



HAL
open science

Ignoring international alerts? The routinization of episiotomy in France in the 1980s and 1990s

Lola Mirouse

► **To cite this version:**

Lola Mirouse. Ignoring international alerts? The routinization of episiotomy in France in the 1980s and 1990s. *Reproductive Biomedicine & Society Online*, 2022, 14, pp.42 - 52. <10.1016/j.rbms.2021.07.002>. <hal-03906536>

HAL Id: hal-03906536

<https://hal.science/hal-03906536v1>

Submitted on 19 Dec 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization



ELSEVIER

www.sciencedirect.com
www.rbmsociety.com



SYMPOSIUM: RISK, INNOVATION AND IGNORANCE PRODUCTION
ORIGINAL ARTICLE

Ignoring international alerts? The routinization of episiotomy in France in the 1980s and 1990s

Lola Mirouse

Centre for the Study of Social Movements (EHESS/CNRS UMR8044/Inserm U1276), Paris, France; ANR Hypmedpro, School for Advanced Studies in the Social Sciences, Paris, France



Lola Mirouse is a PhD candidate in sociology at the Centre for the Study of Social Movements (EHESS/CNRS UMR8044/INSERM U1276). Her doctoral research analyses the medical and public controversies over episiotomy, and the ways they have shaped the forms of regulation of this contested obstetric practice in France over the last decades. Lola Mirouse is also a member of the international research project titled 'Overmedicalization of childbirth as a public problem: material trajectories, public controversies and institutional changes' (Agence Nationale de la Recherche, ANR-Hypmedpro).

Abstract As scientific evidence from the UK and the USA in the 1980s was questioning the usefulness of episiotomy, the rate in France increased from 38% in 1981 to 58.4% in 1996. In 1996, the World Health Organization recommended limiting the episiotomy rate to 10%. This article aims to examine this paradox through an analysis of the French medical debate on episiotomy during the 1980s and 1990s. Drawing on an analytical corpus composed of 192 articles published in French professional journals of obstetrician-gynaecologists and midwives, it shows that the majority of these health professionals considered episiotomy to be a preventive intervention. The most influential professional organizations and experts manage to refute most of the international alerts on the limitations and side effects of episiotomy through the constant production of new justifications and competing knowledge for the procedure. In the 1980s, episiotomy was seen as a means to prevent tearing and thus avoid perineal dysfunction. Episiotomy and perineal re-education (which developed into a new health sector) were put forward as 'the' solution to the problem. From the mid-1990s onwards, the focus shifted from the mother to the baby as episiotomy was promoted as a way to reduce the risk of newborn mortality and morbidity. This article shows that the alerts and controversies on the assumed iatrogenic effects of biomedical technologies and practices were silenced through efficient and dynamic production of competing knowledge about their assumed benefits.

© 2021 The Author. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

KEYWORDS: Episiotomy, France, Medical controversies, Knowledge production, Sociology of ignorance

E-mail address: lola.mirouse@ehess.fr

<https://doi.org/10.1016/j.rbms.2021.07.002>

1472-6483/© 2021 The Author. Published by Elsevier Ltd.

This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Episiotomy is a surgical procedure involving an incision to enlarge the vaginal opening during childbirth. In 1985, the World Health Organization (WHO) recommended the abandonment of routine episiotomies (WHO, 1985) and, in 1996, WHO advised that the episiotomy rate should not exceed 10% (WHO, 1996). However, during this same period in France, the practice of episiotomy became generalized. The rate increased from 38% in 1981 (Rumeau-Rouquette, 1984) to a peak of 58.4% in 1996, when 78.9% of primiparas were given an episiotomy (Venditelli and Gallot, 2006).

In France, the childbirth context was characterized by an interventionist approach that had been introduced in the 1970s and intensified through the 1980s (Knibiehler, 2016). In 1998, women delivered almost exclusively in either public (57.6%) or private (42.4%) hospital settings (Blondel et al., 2003), and only 70% of deliveries were spontaneous (induced childbirth and caesarean sections accounted for 20.3% and 17% of deliveries, respectively). In addition, 58% of births in 1998 occurred under epidural anaesthesia (Blondel et al., 2003), and 99% were monitored (Thoulon et al., 1998). Midwives attended deliveries in 47.5% of cases, and obstetrician-gynaecologists (OB-GYN) attended in 51.3% of cases (Blondel et al., 2003). Home births have represented only 0.5% of deliveries since 1981 (Rumeau-Rouquette et al., 1984).

Research in social sciences on the medicalization of childbirth has shown that it was considered to be an unpredictable and risky event. Its safety was believed to depend on the availability of technical resources and the doctors' ability to intervene immediately (Akrich and Pasveer, 1996). According to Jacques (2007), apart from marginal experiences such as home births, the normal experience of childbirth for women in France usually involves an epidural, continuous monitoring, oxytocin injections to accelerate labour and, frequently, an episiotomy. In a comparative study of four different procedures (epidural, acceleration of labour, caesarean section and induction), Carricaburu (2005: 260) even speaks of a tendency towards 'the increasing, daily and quasi-systematic technicalisation of each birth' sometimes regardless of the woman's real need for the procedure, but justified instead by the need to rationalize the workload of the healthcare professionals. The debates on the medicalization of childbirth have also been analysed in terms of the distribution of skills between midwives and OB-GYN. In France, OB-GYN are in charge of complicated pregnancies and births, and midwives are in charge of physiological pregnancies and births, yet this does not mean that they are detached from the techniques. According to Jacques (2007: 77, translated from French), while 'the ideology of a "gentle" and "reasoned" use of techniques is particularly present among midwives', they also strongly emphasize the mastery of 'advanced technical expertise as the central foundation of the profession' (Jacques, 2007: 78, translated from French).

In the international social science literature, a series of studies has specifically addressed the question of the high usage of episiotomy by focusing on gender bias. According to Diniz and Chacham (2004), maternity healthcare professionals in Brazil see the woman's body as passive and as

requiring an artificial opening for delivery. Schantz (2016) showed that performing and suturing the episiotomy in Cambodia was a way for the medical institution to shape women's bodies in order to make them conform to their female and sexual condition as wives. From a public health perspective, Graham took an interest in the generalization of episiotomy – which started in the late 1930s in the USA and in the mid 1960s in the UK – and in its decline. The episiotomy rate decreased in the USA from 65% in 1961 to 39% in 1998 (Maillet et al., 2004), and in the UK from 53.4% in 1978 to 36.6% in 1985 (Graham, 1997). For Graham, this decline in the episiotomy rate in medical practice took place against the backdrop of a professional power struggle between midwives and OB-GYN and collective mobilizations by childbirth activists. Episiotomy was challenged, he claims, through a tactic of publicizing the lack of scientific evidence supporting the routine use of episiotomy. As he showed (Graham, 1997, 1998), these changes in obstetric practice in the UK and the USA came about before publication of the first clinical trials by Sleep et al. in 1984, who compared the frequency of tears between two groups of women giving birth with and without an episiotomy, and found no significant differences in neonatal or maternal state between the two groups. A series of studies was launched in the early 1980s whose results – showing, according to Graham (1998: 420), that the routine use of episiotomy was 'indefensible' – fuelled the decline of episiotomy as a routine procedure in the UK and the USA.

