended to reduce the discomfort and allow the woman to take care of herself and her baby. Simple interventions that can decrease the discomfort Associated with perineal trauma is applying an ice pack, moist or dry or topical applications, cleansing the perineum with a squeeze bottle and taking a warm shower or a sitz bath.

In India, the overall rate of episiotomy was 40.6% among the midwives performed episiotomies at a lower rate (21.4%), faculty (33.3%) and private care providers (56.6%). The need for the Sitz bath during episiotomy is represented by a reduction of mean score from 4.1 to 0.15 and standard deviation from

0.66to0.3. The findings of the study consistent with the findings.

Pillitere (1994) says that every woman needs attention to perineal cleanliness in the postpartum period to prevent infection, as lochia may dry and harden in the vulva and perineum. It furnishes the bed for bacterial growth because the vagina lies in the close proximity to the rectum. Also there is always the danger that bacteria will spread from the rectum to the vagina and cause uterine infection. and explicit delivery and to prevent perineal tear.

Episiotomy pain often interferes with basic daily activities for the woman such as walking, sitting, passing urine and defecating and also negatively impacts on motherhood experiences. Seven randomized controlled trials (RCTS)of liberal versus restrictive use of episiotomy assessed pain outcome. The most common primary outcome was perineal status after the birth.

All seven studies reported incidences of episiotomy in liberal use and in restrictive it was third and fourth degree lacerations or extensions. The most common secondary outcome was pain in the days immediately after the birth. In the two groups used numerical pain scale to assess the pain and classified responses into categories of mild, moderate or severe.

Orally they have reported the composite score of the 0-10 items scale.

Thus pain assessment is very important contributor for professionals especially midwives, as traditionally they are left to manage the episiotomy wound.

Episiotomy wound care starts immediately after suturing the wound in order to reduce pain and heal wound. There are some general treatments for perineal care such as cold packs and ice packs applied to perineum for the first 24 hours. Kegal exercises are taught by nurses to strengthen the pelvic floor muscles and it speeds up the wound healing process.

Apart from all the important significant therapy hot application [sitz bath with potassium permanganate 1 gram] is widely used in many different hospital settings and proved effective managing the episiotomy wound pain and healing and also in minimizing secondary complications.

The investigator had observed that hot application of potassium permanganate is used in various hospital settings for the treatment of episiotomy wound.

Generally accepted therapeutic protocols are however missing as each institution working with hot application with potassium permanganate has its own

protocol or adopted from various other institutions which are not adequately verified. Though the standard protocols are not available still the literature supports the benefit of potassium permanganate as an effective treatment for episiotomy wound healing. So the investigator strongly feels the need to implement sitz bath with potassium permanganate in our institution in treating episiotomy to provide comfort, prevent infection, reduce pain and promote wound healing ultimately reducing the hospital stay of patients. Further this study will help to formulate a standard protocol for our hospital and benefit the nurses of maternity unit. Today, when the cost of medical treatment and care is so increasing. Economical care of patients with episiotomy can be provided, if nurse and midwives realize the relevance of their care and potential impact of the advocated procedure in wound healing.

OBJECTIVES

- To assess the effectiveness of post test of episiotomy wound healing and pain among the postnatal mothers in both experimental and control group.
- To compare the significant difference between the experimental group and control group of posttest of episiotomy wound healing and pain among the postnatal mothers.
- To correlate the post test of episiotomy wound healing and pain among the postnatal mothers in both experimental group and control group.
- To determine the association between the posttest of episiotomy wound healing and pain among the postnatal mothers in both experimental and control group with their selected demographic variables such as Age of the mother, parity, educational status, occupation, body built, type of family, history of present medical illness, indication of episiotomy, birth weight of the newborn and types of episiotomy.

HYPOTHESES

All Hypotheses were tested at 0.05 level of significance

- **H1**-There will be a significant difference between the experimental and control group of post test of episiotomy wound healing and pain among the postnatal mothers.
- **H2**-There will be a significant correlation between the posttest levels of episiotomy wound healing and pain among the postnatal mothers in both experimental and control group.
- **H3**-There will be a significant association between the posttest level of episiotomy wound

healing and pain reduction among the postnatal mothers in both experimental and control group with their selected demographic variables such as Age of the mother, parity, educational status, occupation, body built, type of family, history of present medical illness, indication of episiotomy, birth weight of the newborn and types of episiotomy.

OPERATIONAL DEFINITION

➤ EFFECTIVENESS

In this study it refers to in the episiotomy wound healing process and pain reduction measured by REEDA scale and Numerical pain rating scale.

➤ SITZBATH

In this study it refers to the immersion of perineal area and buttocks in 4 liters of warm water at 110°F mixed with 1gram of potassium permanganate 3 times a day for 15 minutes.

