REVIEWS

The place of episiotomy in history: A sore review

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ABSTRACT

Background and objective: During childbirth some practices are common and widely accepted though they have no scientific basis. Despite of being implemented some centuries ago, they last in time up to the present day, as for example episiotomy. Currently it is a controlled use intervention in some countries, especially in northern Europe, and a liberal (and almost unquestionable) use intervention in other countries: It is so common that, there is not even accounting for this procedure as a quality care indicator. In the present time, there is a conflict that involves the advocated minimally invasive care versus defensive practices... Episiotomy perfectly illustrates this dichotomy. To synthesize the current knowledge about intrapartum perineal care, regarding the origin and introduction of episiotomy in the midwives practice over time, in order to comprehend the evolution of the concept and methods of perineal preservation.
Methods: A literature search was conducted in the electronic databases CINAHL, Cochrane Database of Systematic Reviews, MedicLatina, PubMed, Scopus and Web of Science, using descriptors MeSH and natural language. The results were synthesized and evidenced throughout this review.
Results: A total of 27 articles were identified, which fully comply with the inclusion criteria. The most representative categories of papers are literature reviews (37%) and nonempirical articles (26%).
Conclusions: Although scarce, the existing literature on this subject is very meticulous. One third of the articles are from midwives/nurse-midwives authorship which reveals special interest and concern of this professional class for this subject, that admittedly belongs to its field of expertise whether theoretical or practical. Major milestones were identified in the history of episiotomy which led to significant changes in midwifery intrapartum care patterns, with supremacy of the biomedical model.

Key Words: Childbirth, Perineum, Perineal care, Episiotomy, Midwifery, Nursing

1. INTRODUCTION

In order to reflect fairly and consistently about the caring practices for women's perineum during delivery, we believe that it is essential to begin with the basilar point: the origin of the procedures during birth. This review is an exercise of reflection on the starting point of perineal protection practices in which is the long course of obstetric care. It aims to contribute to the comprehension that to understand a phenomenon we cannot overlook its origins, regardless of the aspects concerned. It is often in the origin that lie most of the questions... and answers. The general objective of this review is to synthesize information about the evolution of intrapartum perineal care provided by midwives, identifying ancestral techniques led to perineum care during childbirth since the early days of the midwifery job, and analysing the changes in the assistance provided by midwives during second stage of labour, over time.

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The term episiotomy is globally accepted and used to describe the surgical incision made between vagina and anus during delivery. However, and strictly speaking, the term to be used should be perineotomy[1] in its true assertion - since episiotomy refers to the section of the external genitalia or pudendal.[2,3] Childbirth is a physiological process in which shall only intervene when it is identified some abnormality, being that 85% to 90% of pregnancies end up in normal deliveries without requiring medical-surgical intervention. Since 1985 specific and universal standards and guidelines have been issued about the best practices in normal birth assistance. Thus, intrapartum care practices have undergone significant changes over the past 30 years, and what should be offered today represents a break with past practices, which were obsolete and some were proven harmful.

Nursing models of maternal and obstetric health care should be updated and adapted, considering the evidence and the real needs of women. A philosophy of women-centred care is presently advocated, with the support and promotion of their autonomy and freedom of choice as far as delivery is concerned but, for this to be possible, the first step towards change happens at school, in training, at the level of specialized education, with the revision and adequacy of the curricular contents that allow the materialization of practice based on scientific evidence. In this context not only matters the periodic review of the curricular contents but also the clinical practice fields, which should be suitable and capable, allowing trainees to experience a practice not centred in the professional and with a solid scientific basis.

2. METHODS

As working method was used the electronic literature research through the search engines available to the authors, more specifically in the databases of production and scientific research in Health Sciences and Nursing Sciences: CINAHL, Cochrane Database of Systematic Reviews, MedicLatina, PubMed, Scopus and Web of Science. A literature review strategy was defined in which descriptors MeSH [episiotomy/history] and [episiotomy/etiology] and descriptors of natural language [episiotomy construction] and [episiotomy origin] were used, considering they are the most adequate to meet the objectives of this review.

As shown in Table 1, these descriptors were searched individually and in combinations, using the Boolean operators AND and OR. It should be noted that the meta-analyses of the Cochrane Library were carried out using a simple search, only with the descriptor [episiotomy], as in the MedicLatina database only the descriptor [episiotomy] was used in its original and translated version, because the search obtained by the bibliographic strategy did not return results.

