INTEGRATIVE REVIEW ARTICLE

ANALYSIS OF FACTORS ASSOCIATED WITH THE PRACTICE OF EPISIOTOMY

ANÁLISE DE OS FATORES ASSOCIADOS À PRÁTICA DA EPISIOTOMIA

Nadja Nayara Albuquerque Guimarães¹, Liniker Scolfield Rodrigues da Silva², Daniella Pontes Matos³, Cristina Albuquerque Douberin⁴

ABSTRACT

Objective: to identify factors that lead obstetric nurses to perform an episiotomy. Method: this is an integrative review, with a view to respond to the question << What leads the obstetric nurse to perform an episiotomy?>>. To do this, a search for evidence was performed, from 2005 to 2017, in the databases LILACS, BDENF, BIREME and SciELO, with the descriptors: episiotomy, care humanization and labor, considering the inclusion and exclusion criteria pre-established. Nine articles were selected, subsequently read, analyzed and organized into figures for discussion by means of an instrument adapted and validated by Uriš 2005. Results: most studies refer to the practice of episiotomy as intimately linked to primiparity, perineal rigidity, macrosomia, and prematurity. Conclusion: the literature showed that the main factors that lead obstetric nurses to perform the episiotomy are: primiparity, perineal rigidity, macrosomia, and prematurity. The episiotomy does not prevent lacerations of third and fourth grade and directly relates to dispareunia. This contributes to a scientific concern to establish technologies that assist in the physiology of childbirth while preserving the integrity of the body. Descriptors: Episiotomy; Obstetric; Lacerations; Perineum; Obstetric Nursing; Natural Childbirth.

RESUMO

Objetivo: identificar os fatores que levam enfermeiros obstetras a realizar uma episiotomia. Método: trata-se de uma revisão integrativa, com vistas a responder à questão norteadora << O que leva o enfermeiro obstetra a realizar uma episiotomia?>>. Para isso, realizou-se uma busca por evidências, entre 2005 a 2017, nas bases de dados LILACS e BDENF e na BIREME e SciELO, com os descritores: episiotomia, humanização da assistência e trabalho de parto, considerando os critérios de inclusão e exclusão pré-estabelecidos. Foram selecionados 9 artigos posteriormente submetidos à leitura, análise e organizados em figuras para discussão através de um instrumento adaptado e validado por Uriš 2005. Resultados: foi possível verificar que a maioria dos estudos se referem à prática da episiotomia como intimamente ligada a primiparidade, rigidez perineal, macrosomia e prematuridade. Conclusão: a literatura evidenciou que os principais fatores que levam os enfermeiros obstetras a realizar a episiotomia são: primiparidade, à rigidez perineal, macrosomia e prematuridade. Com isso, foi possível verificar que a episiotomia não previne lacerações de 3º e 4º grau e a mesma está relacionada diretamente com a dispareunia. Isso contribui para uma preocupação científica em estabelecer tecnologias que auxiliem na fisiologia do parto preservando a integridade corporal. Descriptors: Episiotomia; Trabalho de Parto; Lacerações; Perineo; Enfermagem Obstétrica; Parto Normal.

RESUMEN

Objetivo: identificar los factores que llevan enfermeros obstetras a realizar una episiotomía. Método: revisión integrativa, con miras a responder a la pregunta << Que lleva el enfermero obstétrico para realizar una episiotomía?>>. Para ello, realizamos una búsqueda de evidencias, de 2005 a 2017, en las bases de datos LILACS, BDENF, BIREME y SciELO, con los descritores: episiotomía, humanización de la atención y trabajo de parto, mientras que los criterios de inclusión y exclusión pre-establecidos. Nueve artículos fueron seleccionados, sometidos posteriormente a la lectura, analizados y organizados en cifras para el debate por medio de un instrumento adaptado y validado por Uriš 2005. Resultados: se pudo comprobar que la mayoría de los estudios se refieren a la práctica de la episiotomía como intimamente ligada a primiparidad, rigidez perineal, macrosomia y prematuridad. Conclusion: la literatura mostró que los principales factores que conducen los enfermeros obstétricos para realizar la episiotomía son: primiparidad, la rigidez perineal, macrosomia y prematuridad. Con ello, fue posible verificar que la episiotomía no previene heridas de 3º y 4º grado y está directamente relacionada con la dispareunia. Esto contribuye a una preocupación científica para establecer tecnologías que ayudan a la fisiología del parto, preservando la integridad del cuerpo.