➤ PAIN

In this study it refers to unpleasant feeling caused by episiotomy wound and it's measured by Numerical pain rating scale.

➤ EPISIOTOMY WOUND

In this study it refers to the incision made on the perineum, it's a area Between the vagina and anus during the process of childbirth.

➤ POSTNATALMOTHERS

In this study it refers to the women who delivered by normal vaginal delivery with Episiotomy.

ASSUMPTION

- Sitz bath may fasten the episiotomy wound healing process and simultaneously reduce the pain.
- Sitz bath helps to reduce the infection.

DELIMITATION

- The study will be limited to the postnatal mothers with episiotomy wound.
- The study will be limited to the mothers who have delivered in selected hospitals.
- Data collection period will be limited to 6weeks.

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. In this chapter the investigator discusses the Research approach, Research design, Variables, Setting, Population, Sample, Sample size, Sampling technique, Criteria for data collection, Description of the tool, Plan for data analysis and production of human rights.

RESEARCH APPROACH

An evaluative research approach was used in this study.

RESEARCH DESIGN

True experimental research design (post test only design) was used in this study.

E	R	X	O2
C	R	-	O2

E- Experimental group

C- Control group

R- Randomization

X- Treatment [Sitz bath by potassium permanganate]

XI- O2-Post test for both group

VARIABLES

Independent variable : Sitz bath.

Dependent variable : Episiotomy wound healing and pain

Demographic variables: Age of the mother, parity, educational status, occupation, body built, type of family, history of present medical illness, indication of episiotomy and types of episiotomy.

SETTING

This study conducted among the postnatal mothers admitted at selected hospitals, Lucknow.

Experimental group & Control group: Deepak Life Sciences Hospital Multispeciality, 110 bedded hospital with an average of 80 normal vaginal deliveries per month.

POPULATION

The population consisted of post natal mothers at selected hospitals, Lucknow.

SAMPLE

In this study the post natal mothers who had delivered by normal vaginal deliveries with episiotomy.

SAMPLE SIZE

The sample consists of 60 postnatal mothers.

[Experimental group—30 samples and Control group-30 samples]

CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

- Post natal mothers who are willing to participate in the study.
- Post natal mothers who can understand Hindi & English both language.

EXCLUSION CRITERIA

- Post natal mothers who have done L.S.C.S and assisted vaginal delivery.
- Post natal mothers who have received analgesics and antibiotics

DEVELOPMENT AND DESCRIPTION OF THE TOOL

Tool comprised of 3 parts

Part-I: Demographic variables such as age of the mother, parity, educational status, occupation, body built, type of family, history of present medical illness, indication of episiotomy and types of episiotomy.

Part-II: REEDA scale to assess the episiotomy wound healing.

Part-III: Numerical pain rating scale to assess the pain reduction.

RELIABILITY AND VALIDITY OF THE TOOL

The validity of the tool was established with obstetrical and gynecological experts. The tool was modified according to the suggestions and recommendations of experts and the tool was finalized. The reliability of the tool was established by standard error of measurement method for Numerical pain scale and kappa correlation coefficient formula for REEDA Scale. (r = 0.7)

METHOD OF DATA COLLECTION

Written formal permission obtained from hospital authorities and informed oral consent obtained from each subjects. The samples selected by simple randomized sampling technique and True experimental post test only design used. Sitz bath given to the postnatal mothers in experimental group. And routine treatment given (Ice pack, moist or dry or topical applications, cleansing the perineum with cloth taking a warm shower) in control group. After 3 days post test Conducted by using the REEDA and Numerical pain rating scale for both experimental and control groups.

SCORING AND INTERPRETATION PROCEDURE

A. DESCRIPTION OF THE TOOLS

TOOL consisted of III parts,

Part I: Demographic variables.

Part-II: It consisted of REEDA scale to assess the episiotomy wound healing.

Part-III: It consisted of Numerical pain rating scale to assess the pain reduction.

B. SCORING PART- II

Part-II:

It consisted of REEDA scale to assess the episiotomy wound healing.

$$= \frac{\text{OBTAINED SCORE}}{\text{TOTAL SCORE}} \times 100$$

TABLE 3.1 Represents the percentage for the level so wound healing score

Level of wound Healing	Score	Percentage
Good wound healing	0	100%
Mild wound healing	1-5	90-70%
Moderate wound healing	6-10	60-40%
Severe wound healing	11-15	30-0%

Part-III:

It consisted of Numerical pain scale to assess the pain reduction.

$$= \frac{\text{OBTAINED SCORE}}{\text{TOTAL SCORE}} \times 100$$

TABLE 3.2 represents the percentage for the level so pain reduction score

Level of pain	Score	Percentage
No pain	0	100%
Mild pain	1-3	90-70%
Moderate pain	4-6	60-40%
Severe pain	7-10	30-0%

DATA ANALYSIS

This chapter deals with the description of sample characteristics, analysis and interpretation of data collected from postnatal mothers on episiotomy wound healing and pain reduction in experimental and control group.

