A STUDY TO ASSESS THE EFFECTIVENESS OF PERINEAL MASSAGE ON PERINATAL OUTCOME AMONG MOTHERS UNDERGOING SPONTANEOUS VAGINAL DELIVERY

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ABSTRACT

Child birth & puerperium are the most important periods in women's lives and can affect different aspects of their lives. Although child birth is a physiological process, there is a risk of perineal trauma when the neonate's head is existing. Perineal injuries occur in 85% of vaginal births, and pain affects 60% of cases. Perineal massage increases softness of the perineum and helps mothers to be familiar with sensations, such as burning and tingling, and thus feel less pressure and tension following the neonate's head exiting from the vagina.

Perineal pain enervates mothers in caring for their neonate, and if it persists, it generates the mother's fear of sexual intercourse. The prevalence of perineal pain has been reported as 92% one day after childbirth. Perineal pain continues even up to 18 months after childbirth in almost 10% of women. Some studies have shown less postpartum perineal pain following application of perineal massage during pregnancy or the second stage of labor. The True experimental (Post test control group design)
was adopted for the study. Sample was selected by using simple random sampling. The researcher selected 30 multigravida mothers as a experimental group and 30 multigravida mothers as a control group introduces herself and explained about the purpose of the study and oral consent was obtained. Results shows that level of perineal tear researcher assessed 5 days of duration after delivery and the data reveals that in experimental group with episiotomy 5 (100%) no perineal tear, without episiotomy found that 5 (20%) no perineal tear 15 (60%) had mild level of perineal tear 5(20%)had moderate level of perineal tear where as in control group with episiotomy 10 (100%) of them were no perineal tear without episiotomy 5 (25%) of them were mild perineal tear and 15(75%) of them severe perineal tear. This shows effectiveness of perineal massage during antenatal period and level of wound healing based on REEDA scale the researcher assessed 5 days duration of episiotomy wound after delivery and the data reveals in experimental group With regard to table 3 frequency and percentage wise distribution of level of wound healing based on REEDA scale the researcher assessed 5 days duration of episiotomy wound after delivery and the data reveals in experimental group with episiotomy 5 (100%) have good healing without episiotomy found that 5(20%) had no infection and 20(80%) had Good healing Where as in control group with episiotomy 7(70%) had moderate healing and 3 (30%) had poor healing and without episiotomy 5 (25%) had no infection 5 (25%) had moderate healing and 10 (50%) had poor healing.In this present study with or without episiotomy in Experimental group the video teaching was given on perineal massage for the multigravida mothers during II and III trimester. Researcher assessed episiotomy wound after 5 days for spontaneous
vaginal delivery with or without episiotomy in experimental and control group. To enhancing wound healing process of episiotomy or perineal tear during postnatal period. The researcher concluded that perineal massage on perinatal outcome was effective in without episiotomy

**INTRODUCTION**

Child birth & puerperium are of the most important periods in women’s lives and can affect different aspects of their lives. Although child birth is a physiological process there is a risk of perineal trauma when the neonate’s head is existing perineal injuries occurs in 85% of vaginal child birth and pain 60% of the cases. Perineal Massage increases the softness of the perineum and helps mothers to be familiar with sensations, such as burning and tingling and thus feel less pressure and tension following the neonate’s head exiting from the vagina.

Perineal pain enervates mothers in caring for their neonate, and if it persists, it generates the mother’s fear of sexual intercourse. The prevalence of perineal pain has been reported as 92% one day after childbirth. Perineal pain continues even up to 18 months after childbirth in almost 10% of women. Some studies have shown less postpartum perineal pain following the application of perineal massage during pregnancy or the second stage of labor.

Any damage to the perineum during childbirth is defined as perineal injury; it occurs after episiotomy or it may happen automatically. A study on natural childbirth found that 85% of women experience a variety of perineal traumas. More than 2/3 of such women are in need of repair. Childbirth perineal injuries are short-term or long-term, including bleeding, infection, suturing, urine and faecal incontinence, painful intercourse, persistent perineal pain that these disorders can have an affect on the interaction of child and mother, breastfeeding, sexual intercourse, post delivery recovery sensation), and weakening of the pelvic floor muscles. Episiotomy is defined as the second degree of spontaneous tear of perineum muscles including a tear of skin, mucosa and also damage of perineum muscles.

The damages to the perineum and the resulting pain can cause postpartum problems such as difficulty walking, sitting, nursing, and care for the newborn. Perineal damage not only causes physical damage but also results in the mother's emotional and psychological injury, and delayed healing of the wound due to poor
anatomical outcomes, poor healing of the incision site, and increased perineal pain. As noted, perineal trauma following vaginal delivery can be associated with short- and long-term complications. The potential complications associated with vaginal birth are worrisome so any procedure that reduces the likelihood of trauma to the genital tract is suggested. Some have recommended routine perineal massage to reduce the incidence of perineal trauma during vaginal delivery. Perineal massage may increase the flexibility of the perineal muscles, thereby reducing muscle resistance, causing the perineum to stretch during labour without rupture and no need for an episiotomy.