Finally, combining an epidemiological and sociohistorical approach, Clesse et al. (2019) compared the evolution of episiotomy rates worldwide and the factors associated with its generalization and decline. Regarding the French context, they hypothesized that the spread of episiotomy in the 1980s and 1990s 'was intrinsically linked to the medicalization and institutionalization of birth' and to '[the] cultural influence of the USA and its associated perceived scientific standing' (Clesse et al., 2019: 6), which favoured the introduction of episiotomy as a routine procedure.

In this article, I propose to tackle the paradox of the generalization of episiotomy that occurred in France in the 1980s and 1990s at the same time as international evidence was accumulating to question its appropriateness, and just as a number of countries comparable to France in socio-economic terms, such as the UK and the USA, were beginning to regulate their own episiotomy rates. This paradox presents an ideal case study for mobilizing insights from the sociology of ignorance to understand the forms of knowledge and ignorance produced on episiotomy in France by national and international medical authorities.

The first wave of studies in the sociology of ignorance characterized ignorance as a resource available to players for strategic purposes. Amongst them, Proctor (1995) showed how the tobacco industry produced doubt on the role of tobacco in lung cancer, despite reliable scientific knowledge on the matter, by funding alternative studies to create the notion that the scientific community was divided. In the field of reproductive medicine, ignorance has been seen as a tool to justify inaction, as demonstrated in Sarda's (2011) article on the 'artificially maintained controversies' that prevented the regulation of caesarean rates. She argued that OB-GYN articulated two mechanisms to produce ignorance. On the one hand, they focused on

uncertainty (by emphasizing the lack of incontrovertible proof or claiming that more research was needed) and, on the other hand, they unquestioningly attributed the high rates to demand from women. [Ceccarelli \(2011\)](#) defined a 'manufactured controversy' as a phenomenon that occurs when players argue that there is an ongoing scientific debate on a subject when in fact there is scientific consensus. I aim to show that the silencing of alerts about the efficacy and iatrogenic risks of episiotomy in France did not take place through strategies of secrecy or of manufacturing uncertainty, but rather through an efficient and dynamic production of competing knowledge and information about its assumed benefits by the most influential medical authorities.

In the first part of the 'Findings' section below, beginning with the publication of the first special issue on the perineum in the scientific press in 1982, I examine two modes of justifying episiotomy that were deployed by the OB-GYN who dominated the debate, the new roles attributed to midwives in this context, and the criticisms levelled at them by colleagues opposed to systematic episiotomy. I also analyse the intervention of international players who contested these visions of episiotomy as being beneficial for women, and their failed attempt to make French midwives the leaders of the opposition to systematic episiotomy. The second period starts in 1993, when a political reform was launched in France aimed at restructuring maternity services to improve newborn outcomes. In line with the management of childbirth risk in France, it advocated the concentration of material and human resources in large and highly-equipped maternity units, and consequently the closure of small units (<300 deliveries per year). This delimitation was chosen because of the impact of this perinatal reform on the professional debates around episiotomy, which led to the emergence of new players and arguments against episiotomy. These players, opposed to maternity unit closures, framed episiotomy as a negative fall-out from the technologization of childbirth at work in the large, highly-equipped maternity wards. I argue that these broader criticisms of this interventionist model of childbirth paradoxically contributed to normalizing the widespread use of episiotomy to a certain extent. I also analyse the adjustments made to previous justifications for episiotomy in line with this opening-up of the debate to new players and new arguments. This period ended with the 'about-turn' of the last main defenders of systematic episiotomy in 2001.

Data collection

This article is part of a PhD thesis which aims to analyse the scientific controversies surrounding the regulation of episiotomy in France since the 1980s, as well as the episiotomy practices of various professionals, from interviews with key players and through the constitution of an analytical corpus composed of medical publications and official studies and reports (such as recommendations and guidelines from international and national authorities).

In this article, I propose to examine the French medical debates on episiotomy in the 1980s and 1990s, drawing from an analytical corpus that I began to compile by identifying French professional journals of OB-GYN and midwives pub-

lished in France since the 1980s, from the Bibliothèque nationale de France catalogue – which includes journals, books and newspapers published, imported or distributed in France – using the French terms for 'gynaecologist', 'obstetrician', 'obstetrics', 'midwife', 'midwives', 'midwifery' and 'maieutics' as keywords. As these documents are not digitized, I manually searched all the articles, letters to editors, and abstracts relating to childbirth whether in terms of obstetric and professional practices or ethical, legal, organizational and political aspects. Within this corpus, 192 articles referring to episiotomy/perineotomy were published in five OB-GYN journals – *Journal de Gynécologie, Obstétrique et Biologie de la Reproduction* (38 articles), *Revue du Gynécologue-Obstétricien* (one article), *La Revue du Praticien. Gynécologie et Obstétrique* (nine articles), *Gynécologie, Obstétrique & Fertilité* (seven articles), previously entitled *Contraception Fertilité et Sexualité* (five articles) – and two midwifery journals – *Les Dossiers de l'Obstétrique* (93 articles) and *Profession Sage-Femme* (39 articles). Note that when a whole issue of a journal was dedicated to episiotomy or perineal management during childbirth, it counted as one occurrence. I added secondary sources to this corpus, such as the international studies that were discussed by French players in their publications. These players were identified for their ongoing participation in episiotomy debates in OB-GYN's and midwife's professional journals since the 1980s, and through exploratory interviews conducted with key informants. This put an emphasis on OB-GYN, motivated by the fact that they occupied a most significant place in the medical debates, even within leading midwifery journals such as *Les Dossiers de l'Obstétrique*, whose editorial board was mainly composed of OB-GYN until the early 1990s ([Caron-Leulliez and George, 2004: 190](#)). This also led me to include in this corpus two texts presented by major players at the 7th and 10th annual National Conferences of the Collège National des Gynécologues et Obstétriciens Français (CNGOF) and subsequently published by CNGOF.

I also included international guidelines such as those produced by WHO (1985, 1996) and the studies on which they were based. Indeed, from the 1980s onwards, WHO became interested in scientific controversies around the validity of episiotomy. This led to two phases of collecting data from international studies, resulting in the 1985 recommendation that systematic episiotomy should be abandoned, and the 1996 recommendation advocating a threshold episiotomy rate of 10% that should not be exceeded. In the 'Background' section below, I present the main conclusions from four reviews of the English-language literature published since the 1980s that led to the WHO recommendations. By doing so, I aim to give readers an overview of some of the publications that played a key role in triggering an international alert about the lack of efficacy of episiotomy and its iatrogenic effects.

Background

In France, the literature review published by [Thacker and Banta \(1983\)](#) in *Obstetrical & Gynecological Survey* is considered to be the first scientific publication to question the efficacy of episiotomy and the legitimacy of its system-

atic use in childbirth. This review of the English-language literature from the 1860s to the 1980s focused on the major indications for performing systematic episiotomy, namely prevention of severe perineal tears, fetal brain damage and pelvic relaxation. Its results highlighted the lack of studies conducted according to sufficiently scientific criteria, and concluded that 'the data on the benefits of episiotomy are very poor and offer no argument to support the routine use of that procedure' (Thacker and Banta, 1983: 28). As a result, multiple studies were launched, first in the UK and then in the USA, in the mid-1980s (Graham, 1997). A number of studies investigated which type of episiotomy (midline or mediolateral, see Fig. 1) offered the greatest benefits and fewest risks. The results were summarized in Hordnes et al. (1993) in the form of a literature review, which concluded that midline episiotomy increased the risk of serious perineal tearing and should be avoided. The results were more difficult to interpret for the mediolateral technique. Only one study during this period found that mediolateral episiotomy had a significant protective effect (Shiono, 1990). The other studies found no protective effect, and some studies even concluded that the mediolateral method could increase the risk of tearing.