This chapter represents the organization of data, and the collection of data. It was interpreted by using descriptive and inferential statistics method. The data was coded and analyzed as per the objective of the study.

ORGANIZATION OF DATA

The data has been organized and tabulated as follows.

SECTION:1

Assessment of demographic variables of postnatal mothers with episiotomy wound healing and pain in experimental and control group.

SECTION:2

Assessment of posttest of episiotomy wound healing and pain among the postnatal mothers in experimental and control group.

SECTION:3

Compare the significant difference between posttest of experimental and control group among the postnatal mothers on episiotomy wound healing and pain.

SECTION:4

Assessment of correlation between the posttest of wound healing and pain among the postnatal mothers in both experimental and control group.

SECTION:5

Assessment of the significant association between the posttest of episiotomy wound healing and pain among the postnatal mothers in both experimental and control group with their selected demographic variables

PRESENTATION OF DATA**SECTION:1**

Assessment of demographic variables of the postnatal mothers with episiotomy wound healing and pain among the postnatal mothers in experimental and control group.

TABLE:4.1 Frequency and percentage distribution of demographic variables among the postnatal mothers regarding episiotomy wound healing in both experimental and control group.

N=30+30

S. No	Demographic Variables	Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
1.	Age in years				
	13 to 16 years	1	3.3	4	13.33
	17 to 20 years	2	6.6	3	10
	21 to 25 years	13	43.3	11	36.66
	26 to 30 years	13	43.3	9	30
2.	31 to 35 years	1	3.3	3	10
	Parity				
2.	a) Primi	22	73.3	18	60
	b) Multi	8	26.6	12	40
3.	Educational status				
	Non formal			2	6.66
	High school	6	20	6	20
	Higher secondary	5	16.6	5	16.66
4.	Graduate	19	63.3	17	56.66
	Place of residence				
4.	a) Rural	17	56.6	15	50
	b) Urban	13	43.3	15	50
5.	History of present medical illness				
	a) Diabetes mellitus b) Hypertension	1	3.33	3	10
	c) Bronchial asthma	2	6.66	2	6.66
	d) Normal condition	2	6.66	2	6.66
6.	Birth weight of the baby				
	a) Below 2.5kg	5	16.66	4	13.33
	b) 2.5kg to 3.5kg	20	66.6	19	63.33
7.	c) Above 3.5kg	5	16.66	7	23.33
	Types of episiotomy				
	a) Medio lateral Right Left				
7.	b) Median	22	73.33	23	76.66
	c) Lateral J shape	8	26.66	7	23.33
8.	Occupation.				
	a) Arts	13	43.33	13	43.33
	b) Medical	9	26.66	2	6.66
9.	c) Biotechnology	8	30	15	50
	Types of family				
9.	a) Nuclear	20	66.66	20	66.66
	b) Joint	10	33.33	10	33.33
10.	Body built(BMI)				
	a) Below 18	7	23.33	3	10
	b) 18 to 24.4	7	23.33	7	23.33
	c) 25 to 29	8	26.66	10	33.33
10.	d) 30 above	8	26.66	10	33.33

11.	Indication of episiotomy				
	a) Macrosomia	1	3.33	2	6.66
	b) Elasticperineum	26	86.66	27	90
	c) Breech	3	10	1	3.33

TABLE4.1 above represents the frequency and percentage distribution of demographic variables among the postnatal mothers regarding episiotomy wound healing in both experimental and control group.

This table revealed that regarding the age, maximum 13 (43.3%) postnatal mothers were in age group of 21to30yrs, 2(6.6%) postnatal mothers were in age group of 17 to 20 yrs,1(3.3%)postnatal mothers were in age group of 13 to16yrsand 31to 35yrs in experimental group. Where as in control group, 11(36.66%) postnatal mothers were in age group of 21 to 25 yrs, 9 (30%) postnatal mothers in age group of 26 to 30 yrs, and 4(13.33%) postnatal mothers were in age group of 13 to16yrs and 3(10%) postnatal mothers were in age group of 17 to 20 yrs and 31 to 35yrs.

TABLE: 4.2 Frequency and percentage distribution of demographic variables among the postnatal mothers regarding episiotomy pain in both experimental and control group.

