

PICOT QUESTION

Does allowing (P) laboring mothers to (I) tear naturally during childbirth increase (O) positive patient outcomes compared to the use of (C) episiotomies?

PURPOSE

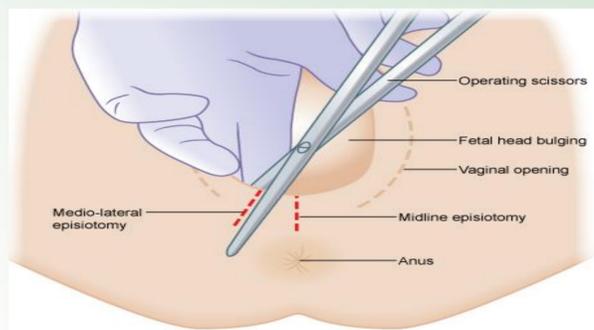
The purpose of this translational research study is to search available databases to determine whether allowing women to tear naturally has increased positive patient outcomes compared to the routine use of episiotomies.

ABSTRACT

Over the past century, the use of episiotomies during childbirth have become common. Recently, practitioners began questioning whether the use of episiotomies caused more negative patient outcomes than allowing a laboring woman to tear naturally. This literature review synthesizes research on patient outcomes following an episiotomy compared to tearing naturally during labor. The clinical question is: “Does allowing laboring mothers to tear naturally during childbirth increase positive patient outcomes compared to the use of episiotomies?” This is a translational research study utilizing a literature review design. All authors have completed the National Institute of Health (NIH) Office of Extramural Research’s online training, “Protecting Human Research Participants”, this semester and hold current certification. After rigorous review and proven critical appraisal of over twenty current research studies, the use of episiotomies were found to have many negative effects on mothers postpartum. These effects included, but were not limited to: delayed healing time, increased degree of laceration, increased risk of infection, increased blood loss, and disturbed family bonding. Consistently, each article concluded that the routine use of episiotomies caused more adverse effects and that laboring mothers should be allowed to tear naturally. However, episiotomies should be used in extreme circumstances that include the threat of life to the fetus due to imminent delivery.

BACKGROUND AND CLINICAL SIGNIFICANCE

For centuries, there have been copious interventions introduced for use during labor and delivery, with the main focus being decreasing labor pains and decreasing perineal trauma. One of these interventions often used is an episiotomy, which is a surgical incision made in the area between the vagina and anus which increases the size of the opening to allow delivery of the baby (Lowdermilk et al, 2016). Healthcare providers performed episiotomies routinely until researchers started comparing the long-term benefits and complications of episiotomies on laboring mothers and their children. The landmark study cited was conducted with 80 women. These participants with episiotomies had an increase of three centimeters added to their laceration length which contributed to anal sphincter damage (Nager, Helliwell, 2001). Research has shown that this procedure can reduce the chance of fetal asphyxia, cranial trauma, and prevents dystocia of the fetal shoulder (Alzahrani, pg 480, 2014). However, the use of episiotomies may cause complications such as: urinary and fecal incontinence, flatus, pelvic pain, uterine prolapse, and sexual, social, and psychological dysfunction (Alzahrani, 2014). These complications create an increased need for perineal care which can interfere with the abilities of mothers to breastfeed, bond, and care for their newborn.



(Figure 1. Diagram of Perineal Anatomy and Episiotomy, 2017)