Table 1. Bibliographic search strategy

Search	Descriptors
#1	*"Episiotomy construction"* [Text Word]
#2	*"Episiotomy/history"* [MeSH 2017]
#3	#1 OR #2
#4	*"Episiotomy origin"* [Text Word]
#5	*"Episiotomy/etiology"* [MeSH 2017]
#6	#4 OR #5
#7	#3 AND #6

They were defined as inclusion criteria the availability of full-text articles in Portuguese, English and Spanish. The literature that does not match with the criteria was excluded. Initially the authors conducted the reading and analysis of individual summaries of articles, making a preliminary selection of the material found and then proceeded to comprehensive analysis of the content of the articles. The results of the research were summarized and evidenced throughout this synthesis, and were validated by both authors.

3. RESULTS

All possible combinations of search terms have resulted in a volume of more than two hundred articles (260, more specifically). After the application of inclusion criteria, exclusion of duplicates and articles whose theoretical body did not correspond or related to the main subject, a total of 26 eligible articles were obtained, most of them from the PubMed (6) and Scopus (13) databases (see Table 2). A meta-analysis (Cochrane) was added to these selected articles, due its high pertinence, from a database whose methodology of research was previously explained. In this way, it makes a total of 27 bibliographic pieces under analysis.

As shown in Table 3, regarding to the type of articles which were found, they were grouped into six categories: quasi-experimental study, descriptive/observational study, meta-analysis/systematic review, case report, literature review, nonempirical articles (comment/expert opinion/lecture).

From the selected sample, the most representative type are literature reviews (37%), of which only one has the specific objective to study the evolution of intrapartum perineal care over time; all its information is focused on this subject. It should be noted that the remaining articles of this and other categories partially address the topic of research in its content.

About a quarter of the papers contain comments and/or reflections which objectively approach the subject, developing a very rich historical contextualization. In general, the opinion articles and/or author comments are robust and valuable

bibliographic reviews for this synthesis because they have a ground that supports their ways of thinking. Some of this research shows that there are authors who apparently stand out as pioneers, in their time, in terms of clinical judgment and advocacy of woman-centred care behaviours.

Table 2. Distribution of search results

Search terms and combinations	Papers by databases				
	CINAHL	MedicLatina	PubMed	Scopus	Web of Science
#1	1	0	3	66	6
#2	6	0	17	710	174
#3	7	0	20	66	329
#4	2	0	16	188	21
#5	133	0	14	378	700
#6	133	0	30	378	744
#7	14	49	13	119	65
Total selected	5	1	6	13	1

Table 3. Categorization of papers by design or focus topic

Category	n	%
Quasi-experimental	1	3.7
Descriptive/observational study	6	22.2
Meta-analysis/systematic review	2	7.4
Case report	1	3.7
Literature review	10	37.0
Nonempirical articles	7	26.0
Total	27	100

The third most representative category (22%) are descriptive and observational studies that in their theoretical component summarize the development and evolution of perineal preservation procedures, regardless of their intervening nature.

All selected articles are single material, whose approach is careful to include a historical perspective of either the intrapartum perineal care, whether the inclusion of episiotomy in midwifery assistance. It should also be mentioned that it was included too a lecture/memorial discourse, with a fruitful content and significant contributions to knowledge that is intended to be produced and disseminated in this review.

4. DISCUSSION

In the analysis of the selected literature was possible to identify three different areas of discussion: 1) what concerns the origin of the expectant and preserver care model; 2) what regards the interventionist model initiated with the discovery and experimentation of episiotomy followed by a rapid dissemination of the procedure on a world scale, and 3) concerns about changing a future, acting in the present and suggestions for improvement of care. Thus, the information was synthesized following these three topics.

