

# **Effectiveness of Saline Dressing on Episiotomy Wound Healing**

*Thesis*

Submitted for partial fulfillment of the Doctorate Degree  
in Nursing  
(Maternity-Neonatal Nursing)

*By*

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## **List of Abbreviations**

<i>Abbr.</i>	<i>Full-term</i>
<b>Cl</b>	Chloride ion
<b>FGM</b>	Female Genital Mutilation
<b>I.V</b>	Intravenous therapy
<b>mEq/L</b>	The molar equivalent is a unite of electrical charge used in chemistry and the biological sciences/litre
<b>ml</b>	Milliliter
<b>MOH &amp;P</b>	Ministry of health and population
<b>N S or N/S</b>	Normal Saline
<b>NaCl</b>	Sodium chloride
<b>P</b>	Probability
<b>QIP</b>	Quality improvement programs
<b>REEDA scale</b>	The REEDA acronym is used nurses to assess the episiotomy site for Redness, Edema, Ecchymosed, Discharge, and Approximation
<b>SPSS</b>	Statistical packages for social science
<b>VAS</b>	The Visual Analogue Scale (VAS) for assessing level of pain
<b>W/V</b>	Weight per unit volume
<b>WHO</b>	The world health organization

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## **ABSTRACT**

The current study aims to study the effectiveness of saline dressing on episiotomy wound healing. **A Quasi experimental study** included **a Simple random sample of 160** postnatal women (80 mothers used saline dressing and 80 mothers used Natural routine care who had normal vaginal delivery with episiotomy from Ain Shams University Maternity Hospital. **Three tools** were used for data collection; structured-interviewing questionnaire sheet, Standardized REEDA scale and Visual Analogue Scale. **The results revealed that** Normal saline had a positive effect on the healing of episiotomy wound among postnatal mothers in form of lower REEDA scale score and pain scores VAS. **The study recommended** that Educational session to increase women awareness about use of normal saline after episiotomy in form of leaflet or counseling session should be adopted, Integrate the saline dressing as a main part in discharge plan **further researches** to replicate the study on large sample to determine the factors affecting episiotomy wound healing should be applied.

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**Key words:** Episiotomy, saline dressing, postnatal.

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## Introduction

Episiotomy is the most common obstetric operative procedure performing during the second stage of labor for enlarging the vagina to assist childbirth. The first performance was done in 1741. The world health organization (WHO) has taken a clear stand against routine episiotomy and recommends its limited use in about. Of normal deliveries, Considerable variation is found in episiotomy rates, in spite of the fact that its routine use is becoming an increasingly controversial issue (*Holmes and Baker, 2009*).

Episiotomy sutures can cause considerable discomfort for postpartum women and pain because the perineum is vascular and an extremely tender area and the muscles of the perineum is involved in many ordinary activities such as sitting, walking, standing, squatting, urinating, defecating etc. (*Pillitteri, 2013*). Presence of pain entails difficulties to practice motherhood and perform daily activities such as self-care, breastfeeding and newborn care. Recent studies have evidenced that it is cause for pain, which then interferes with physical and mental wellbeing, as well as with social activities (*Chang et al., 2011*).

The typical healing time for an episiotomy is around 4 to 6 weeks depending on the size of incision and the type of suture material used to close the wound (*Lynda, 2009*). The delay in

perineal healing leads to increasing the complications such as bleeding, pain, discomfort, dyspareunia and anxiety. Although these problems are not acute or life-threatening, their potential impact on daily function of mother is important. Infection of episiotomy wound can lead the puerperal sepsis. Puerperal sepsis is one of the major causes of maternal morbidity and mortality (*Fraser & Cooper, 2014*).

Normal saline is easily available, efficient, and cost effective. It is most commonly used solution due to safety (lowest toxicity) and physiologic factors. Also, the application of normal saline is useful in first 24 hours postpartum which reduces inflammatory reaction and oedema. It will not cause any burning pain and does not cause damage to the new tissues and thus promote the healing process (*Malini, 2012*).

The nurse has an important role in taking care of the postnatal mothers with episiotomy, it is essential to utilize an appropriate method for management of the perineal suture to reduce the perineal discomfort, hasten the healing of episiotomy wound and also to protect the stitches against infection and hematoma because the episiotomy incision site is located where there is a high possibility of contamination with vagina and rectal bacteria (*Murray et al., 2012*).