Descriptors: Episiotomía; Trabajo de Parto; Laceraciones; Perineo; Enfermería Obstétrica; Parto Normal.
INTRODUCTION

Episiotomy is one of the most widely used interventions in the assistance to childbirth, consisting of a surgical incision in the region of the vulva, held at the time of the expulsion of the conceptus, classified according to its location, and may be lateral, mid-lateral (the most used) and median. The episiotomy began to be recommended to assist difficult childbirths and its realization began to be defended in 1918 by Pomeroy. For many years, people had performed this practice, which had been taught, even without studies that proved its effectiveness.¹

This technique was originally proposed by an Irish obstetrician, in 1741, in "Treatise of midwifery", where he argued that this procedure should be used in deliveries where there was a disproportion between the fetal head and external orifice of the vagina, in order to avoid a constriction of the cephalic pole and, consequently, risk to the fetus. In 1818, Leinveleir defended in Berlin the judicious use of episiotomy to assist in the fetus release, withheld for rigidity of the region.

Several doctors in different countries adopted the technique and recommended bilateral incisions to facilitate delivery. The term episiotomy arose years later, in 1857, suggested by Carl Braun, who believed it was an unnecessary practice. However, the obstetricians Pomeroy (1918) and DeLee (1920) began to recommend the use of episiotomy as a prophylaxis to prevent perineal lacerations. DeLee, in the 1920's, launched a treaty (The Prophylactic Forceps Operation) that recommended systematic episiotomy and forceps of relief in all primiparous. At the same time, the childbirth medicalization occurred, where women left the home birth and began to use the hospital environment. This change was secondary to advances in infection control and developments in medicine, as the emergence of anesthesia. The process of labor became medicalized and episiotomy became a fundamental intervention for better maternal and neonatal outcomes.²

Since then, this procedure became routine, and its benefits described in the literature include prevention of perineal trauma and unnecessary injuries of the newborn's (NB) cephalic pole, damage to the pelvic floor, urinary incontinence, improvement of postpartum sexual function and facilitate recovery by replacing an irregular laceration by a clean and regular incision.³

In Brazil, the Federal Law 7,498/1986 and Decree 94,406/1987 regulate its use by the nurse, supporting the performance of episiotomy and perineal suture by the nurse with specialization in Obstetrics. The Obstetric Nurse currently works in a scenario different from a few decades ago, where studies based on evidences indicate the disuse of the practice of episiotomy. The high rates of episiotomy contradict the guidelines recommended by the World Health Organization (WHO), which considers the episiotomy an inadequate practice and restricts its use. Obstetric nurses have discussed humanized childbirth, where there is a concern to establish technologies that assist in the physiology of childbirth, preserving bodily integrity and avoiding unnecessary interventions.⁴

The study presents information about researches published in the past nine years, and may stimulate a review of professional practice, as well as encourage the production of new articles in the area.

OBJECTIVE

- To identify the factors that lead obstetric nurses to perform an episiotomy.

METHOD

The present study is an integrative review of literature, with descriptive analysis, about the factors that lead obstetric nurses to perform episiotomy. This investigation method allows including multiple studies of an area of particular study, made from already published articles, characterizing it as their critical analysis. It mentions the studied authors, generated from an ordered review. This type of article evaluates theories by identifying their weaknesses or indicating the degree of importance of one over the other.⁵

For its operationalization and critical analysis of the selection of articles, a protocol was used, with the following steps (six): 1) Selection of the research question, as well as setting the theme and objectives; 2) Selection of the articles, using search engines based on electronic data and definition of the inclusion criteria of studies and selection of the sample; 3) Data collection from the representation of the selected studies in graphic format, considering the common characteristics; 4) Critical analysis of results, identifying their differences; 5) Discussion and interpretation of results; 6) A clear presentation of the evidence found.