4.1 The primordial: beliefs

Throughout times several names have marked the history of episiotomy and perineal care. The most recent and complete historical review about intrapartum perineal care reveals it was provided in a "social caring" model from 98 DC to the 18th century, when surgical interventionism in the perineum appears and stands out to a surgical and reductionist model.[4] Briefly, this review allows us a summary and chronological analysis of this transformation:

- Between 98-138 DC: the earliest records regarding care of perineum during delivery, which were predominantly medical and firstly done by a doctor-Soranus- who emphasized the importance of applying warm cloths and lipid lotions to the perineum[5]
- Between 476 and 1000 DC (the Dark Ages): midwives have become the target of persecution and their manuscripts were destroyed by the Church, thereby losing track of their wisdom - and we believe that, for this reason, the ancient written documents by midwives are scarce.
- During the 11th century several works were published by the first medical school in Salerno, apologist that the perineum should be supported by linen cloths and there was a warning for the risk of severe trauma if this measure were neglected.
- From the 11th century to the 17th century registers were practically non-existent.[4,6]
- It was only at the beginning of the European Modern Era that written information began to emerge with detailed descriptions of techniques used by midwives during second stage of labour. At that time, delivery was conducted entirely by women midwives, although Midwifery manuals were written by men - owing to

the exclusion of women from educational institutions. At this time prevailed a protective model of care, in which manual dilate or stretch of tissues was classified as an error and assumed to be the source of genital damage.[4,7]

- In the 18th century only a few midwives wrote about their knowledge and expertise. At the same time, since 1700, there has been a significant increase in the male figure during childbirth (man-midwife) and the surgical model begins to appear more and more in technical treaties
- In the 19th century it was verified the abandonment of home as birth place and women started to be transferred to the hospital – an influential factor in this paradigmatic change.[2,8,9] At this point episiotomy was also seen like a way to restore women's "virginal conditions".[1]
- The first reference to the surgical act to which episiotomy corresponds today, arises in the year 1742 by Ould's hand,[2,4,10] who describes labour as dangerous for the baby, and dictating a routine surgical intervention policy. Apparently, he is the "father" of episiotomy and his philosophy implied a change in women's labour and birth position, which starts by adopting the supine position to allow bigger perineal exposure and better accessibility for intervention.[8,11] At this moment intrapartum perineal care is no longer aimed at preventing tissue trauma, but it is now a routine intervention, just as the private perineum becomes "public", a focus of fear, a pathological entity and a place of surgical intervention because it is under observation.[4]

From this point, reports of this procedure and some variants of it - such as the suggestion of the performance of several perineal surface incisions - appear from time to time and throughout Europe.[2] Until 1,857 episiotomies were indicated in difficult deliveries and to save foetuses; the generalized and liberal use of episiotomy onwards from the late 1800s, with recurrent appeal to its use under the presumed objective of controlling laceration and preventing extensive lesions.[8,10] Thus, the traditional skills of perineal trauma prevention were abandoned due to the current medical practice.[1]

In the USA in a short period of few years (1918-1920) thanks to the Pomeroy and De Lee publications, it was verified a philosophical change in the episiotomy use, becoming a routine based on four strongly beliefs: it prevents lacerations, decreases delivery length, reduces neonatal morbidities as well as the occurrence of gynaecological prolapses.[5,12–14] Apparently, De Lee advocated too that routine episiotomy would prevent the newborn from having a criminal life.[9] It was indiscriminately settled an invasive procedure, devoid of scientific scrutiny.[7,10] Six decades after, it was accurated the first rate of episiotomy use in the USA: 65.1% in 1979 and 64% in 1989.[2,10]

Episiotomy practice has become so obsessive that it has materialized in a mandatory rule. Even in England - the midwives' european country from excellence - in 1970 was implemented an accrued policy of episiotomy in some maternities. In this policy, every primipara woman should be submitted to this procedure as well as every woman who were submitted to episiotomy in previous deliveries:[15] a vicious or an addictive cycle?

The pressure for this procedure was so strong that the midwife Mary Cronk even describes a bizarre situation she observed. Once a colleague of hers executed an episiotomy already after the birth of foetal head, in order not to be punished in the postpartum appointment when it would be possible, to other professionals, to verify the inexistence of a perineal suture – an unfortunate situation quite illustrative of the oppression generated by this policy of perineal care as well as its repercussions on the midwives' job, in their autonomy, clinical judgement and decision-making right.[15]

The first review about the possible effects of episiotomies, already so deeply rooted in hospital deliveries, appears about 241 years after its origin and only 35 years ago - in 1983 - by Thaker & Banta who conclude that episiotomy presents risks and the published studies were not scientifically adequate to prove its alleged benefits, and that women who were properly informed (about evidence of benefits and associated risks) barely consent this intervention.[2,10,13,16]

Conducting the first studies, mainly clinical trials, as well as their publication were difficult tasks, hampered both by the clinical community as scientific. As in the Klein's case, that in 1984 proposed to lead the first North-American randomized clinical trial about episiotomy,[17] which questioned beliefs and routine practices... resulting in a 10-year struggle from its conceptualization to its successful publication.[18] On an opinion article, Graham[19] exposes the difficult to lead a randomized clinical trial due to the factor "professionals' beliefs": even the selective episiotomy group maintained a 90% rate of procedure execution and also verified that episiotomy sympathizing physicians were more likely to consider as abnormal a normal labour and intervene in birth process. He further emphasises that proposals for practice changes are more likely to succeed when compatible with beliefs that surround the focused subject.

