RESEARCH
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"A STUDY TO ASSESS THE EFFECTIVENESS OF ALOE VERA GEL APPLICATION ON EPISIOTOMY PAIN AMONG POSTNATAL MOTHERS IN SELECTED HOSPITALS, MUMBAI."

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Abstract
"Every woman undergoes the process of childbirth once in her lifetime. It may be a natural delivery or a planned one. Episiotomy pain is the one which is expected after the vaginal delivery. The mother is in joy after looking at her baby but at the same time is in pain due to her sutures, due to her discomfort she lacks the attention to her little one. The care might differ to her baby as she herself is experiencing pain. If the labor is not planned than it can lead to various complications in the mother. It can lead to a major complication that is perineal tear and various other associated problems may come along with it. The mother may have difficulty in feeding the newborn, as she won't be able to sit comfortably and feed the baby. A population-based research on episiotomy was carried out by B.W.C. Sathiyasekaran et al. The purpose of this research was to determine the incidence of episiotomy rates in rural populations as well as to identify the place and personnel performing the episiotomy. Findings revealed that the prevalence of giving episiotomy was predominantly seen in private hospitals and doctors were the major health personnel giving episiotomy.

Keywords: episiotomy pain, aloe vera gel, Postnatal mothers

Introduction:
Every woman undergoes the process of childbirth once in her lifetime. It may be a natural delivery or a planned one. Episiotomy pain is the one which is expected after the vaginal delivery. The mother is in joy after looking at her baby but at the same time is in pain due to her sutures, due to her discomfort she lacks the attention to her little one. The care might differ to her baby as she herself is experiencing pain. If the labor is not planned than it can lead to various complications in the mother. It can lead to a major complication that is perineal tear and various other associated problems may come along with it. The mother may have difficulty in feeding the newborn, as she won't be able to sit comfortably and feed the baby. A population-based research on episiotomy was carried out by B.W.C. Sathiyasekaran et al. The purpose of this research was to determine the incidence of episiotomy rates in rural populations as well as to identify the place and personnel performing the episiotomy. Findings revealed that the prevalence of giving episiotomy was predominantly seen in private hospitals and doctors were the major health personnel giving episiotomy.

Need of the study:
Every practitioner nowadays is trying to shorten the process or wants quick results. The mothers in labor pain want to be relieved from the contraction pain as early as possible. Hence the practice of performing episiotomy has increased tremendously and the pain associated with it too. As an outcome, the researcher was driven to analyze episiotomy and the techniques through which pain might be effectively managed.

Objectives:
1. To assess the episiotomy pain in control and experimental group before the intervention.
2. To assess the episiotomy pain in control group and experimental group after the intervention.
3. To identify association between the episiotomy pain and selected variables.

Hypothesis:
H0 : There is no significant difference in the episiotomy pain after application of aloe vera gel.
H1 : There is a significant difference in the episiotomy pain after application of aloe vera gel.

Variables:
In this study, Aloe vera gel application is an independent variable and episiotomy pain is the dependent variable.

Research methodology:
Research Approach: Quantitative approach
Research Design: Quasi-experimental design
Population of the study: Postnatal mothers with episiotomy
Target Population: Postnatal mothers admitted in selected hospitals