In the first stage, the theme and the objective were defined. A guiding question also emerged: <<Which leads the obstetric...
nurse to perform an episiotomy? Then, the articles were selected and data, collected, recording the information using an adapted instrument, validated by Ursi in 2005. From this, the information were evaluated and the results, interpreted with data comparison and discussion. Finally, the integrative review was presented in the form of figures (Figures 2 and 3).

The publications were located during November 2017, through the LILACS (Latin American Literature in Health Sciences) and BDENF (Bibliographic Database Specialized in the Brazilian Nursing Area) and in the virtual libraries: BIREME (Latin American and Caribbean Center on Health Sciences Information) and SciELO (Scientific Electronic Library Online). The following descriptors were used with the boolean connectives: episiotomy AND care humanization OR labor, contained in the Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH), which allow using common terminology for the research, providing, consistently, the retrieval of information in indexed journals, regardless of language.

For a greater refinement of the research, the following inclusion criteria were used: articles published in national and international journals in the period from 2005 to 2017, offering the most updated information on the topic; and articles that addressed the theme of episiotomy. The exclusion criteria were articles summaries; and articles duplicated in other databases.

The selection of productions occurred in double independently, with a view to possible biases in this step. The search with the selected descriptors returned 21 articles. Twelve productions were excluded, because they did not meet the inclusion criteria, resulting in a sample of nine scientific articles that comprised the corpus of this study (Figure 1).

After successive readings of the articles conducted by two evaluators, data analysis occurred through detailed reading of all selected publications and evaluation of their content. The data were exposed in the form of a figure, which comprises the main information obtained in this study, and discussed according to it.

All selected studies were classified in levels of evidence (LE), which showed that all articles corresponded to level of evidence IV, revealing evidence from well-designed cohort and case-control studies.

The study complied with the ethical aspects through authentic citation of ideas, concepts, as well as the definitions employed by researchers of the productions used as results present in this study.

RESULTS

The present integrative review analyzed nine articles that presented the characteristics of the inclusion criteria previously determined. Next, an overview of the selected scientific articles will be presented.
The contents of the articles were prepared in Figure 1, which shows the main characteristics of the studies, highlighting: Author/year, title, design, location/language and evidence levels, and in Figure 2, it was found that the objectives and main results/conclusion of articles that exhibited content that included mainly the factors that lead to the practice of episiotomy.

![Table](https://i.imgur.com/4J5Q5.png)

Figure 2. Categorization of results. Recife (PE), Brazil, 2017.

<table>
<thead>
<tr>
<th>Author / Year</th>
<th>Title</th>
<th>Design</th>
<th>Place / Language</th>
<th>Level of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riesco MLG, Costa ASC, Almeida SFS, Basile ALO, Oliveira SMJV. 2011</td>
<td>Episiotomy and perineal integrity in spontaneous deliveries: analysis of factors</td>
<td>Quantitative / retrospective study</td>
<td>Rio de Janeiro (Brazil) / Portuguese</td>
<td>Level IV</td>
</tr>
<tr>
<td>Oliveira SMJV, Miqulini EC. 2005</td>
<td>Frequency and criteria for the indication of episiotomy</td>
<td>Quantitative, descriptive, cross-sectional study</td>
<td>São Paulo (Brazil) / Portuguese</td>
<td>Level IV</td>
</tr>
<tr>
<td>Figueredo GS, Santos TTR, Reis CSC, Mouta RJO, Progianti JM, Vargens OM, et al, 2011</td>
<td>Episiotomy occurrences in child birth assisted by obstetric nurses in hospital</td>
<td>Observational, descriptive, qualitative study</td>
<td>Rio de Janeiro (Brazil) / Portuguese</td>
<td>Level IV</td>
</tr>
<tr>
<td>Carvalho CC, Souza ASR, Filho OBM. 2010</td>
<td>Prevalence and factors associated with practice of episiotomy at a maternity school in Recife, Pernambuco, Brazil</td>
<td>Retrospective study, cross-sectional cohort type</td>
<td>São Paulo (Brazil) / Portuguese</td>
<td>Level IV</td>
</tr>
<tr>
<td>Carvalho CC, Souza ASR, Filho OBM. 2010</td>
<td>Selective episiotomy: advances based on evidence</td>
<td>Systematic review</td>
<td>Rio de Janeiro (Brazil) / Portuguese</td>
<td>Level V</td>
</tr>
<tr>
<td>Salge AKM, Lôbo SF, Siqueira KM, Silva RCR, Guimarães JV. 2012</td>
<td>Practice of episiotomy and related maternal and neonatal factors</td>
<td>Retrospective study of cross-sectional cohort</td>
<td>Goiás (Brazil) / Portuguese</td>
<td>Level IV</td>
</tr>
<tr>
<td>Trinh AT Khambalia A, Ampt A, Morris MJ, Roberts CL. 2013</td>
<td>Episiotomy rate in Vietnamese-born women in Australia: support for a change in obstetric practice in Vietnam</td>
<td>Retrospective cohort study</td>
<td>Genebra / English</td>
<td>Level IV</td>
</tr>
<tr>
<td>Garrett CA, Oselame GB, Neves EB. 2016</td>
<td>The use of episiotomy in the Brazilian unified health system: the perception of parturients</td>
<td>Descriptive and qualitative study</td>
<td>Maringá (Brazil) / Portuguese</td>
<td>Level IV</td>
</tr>
<tr>
<td>Junior MDC, Júnior RP. 2016</td>
<td>Selective Episiotomy: Indications, Technique, and Association with Severe Preinatal Lacerations</td>
<td>Systematic review</td>
<td>Rio de Janeiro (Brazil) / English</td>
<td>Level IV</td>
</tr>
</tbody>
</table>