Episiotomy vs. Tearing in Childbirth

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LITERATURE REVIEW

Title/Author/Date of Publication	Description	Results
Does episiotomy prevent perineal trauma? Hanan Ali A Alzahrani 2014	A systematic review, that explores how episiotomies effect perineal trauma during a vaginal birth and how effective episiotomies are. The author created their own literature review to discuss the need of an episiotomy, materials used, and the increased risk of perineal pain.	The effects episiotomies have on mothers is long term social, psychological and physical health consequences. Episiotomies reduce the chance of an infant being deprived of oxygen during birth by shortening the labor process. It also protects the infants brain and skull. It is shown that suturing allows for faster healing times and should be done at all times. The perineal pain may disrupt breastfeeding, family life, and sexual relationships.
Effects of episiotomy on bonding and mothers’ health Karacam, Zekiye. PhD, Eroglu, Kafiyeh, PhD. 2003	This cohort study followed 100 women that were scheduled for a normal vaginal delivery from labor to 12 weeks postpartum. They were divided into an episiotomy group and a control group to determine how episiotomies effected the mothers’ health and bonding with the newborn. The episiotomy group contained women who had previously had one, while the control group consisted of women who had no history of one.	Episiotomies should not be used unless indicated and bonding should not be delayed more than necessary. In the episiotomy group spontaneous lacerations were decreased, but bonding and healing time were prolonged. During the first postpartum week, mothers who had an episiotomy had a decreased ability to do chores and sit/stand comfortably compared with mothers who did not have one.
Prevalence of episiotomy in primiparas, related conditions, and effects of episiotomy on suture materials used, perineal pain, wound healing three weeks postpartum, in Turkey: a prospective follow-up study. Karacam, Zekiye; Ekmen, Hatice; Calisir, Husniye; Seker, Sibel 2013	This prospective follow-up study aimed to identify the prevalence of episiotomies in primiparous women, related conditions, effects of episiotomies on suture materials used, perineal pain, and wound healing three weeks postpartum. The study included 396 primiparous women selected by convenience sampling. Out of the 396 participants, 223 primiparous women had an episiotomy.	Out of the 396 participants, 223 primiparous women had an episiotomy. The study demonstrated that an episiotomy increased the number of the suture materials used by approximately five-fold, as well as the prevalence of pain on the first postpartum day. On the third postpartum week evaluation, it was determined that the probability of problems with wound healing and experiencing pain was approximately two times higher among women who received episiotomies than those who did not receive episiotomies.
Episiotomy increases perineal laceration length in primiparous women Charles W. Nager, MD, and Jason P. Helliwell, MD 2001	This prospective observational study aimed to determine the clinical factors that contribute to posterior perineal laceration length. Their sample included 80 mostly primiparous full-term women. The posterior perineal lacerations were measured immediately after delivery. Numerous maternal, fetal, and operator variables were evaluated against laceration length and degree of tear.	This study concludes that an episiotomy is a clinical factor in increased posterior perineal laceration length. Other factors such as maternal and fetal variables are not as problematic as an episiotomy. It is also mentioned that the long term effects of perineal tears and episiotomies are still not known.
Episiotomy in modern obstetrics- necessity versus malpractice Jolanta Pietras, Bernice Folake Taiwo 2012	This systematic review discusses the arguments for and against episiotomy based on a literature review, key issues present, and available studies and reports. It also presents the opinions of different authors.	Episiotomy can become a necessary procedure if the situation presents itself. There is no evidence to support the routine use because of an increased risk for damage and should be discouraged. If an episiotomy is needed, the advantages and disadvantages should be looked at, as well as the expectations of the laboring women.
The use of episiotomy in a low-risk population in the Netherlands: a secondary analysis E. Seijmonsbergen-Schermerms, MSc, RM, C. C. Geerts, MD, PhD, M. Prins, MSc, RM, M. T. van Diem, MSc, RM, T. Klomp, MSc, RM, A. L. M. Lagro-Janssen, MD, and A. de Jonge, PhD, RM 2013	This Meta-Analysis is a secondary analysis of two prospective cohort studies to determine the effectiveness of episiotomies in Low Risk Births. The factors taken into consideration in this study include: nulliparous and parous women, planned home births and planned hospital births, perineal trauma, and how long the second stage of labor.	Women with episiotomies were more likely to have higher blood loss. Women without episiotomies were less likely to have perineal discomfort three weeks after birth. By six weeks postpartum discomfort between women with episiotomies and without were equal. Nulliparous women had an episiotomy due to a prolonged second stage of labor. For parous women the reasoning was a history of one or for prevention of perineal trauma. It is also recommended to avoid routine use of episiotomies and keep its use restricted.
Restricted use of episiotomy Saxena Rajiv Kumar, Sandhu Gurpreet Singh, Babu K M. Bandol Halesha, Sharma Gargi Vikas 2010	A prospective observational study designed to compare the outcome of restricted versus routine use of episiotomy in the hospital. There were 458 deliveries analyzed. To determine the outcome two groups were formed: Control group (210), which had routine use of episiotomy, and a Study Group (248), which had restricted use of episiotomies.	The restrictive use of episiotomies helps to reduce perineal lacerations and maternal morbidity. There were also no adverse neonate outcomes when restrictive rates were practiced. Interestingly, decreased perineal tear rates were not associated with a higher episiotomy rate. Clinicians’ should use good judgment if an episiotomy is needed.
Need for and consequences of episiotomy in vaginal birth: a critical approach Sari Raisanen, MNsc, RN, RM (PhD Student), Katri Vehviläinen-Julkunen, PhD, RN, RM (Professor), Seppo Heinonen, MD (Professor) 2008	This prospective cross-sectional survey was to determine short-term effects of a lateral episiotomy and determine the factors associated with the common uses of an episiotomy. One thousand vaginal births were analyzed and hospitals were chosen via cluster sampling. Factors included: primiparous women and multiparous women along with induced births and spontaneous births.	Most episiotomies were in primiparous women. Episiotomy usage could be reduced if different laboring positions and pushing techniques were used during active labor. Limiting inductions and vacuum-assisted births would also decrease the use of episiotomies. The study also mentions the need for policies regulating episiotomies.