### **Significance of the Study:**

Episiotomy constitutes most common obstetrical procedures among postnatal women with the vaginal delivery. It has a highly prevalence rate worldwide, According to WHO the incidence rate of episiotomy approximately 30-90% worldwide of women with the vaginal delivery had episiotomy (*Hofmeyr et al., 2011*). Women with Episiotomy experience group of physical, psychological and social problems that diminish their quality of life, which reflect negatively on women's family. Nursing intervention for episiotomy wound is essential to prevent the medical co-morbidities associated with episiotomy. Cost of medical treatment is a major issue influencing the patient and her treatment.

Using of normal saline would be cost effective as the healing occurs without local antibiotics or disinfectants. It does not alter the normal bacterial flora of the skin and has no effect on blood flow in capillaries and on collagen. It helps to remove things that can irritate the underlying tissue as well as help to wash out bacteria. It relieves stiffness and muscle cramps and reduces redness and edema and hastens the healing of episiotomy (*Ballering, 2012*).

Hence, the current study is intended to assess the effectiveness of saline dressing on episiotomy wound healing.

## **AIM OF THE STUDY**

**T**o study the effectiveness of saline dressing on episiotomy wound healing.

### **Research hypothesis**

Saline dressing will improve episiotomy wound healing.

## Chapter 1

# Episiotomy

**T**here is more than one definition of episiotomy. Basically, an episiotomy also known as perineotomy is the incision involves the lower vagina, fourchette, perineal skin and muscles. This incision may be midline, lateral, medio-lateral and j-shape episiotomy (*Cunningham et al., 2010*). Another definition of Episiotomy it is a surgically planned incision on the perineum and posterior vaginal wall during second stage of labour with the aim of increasing soft tissue outlet dimensions to help with easier childbirth and prevent perineal lacerations which may extend to anus, anal sphincter or even up to rectum (*Arulkumaran, 2011*).

### **Incidence of episiotomy**

There are many organizations that offered statistics related to rates of episiotomy among women around the world. One of these organizations is the World Health Organization (WHO) which indicated that approximately 30-90% women with the vaginal delivery had episiotomy. Episiotomy rates vary widely worldwide, depending on whether the procedure is used restrictively or routinely. Rates vary from country to country (*WHO, 2009*).

## **Indications**

Much more studies that dealt with episiotomy gave much importance to its indications. Today, the indications for episiotomy are based primarily on the clinical situation at the time of delivery and, therefore, vary greatly depending on the opinion of the obstetrician. In general, there are indications for mother, fetus and health care provider.

## **Maternal**

It is highly important to indicate that there are some overall factors which in their turn place woman at an increased risk of undergoing episiotomy. That is to say, primigravid status and old perineal scar about to rupture are common factors of episiotomy. Moreover, prolonged second stage due to perineal muscles is excessively rigid and need episiotomy as well as women who have undergone FGM (female genital mutilation).

Furthermore, episiotomy helps to expedite delivery when birth is delayed by an unyielding perineum and to reduce prolonged maternal pushing efforts in cases of severe hypertensive or cardiac disease. It is also highly important to indicate that prior to instrumental delivery is indicated such as the use of forceps or vacuum extractor assisted birth.

There are other common factors indicating episiotomy as the imminent tears that are indicated by a show of fresh

blood when the presenting part of the foetus distends the perineum as the mother pushes. In other words, as prophylaxis against soft-tissue trauma, for example vaginal tears which are predicted to extend to the muscles, anal sphincter and anus. Another essential factor of episiotomy for women is vulval oedema (*Carroli and Mignini, 2009*).

### **Foetal**

As far as foetal is concerned, there are many examples of situations when the birth attendant may perform an episiotomy. Episiotomy is performed when the baby is very large or macrosomic fetus. It is also performed in case of having birth of a small preterm fetus to reduce pressure on the head or when the baby's shoulders are stuck (shoulder dystocia) in which the shoulder of a fetus becomes lodged under the mothers' symphysis during birth.

Furthermore, performing episiotomy becomes a must and it should be performed in case of birth with the fetus in an Occiput–posterior position which means that his/her face is up. It is also performed to accelerate delivery in cases of fetal distress, i.e. prolonged late decelerations or fetal bradycardia during active pushing (*Murray & Mckinney, 2010*).

### **Health care provider**

According to *Marcial (2011)*, there are many other factors that may be mitigated by nurses and physicians