**Objective**

To associate perineal integrity, spontaneous laceration and episiotomy in normal deliveries. 8

25.9% of women underwent episiotomy, in 28.6% perineal integrity was preserved, and 45.5% suffered spontaneous lacerations. The likelihood of episiotomy increases with nulliparity. 9

To identify the frequency, the types and the criteria adopted to recommend episiotomy. 7

To analyze the occurrence of episiotomy and its relation with the parity of women assisted by obstetrician nurses. 5

Episiotomy occurred in 76.2% of deliveries. Main indications: Perineal rigidity, primiparity, macrosomic fetus and prematurity. 7

Episiotomy was performed in 50 deliveries, representing 11.2% of the total deliveries attended by these professionals. Of these 50, 41 were primiparous. 8

To determine the prevalence and factors associated with the performance of episiotomy in a reference center in Pernambuco. 5

144 episiotomies were performed (29.1%). The practice related to adolescence, age over 35 years, primiparity, absence of vaginal delivery. 9

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In relation to the year of publication, the inclusion criterion included the period of 12 years (2005 to 2017). Two articles were published in 2016, one in 2013, one in 2012, two in 2011, two in 2010 and one in 2005. The most sought descriptor was “episiotomy”, present in all articles.

Analyzing the regions where the jobs were developed, the studies were conducted in different Brazilian states, and one article in Australia. Regarding the different designs, two articles used quantitative approach, one qualitative, three were of the cohort type, two of systematic review and one exploratory study. All articles fit in level of evidence IV.

Regarding the objectives, they were generally associated with factors that lead to the practice of episiotomy, as well as the harm that this practice can lead to the parturient’s health and when practiced in a selective way, its benefits.

**DISCUSSION**

Although the adopted care policies to normal delivery base on scientific evidence, women are prone to suffer some type of perineal trauma, either due to episiotomy, either spontaneous lacerations. A study carried out in the General Hospital of Itapevera da Serra, São Paulo, with 6,365 women who had normal delivery, in relation to the perineal outcomes, 2,895 (45%) of the women had spontaneous lacerations, 1,823 (28%) had intact perineum and 1,647 (25.9%) underwent episiotomy. This study has demonstrated an association between episiotomy and parity. The higher the number of births, the lower the chance of occurring episiotomy.

Among the reasons that lead professionals to indicate this procedure, the perineal rigidity, primiparity and prematurity are the three main found at the University Hospital of São Paulo. Fetal distress, identified by abnormalities in the pattern of cardiofetal beats can lead professionals to perform episiotomy, in order to shorten the duration of childbirth.