N=30+30

S. NO	Demographic Variables	Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
1.	Age in years				
	a) 13 to 16 years	1	3.3	6	20
	b) 17 to 20 years	2	6.6	10	33.33
	c) 21 to 25 years	17	56.6	6	20
	d) 26 to 30 years	13	43.3	6	20
2.	e) 31 to 35 years	1	3.3	2	6.66
	Parity				
2.	a) Primi	22	73.3	18	60
	b) Multi	8	26.6	12	40
3.	Educational status				
	a) Non formal			2	6.66
	b) High school	6	20	6	20
	c) Higher secondary	5	16.6	5	16.66
4.	d) Graduate	19	63.3	17	56.66
	Place of residence				
4.	a) Rural	17	56.6	15	50
	b) Urban	13	18.57	15	50
5.	History of present medical illness				
	a) Diabetes mellitus	2	6.66	2	6.66
	b) Hypertension	2	6.66	2	6.66
	c) Bronchial asthma	1	3.33	2	6.66
6.	d) Normal condition	25	83.33	24	80
	Birth weight of the newborn				
	a) Below 2.5kg	4	13.3	4	13.33
7.	b) 2.5kg to 3.5kg	20	80	19	63.33
	c) Above 3.5kg	6	6.66	7	23.33
7.	Types of episiotomy				
	a) Mediolateral Right Left	23	76.66	25	83.33
	b) Median	7	23.33	5	16.66
	c) Lateral				
8.	d) Jshape				
	Occupation				
	a) Arts	11	36.66	13	43.33
8.	b) Medical	7	23.33	2	6.66
	c) Biotechnology	12	40	15	50

9.	Types of family.				
	a)Nuclear	19	63.33	20	66.66
	b)Joint	11	36.66	10	33.33
10.	Bodybuilt (BMI)				
	a)Below18	3	10	3	10
	b)18to24	10	33.33	7	23.33
	c) 25to29	9	30	10	33.33
	d) 30above	8	26.66	10	33.33
11.	Indication of episiotomy				
	a)Macrosomia	1	3.33	2	6.66
	b)Elasticperineum	26	86.66	27	90
	c)Breech	3	10	1	3.33

TABLE 4.2 above represents the frequency and percentage distribution of demographic variables among the postnatal mothers regarding episiotomy pain in both experimental and control group.

SECTION: 2

Assessment of posttest levels episiotomy wound healing and pain among the postnatal mothers in experimental and control group.

TABLE: 4.3 Frequency and percentage distribution of posttest levels of episiotomy wound healing among the postnatal mothers in experimental and control group.

N=30+30=60

S. No	Levels of Wound Healing	Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
1.	MILD WOUND HEALING	22	73.33%	16	53.33%
2.	MODERATE WOUND HEALING	8	26.66%	8	26.66%
3.	SEVERE WOUND HEALING	-	-	6	20%

TABLE 4.3 represents frequency and percentage distribution of posttest levels of episiotomy wound healing among the postnatal mothers in experimental and control group.

This table revealed that, 22(73.33%) postnatal mothers had mild wound healing and 8(26.66%) postnatal mothers had moderate wound healing in experimental group. Where as in control group 16(53.33%) postnatal mothers had mild wound healing, 8(26.66%) postnatal mothers had moderate wound healing and 6(20%) postnatal mothers had severe wound healing.

TABLE 4.4 Frequency and percentage distribution of posttest of episiotomy pain among the postnatal mothers in experimental and control group.

N=30+30=60

S. No	Levels of Pain	Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
1.	MILD PAIN	21	70%	17	56.66%
2.	MODERATE PAIN	9	30%	7	23.33%
3.	SEVERE PAIN	-	-	6	20%

TABLE4.4 represents frequency and percentage distribution of posttest of episiotomy pain among the postnatal mothers in experimental and control group.

This table revealed that, 21 (70%) postnatal mothers had mild pain and 9(30%) postnatal mothers had moderate pain in experimental group. Whereas in control group 17(56.66%) postnatal mothers had mild pain,7(23.33%) postnatal mothers had moderate pain and 6(20%) postnatal mothers had severe pain.

SECTION:3

Compare the significant difference between posttest levels of experimental group and control group among the postnatal mothers on episiotomy wound healing and pain.

TABLE 4.5 Compare the significant difference between experimental and control group among the postnatal mothers on episiotomy wound healing and pain.

N=30+30=60

S. No	Test	Experimental Group		Control Group		Unpaired “t” value
		Mean	SD	Mean	SD	
1.	Wound healing Posttest	4.8	1.7397	6	3.8122	t=13.8906 significant
2.	Pain Post test	3.8333	1.4395	4.0666	2.1359	t=15.9465 significant

TABLE4.5 Represents the compare the significant difference between experimental and control group among the postnatal mother on episiotomy wound healing and pain.

The analysis revealed that mean value 4.8 with standard deviation 1.7397 of posttest of wound healing has significant to the post test of pain mean value 3.8333 with standard deviation 1.4395 and the “t” value CV = 13.8906 and the TV = 2.01(CV > TV) which is significant at 0.05 level. where as in control group the mean value 6 with Standard deviation 3.8122 has significant to the post test of pain mean value 4.0666 with standard deviation 2.1359 and the “t” value CV=15.9465 and the TV=2.01(CV > TV) which is significant at 0.05 level.