Labour, also known as parturition or childbirth, is the process of delivering a baby and the placenta, membranes, and umbilical cord from the mother's womb to the outside world. All the procedures performed during the childbirth are having a cardiac role in the quality of life of the women. However, by the efforts of many researchers many improvements have taken place in gynaecology and obstetrics field that will make vaginal delivery safer and more effective and qualified, by avoiding the unnecessary and inappropriate interventions being practiced. Now we are in a present scenario in which the episiotomy has become an intervention being used widespread that increases women's risks for being subjected to perineal trauma. Women who experience perineal trauma can be affected by several conditions such as dyspareunia, urinary and anal incontinence, perineal pain, swelling and delayed mother neonate interaction.

One of the interventions made for the effective childbirth is antenatal perineal massage. As regards perineal massage, a method used to slowly relax the perineum muscle by massaging and helps increase the muscle flexibility and durability and thereby avoids the need to rip the muscle during childbirth, is strongly recommended for prenatal women because it improves the labour outcome and speeds up recovery after the delivery. Antenatal perineal massage helps reduce both perineal trauma during birth and pain afterwards. Most women are keen to give birth without perineal tears, cuts and stitches, as these often cause pain and discomfort afterwards, and this can impact negatively on sexual functioning.

Perineal massage during the last month of pregnancy has been suggested as a possible way of enabling the perineal tissue to expand more easily during birth. The review of four trials (2497 women) showed that perineal massage, undertaken by the woman or her partner (for as little as once or twice a week from 35 weeks), reduced the likelihood of perineal trauma (mainly episiotomies) and ongoing perineal pain. The impact was clear for women who had not given birth vaginally before, but was less clear for women who had. There were no randomised trials on the use of massage devices. Women should be informed about the benefits of antenatal perineal massage.
Recent studies show that the chances of vaginal delivery with an intact perineum are reduced for certain groups of mothers, including delivery of larger or mal-positioned babies, older mothers (each year of age raises the tearing risk by 7%), ethnicity where Asian and Hispanic mothers have higher rates of severe trauma), lack of sexual activity during the third trimester of pregnancy, using epidural anaesthesia, and use of instruments while giving. So the researcher planned the present study regarding the perineal pulling and massaging during the perinatal period increases elasticity and blood supply to the perineum leads to easier pulling and less pain during childbirth.

**Aim Of The Study**

A Study to Assess The Effectiveness Of Perineal Massage On Perinatal Outcome Among Mothers Undergoing Spontaneous Vaginal Delivery

**OBJECTIVES:**

- To evaluate the effectiveness of perineal massage during the antenatal period on perinatal outcome among mothers undergoing spontaneous vaginal delivery for experimental and control groups.
- To compare the perineal massage on perinatal outcome among mothers undergoing spontaneous vaginal delivery for experimental and control groups.
- To associate the perinatal outcome on perineal massage during the antenatal period among mothers undergoing spontaneous vaginal delivery with their selected demographic variables for experimental and control group.

**HYPOTHESES**

- **H1:** There is a significant difference in the status of perineum after perineal massage during antenatal period among mother undergoing spontaneous vaginal delivery in terms of intact of perineum and episiotomy wound healing for both experimental and control group.
- **H2:** There is a significant association of perineal massage on perinatal outcome among mother undergoing spontaneous vaginal delivery with their selected demographic variables for experimental and control group.

**II. MATERIALS AND METHODS**
In this study, True Experimental research design was used to Assess The Effectiveness Of Perineal Massage On Perinatal Outcome Among Mothers Undergoing Spontaneous Vaginal Delivery Based on the sample, total of 60 sample(30 Experimental & 30 control) were selected by using simple random sampling technique. Ethical consent was obtained following approval by the Institutional Ethics Committee of Sri Manakula Vinayagar Medical College and Hospital, Puducherry.

DATA COLLECTION TOOLS

Section A1: Demographic data consist of 10 Items seeking information about Age, Religion, Education, Occupation, Income, Sources of Information, Type of marriage, Number of children, Residency, Type of family.

Section A2: Obstetrical variables consist of 9 Items seeking information about Gravida, Para, Menstrual history, Duration of menstruation, Type of episiotomy, gestational weeks, History of puerperal infection, Previous History of Perineal tear, Exposure to Antenatal Exercise

SECTION B CONSIST OF TWO SCALES ON ASSESSMENT OF PERINEUM.