The long labor and expulsive period directly associate with episiotomy, being generally recommended aiming at reducing tocoatraumas and fetal distress. Nevertheless, a study conducted at the Integrated Health Center Amaury Medeiros (CISAM), in Pernambuco, with 495 women submitted to normal delivery, found no significant relationship with the duration of labor above six hours and expulsive period greater than 30 minutes with the choice of episiotomy. The episiotomy found an association with age above 35 years, primiparity and absence of vaginal delivery. Primiparity stands out as a factor potentially relevant to perform episiotomy, it is far from being an indication to the practice.

The World Health Organization (WHO) and the Ministry of Health recommend the restricted use of episiotomy and classifies its routine and liberal use as a harmful practice, which should be discouraged, having indication of an average of 10% to 15% of the cases. There is a statistically significant relationship between the use of episiotomy and the increased risk of severe lacerations (third and fourth degrees), with lesion of the
anal sphincter. In deliveries performed without episiotomy, there was no record of serious injuries in 1,129 pregnant women followed up in the city of Goiânia, state of Goias.⁴

A study, with a population of 598,305 vaginal deliveries of Vietnamese women that calved in Australia, from 2001 to 2010, found that 12,208 births underwent episiotomy (29.9%), while those who give birth in Vietnam have a chance of 85% of undergoing the procedure. The rate of post-partum hemorrhage was higher in women who had episiotomy than those who did not, as well as an extension of the time of hospitalization.¹⁰

The main justifications for routine adoption of episiotomy in primiparous is the prevention of perineal laceration, further relaxation of the pelvic floor and trauma against the fetal head. One of the criteria most mentioned by obstetric nurses to perform episiotomy is the perineal rigidity. Another criterion indicated in studies was the issue of the macrosomic fetus¹³. According to the data, the episiotomy is still a routine procedure in the maternity ward of the University Hospital of São Paulo.⁷

Episiotomy is one of the most performed surgical procedures in obstetrics, only after umbilical cord clamping, necessary in all births. Its routine use has been observed in great part of the Brazilian institutions despite its recommendation in only 10 to 15% of cases, as previously mentioned. Since it is a surgical procedure, it must be informed and authorized by the woman before its implementation, informing on the possible risks and benefits. Studies show that most women who undergo this procedure do not receive any information. Many obstetric doctors and nurses say that the episiotomy is the only surgical procedure that can be performed without the consent of the woman, thus being considered a procedure that disregard the ethical and legal principles of health professionals.¹⁴

Episiotomy is one of the most frequent causes of maternal morbidity during the postpartum period, by exposing the woman to increase blood loss, infection, sexual dysfunction as dyspareunia, urinary incontinence, vaginal prolapse, among other alterations when compared to other types of perineal trauma. The Municipal Health Department of Rio de Janeiro has used the obstetric nurse as an important strategic agent in the deployment of humanized obstetric practices. In this sense, the nurse’s education toward human care contributes effectively to the establishment of humanized practices, guided by the respect and shared decisions.⁶

Regarding the limitations of the study, the reading and reflection of the selected studies (nine studies/articles) showed that advances in the scientific knowledge were insufficient; only one of the nine studies managed to meet the objective of the study. Selecting descriptors with the Boolean connectives did not bring a good amount of articles that met the inclusion criteria.

**CONCLUSION**

Primiparity, perineal rigidity, macrosomia, and prematurity were the main factors that lead obstetric nurses to perform episiotomy. Although the evidence-based studies increasingly confirm what WHO advocates - that episiotomy should be selective and strictly reserved for isolated factors -, its use rates remain high.

Professionals, as well as studies that highlight the theme along with health professionals, focusing on good practices for childbirth, need to rethink their techniques, and obstetric nurses need to increasingly appropriate what new researches address and act in favor of a humanized childbirth with quality, where the woman is the protagonist of this moment.

There are many barriers to face an entire medicalized structure, but new behaviors can be adopted. The present study brings valuable statistical data and stimulates the development of new studies that can assist in the development of public policies for humanized care of childbirth. It contributes to the scientific production when introducing technologies that assist in the physiology of childbirth while preserving the bodily integrity of pregnant women.

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