During this time, a consensus had started to emerge that episiotomy should not be used routinely in childbirth. In 1985, WHO recommended that systematic episiotomy should be abandoned (WHO, 1985). In 1989, Murray Enkin (OB-GYN at McMaster University Medical School), Iain Chalmers (Director of the National Perinatal Epidemiology Unit at Oxford) and Marc Keirse (OB-GYN) published a meta-analysis of obstetric practices entitled 'A guide to effective care in pregnancy and childbirth' (Enkin et al., 1989), which recommended abandoning routine episiotomy as it had not been shown to be beneficial to the mother's health or the child's health. In 1995, a major meta-analysis published by Woolley, who had been studying randomized controlled trials since 1980, came to the same conclusion. In 1996, WHO recommended limiting the episiotomy rate to 10% (WHO, 1996).

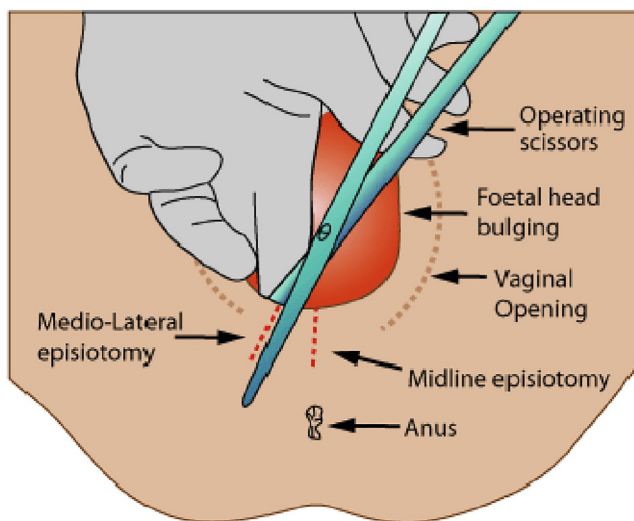


Fig. 1 Incisions for midline and mediolateral episiotomy. Image by Jeremy Kemp (public domain).

Findings

From 1980 to 1993: The production of competing knowledge on the benefits of episiotomy

While the early 1980s saw a flurry of studies at international level questioning the benefits and highlighting the risks of episiotomy, a new dynamic research field was emerging in France on the prevention of urinary incontinence (UI), which promoted the benefits of episiotomy.

Two major players in this field were Alain Pigné, an OB-GYN and Head of the Urology Laboratory at Hôpital Saint-Antoine in Paris (until 1989 when he became Head of the Maternity Unit at Hôpital Fondation de Rothschild in Paris), the first public hospital in France to become a Centre Hospitalier et Universitaire in 1965; and Professor Jacques Barrat, then Head of the Maternity Unit, Director of the Midwifery School attached to Hôpital Saint-Antoine (one of the two midwifery schools in Paris) and Chief Editor since 1974 of the *Journal of Obstetric Gynecology and Reproductive Biology*, the leading journal of CNGOF. Using x rays and ultrasound images (an emerging technology in the early 1980s), they demonstrated that childbirth creates tears in the perineal muscle that are invisible to the eye. These were called 'closed tears' because the skin seemed to remain intact. Their findings were published in 1982 in a leading midwifery journal *Les Dossiers de l'Obstétrique*, and then again in 1983 following the presentation of a paper at the annual conference of CNGOF (Pigné et al., 1983). Perineal tears during childbirth were considered to be a major cause of trauma leading to the development of UI.

UI was portrayed within CNGOF as a taboo subject that was neglected by medical staff, and that hindered women in their daily and sexual lives. In 1986, at CNGOF's 10th national conference, Bernard Jacquetin, who was Head of the Maternity Unit at the Centre Hospitalier Universitaire de Clermont-Ferrand, stated that French and international studies agreed that childbirth was a major cause of UI. Based on Iosif and Ulstem's (1981) study, published in the *American Journal of Obstetrics and Gynecology*, he estimated that 11% of women would be permanently incontinent after childbirth. He also reported that 60% of primiparas would be incontinent in the first few days after childbirth, according to the doctoral thesis of Odile Cotellet (1983), which had been supervised by Barrat. He estimated that, in France, a total of 2–3 million people, mostly women, were incontinent and that the cost to society (treatment, job losses, etc.) represented 8–10 billion francs (Jacquetin et al., 1986: 250).

At the same time as UI was emerging as a major health issue in France, Pigné and Barrat adopted a very firm position in favour of systematic episiotomy as a preventive procedure for incontinence, and even advocated maintaining the episiotomy rate at above 80% (Pigné and Barrat, 1983). The supposed advantages of episiotomy were that preemptive cutting meant the perineal muscles would not be weakened by lesions, and that opening up the perineum would reveal any subcutaneous tears, which could then be repaired more easily. Pigné and his team were absolutely convinced of the benefits of episiotomy for women, and

castigated any colleagues who tried to keep the perineum intact:

Perineal tears must be avoided at all costs (...) [I refer here] not so much [to] the tears that will require repair but [to] the so-called 'closed' tears that leave the accoucheur with a good conscience and the parturient with poor continence (Pigné, 1982: 35, translated from French).

The French equivalent of Kegel exercises, called 'rééducation périnéale' [perineal re-education (PR)], was promoted as a complementary technique to episiotomy aimed at reducing the risk of developing UI. Pigné's team collaborated, among others, with physiotherapist Alain Bourcier to develop a post-childbirth PR programme. In their eyes, 1980s France lagged behind the USA and the UK in this matter:

We have fallen significantly behind the Anglo-Saxon countries, where physiotherapists are trained in all these techniques, because in our country these techniques remain the preserve of only a few specialists. (...) A close collaboration must be established between the parturient, the physiotherapist and the midwife in charge of the delivery (Bourcier, 1982: 33, translated from French).

To re-orient women's interest in the direction of PR, abdominal re-education, which had been the norm until then, was characterized as a frivolous and even anti-feminist aesthetic solution to the problem of regaining one's figure after childbirth, whereas PR was framed as medical prevention of serious issues. Bourcier stressed that 'the problem does not lie with the aesthetic aspect and the woman's silhouette associated with the abdominal gymnastics sessions' (Bourcier, 1982: 34, translated from French). In 1985, at the instigation of Pigné and Bourcier, 10 PR sessions were made available to women, funded by the French social security system. The second step to generalizing PR was to bring the midwives on board. Two special issues devoted to the perineum and detailing the PR technique were published in 1982 and 1985 in *Les Dossiers de l'Obstétrique*. At Hôpital Saint-Antoine, the technique was taught to women by midwives just after childbirth in the form of lessons on the functioning of the perineum and pelvic floor exercises consisting of contracting/relaxing the perineum, which aimed to reduce the pressure exerted on the perineum. Midwives placed a lot of emphasis on the benefits of PR for women's sexuality and on the importance of taking time to recover after the baby's birth. PR was, and still is, credited with improving sexuality by removing women's ignorance about how their perineum works.