The statistical analysis revealed that there is significant difference in posttest scores of wound healing and pain in experimental and control group. So the hot application was effective.

SECTION: 4

Assessment of correlation between the posttest scores of wound healing and pain among the postnatal mothers in experimental and control group.

TABLES4.6 assess the correlation between the posttest scores of wound healing and pain among the postnatal mothers in experimental and control group.

N=30+30=60

S. No	Group	Wound Healing		Pain		“r” value
		Mean	SD	Mean	SD	
1.	Experimental group	4.8	1.7397	3.8333	1.4395	r=0.8 positive and highly significant
2.	Control group	6	3.8122	4.0666	2.1359	r=0.4 positive and Moderately significant

TABLE4.6 Represents the represents the correlation between the post test scores of wound healing and pain among the postnatal mothers in experimental and control group. In experimental group the mean value of wound healing 4.8 with standard deviation 1.7397 and the mean value of pain 3.8333 with standard deviation 1.4395 and the correlation “r”=0.8 which is positive and highly significance for post test scores of experimental group. Where as in control group the mean value of wound healing 6 with standard deviation 3.8122 and the mean value of pain 4.0666 with standard deviation 2.1359 and the correlation “r”=0.4 positive and moderately significant for posttest scores of wound healing and pain. Hence there is a positive and highly significant correlation between the wound healing and pain in experimental group and in control group, correlation is positive and moderately significant. It revealed that hot application was effective.

SECTION:5

Assessment of association between the posttest level of episiotomy wound healing and pain among the postnatal mothers in experimental with the selected demographic variables.

TABLE4.7 Assess the association between the posttest level of episiotomy wound healing and pain among the postnatal mothers in experimental with the selected demographic variables.

Demographic variables	Level of wound healing						χ ²	Level of pain						χ ²
	Mild		Moderate		Severe			Mild		Moderate		Severe		
	No	%	No	%	No	%		No	%	No	%	No	%	
Age in years														
a) 13to16yrs	1	3.33	-	-	-	-	1.677 1(NS)	1	3.33	-	-	-	-	5.8 202 (NS)
b) 17to20yrs	2	6.66	-	-	-	-		2	6.66	-	-	-	-	
c) 21to25yrs	9	30	4	13.3	-	-		8	26.6	4	13.3	-	-	
d) 6to30yrs	9	30	4	13.33	-	-		9	30	-	-	-	-	
e) 31to35yrs	1	3.33	-	-	-	-		1	3.33	-	-	-	-	
Parity														
a) Primi	16	53.3	6	20	-	-	15.428	15	50	7	23.3	-	-	0.1
b) Multi	6	20	2	6.66	-	-	1(S)	6	20	2	6.66	-	-	296 (NS)

Educational status															
a) Non formal						0.6547									1.1
b) Highs School	5	16.6	1	3.33	-	(NS)	5	16.6	1	3.33	-	-	-	-	692 (NS)
c) Higher secondary	4	13.3	1	3.33	-		4	13.3	1	3.33	-	-	-	-	
d) Graduate	13	43.3	6	20	-		12	40	7	23.3	-	-	-	-	
Place of residence															
a) Rural	13	43.3	4	13.3	-	0.1973	12	40	5	16.6	-	-	-	-	14.
b) b)Urban	9	30	4	13.3	-	(NS)	9	30	4	13.3	-	-	-	-	027 (S)
History of present medical illness															
a) Diabetes mellitus	1	3.33	1	-	-	13.929	-	-	2	6.66	-	-	-	-	25.6
b) Hyper tension	1	3.33		3.33	-	8(S)	1	3.33	1	3.33	-	-	-	-	77
c) Bronchial asthma	1	3.33	1	3.33	-		-	-	1	3.33	-	-	-	-	6
d) Normal condition	25	83.3		-	-		25	83.3	-	-	-	-	-	-	(S)
Birth weight of the new born															
a) Below2.5 kg	3	10	1	3.33	-	13.407	3	10	1	3.33	-	-	-	-	9.5
b) 2.5kgt03.5kg	15	50	5	16.6	-	2(S)	14	46.6	6	20	-	-	-	-	744 (S)
c) Above3.5kg	4	13.3	2	6.66	-		4	13.3	2	6.66	-	-	-	-	
Types of episiotomy															
a) Mediolateral Right Left	18	60	4	13.3	-		18	60	5	16.6	-	-	-	-	
b) Median	4	13.3	4	13.3	-	3.036	3	10	4	13.3	-	-	-	-	3.203
c) Lateral	-	-	-	-	-	8 (NS)	-	-	-	-	-	-	-	-	(NS)
J shape	-	-	-	-	-		-	-	-	-	-	-	-	-	
Occupation															
a)Arts	9	30	4	13.3	-	2.927	7	23.3	4	13.3	-	-	-	-	7.1575
b)Medical	4	13.3	4	13.3	-	8 (NS)	5	16.6	2	6.66	-	-	-	-	(S)
c)Biotechnology	9	30					9	30	3	10	-	-	-	-	
Types of family															
a) Nuclear	16	53.3	4	13.3	-	1.363	13	43.3	6	20	-	-	-	-	6.8214
b) Joint	6	20	4	13.3	-	6 (NS)	8	26.6	3	10	-	-	-	-	(S)
Body built (BMI)															
a) Below18	6	20	1	3.33	-	6.933	3	10	-4	-	-	-	-	-	2.333
b) 18to24.4	6	20	1	3.33	-	2 (NS)	6	20	3	13.3	-	-	-	-	(NS)
c) 25to29	5	16.6	3	10	-		6	20	2	10	-	-	-	-	
d) 30above	5	16.6	3	10	-		6	20	2	6.66	-	-	-	-	
Indication of episiotomy															
a) Macrosomia	-	-	1	3.3	-	7.2112 (S)	-	-	1	3.33	-	-	-	-	3.8827
b) Elastic perineum	18	60	8	26.6	-		17	56.6	9	30	-	-	-	-	(S)
c) Breech	3	10	-	-	-		3	10	-	-	-	-	-	-	