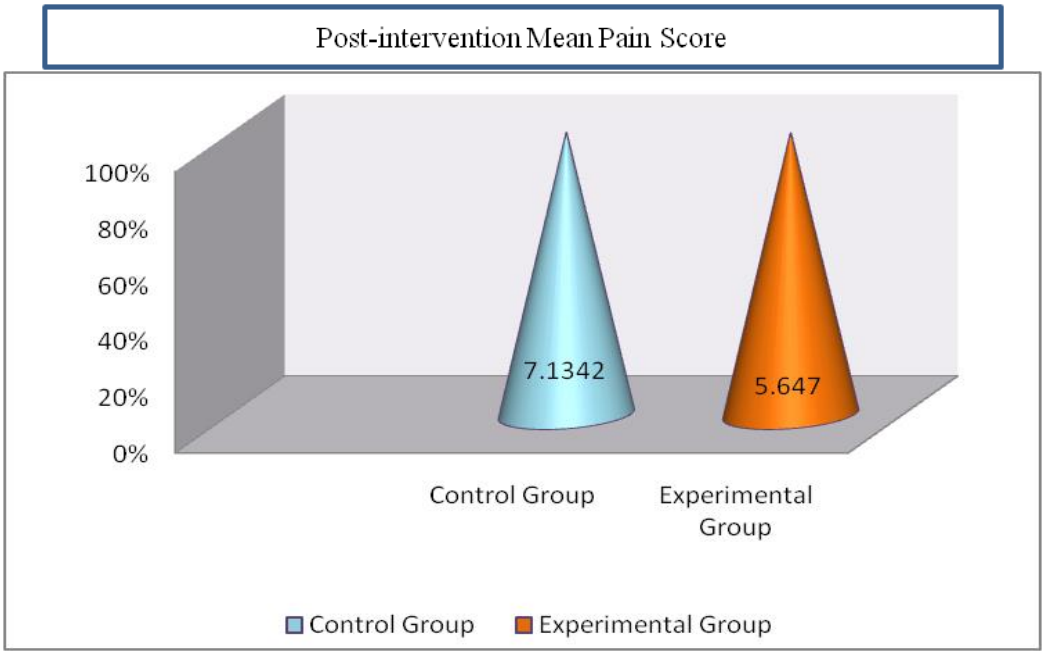
Accessible Population: Postpartum mothers who fulfill the criteria for inclusion and are available at the time of collecting data.
Sample and sample size: 100 Postnatal mothers with episiotomy in selected hospitals

Sampling Technique: Non-probability convenient sampling.
Data collection: Observation, Interview, Dichotomous questionnaire

Results:

TABLE 1: Comparison of control and experimental group mean post-intervention pain (N=100)

GROUP	CONTROL	EXPERIMENTAL	df	t
MEAN	7.1342	5.6470	98	11.1502
SD	0.7404	0.5842		
SEM	0.1047	0.0826		



GRAPH NO 1: COMPARISON OF CONTROL AND EXPERIMENTAL GROUP POST-INTERVENTION MEAN PAIN SCORE

The graph describes the post-intervention mean pain score in the control and experimental group. The post-intervention mean pain score in the control group was 7.13 and in the experimental group the post-intervention mean pain score was 5.64. The difference observed in the mean pain score in both the groups is 1.4872. The difference is extremely statistically significant. Hence, it is observed that the use of aloe vera gel application was effective in reducing the episiotomy pain in the postnatal mothers undergone normal vaginal delivery.

Table No 2: Association of the pre-test variable with mean pain score

(n=50)

Variable	Groups	N	*df*	Chi square	p Value	Significance
Length of Episiotomy	Less than 2 cm	0	3	13.41	0.004	**Significant**
	2-3cm	15				
	More than 3 cm	35				

Number of Sutures	3 to 4	14	3	15.97	0.001	**Significant**
	5 to 6	36				
	More than 7	00				
Indication for Episiotomy	Maternal	33	6	21.43	0.002	**Significant**
	Fetal	09				
	Maternal & Fetal	08				

The Chi-square test was used to see the association between the variables with the pre- test pain score. The test was conducted at 5% level of significance, assuming the null hypothesis, that there will be no significant association between pre-test pain score with demographic variables. After analysis the result is grouped into significant association and no significant association.

Major findings:
The experimental and control groups mean post-intervention pain scores were determined. In the control group, the mean pain score following the intervention was 7.13, whereas in the experimental group, it was 5.64. A difference of 1.4872 in the mean pain score between the two groups was observed. The statistical significance of the difference is high. Accordingly, it has been determined that applying aloe vera gel helped postpartum mothers who had a episiotomy delivery have less discomfort following their episiotomy.
The study revealed that pre test pain score has significant co-relation with the length of episiotomy, number of sutures and its indication.(Significant at 0.05 level)
Conclusion:
The researcher observed that the application of aloe vera gel to the episiotomy site was effective in reducing pain in postnatal mothers.

❖ **Key words:**
Assess, effectiveness, aloe vera gel application, episiotomy pain, postnatal mothers.

Criteria for sample selection:
Inclusion Criteria:
1. Postnatal mothers who are admitted to the urban hospital.
2. Postnatal mothers who are willing to participate in the study.
3. Postnatal mothers who have undergone episiotomy following vaginal delivery including abnormal and instrumental delivery.
4. Mothers who are able to read and write in English, Hindi, or Marathi.