This does not mean, however, that the players were unaware of the debate surrounding the effectiveness and risks of episiotomy. In 1986, Jacquetin tried to refute Pigné's position on systematic episiotomy for the prevention of UI, stating that 'everything remains to be proven' in that regard (Jacquetin, 1986: 285, translated from French). He argued that studies comparing the occurrence of UI after childbirth had failed to demonstrate the effectiveness of episiotomy because they had, in fact, shown that UI was no less prevalent among women who had been given an episiotomy than among those who had not. He cited, for example, Sleep et al.'s

(1984) study of 1000 primiparous women, which found the same percentage of UI (19%) in women who had and had not undergone episiotomy. In 1992, Jacquetin led a study of 2911 women to assess the incidence of UI, which came to the same conclusion (Jacquetin and Minaire, 1992).

Pigné and his allies responded by arguing that episiotomy could be effective in preventing UI when performed under certain conditions. In other words, it had to be done at an early stage of childbirth, before the baby's head could damage the perineum, and the incision had to be extensive in order to cut the correct muscles. In addition, suturing should be carried out according to strict asepsis rules, and midwives should encourage women to engage in PR after childbirth. Pigné's arguments contributed to the normalization of episiotomy in France, but this did not come about through the use of strategies involving the negation of risk, or through any lack of reflexivity on the part of the players regarding the complications of episiotomy. Rather, the form of ignorance produced here took place within the most influential professional organizations through efficient production of competing knowledge (using international studies) that framed episiotomy and PR as 'the' most effective, preventive solution to UI. This production of ignorance involved the construction of a vision of episiotomy that combined the technical and ethical aspects of performing an episiotomy with demonstration of the ability of OB-GYN to manage its limitations.

Emergence of a medical debate regarding the different episiotomy techniques

In parallel with the controversies around the benefits of episiotomy for the prevention of UI, a medical debate was emerging on the organizational and professional constraints on OB-GYN.

The prevention of disabilities had become a public health issue in France in the late 1960s, and the responsibility of OB-GYN in this regard had been highlighted by health authorities in the 1970s (Ville and Lotte, 2015). A delay in the physician's response between heart rate deceleration and birth was seen as a major preventable cause of neurological damage resulting in possible child disability. The birth environment, understood here as the method and organization of care, was targeted as the main strategy to improve fetal care. In this context, the focus regarding the benefits of episiotomy started to shift for some players from the mother to the baby. This led to a discussion about which episiotomy techniques should be promoted to accelerate delivery.

One of the major players in this debate was Prof. Claude Racinet, Head of the Maternity Unit at the Centre Hospitalier Universitaire de Grenoble. In 1981, 60% of episiotomies performed by the OB-GYN and midwives at this hospital were midline, which involves cutting the perineum in the direction of the anal sphincter, and 15% were mediolateral (where the cut is performed at a 45° angle from the midline). Midline episiotomy was the technique traditionally used in this hospital setting. Within 5 years, however, there had been a complete reversal of this situation, with 60% of the episiotomies being mediolateral and 24% being midline (Berthet et al., 1989). The main advantage attributed to the mediolateral technique was that it could be done earlier, allowing the baby to be

delivered more quickly, rather than having to wait for perineal expansion, which occurs later during delivery, as is the case with midline episiotomy. The pushing phase was also limited to 20 min, after which the baby had to be delivered. In addition, the introduction of a monitoring device in the early 1980s, which increased the detection of heart rate problems in babies during delivery, fuelled the need to accelerate delivery. This change in episiotomy technique was introduced to comply with the shift in focus to the baby's health, but, according to Racinet, this came at the expense of women's comfort because, in line with the findings of a number of other French studies, he considered midline episiotomy to be less painful.

However, at the beginning of the 1990s, with mounting evidence at international level regarding the risks of anal injury, a rare but serious complication that could lead to anal incontinence (AI), after a midline episiotomy, Racinet was forced to justify the appropriateness of this technique, which was still being performed by some senior OB-GYN in his department.

In 1993, his team carried out a study on the risk of sphincter tearing following a midline episiotomy:

In our study, 94% of complicated tears were preceded by a midline incision. In the United States, Legino confirms this finding: before 1965, when the midline incision was recommended, no complicated tears were observed; since then, it has been observed in 6% of cases. However, the occurrence of such a tear remains low (...) at the Centre Hospitalier Universitaire de Grenoble (...) only 0.41% have been complicated tears. (...) We can therefore conclude that [midline episiotomy] can be learned (Berthet et al., 1993: 422, translated from French).

Racinet attributed the disparity in rates between Legino's (1988) study and his own to a difference in dexterity and technical performance between US and French OB-GYN. He believed that senior OB-GYN should continue to perform the midline episiotomy, which was considered more aesthetic, less haemorrhagic and easier to repair than the mediolateral technique, even though it could have serious complications [in contrast, the French national rate was 0.1% (Rumeau-Rouquette, 1984)]. A protocol was developed in the maternity unit to diminish the risks of AI after childbirth. The suturing had to be performed by the most experienced on-call surgeon in an aseptic environment under local or general anaesthesia. A special diet was recommended to the women along with antibiotherapy and anti-inflammatory treatments to reduce the risks of poor cicatrisation. The choice to continue performing midline episiotomies in spite of the increased risk of complications was judged to be in line with ethical considerations:

Women accept the incision as part of the delivery process and their 'experience' of a tear is no worse than that of a simple incision (Berthet et al., 1993: 422, translated from French).

Like Pigné, Racinet produced ignorance, not by stressing the absence of complications for women but by highlighting the skills and tools that enabled OB-GYN to handle such complications, and a whole set of techniques was developed around episiotomy to manage its risks. Another form of ignorance was produced here by the governmental con-

straints that contributed to shifting the focus away from protection of the mother to protection of the infant. This renewal of the benefits of episiotomy as a means of preventing fetal pathologies took place through a strategic change in the type of episiotomy advocated. Midline episiotomy was not abandoned, however, in spite of its negative effects. Rather, the change created a distinction between inexperienced OB-GYN and senior physicians.

During this period, the regulation of episiotomy was also being challenged by international players who saw, in an evidence-based approach to medicine, a way of reducing episiotomy rates and redistributing power amongst OB-GYN and midwives.

International criticism of French midwives

In the French midwifery journals published from 1980 to 1993, episiotomy was discussed by international players who framed the debate in terms of gender and the distribution of skills and knowledge between OB-GYN and midwives. In 1984, Marsden Wagner, a childbirth activist and Director of the Maternal and Child Health Division of the WHO Regional Office for Europe, published an article in *Les Dossiers de l'Obstétrique* that turned episiotomy into a symbol of the domination of OB-GYN over both women and midwives by highlighting the fact that the scientific evidence supported a low-tech, midwife-centred approach to birth. He focused the discussion on the iatrogenic effects of episiotomy and its inefficacy in preventing perineal tears. In 1985, WHO published international guidelines entitled 'Appropriate technology for birth', which urged the abandonment of systematic episiotomy (WHO, 1985). In this international context of a power struggle between OB-GYN and midwives, French midwives were urged to develop alternatives to hospital births and to start producing their own knowledge to support their legitimacy in attending physiological births. In 1987, Wagner participated in a congress with French midwives and took advantage of the opportunity to reproach them for their lack of contribution to obstetric research:

In January of this year, we [WHO] organized a meeting in London where fifteen midwives interested in research (...) were present. There were no French midwives. But I will simply say that if any French midwife was interested in research and contacted us, we would try to help her (Wagner, 1987: 6).