H0-There is no significant association between the posttest levels of wound healing and pain among the postnatal mothers in experimental group with their selected demographic variables.

TABLE 4.7

Represents that assessment of association between the posttest level of episiotomy wound healing and pain among the postnatal mothers in experimental with the selected demographic variables.

The analysis revealed that there is no significant association between the parity, birth weight of the baby and indication of episiotomy of posttest of wound healing and there is no significant association between the age, educational status, place of residence, types of episiotomy, occupation, types of family and body built. And there was a significant association between the parity, history of present medical illness, birth weight of the baby and indication of episiotomy in experimental group. Where as in posttest levels of pain revealed that there is a significant association between the place of residence, history of present medical illness, birth weight of the baby, occupation, types of family and indication of episiotomy. And there is no significant association between the age, parity, educational status, types of episiotomy and body built

TABLE4.8 Assess the association between the posttest level of episiotomy wound healing and pain among the postnatal mothers in control group with the selected demographic variables.

Demographic variables	Level of wound healing						χ^2	Level of pain						χ^2
	Mild		Moderate		Severe			Mild		Moderate		Severe		
	No	%	No	%	No	%		No	%	No	%	No	%	
Age in years														
a) 13to16yrs	3	10	1	3.33	-	-	12.63	4	13.3	1	3.33	1	3.33	8.15 09 NS
b) 17to20yrs	3	10	-	-	-	-	48	3	10	4	13.3	3	10	
c) 21to25yrs	3	10	4	13.33	4	13.3	(NS)	3	10	2	6.66	1	3.33	
d) 26to30yrs	5	16.66	2	6.66	2	6.66		5	16.6	-	-	1	3.33	
e) 31to35yrs	2	6.66	1	3.33	-	-		2	6.66	-	-	-	-	
Parity														
a) Primi	9	30	5	16.6	4	13.3	0.413	11	36.6	5	16.6	2	6.66	2.31 53
b) Multi	7	23.3	3	10	2	6.66	(NS)	6	20	2	6.66	4	13.3	NS
Educational status														
a) Non formal	2	6.66	-1	-	-	-	11.82	1	3.33	1	3.33	-	-	7.64
b) Highschool	5	16.6	-	3.33	-	-	78	3	10	2	6.66	-	-	27
c) Higher secondary	4	13.3	6	-	1	3.33	S	5	16.6	-	1	5	3.33	NS
d) Graduate	5	16.6	-	20	6	20		8	26.6	4	4	13.3	16.6	
Place of residence														
a) Rural	8	26.6	4	13.3	3	10	0	8	26.6	3	10	4	13.3	0.82 62
b) Urban	8	26.6	4	13.3	3	10	NS	9	30	4	13.3	2	6.66	NS
History of Present Medical Illness														
a) Diabetes Mellitus	2	6.66	1	3.33	-	-	3.278	1	3.33	1	3.33	-	-	5.71
b) Hypertension	1	3.33	1	3.33	-	-	8	1	3.33	1	3.33	-	-	97
C) Bronchial asthma	1	3.33	1	3.33	-	-	(NS)	1	3.33	1	3.33	-	-	NS
d) Normal condition	20	66.66	3	10	-	-		19	63.3	5	16.6	-	-	
Birth Weight of the newborn														
a) Below2.5kg	2	6.66	2	6.66	-	-	3.80	3	10	1	3.33	-	-	10.2
b) 2.5kgto3.5kg	9	30	4	13.3	6	20	(NS)	8	26.6	6	20	5	16.6	37
c) Above3.5kg	5	16.6	1	3.33	1	3.33		6	20	-	-	1	3.33	(S)
Types of Episiotomy														
a) Mediolateral Right Left	14	46.6	4	13.3	5	16.6	4.378	14	46.6	6	20	5	16.6	2.18
b) Median	2	6.66	4	13.3	1	3.33	4(S)	3	10	1	3.33	1	3.33	5
c) Lateral	-	-	-	-	-	-		-	-	-	-	-	-	4
d) Jshape	-	-	-	-	-	-		-	-	-	-	-	-	NS
Occupation														
a) Arts	6	20	4	13.3	3	10	2.01	6	20	4	13.3	-	-	5.6
b) Medical	2	6.66	-4	-	-3	-1	9 (NS)	1	3.33	1	3.33	3	10	11
c) Biotechnology	8	26.6	-	13.3	0	0		9	30	3	10	-3	0	NS
Types of family														
a) Nuclear	11	36.6	4	13.3	5	16.6	1.781	11	36.6	5	16.6	4	13.3	0.44
b) Joint	5	16.6	4	13.3	1	3.33	(NS)	6	20	2	6.66	2	6.66	46
Body built														
a) Below18	1	3.33	1	3.33	1	3.33	2.062	3	10	-	-	-	-	4.0
b) 18to24.4	5	16.6	1	3.33	1	3.33	5	4	13.3	2	6.66	-1	3.33	19
c) 25to29	5	16.6	3	10	2	6.66	NS	4	13.3	3	10	3	10	NS
d) 30Above	5	16.6	3	10	2	6.66		6	20	2	6.66	2	6.66	
Indication of episiotomy														
a) Macrosomia	-	-	1	6.66	1	6.66	5.341	-	-	1	3.33	1	3.33	9.06
b) Elastic perineum	13	43.3	8	26.6	6	20	8(S)	14	46.6	7	23.3	6	20	21
c) Breech	1	3.33	-	-	-	-		1	3.33	-	-	-	-	(S)