Exclusion Criteria:
1. Postnatal mother who is following any pain relief measures other than the prescribed analgesics.
2. Postnatal mothers who develop any complications like fever, purulent discharge, and perineal trauma (perineal tear, paraurethral tear, extended episiotomy with rectal involvement).
3. Postnatal mothers who are allergic to aloe vera gel.
4. Postnatal mothers who are included in the pilot study.

DISCUSSION:
Recommendations:
1. A similar study can be conducted on a large sample.
2. A similar study can be conducted on caesarean section mothers.
3. A comparative study can undertake in Government and Private Hospitals to assess the knowledge and practices of episiotomy pain.
4. A similar study can be done in the rural area to assess the effectiveness of aloe vera gel on episiotomy pain.

Limitations:
1. The study findings are limited to population under the study in selected urban hospital.
2. Pain assessment is done only till the discharge of the patient.
3. There was a difficulty in getting the permission as the Medical Superintendent had asked to take permission from department heads.
4. Difficulty in seeking permission from government hospitals.

Suggestions for improving the present study:
1. The larger samples could be taken in the study for generalization.
2. The same study can be conducted on postnatal mothers undergone C-section.
3. The study can include a wide range of interventions for pain relief.
4. The interventions can be more effective if the duration of the hospital stay is increased.

DATA COLLECTION TOOL
This tool comprises of three sections
Section A: Proforma for demographic data
Section B: Defense and Veterans Pain Rating Scale to assess the episiotomy pain.
Section C: Dichotomous questionnaire to assess the effects of episiotomy pain.

SECTION A : DEMOGRAPHIC DATA
INSTRUCTIONS:
- Please tick the appropriate answers.
- All questions are compulsory.

I. GENERAL INFORMATION:

1. Mobile Number:
2. Age:

a} < 20 years ☐
b} 21-25 years ☐
c} 26-30 years ☐
d} 31-35 years ☐
e} >35 years ☐

II. OBSTETRIC DATA:

1. Gravida:

a) 1 ☐ b) 2 ☐ c) 3 ☐ d) More than 3 ☐

2. Parity:

a)1 ☐ b) 2 ☐ c) 3 ☐ d) More than 3 ☐

3. Previous perineal injuries:

a) Yes ☐ b) No ☐ c) If Yes, specify _____

4. Previous perineal surgeries:

a) Yes ☐ b) No ☐ c) If Yes, specify _____

III. EPISIOTOMY DETAILS:

1. Indication for episiotomy:

a) Maternal ☐ b) Fetal ☐ c) Maternal & fetal ☐

Specify_____

2. Type of episiotomy:

a) Mediolateral ☐ b) Lateral ☐

c) Median ☐ d) J-shaped ☐

3. Length of Episiotomy:

a) Less than 2 cm ☐ b) 2-3 cm ☐ c) More than 3cm ☐

4. No of skin sutures:

a) 3-4 ☐ b) 5-6 ☐ c) More than 5 ☐

5. REEDA

INSTRUCTIONS:

- The REEDA Scale score will be checked by the researcher by assessing the sample.
- The Minimum score of the scale is 0 and the maximum score of the scale is 15.
- It is scored as:
  - ✧ No infection (0)
  - ✧ Mild infection (1-5)

- ✧ Moderate infection (6-10)
- ✧ Severe infection (11-15)