In the 90 arise first observational studies about episiotomy use and factors associated with injury and weakening of the levator ani and anal sphincter muscle. In 1990 was published an analysis of perineal plastic surgery and vaginal hysterectomy prevalence in women who would have been assisted by the author himself, which concludes that patients to whom he assisted with a selective episiotomy policy present, after 25 years, a 50% decrease in the occurrence of this procedures. Shortly after another publication appears which identifies the risk factors for levator ani and anal sphincter muscle impairment among which are episiotomy and the second prolonged stage. Given these findings, Schoon[10] raises a relevant question in which clearly relates childbirth medicalization factors that cannot be separately accountable: the epidural leads to a prolonged second stage of labour that frequently requires an increased intervention, using episiotomy.

In late 90s the concern about the legitimacy of episiotomy as a perineum "protective" measure is strongly questioned and unanimous authors begin to emerge alerting about the necessity of using this procedure with caution until there were developed prospective studies and randomized clinical trials which tested its efficacy.[20] Then in 1999 appears the first meta-analysis about restrictive episiotomy versus routine episiotomy, in which there were analysed six randomized clinical trials that gave evidence to the benefits of the restrictive policy.[2]

4.2 The present: formation, beliefs and inequalities of power

Nowadays many countries, as per example Portugal, do not have national statistical data about episiotomy use: how much, why, and who does it? However professionals know that it is (widely) used and women know it too. For women this procedure is not just an incision made in the perineum, it has a different meaning as it is differently experienced by each woman. In a sociological-cultural approached to the subject, episiotomy was described as a transformation factor from natural birth to a surgical and desexualized procedure[21] and some women believe it is a punishment.[9]

Today it is known that episiotomy is not the indicated way to protect the perineum during delivery:[14,22] the cut, by itself, implies a second-degree wound since it affects the superficial muscles of perineum.[8,12] Various authors assert that this technique, of surgical scope, fails completely regarding to its assumptions: episiotomy does not prevent perineum trauma, but increases its occurrence so it is a considerable risk factor for third and fourth degree lacerations; neither it prevents the pelvic floor laxity, neither it increases scarring conditions, it contributes for the increasing of maternal morbidities as blood loss, postpartum pain and dyspareunia[9,14,20,23] being therefore a suffering major cause for parturient women.[1] Even for alleged foetal benefits none of them is supported by evidence and so they are assumed as myths.[12,23] The current evidence advocates a restrictive practice of episiotomy with benefits for women[22] and lower costs too.[2] Regarding to perineal correction after delivery, episiotomy is more difficult to repair, consuming more time and suture material.[20]

The most recent literature shows determinant aspects on the alteration of intrapartum perineal care model provided by midwives, through time, as the interventionist nature of the training received in the specialization courses, the "fear of hurting" or doing harm to women by not doing an episiotomy, as well as the existence of clinical perspectives which are not consistent with evidence and current guidelines.[24,25]

It is true that episiotomy still occupies a prominent place in the obstetrical practice and despite being an invasive procedure women are not adequately informed, of pros and cons, and their consent or dissent is rarely obtained.[20,26] Experts in this area affirm that today the most influential primary factor in the occurrence of an episiotomy are not the characteristics of the parturient, but the characteristics and beliefs of the professional,[1,7,19,24,27] and midwives are the professionals who have the lowest rate of its execution.[13,28]

Currently, with the re-emergence of perineal preservation care, we see the dichotomy between the social model and the surgical model: one more adopted by midwives, the other by doctors.[4,16] The reasons given by midwives for not performing episiotomies are based on a woman-centred model of care, associated with higher professional satisfaction.[24] On the other hand, it is understandable that physicians who were trained in a model that considers episiotomy as a fundamental and integral part of the labour process would have more difficulty adopting a less interventionist model.[1,16,28]