- Section B1 - Degree of Perineal tear.
- Section B2 - REEDA Scale for Assessment of episiotomy wound healing.

Data collection procedure:

In step 1 descriptive survey about demographic data, Obstetrical variables were assessed. After In step 2, after getting formal authorization from the department of Obstetrics & Gynaecology During the antenatal visit, video teaching was given on perineal massage to multigravida mothers in II and III trimester for experimental group. In step 3, Reassess the status of perineum and process of wound healing by using REEDA Scale and Degree of perineal tear for experimental and control group during delivery Oral consent was obtained before collecting data from the patient.

Statistical analysis

The data was analyzed using both descriptive and inferential statistics. Frequency, percentage distribution were used for the analysis of demographic and Obstetrical data. Mean and standard deviation regarding level of perineal tear and level of wound healing based on...
REEDA SCALE. Chi square test is used to associate the demographic and obstetrical variables with the level of perineal tear and level of wound healing based on REEDA scale. A "p" value of 0.05 and less was considered to be statistically significant for the interpretation of results. The analysis and graphs were carried out in accordance with the above data for easy comprehension using Sigma Plot 13.0 (Systat Software Inc, USA).

III RESULTS & DISCUSSION

- Results shows that level of perineal tear researcher assessed 5 days of duration after delivery and the data reveals that in experimental group with episiotomy 5 (100%) no perineal tear, without episiotomy found that 5 (20%) no perineal tear 15 (60%) had mild level of perineal tear 5 (20%) had moderate level of perineal tear where as in control group with episiotomy 10 (100%) of them were no perineal tear without episiotomy 5 (25%) of them were mild perineal tear and 15 (75%) of them severe perineal tear. This shows effectiveness of perineal massage during antenatal period and the level of wound healing based on REEDA scale the researcher assessed 5 days duration of episiotomy wound after delivery and the data reveals in experimental group with episiotomy 5 (100%) have good healing without episiotom found that 5 (20%) had no infection and 20 (80%) had Good healing Where as in control group with episiotomy 7 (70%) had moderate healing and 3 (30%) had poor healing and without episiotomy 5 (25%) had no infection 5 (25%) had moderate healing and 10 (50%) had poor healing.

- Comparing the perineal massage on perinatal outcome among mothers undergoing spontaneous vaginal delivery. Mean value of wound healing process In experimental group 2.67 and control group 0.166
Mean value of degree of perineal tear in experimental group 1.00 and control group 2.3

- The data shows that among 10 demographic variables only age shows statistically different based on level of perineal tear among mothers undergoing spontaneous vaginal delivery without episiotomy in experimental group with the chi square value of ($X^2 = 0.002$, d.f = 2) at $p < 0.05$

- The data shows that among 9 obstetrical variables only gestational age shows statistically different level of wound healing based on REEDA scale among mothers undergoing spontaneous vaginal delivery without episiotomy in experimental group with the chi square value of ($X^2 = 0.025$, d.f = 2) at $p < 0.05$

Percentage wise distribution of demographic variables and obstetric variables among mothers undergoing spontaneous vaginal delivery for experimental group.
Percentage wise distribution of demographic variables and obstetric variables among mothers undergoing spontaneous vaginal delivery for control group

![Percentage wise distribution of demographic variables and obstetric variables among mothers undergoing spontaneous vaginal delivery for control group](image-url)
Table 2.3: Frequency and percentage wise distribution of level of perineal tear among mothers undergoing spontaneous vaginal delivery With or without experimental group and control group. (N=30)

## PERINEAL TEAR

<table>
<thead>
<tr>
<th>SCORING INTERPRETATION</th>
<th>Experimental Group</th>
<th></th>
<th>Control group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With episiotomy N=5</td>
<td>Without episiotomy N=25</td>
<td>With episiotomy N=10</td>
<td>Without episiotomy N=20</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>No Perineal tear</td>
<td>05</td>
<td>100%</td>
<td>05</td>
<td>20%</td>
</tr>
<tr>
<td>Mild Perineal Tear</td>
<td>00</td>
<td>00</td>
<td>15</td>
<td>60%</td>
</tr>
<tr>
<td>Moderate Perineal Tear</td>
<td>00</td>
<td>00</td>
<td>05</td>
<td>20%</td>
</tr>
<tr>
<td>Severe Perineal Tear</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

With regard to table no: 2 frequency and distribution of level of perineal tear researcher assessed 5 days of duration after delivery and the data reveals that in experimental group with episiotomy 5 (100%) without episiotomy found that 5 (20%) no perineal tear 15 (60%) had mild level of perineal tear 5(20%)had moderate level of perineal tear where as in control group with episiotomy 10 (100%) of them were no perineal tear without episiotomy 5 (25%) of them were mild perineal tear and 15(75%) of them severe perineal tear. This shows effectiveness of perinea massage during antenatal period.
No Perineal tear  |  Experimental group with episiotomy  |  100%
Mild Perineal Tear |  Experimental group without episiotomy  |  60%
Moderate Perineal Tear |  Control group with episiotomy  |  25%
Severe Perineal Tear |  Control group without episiotomy  |  75%
Figure 5: Percentage wise distribution of level of perineal tear among mothers undergoing spontaneous vaginal delivery with or without experimental group and control group.
Table 3: Frequency and percentage wise distribution of level of wound healing based on REEDA scale among mothers undergoing spontaneous vaginal delivery with or without episiotomy in experimental and control group.