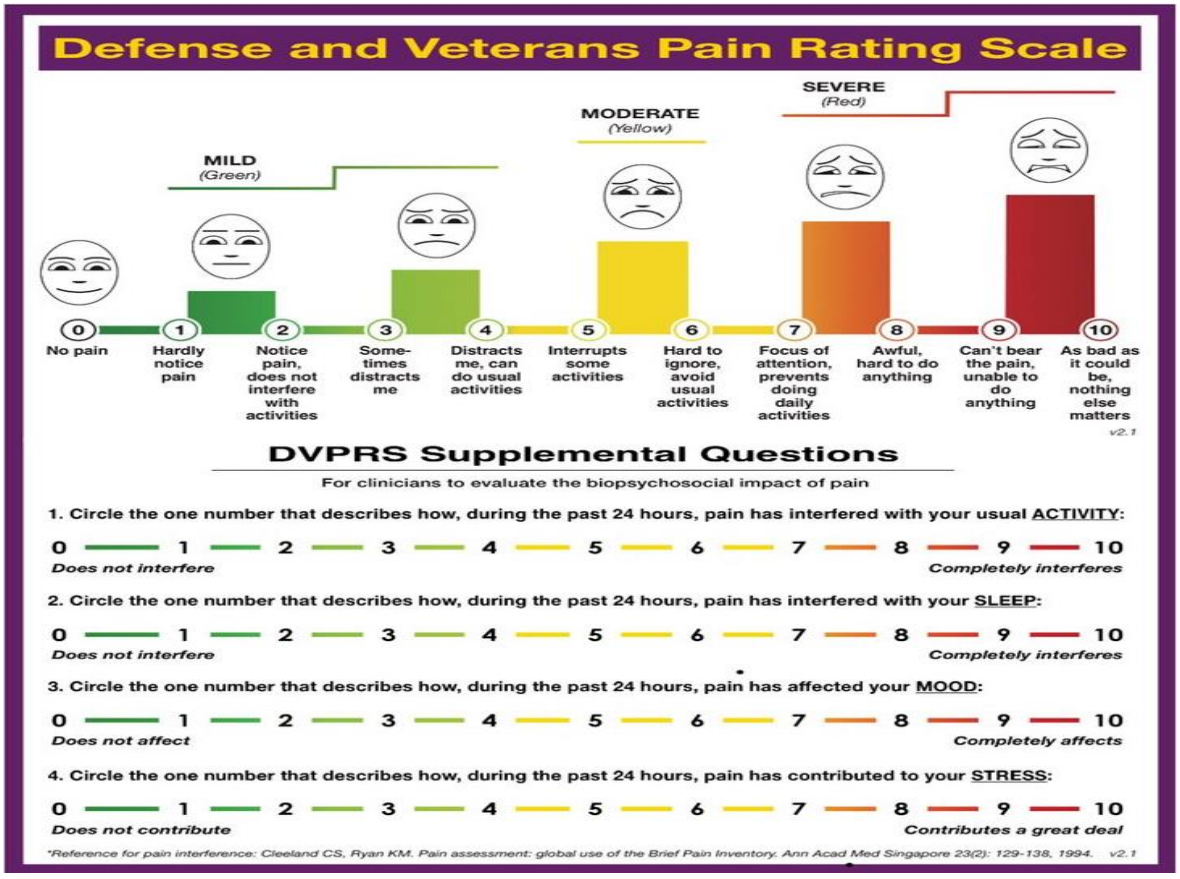
REEDA SCALE

POINTS	REDNESS	EDEMA	ECCHYMOSIS	DISCHARGE	APPROXIMATION
0	None	None	None	None	Closed
1	Within .25 cm. of incision bilaterally	Perineal, less than 1 cm. from incision	Within .25 cm. bilaterally or .5 cm. unilaterally	Serum	Skin separation 3 mm. or less
2	Within .5 cm. of incision bilaterally	Perineal and/or Vulvar, between 1 to 2 cm. from incision	Between .25 to 1 cm. bilaterally or between .5 to 2 cm. unilaterally	Serosanguinous	Skin and subcutaneous fat separation
3	Beyond .5 cm. of incision bilaterally	Perineal and/or Vulvar, greater than 2 cm. from incision	Greater than 1 cm. bilaterally or 2 cm. unilaterally	Bloody, purulent	Skin, subcutaneous fat and fascial layer separation
SCORE					
					TOTAL

6. Complementary therapy (Sitz bath/ hot fomentation)
   a) Given b) Not given
   c) If any other therapy, specify _____

SECTION B
PAIN ASSESSMENT
Defense and Veterans Pain Rating Scale to assess the episiotomy pain.

INSTRUCTIONS: Look at the "Defense and Veterans Pain Rating Scale" and read the descriptions under each number. Please rate the severity of your Current Pain by circling the corresponding number (0-10).
For the "DVPRS Supplemental Questions", please rate how pain has interfered for the past 24 hours by circling the number.



SECTION C

Dichotomous questionnaire to assess the opinion of samples on aloe vera gel application on episiotomy wound.

Instructions:

- **All the questions are compulsory**
- **Tick appropriate answers.**

1} Was the application of aloe vera gel easy?

- Yes ☐
- No ☐

2} Was aloe vera gel soothing to your skin?

- Yes ☐
- No ☐

3} Is your episiotomy pain relieved after application of aloe vera gel?

- Yes ☐
- No ☐

4} Did you experience any irritation after application of aloe vera gel?

- Yes ☐
- No ☐

5} Will you recommend the use of aloe vera gel to episiotomy site to anyone?

- Yes ☐
- No ☐

6} Any suggestions ☐

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