METHODS

This is a translational research study utilizing a literature review design. All authors have completed the National Institute of Health (NIH) Office of Extramural Research’s online training, “Protecting Human Research Participants”, this semester and hold current certification. Databases that were used for this research project included CINAHL, The Cochrane Library, Embase, Medline Plus, Ovid and PubMed. The keywords that were applied for detailed searches included: episiotomy, natural tearing, spontaneous laceration, perineal trauma, anal sphincter disruption, labor, midwifery, obstetric procedures, perineal damage, dyspareunia, dysuria, infection, blood loss, perineal pain. Preference was given to studies that conducted meta-analysis, cross-sectional, and quantitative studies. A total of eight peer reviewed research studies were chosen based on the type of study conducted, thoroughness, and relevance to our PICOT question.

STRENGTHS & LIMITATIONS

This translational research study supports the claim that episiotomies should be reserved for use only in particular deliveries under critical circumstances. Evidence concludes that allowing mothers to tear naturally during childbirth increases positive patient outcomes. All articles included analyzed different aspects of delivery and postpartum recovery that were defined as patient outcomes. The articles analyzed were ethical and peer reviewed. In one of the studies that analyzed patient outcomes in mothers with episiotomies, limitations included convenience sampling, which allowed the researcher to obtain basic data and trends with ease. This type of sample is vulnerable to selection bias and influences beyond the control of the researcher. Another limitation found in two of the studies was small sample sizes, which increases the standard deviation and allows for less accurate results since smaller sample size is further away from the all-inclusive population.

CONCLUSION

This literature review highlighted and cited eight studies. However, all 20 studies reviewed concluded that the use of episiotomies resulted in greater negative outcomes for the mother. The negative effects included: delayed healing time, increased pain, dyspareunia, increased length of tear, increased risk for infection, increased cost of supply use, increased blood loss, and an increased risk of having to undergo another episiotomy in future births. Ultimately, it is important to limit the use of episiotomies for women giving birth in order to increase the patient outcomes postnatally. It is recommended that the continued use of episiotomies should be minimized in laboring patients and be utilized to prevent chronic disability to the infant or to prevent neonatal mortality.

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