In the 1990s, European midwives writing in *Les Dossiers de l'Obstétrique* also encouraged their French colleagues to engage in the production of scientific studies. Among them, an English midwifery lecturer, Tricia Murphy-Black, published and presented research on episiotomy, framing it as a historic turning point for midwifery (Murphy-Black, 1993). Indeed, the first randomized controlled trial on episiotomy, which was published in the *British Medical Journal* in 1984, was led by the midwife Jennifer Sleep. Murphy-Black considered it to be the midwives' first victory because by producing their own studies, they were initiating the regulation of a medical practice. She pointed out that student midwives in England were now encouraged, from the very

start of their course, to carry out in-depth studies that could potentially lead to the publication of a scientific article or even a PhD course:

This approach will see the emergence of a new generation of midwives who will not practice unless they have first become aware of the reality of research, showing that what they undertake is for the benefit of mothers (-Murphy-Black, 1993: 22).

These international demonstrations of midwives' commitment to research appeared out of context in France. Indeed, in France, midwives do not have access to a PhD course in midwifery. Apart from their final dissertation, in order to carry out research, they have to obtain a Master's degree and then a PhD in a discipline other than midwifery (epidemiology, public health, sociology, etc.). The decree of 30 October 2019 created a position of lecturer in midwifery, and gave midwives holding a thesis the opportunity to apply for such positions in universities. In 2020, according to the Collège National des Sages-femmes de France, 10 midwives were qualified to become lecturers and only two lecturer positions were provided by universities (Collège National des Sages-femmes de France, 2020). As previous social science studies have shown, French midwives considered (and still consider) that their professional specificity and medical decisions were based on the relational aspect of care and clinical expertise (Jacques, 2007), rather than on a distanced point of view provided by research. Also, Cecilia Benoit et al. (2001) nuanced the effect of midwifery-driven research on the practices of midwives in the UK:

The geographical separation of the university and the clinical sites has widened the gap between midwife and medical approaches to birth; in these situations university educators have no power to influence the quality of clinical experience and mentorship a student receives (Benoit et al., 2001: 157).

To support their claim to autonomy, French midwives also did not embark on an unmedicalized or low-tech management of childbirth that would mark a rupture with OB-GYN and their way of surveilling and performing childbirth. Indeed, since 1980, home births have been marginal in France (0.5% of births), and all midwife-run independent clinics have been closed since the 1970s (Caron-Leulliez and George, 2004). Midwives now mainly work as employees of the clinics or maternity units run by OB-GYN, and provide support in the technologization of birth. Hence, the 1980s and early 1990s appear to be a period when the midwives' field of competence expanded (Schweyer, 1996). This expansion concerned the funding of PR (1985) as well as the authorization to carry out episiotomy suturing and ultrasounds (1986), and to re-inject anaesthetics to maintain an epidural (1991). Moreover, OB-GYN, albeit indirectly, helped midwives to extend their field of competence. Pigné's political support for the funding of PR and the Académie Nationale de Médecine's support for the authorization of midwives to suture episiotomies in 1983 are two illustrations of this. Midwives appear to have benefited professionally from the knowledge produced on PR by OB-GYN, who entrusted

them with a whole new field of competences. In so doing, they participated in silencing alerts about the complications of episiotomy for women.

Opening up of debates over the risks and benefits of episiotomy after 1994

In 1992, France was ranked second worst in the European Community for maternal mortality, and 12th amongst the Organisation for Economic Co-operation and Development member states for child mortality (Haut Comité de la Santé Publique, 1994). These poor results led to a reform plan from the then Health Minister, Bernard Kouchner, whose first recommendation was the closure of all maternity hospitals performing fewer than 300 deliveries, as they were considered dangerous. This project was in line with previous perinatal reforms such as the Dienesch decree of 1972, which defined minimum equipment standards for private maternity hospitals – such as being equipped with an operating room – and which led to massive restructuring of the French obstetrical landscape through the closure of 51.7% of maternity units in France. These obligations were later extended, by the circular of 5 May 1988, to public maternity hospitals (Ackrich and Pasveer, 1996: 26–27). The final project in the reform plan in the 1990s aimed to improve neonatal outcomes by classifying maternity units according to the fetal pathologies they were equipped to deal with, and by prioritizing women's experience of perinatal care. This revival of the debate on perinatal policies (Carricaburu, 2009) had a two-fold effect on the debate about the regulation of episiotomy. On the one hand, it encouraged the emergence of new players who, by defending small local maternity units, raised new questions around the practice of episiotomy. On the other, it forced prominent OB-GYN to adjust their practices to take into account the new political constraints, which simultaneously became predominant in other national contexts (Topçu, 2019). In parallel, a scientific consensus was emerging in favour of abandoning systematic episiotomy (WHO, 1996; Woolley, 1995).

Emergence of previously silent players

Before 1994, debates on episiotomy were marked by the absence of a number of major players in obstetrics, in particular those advocating for an alternative approach to the mainstream obstetrics practised by professors in university hospital maternity units. Following threats of closure by the French Government, these OB-GYN began to publish a series of studies defending their practices. They had, at last, found a favourable sociopolitical context in which to convey their messages.

One of the OB-GYN who took an active part in these debates was Serge Bizieau, Head of the Maternity Unit at Villeneuve-La-Garenne since 1989. His 10 years of experience in attending home births had shaped his view on how to provide support during childbirth. Medically speaking, his ideas were completely different from those proposed by Pigné and Racinet. Bizieau promoted a low-tech approach to labour management, with discontinuous moni-

toring of the child during labour and baths for the mother to manage labour pains. In 1995, his unit's rates were 13.1% for episiotomies, 12.9% for caesarean sections and 2.6% for forceps deliveries (Bizieau, 1996), which were much lower than the national rates of 58.6% (Venditelli and Gallot, 2006), 15.6% and 14.1%, respectively (Blondel et al., 2003).

Bizieau took up the debate on episiotomy from the perspective of a critique of the overmedicalization of birth. He had observed an increase in the rate of epidurals between 1991 and 1995 (from 13.6 to 14.5%) in his unit, and increases in the rates of episiotomies (47%), forceps deliveries (16.4%) and neonatal transfers (5.81% compared with 4.29%) amongst women who had been given an epidural (Bizieau, 1996). He proposed that the increase in episiotomies was due to the extensive use of epidural anaesthesia, continuous monitoring and pitocin to accelerate labour, all of which could augment the risk of newborn asphyxia, which, in turn, required an episiotomy. In 1997, Bizieau was invited to contribute to a special issue of *Les Dossiers de l'Obstétrique* entitled 'La médicalisation de la naissance en question'. He highlighted the problem of women's increasing 'demand' for epidural analgesia as a threat to the efforts of some OB-GYN and midwives to lower the episiotomy rate. At national level, the epidural rate had increased from 3.9% in 1981 (Rumeau-Rouquette, 1984) to 48.6% in 1995 (Blondel et al., 2003), and then to 58% in 1998 (Venditelli and Gallot, 2006) (see also Topçu in this issue).

Two very different ways of providing support during childbirth seemed to emerge during this period. The woman was either bombarded with technical interventions, not least the epidural, which increased her risk of having an episiotomy, or she refused the epidural and thus minimized her risk of having an episiotomy. By framing the debate on episiotomy from the perspective of a fight against the overmedicalization of childbirth, and by specifically focusing on the epidural, Bizieau contributed to normalizing the non-intervention of professionals in terms of reducing their episiotomy rates as the procedure was considered an unavoidable consequence of the epidural. It also confirmed the benefits of episiotomy in emergency cases. Paradoxically, by pointing the finger at women's 'demand' for an epidural, which, according to Bizieau, created poorer birth conditions for the child, the child had become the new victim of the episiotomy. Not only were the conditions that might underlie women's 'demand' for an epidural, such as the midwives' increased workload (Akrich, 1999), not sufficiently discussed, but this strategy ran the risk of antagonizing most women, who saw the epidural as the most effective technique to deal with childbirth pain.