Ho There is no significant association between the posttest of wound healing and pain among the postnatal mothers in control group with their selected demographic variables.

TABLE 4.8

Represents assess the association between the posttest of episiotomy wound healing and pain among the postnatal mothers in control group with the selected demographic variables.

The analysis revealed that there is a significant association between the educational status, types of episiotomy and indication of episiotomy of posttest of wound healing and there is no significant association between the age, parity, place of residence, history of present medical illness, birth weight of the baby, occupation, types of family and body built in control group. Where as in posttest of pain revealed that the re is a significant association between the birth weight of the newborn, indication of episiotomy. And there is no significant association between the age, parity, educational status, place of residence, history of present medical illness, types of episiotomy, occupation, types of family and body built.

DISCUSSION

The study was a true experimental (post test only design). The problem stated as “a study to assess the effectiveness of sitz bath on episiotomy wound healing and pain among the postnatal mothers at selected hospitals, Lucknow.

The study was conducted for 60 students in which 30 are assigned as experimental group and 30 are assigned to control group. Hospital sand samples were selected by using simple random (lottery and table method). The study was conducted among the postnatal mothers at selected hospitals, Lucknow.

The first objective to assess the posttest of episiotomy wound healing and pain among the post natal mothers in both experimental and control group.

In the posttest of experimental group wound healing level was 22(73.33%) mothers had mild wound healing and 8(26.66%) mothers had moderate wound healing. In pain 21 (70%) mothers had mild pain and 9(30%) mothers had moderate pain. Where as in control group 16(53.33%) mothers had mild wound healing, 8 (26.66%) mothers had moderate wound healing and 6 (20%) mothers had severe wound healing. In pain 17(56.66%) mothers had mild pain, 7(23.33%) mothers had moderate pain and 6(20%) mothers had severe pain.

The second objective to compare the significance difference between the experimental and control group of posttest of episiotomy wound healing and pain among the postnatal mothers.

The analysis revealed that mean value 4.8 with standard deviation 1.7397 of posttest of wound healing has significant to the post test of pain mean value 3.8333 with standard deviation 1.4395 and the “t” value CV = 13.8906 and TV = 2.01(CV>TV). In control group the mean value 6 with standard deviation 3.8122 has significant to the post test of pain mean value 4.0666 with standard

deviation 2.1359 and the “t” value CV=15.9465 and TV= 2.01(CV > TV). Both was significant at 0.05 level. So the hot application was effective.

The third objective to correlate the post test of episiotomy wound healing and pain among the postnatal mothers in both experimental group and control group.