(N=30)

**REEDA SCALE – ON INFECTION**

<table>
<thead>
<tr>
<th>SCORING INTERPRETATION</th>
<th>Experimental Group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With episiotomy N=5</td>
<td>Without episiotomy N=25</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>No Infection</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Good Healing</td>
<td>05</td>
<td>100</td>
</tr>
<tr>
<td>Moderate Healing</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Poor Healing</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>
No Perineal tear    | Mild Perineal Tear | Moderate Perineal Tear | Severe Perineal Tear
---|---|---|---
Experimental group with episiotomy | 0 | 0 | 0
Experimental group without episiotomy | 20 | 0 | 0
Control group with episiotomy | 0 | 25 | 0
Control group without episiotomy | 0 | 0 | 70
Figure 6: Percentage wise distribution of level of wound healing based on REEDA scale among mothers undergoing spontaneous vaginal delivery with or without episiotomy in experimental and control group.
Table 4: Mean and standard deviation of regarding level of perineal tear among mothers undergoing spontaneous vaginal delivery.

(N=30)

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>t- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>1.00</td>
<td>0.002</td>
<td>6.530**</td>
</tr>
<tr>
<td>Control Group</td>
<td>2.3</td>
<td>0.698</td>
<td>&gt;0.001</td>
</tr>
</tbody>
</table>

Table 5: Mean and standard deviation of regarding level level of wound healing based on REEDA scale among mothers undergoing spontaneous vaginal delivery.

(N=30)

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>t- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>2.67</td>
<td>0.711</td>
<td>6.530**</td>
</tr>
<tr>
<td>Control Group</td>
<td>0.166</td>
<td>0.379</td>
<td>&gt;0.001</td>
</tr>
</tbody>
</table>

The level of wound healing calculated independent ‘t’ test value of t = 6.530 shows highly significant on effectiveness of perineal massage during antental period on perinatal outcome among mothers undergoing spontaneous vaginal delivery in experimental and control group in respectively
2.3
0.698
0.711
0.166
0.379

<table>
<thead>
<tr>
<th></th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perineal Tear</td>
<td>2.3</td>
<td>0.698</td>
</tr>
<tr>
<td>REEDA Scale</td>
<td>2.67</td>
<td>0.711</td>
</tr>
</tbody>
</table>

**Table:**

- **Perineal Tear:**
  - Experimental Group: 2.3
  - Control Group: 0.698
- **REEDA Scale:**
  - Experimental Group: 2.67
  - Control Group: 0.711

**Graph:**

- **Mean:**
  - Perineal Tear: 2.3
  - REEDA Scale: 2.67
- **Standard Deviation:**
  - Perineal Tear: 0.698
  - REEDA Scale: 0.711
Figure 7: Mean and standard deviation of regarding level of wound healing based on REEDA scale among mothers undergoing spontaneous vaginal delivery.
Table 6 To compare the perinatal outcome among mother undergoing spontaneous vaginal delivery for experimental and control group.

(N=30)

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXPERIMENTAL</strong></td>
<td><strong>CONTROL</strong></td>
</tr>
<tr>
<td>WOUND HEALING</td>
<td>2.67</td>
</tr>
<tr>
<td>PERINEAL TEAR</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 6 regard to compare the perinatal outcome among spontaneous vaginal delivery wound healing in experimental group 2.67 and control group 0.166 where as in perineal tear 1.00 in experimental group and 2.3 in control group. The finding reveals that drastic change in the perinatal outcomes was assessed and on effectiveness of perineal massage.
IV. CONCLUSION

The study to assess the effectiveness of Perineal massage on perinatal outcome among mothers undergoing spontaneous vaginal delivery. Perineal massage helps to improve the episiotomy wound healing, intact of skin. In this present study with or without episiotomy in Experimental group the video teaching was given on perineal massage for the multigravida mothers during II and III trimester. Researcher assessed episiotomy wound after 5 days for spontaneous vaginal delivery with or without episiotomy in experimental and control group. To enhancing wound healing process of episiotomy or perineal tear during postnatal period. The researcher concluded that perineal massage on perinatal outcome was effective in without episiotomy.

REFERENCES