Adjustments by established players

The French Government's perinatal plan prompted a series of adjustments at the Maternity Unit at Centre Hospitalier Universitaire de Grenoble to prevent perineal tearing. This could be seen in its attempt to introduce the squatting position during childbirth instead of the traditional 'lying on your back' position. After conducting initial clinical research in 1995, Racinet published the results of a study in the *Journal of Obstetric Gynecology and Reproductive Biology* in 1999 comparing the effectiveness of the squatting

delivery position with the lithotomy delivery position for the prevention of perineal tears. He characterized the lithotomy position as a measure taken by OB-GYN to facilitate emergency interventions and the monitoring of labour at the expense of the woman's comfort. Squatting positions 'are often preferred by women, who see the obligation to lie down as an obstacle to their freedom, believing intuitively that it is easier to give birth in an upright position' (Racinet et al., 1999: 264, translated from French). However, the results of the study were limited. The episiotomy rate was 64.1% for the squatting group compared with 74.57% for the lithotomy group. Nevertheless, the majority of women who gave birth in the squatting position stated that they preferred it, and the position was seen as 'non-deleterious and could therefore be offered as an alternative to the classic position to meet the wishes of some parturients' (Racinet et al., 1999: 270). Overall, the adjustments involved delegating some decisions to patients rather than modifying practices regarding episiotomy. Indeed, the rates were as high as they had been prior to 1994, and still significantly higher than international guidelines.

In the meantime, faced with growing international evidence refuting the benefits of episiotomy for preventing perineal tears, the procedure was being abandoned progressively in France as a means of preventing UI. From the mid-1990s onwards, Pigné's allies began to switch sides. However, the main 'about-turn' was that of Pigné himself. This was motivated by the publication of new scientific evidence, including Wooley's meta-analysis published in 1995, which prompted the organization of a debate for or against episiotomy during a national congress of the Société de Médecine Périnatale in Vichy in 1997 (Fritel et al., 1998). Pigné and his collaborator Xavier Fritel, an OB-GYN at the Hôpital Fondation de Rothschild (where the maternity unit was directed by Pr Pigné from 1989), advocated in favour of episiotomy, against Jacquetin. Their communications were published under the form of articles in 1998 in a new midwifery journal, *Profession Sage-femme* (created in 1994). While continuing to promote the use of episiotomy during childbirth, the benefits attributed to this procedure shrank and were partly invalidated by Pigné himself:

No difference was shown [several months after delivery] regarding the level of pain, the resumption of sexual intercourse and the muscular strength of the perineum between women who had or had not had an episiotomy (Fritel et al., 1998:16, translated from French).

Indeed, one of the justifications given for episiotomy in the previous period by Pigné and his collaborators was its ability, associated with PR, to preserve the strength of the perineum after childbirth, as a weak perineum was considered as a risk factor for prolapse in particular.

In the same issue, Jacquetin contrasted the growing number of international studies highlighting the lack of efficacy of episiotomy to prevent UI and prolapse with the absence of new scientific evidence to support Pigné's theory that systematic episiotomy prevent perineal dysfunctions:

[no] one has apparently been able to provide proof [to support that theory] (...) and the most recent champions of this theory published between 1982 and 1987 (Jacquetin, 1998: 21, translated from French).

This non-production of new knowledge by the defenders of systematic episiotomy appeared as a form of invalidation of their theory. Jacquetin proposed a rate of 30% episiotomy, based on the study of [Lede et al. \(1996\)](#) published in the *American Journal of Obstetrics and Gynecology*.

Finally, the biggest 'about-turn' of Pigné came in 2001 when he stopped advocating for the generalization of episiotomy during childbirth. This change of position resulted from the publication of a comparative study conducted on his maternity unit (with its 99% episiotomy rate) and another maternity unit (with a 50% episiotomy rate). The results showed that there were fewer cases of UI amongst the group who had undergone fewer episiotomies and, regarding the efficacy of episiotomy to prevent serious tearing, that 'mediolateral episiotomy may have a protective effect on the anal sphincter. But if this effect exists, it is minor and does not justify a systematic use of episiotomy' ([Fritel et al., 2001: 635](#), translated from French). Pigné declared soon after that a maximum episiotomy rate of 11% should be recommended. However, in spite of such a significant 'about-turn' among the high-profile advocates of episiotomy, Pigné's model of UI prevention did not entirely disappear, as shown by the growth of PR in the midwifery sector [it represented 46% of the workload of independent midwives in 2014 ([Pheng, 2016](#))]. Although an increasing number of midwives criticized systematic episiotomy in their professional journals, they remained attached to the skills they had acquired under the previous regime. For instance, the *Fédération Nationale des Associations de Sages-Femmes* protested against the limitations placed by maternity units on midwives' autonomy to suture episiotomies ([Cointe, 1994](#)). A significant part of the knowledge produced during the previous period resisted the change.

Discussion

In this article, I have tackled the paradox of the generalization of the practice of episiotomy in France that took place in the 1980s and 1990s at the same time as alerts were increasingly emerging from the international scientific community regarding its limitations and risks. Drawing from an analytical corpus of 192 articles published in the professional journals of OB-GYN and midwives, as well as secondary sources, I analysed the forms of knowledge and ignorance produced on the procedure by national and international medical authorities.

During the first period (1980–1993), eminent OB-GYN refuted arguments about the limitations of episiotomy as an essential protective measure in the context of UI, and about its risks through a constant process of innovation and strategic changes in the way that episiotomy was performed. This period is also characterized by the growth of PR as a new public health sector, in which both advocates and opponents of systematic episiotomy participated. It was also marked by the intervention in the French debates of international players who saw the regulation of episiotomy as a way to challenge power relations between OB-GYN and midwives. However, in France, midwives cooperated with their OB-GYN, who entrusted them with a new field of competence. The second period (1993–2001) was

characterized by a reinforcement of governmental constraints on the management of childbirth, which proposed the closure of maternity units with fewer than 300 deliveries per year. In reaction, new players emerged, promoting a less interventionist approach to childbirth. However, while arguing against the widespread use of episiotomy, they contributed, to a certain extent, to its normalization by framing the excessive use of episiotomy as a logical consequence of a whole set of medical interventions that began with the epidural. Previous justifications for episiotomy were adjusted to fit with the international scientific consensus that had emerged in the mid-1990s against the use of episiotomy as a measure to prevent UI, and with the new priorities enshrined in perinatal policies.