In experimental group the mean value of wound healing 4.8 with standard deviation 1.7397 and the mean value of pain 3.8333 with standard deviation 1.4395 and the correlation “r”=0.8. It revealed that there was a positive and highly significant correlation between the wound healing and pain.

In control group the mean value of wound healing 6 with standard deviation 3.8122 and the mean value of pain 4.0666 with standard deviation 2.1359 and the correlation “r” = 0.4 it revealed that there was a positive moderately significant correlation between.

The fourth objective to determine the association between the posttest of episiotomy wound healing and pain among the postnatal mothers in experimental and control group with their selected demographic variable seen the wound healing and pain.

In the experimental group there was a significant association between the parity, history of present medical illness, birth weigh to the baby and indication of episiotomy. In the control group there is a significant association between the educational status, types of episiotomy and indication of episiotomy for wound healing. Where as in pain there is a significant association between the birth weight of the baby, indication of episiotomy. So the hypothesis H3 is accepted.

In experimental group there is no significant association between the age, educational status, place of residence, types of episiotomy, occupation, types of family and body built for wound healing. Where as in pain there is no significant associate on between

the age, parity, educational status, types of episiotomy and body built. So the hypothesis H3 is rejected.

In control group there is no significant association between the age, parity, place of residence, history of present medical illness, birth weight of the baby, occupation, types of family and body built. Where as in pain there is no significant association between the age, parity, educational status, place of residence, history of present medical illness, types of episiotomy, occupation, types of family and body built.

SUMMARY

The present study was conducted to assess the wound healing and pain of postnatal mothers on episiotomy. The design was true experimental posttest only design. A total 60 postnatal mothers (30 postnatal mothers in experimental group) and (30 postnatal mothers in control group) who meet the inclusion and exclusion criteria were selected as samples from the selected hospitals, Lucknow. The samples were selected by using simple random (table method) sampling technique.

The investigator first introduced herself to the samples and developed rapport with them. After the selection of samples, the interview was being conducted with the instrument.

In the posttest of experimental group wound healing level was 22(73.33%) mothers had mild wound healing and 8 (26.66%) mothers had moderate wound healing. In pain 21 (70%) mothers had mild pain and 9(30%) mothers had moderate pain. Where as in control group 16 (53.33%) mothers had mild wound healing, 8 (26.66%) mothers had moderate wound healing and 6 (20%) mothers had severe wound healing. In pain 17(56.66%) mothers had mild pain, 7(23.33%) mothers had moderate pain and 6(20%) mothers had severe pain.

The statistical analysis for the comparison of wound healing and pain of the experimental and control group was calculated by the “unpaired” test” for posttest wound healing level was (“t” =13.8906) and for pain (“t” =15.9465) this revealed that there is significant difference in posttest wound healing and pain for the experimental and control group. The statistical analysis for correlation between the post test scores of wound healing and pain of the experimental and control group was calculated by “Karl Pearson correlation test” stated that in experimental group the posttest scores of wound healing mean value is 4.8 with SD 1.7397 and the post test scores of pain the mean value is 3.8333 with SD 1.4395. And the “r” value (r= 0.8) it revealed that there is a positive and highly significant correlation

between the wound healing and pain regarding sitz bath.

In control group the mean posttest value of wound healing was 6 with SD 3.8122 and in pain the mean value 4.0666 with SD 2.1359 and “r” value (r = 0.4) it revealed that there was a positive and moderately significant correlation between the wound healing and pain regarding routine care.

NURSING IMPLICATION

The findings of the study have certain important implications for the nursing services, education, administration, and nursing research.

NURSING SERVICE

Nurses are acts as aeducator, leader, supervisor, protector, advocator and team member in various situation of work. Sitzbath given to the postnatal mothers on episiotomy wound to protect from pain and inflammation. The findings of the study will help the postnatal mothers to protect from pain and inflammation for subsequent delivery.

NURSING EDUCATION

The result of the study will help to the nurse educator to import the knowledge regarding sitz bath on episiotomy wound healing and pain.

The study emphasis the need of educating the nursing personal, non nursing personal and the public through in service or continuing programme to update their knowledge and skills in educating the mothers regarding sitz bath.

NURSING RESEARCH

- The study can be a baseline for further studies to builtup on.
- The study can be conducted in various group of post natal mothers (LSCS)

NURSING ADMINISTRATION

The findings of the present study will help the nurses to organize and plan for educational programme by using various teaching methods and audio visual aids.

RECOMMENTATIONS

- The comparative study can also be done to assess the effectiveness of hot application among the normal postnatal mothers and LSCS mothers.
- The study can be done on large sample size to generalize the effectiveness of sitz bath.
- An experimental study can be done to assess the effectiveness of sitz bath among the LSCS mothers also.

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