Working environments where this contrast occurs implies additional stress for midwives and is not fair for women. Often conflicts arise during the decision-making process, and problematic situations become more noticeable when pregnant woman wants a physiological approach to her labour but the institution offers medicalized policies - in this situation the decision to perform an episiotomy can be influenced by anxiety on the disagreement of philosophies.[1,9]

Wu et al.[24] argue that the professional judgment of performing an episiotomy, which is implicit in the decision-making process, may be influenced by a combination of deeply rooted personal, practical and clinical factors. These authors suggest some measures to "uproot" beliefs related to this subject which go through the understanding of these factors, to be able to develop a foundation of strategies focused

on the change of professional practice.

Available evidence supports promoting practices for perineal integrity and trauma reduction, such as prenatal perineal massage,[29] the use of warm compresses in the perineum during foetal crowning,[30] the use of upright positions in the second stage of labour,[31] and a smooth delivery of the cephalic pole, between contractions.[11, 14, 32]

4.3 The Future: hope

Despite of the "elective" term being actively used in obstetrics, an elective episiotomy could never be justified. The research and implementation of guidelines by themselves are indicated as insufficient to achieve change, so it is imperative to explore praxis and analyse what is practiced for being necessary and what is practiced based on personal beliefs or even for convenience.[1, 7]

In order to facilitating the change of habits during birth assistance and reducing the number of episiotomies practiced, several suggestions appear in the literature:[7, 8, 12, 13, 23, 25, 32]

- additional training in perineal management during initial nursing-midwifery education programmes
- changes in education and heighten awareness of clinical practice on perineal care
- institutional monitoring initiatives and quality care control: episiotomy as an indicator to be assessed (either individual and/or of the obstetric units)
- documentation which requires the indication/justification of the episiotomy
- stipulated/limited targets for episiotomy rates
- making institutional and individual rates (by professional) of episiotomy available to public.

5. Conclusion

Through the review process it was verified that available literature is limited but about one third was produced by midwives or nurse midwives. Although its scarcity, many papers are not available in full text which requires from the researchers to purchase or rent them representing an obstacle to the dissemination of knowledge. The topic of research in these bibliographic findings was approached under several prisms, including sociological approaches, exploration of clinical traits tendency and analysis of beliefs vs. care behaviours. The authors of the revised papers, although being from different nationalities, have a common concern: to explain and justify why episiotomy is an act to be used as an exception and not as a rule, beginning with the origin of this procedure. Over the years it has been verified a change in the care paradigm of midwives, especially in the way of caring woman's perineum during birth: if they once cared for a social model, in which for centuries the perineal integrity was taken as a primary objective, today and in a global view, these professionals persist under the influence of the biomedical model, which gave them an interventionist and more "surgical" character.

In a parallel analysis to the central theme emerged a fact of relevant interest for reflection, which lies in the way health professionals understand the threshold of their performance. In our view, it would be interesting to explore which factors contribute to such disparate conceptions. Perhaps this would make it easier to implement comprehensive measures in parturient care models. It is vital to standardize criteria and establish limits, both by means of indicators and assistance goals, allowing the adequacy of care to the needs of women, respect for ethical standards, safety and quality of assistance.

The findings of this narrative review reinforce the absolute necessity of rescuing techniques and ancestral wisdom procedures to promote perineal integrity during childbirth. Results are relevant as they enhance individual and collective reflection and discussion, within and among the professional groups involved in obstetric care.

Midwives are expected to take pragmatic leadership in the process of "uprooting" medieval beliefs and to lead the implementation of evidence-based perineal care... The profession and women deserve it. Current situation is reversible but it is urgent to analyse intrapartum forms of perineal care more adopted and currently dominated by midwives, the reasons behind each one of them, as well as the construction of intervention and care quality improvement programs. It seems to be an equally beneficial strategy the reformulation of the program contents taught in nursing-midwifery training courses.

At the end of this review, as well as the reflexive exercises it implied, it is necessary to question all health professionals working on Obstetrics and Midwifery area whether it will be acceptable that in the 21st century, with all technical evolution, scientific sedimentation and available evidence, we can allow ourselves to continue to cherish "beliefs" of the 19th century, transposed directly into the body of the parturient women?

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Conflicts of Interest Disclosure

The authors have no conflicts of interest to disclose.

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