This article has sought to shed light on why episiotomy persisted as a routine intervention in the 1980s and 1990s in France despite mounting evidence of its inefficacy and iatrogenic risks. It has focused on the dynamic process of producing competing knowledge and dealing with political constraints that resulted, in 1980s and 1990s France, in renewed claims about the supposed benefits of episiotomy and, for healthcare professionals, in deflecting attention from international guidelines regarding the regulation of episiotomy. I have argued that the silencing of foreign alerts and WHO guidelines to limit the rate of episiotomy took place within the most influential professional organizations, such as the National College of Gynaecologists and OB-GYN, through the effective production of competing knowledge. This way of ignoring or side-lining international alerts and recommendations occurred not through an avoidance of scientific or public debate on the issue nor through a discrediting of international studies, but rather through a dynamic process of knowledge about episiotomy that encompassed scientific evidence as well as ethical and organizational arguments. Rather than tampering with, discrediting or ignoring the results of international studies – tactics that have been used previously by certain players to evade guidelines ([Ceccarelli, 2011](#); [Sarda, 2011](#)) – French OB-GYN justified their high rates of episiotomy and their endorsement of routine use of the procedure by constructing a vision of episiotomy that took into account not only international scientific evidence, even when frankly unfavourable to systematic episiotomy, but also their own definition of women's interests and needs, as well as the organizational and technical aspects of care. By developing a whole set of practices and protocols, and/or by switching techniques to improve (according to the players) the safety of the procedure, the focus shifted from the negative consequences of episiotomy, as highlighted by the international studies, to the players' ability to manage them. In this article, I have shown how the production of new knowledge participates in, or mingles with, what some players (such as international experts) or analysts would describe as the production of ignorance in a given national medical context. Well beyond any attempts to denigrate the results of scientific studies, to delegitimize the players who conducted them, or to turn a deaf ear to (critical) knowledge from around the world, the constant generation of relevant new clinical data renewing the justifications for episiotomy played a central role in minimizing its disadvantages.

This stance for systematic episiotomy also persisted in France, not only because the players promoting it managed

to integrate the criticisms made of episiotomy, but also because the 1980s were marked by the silence, within the professional journals of OB-GYN and midwives, of the players opposed to mainstream obstetrics. In the mid-1990s, following threats of closure, they finally found a favourable context to disseminate their way to perform childbirth. However, the alternatives they proposed to limit the use of episiotomy focused on a mode of performing childbirth – without epidural and discontinuous use of monitoring to surveil the health of the child and the progress of labour – that appeared to contradict both the political and medical authorities which valued interventions to manage the risks of delivery, and the endorsement of the epidural by parturients to deal with childbirth pain.

By comparing national and international contexts, this article also deconstructed certain expectations according to which French midwives and alternative OB-GYN should have played a more active role in challenging ignorance. For instance, the call from foreign players for midwife-led studies in France was in line with the way in which the alert on episiotomy was being set up, especially in the UK, but appeared out of context in France. This case study also showed how players point out the national constraints and political changes that apply to them to justify their practices. For instance, the renewal of perinatal policies, whose focus gradually shifted from the protection of the mother to that of the fetus, revived some of the old promises of efficacy attributed to episiotomy in shortening the pushing phase to improve fetal outcomes. The renewal of the benefits attributed to episiotomy in preventing maternal damage also took place in a broader movement among medical authorities that made the prevention of UI a new public health issue, even for OB-GYN opposed to systematic episiotomy. These examples illustrate the impact of perinatal policies that encouraged players to ignore international guidelines, and explain why procedures questioned in some national contexts can be used on a vast scale in others (Topçu, 2019).

To conclude, in the field of reproductive medicine, many procedures have generalized rapidly and persisted despite national or international recommendations to limit their use, such as monitoring (Owens, 2017), or, on the contrary, remained condemned by medical authorities in one country while being endorsed in another [such as home birth in France compared with the Netherlands (Akrich and Pasveer, 1996)]. The strategies and issues analysed in this study enabled the practice of episiotomy to expand in France well into the late 1990s. In the following decades, however, the public and medical debate on episiotomy in France took a new turn with developments such as the ‘Kouchner’ law on patients’ rights of 4 March 2002, or at the turn of the 2010s in France with the emergence of a new type of violence against women, known as ‘obstetric violence’, which once again reshaped ways of producing knowledge and ignorance about episiotomy, as well as the players and institutions who produce them.

Acknowledgements

I would like to thank Sezin Topçu as well as the two anonymous reviewers and the Section Editor the reviewers and

the Section Editor for their thoughtful comments and remarks, as well as Clare Ferguson and Nicolas Carter for proofreading this article. This work is part of a doctoral study funded by the Public Health Doctoral Network, coordinated by The School for Higher Studies in Public Health.

References

- Akrich, M., 1999. La péridurale, un choix douloureux. *Cahiers du Genre*, 17–48.
- Akrich, M., Pasveer, B., 1996. Comment la naissance vient aux femmes: les techniques de l'accouchement en France et aux Pays-Bas. *Empêcheurs de penser en rond*, Paris.
- Benoit, C., Davis-Floyd, R., van Teijlingen, E.R., Sandall, J., Miller, J.F., 2001. Designing Midwives. A Comparison of Educational Models. In: De Vries, R., Benoit, C., van Teijlingen, E.R., Wrede, S. (Eds.), *Birth by design: pregnancy, maternity care, and midwifery in North America and Europe*. Routledge, New York, pp. 139–165.
- Berthet, J., Rosier, P., Racinet, C., Girardier, M., 1989. Le forceps en hôpital universitaire. Étude critique de l'évolution de la pratique. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 18 (6), 809–814.
- Berthet, J., Buchet, A., Favier, M., Racinet, C., 1993. La déchirure complète et compliquée du périnée malgré l'incision prophylactique. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 22 (4), 419–423.
- Bizieux, S., 1996. Accoucher autrement à Villeneuve-la-Garenne. Mon combat pour la liberté et la santé. *Les Dossiers de l'Obstétrique*. 239, 2–5.
- Bizieux, S., 1997. La péridurale. Risques pour le nouveau-né et l'enfant. *Les Dossiers de l'Obstétrique*. 255, 38–46.
- Blondel, B., Supernant, K., Mazaubrun, C., Bréart, G., 2003. Enquête nationale périnatale 2003, situation en 2003 et évolution depuis 1998.
- Bourcier, A., 1982. Rééducation et urodynamique dans le post-partum. *Dossiers de l'Obstétrique*. 85, 19–34.
- Caron-Leulliez, M., George, J., 2004. L'accouchement sans douleur: Histoire d'une révolution oubliée. Les éd. de l'atelier/ Les éd. ouvrières, Paris.
- Carricaburu, D., 2005. De la gestion technique du risque à celle du travail: l'accouchement en hôpital public. *Sociologie du Travail*. 47 (2), 245–262.
- Carricaburu, D., Lhuillier, D., 2009. Les infections nosocomiales: un risque collectif en cours de normalisation? *Sciences sociales et santé*. 27 (4), 43–72.
- Ceccarelli, L., 2011. Manufactured scientific controversy: science, rhetoric, and public debate. *Rhetoric and Public Affairs* 14 (2), 195–228.
- Clesse, C., Lighezzolo-Alnot, J., De Lavergne, S., Hamlin, S., Scheffler, M., 2019. Socio-historical evolution of the episiotomy practice: A literature review. *Women Health* 59 (7), 760–774.
- Cointe, C., 1994. Rôle des sages-femmes dans les services de gynécologie et d'obstétrique: l'oeil des surveillantes. *Profession sage-femme*. 9, 10–11.
- College National des Sages-femmes de France, 2020. Les premières sages-femmes qualifiées aux postes d'enseignant-chercheurs en Maïeutique. <https://www.cnsf.asso.fr/les-premieres-sages-femmes-qualifiees-aux-postes-denseignant-chercheurs-en-maieutique/> Accessed on 11/05/2021.
- Cotelle, O., 1983. Accouchement et continence urinaire: rééducation uro-gynécologique post-natale. Université de Médecine Paris, Thèse.
- Diniz, S., Chacham, A., 2004. “The Cut Above” and “the Cut Below”: The Abuse of Caesareans and Episiotomy in São Paulo. Brazil. *Reproductive Health Matters*. 12 (23), 100–110.

- Enkin, M., Keirse, M., Chalmers, I., 1989. *A guide to Effective Care in Pregnancy and Childbirth*. Oxford University Press, Oxford.
- Fritel, X., Pigné, A., 1998. Faut-il continuer à prévenir les déchirures périnéales? *Profession sage-femme*. 43, 15–16.
- Fritel, X., Pigné, A., Bretones, S., Mellier, G., 2001. Pour ou contre l'épisiotomie? *Gynécologie, Obstétrique & Fertilité*. 29 (9), 632–635.
- Graham, I.D., 1997. *Episiotomy: Challenging Obstetric Interventions*. Blackwell Science, Oxford.
- Graham, I.D., 1998. Processes of Change in Obstetrics: A Cross-National Case-Study of Episiotomy. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*. 2 (4), 403–433.
- Haut Comité de la Santé Publique, 1994. *La sécurité et la qualité de la grossesse et de la naissance : pour un nouveau plan périnatalité*. Editions de l'ENSP, Paris.
- Hordnes, K., Bergsjø, P., 1993. Severe lacerations after childbirth. *Acta Obstet Gynaecol Scand*. 72, 413–422.
- Iosif, S., Ulmsten, U., 1981. Comparative urodynamic studies of continent and stress incontinent women in pregnancy and in the puerperium. *Am. J. Obstet. Gynecol.* 140 (6), 645–650.
- Jacques, B., 2007. *Sociologie de l'accouchement*. Presses universitaires de France.
- Jacquetin, B., Descamps, C., Alteirac, J.L., 1986. La rééducation périnéale. *Collège National des Gynécologues-Obstétriciens français, Mises à jour en gynécologie et obstétrique*, Vichy, pp. 249–322.
- Jacquetin, B., Minaire, P., 1992. La prévalence de l'incontinence urinaire féminine en médecine générale. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 21 (7), 731–738.
- Jacquetin, B., 1998. Contre une utilisation de routine. *Profession sage-femme*. 43, 17–24.
- Kemp, J., Image available at <https://en.wikipedia.org/wiki/Episiotomy> [Public domain] via Wikimedia Commons.
- Knibiehler, Y., 2016. *Accoucher. Femmes, sages-femmes et médecins depuis le milieu du XXe siècle*. Presses de l'EHESP, Rennes.
- Lede, R.L., Belizan, J.M., Carroli, G., 1996. Is routine use of episiotomy justified? *Am. J. Obstet. Gynecol.* 174 (5), 1399–1402.
- Legino, L.J., Woods, M.P., Rayburn, W.F., McGoogan, L.S., 1988. Third and fourth degree perineal tears. 50 years' experience at a university hospital. *The Journal of reproductive medicine*. 33 (5), 423–426.
- Maillet, R., Martin, A., Riethmuller, D., 2004. Fait-on trop ou trop peu d'épisiotomies? *Collège National des Gynécologues-Obstétriciens français, Mises à jour en gynécologie et obstétrique*, Tome XXVIII, Vichy, pp. 21–33.
- Murphy-Black, T., 1993. Le développement de la recherche des sages-femmes en Grande-Bretagne. *Dossiers de l'Obstétrique*. 211, 20–22.
- Owens, K., 2017. Too Much of a Good Thing? American Childbirth, Intentional Ignorance, and the Boundaries of Responsible Knowledge. *Sci. Technol. Human Values* 42 (5), 848–871.
- Pheng, B., 2016. *Les sages-femmes : une profession en mutation*. Observatoire National de la Démographie des Professions de Santé, Paris.
- Pigné, A., 1982. La prévention des complications périnéales de l'accouchement. *Dossiers de l'Obstétrique* 85, 34–35.
- Pigné, A., Reymond, S., Barrat, J., 1983. *Épisiotomie*. Collège National des Gynécologues-Obstétriciens français, Mises à jour en gynécologie et obstétrique, Vichy, pp. 215–230.
- Proctor, R., 1995. *Cancer wars: how politics shapes what we know and don't know about cancer*. Basic Books, New York.
- Racinet, C., Eymérie, P., Lucas, C., 1999. L'accouchement en position accroupie, essai randomisé comparant la position accroupie à la position classique en phase d'expulsion. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 28 (3), 263–270.
- Rumeau-Rouquette, C., du Mazaubrun, C., Rabarison, Y., 1984. *Naître en France, 10 ans d'évolution*. Editions Inserm/Doin, Paris.
- Schantz, C., 2016. 'Cousue pour être belle' : quand l'institution médicale construit le corps féminin au Cambodge. *Cahiers du Genre*. 61 (2), 131–150.
- Sarda, G., 2011. Artificially Maintained Scientific Controversies, the Construction of Maternal Choice and Caesarean Section Rates. *Social Theory & Health*. 9 (2), 166–182.
- Schweyer, F.-X., 1996. La profession de sage-femme : autonomie au travail et corporatisme protectionniste. *Sciences sociales et santé*. 14 (3), 67–102.
- Shiono, P., Klebanoff, M., Carey, J.C., 1990. Midline episiotomies: more harm than good? *Obstet. Gynecol.* 75, 765–770.
- Sleep, J., Grant, A., Garcia, J., Elbourne, D., Spencer, J., Chalmers, I., 1984. *West Berkshire perineal management trial*". *Br. Med. J.* 289, 587–590.
- Thacker, S.B., Banta, H.D., 1983. Benefits and Risks of Episiotomy: An Interpretative Review of the English Language Literature, 1860–1980. *Obstet. Gynecol. Surv.* 38 (6), 322–338.
- Thoulon, J.M., Audra, P.h., Mellier, G., 1998. Le monitoring au cours du travail: comment surveiller un accouchement 25 ans après l'institution du monitoring. *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 27 (6), 577–583.
- Topçu, S., 2019. Caesarean or vaginorean epidemics? Technobirth, risk and obstetric practice in Turkey. *Health, Risk & Society*. 21 (3–4), 141–163.
- Topçu, S., (this issue). Adopting an 'unlearner' technology? Knowledge battles over pharmaceutical pain relief in childbirth in post-1968 France. *Reproductive Biomedicine & Society Online*. 13, 1–13.
- Vendittelli, F., Gallot, D., 2006. Quelles sont les données épidémiologiques concernant l'épisiotomie? *Journal de Gynécologie Obstétrique et Biologie de la Reproduction*. 35 (S1), 12–23.
- Ville, I., Lotte, L., 2015. Les politiques de prévention des handicaps à la naissance en France: regards historiques. *Recherches Familiales*. 12 (1), 27–41.
- Wagner, M., 1984. Le drame obstétrical. *Dossiers de l'Obstétrique*. 105, 25–28.
- Wagner, M., 1987. Une épidémie de naissance par césarienne. *Dossiers de l'Obstétrique*. 143, 3–5.
- World Health Organization, 1985. *Appropriate technology for birth*. *The Lancet* 24, 436–437.
- World Health Organization, 1996. *Les soins liés à un accouchement normal : guide pratique*. Rapport d'un groupe de travail technique (WHO/FRH/MSM/96.24).
- Woolley, R.J., 1995. Benefits and risks of episiotomy: a review of the English-language literature since 1980. *Obstet. Gynecol. Surv.* 11 (50), 806–835.

Declaration: The author reports no financial or commercial conflicts of interest.

Received 16 October 2020; refereed 20 May 2021; accepted 12 July 2021.