BMJ Open

# Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars towards episiotomy: qualitative interview study



| | |
|---|---|
| Journal: | *BMJ Open* |
| Manuscript ID | bmjopen-2020-037536 |
| Article Type: | Original research |
| Date Submitted by the Author: | 28-Feb-2020 |
| Complete List of Authors: | Seijmonsbergen-Schermers, Anna; AVAG, Amsterdam Public Health research institute VU University Medical Center, Midwivery Science<br>Thompson, Suzanne; Zuyd University - Brusselseweg Campus, Research Centre for Midwifery Science<br>Feijen-de Jong, Esther I.; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science<br>Smit, Marrit; Leiden University Medical Center, Department of Obstetrics<br>Prins, M; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science<br>van den Akker, Thomas; Leiden University Medical Center, Department of Obstetrics<br>de Jonge, Ank; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science |
| Keywords: | QUALITATIVE RESEARCH, OBSTETRICS, PERINATOLOGY |
| | |

*I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.*

*The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.*

*Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.*

# Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars towards episiotomy: qualitative interview study

***Authors:***

Anna Seijmonsbergen-Schermers
*PhD candidate*
*Department of Midwifery Science, AVAG, Amsterdam Public Health research institute, Amsterdam UMC, location VUmc, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands*

Suzanne Thompson
*Senior Lecturer*
*Research Centre for Midwifery Science, Maastricht, Zuyd University, PO Box 1256, 6201 BG Maastricht, The Netherlands*

Esther Feijen-de Jong
*Researcher*
*Department of Midwifery Science, AVAG, Amsterdam Public Health research institute, Amsterdam UMC, location VUmc, UMCG, Groningen, 9713 GL, The Netherlands*

Marrit Smit
*Midwife*
*Department of Obstetrics, Leiden University Medical Centre, K6-35, PO Box 9600, Leiden, 2300 RC, The Netherlands*

Marianne Prins
*Lecturer*
*Academie Verloskunde Amsterdam Groningen (AVAG), Vlaardingenlaan 1, 1059 GL Amsterdam, The Netherlands*

Thomas van den Akker
*Professor*
*Department of Obstetrics, Leiden University Medical Center, Albinusdreef 2, 2333 ZA Leiden, The Netherlands*
*Athena Institute, VU University, Amsterdam, the Netherlands*

Ank de Jonge
*Professor*
*Department of Midwifery Science, AVAG, Amsterdam Public Health research institute, Amsterdam UMC, location VUmc, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands*

***Corresponding author:***
A.E. Seijmonsbergen-Schermers
Department of Midwifery Science, AVAG, Amsterdam Public Health research institute
Amsterdam UMC, location VUmc
De Boelelaan 1117
1081 HV Amsterdam
The Netherlands
Email: a.seijmonsbergen@amsterdamumc.nl
Telephone: +31 20 444 54 79

***Keywords:*** Health care providers; Episiotomy; Understanding; Viewpoint; Qualitative research; Midwives; Obstetrics

***Word count:*** 6,171 words

## ABSTRACT

***Objectives***

Insight into perspectives and values of care providers on episiotomy can be a first step towards reducing variation in its use. We aimed to gain insight into these perspectives and values.

***Setting***

Maternity care in the Netherlands.

***Participants***

Midwives, obstetricians, and obstetric registrars working in primary, secondary, or tertiary care, purposively sampled, based on their perceived episiotomy rate and/or region of work.

***Primary and secondary outcome measures***

Perspectives and values of care providers which were explored using semi-structured in-depth interviews.

***Results***

The following four themes were identified, using the Evidence Based Practice-model of Satterfield et al. as a framework: *'Care providers' vision on childbirth', 'Discrepancy between restrictive perspective and daily practice', 'Clinical expertise versus literature-based practice',* and *'Involvement of women in the decision'.* Perspectives, values, and practices regarding episiotomy are strongly influenced by care providers' underlying visions on childbirth. Although care providers often emphasized the importance of restrictive episiotomy policy, a discrepancy was found between this vision and the large number of varying indications for episiotomy. Although on one hand care providers cited evidence to support their practice, on the other hand, many based their decision-making to a larger extent on clinical experience. Although most care providers consider women's autonomy to be important, at the moment of deciding on episiotomy, the involvement of women in the decision is perceived as minimal, and real informed consent generally does not take place, neither during labour, nor prenatally. Many care providers belittled episiotomy in their language.

***Conclusions***

Care providers' underlying vision on episiotomy and childbirth is an important contributor to the large variations in episiotomy usage. Their clinical expertise is a more important component in decision-making on episiotomy than the literature. Women are minimally involved in the decision for

performing episiotomy. More research is required to achieve consensus on indications for episiotomy.

## Article Summary

### *Strengths and limitations of this study*

- This qualitative study gives insight into the perspectives and values of care providers from different professional backgrounds on the use of episiotomy during childbirth.
- The results of the inductive thematic analysis brings deeper understanding of underlying processes of the decision-making process by midwives, obstetricians, and obstetric registrars regarding performing episiotomy.
- Because this study was conducted in the Netherlands, generalisability of results cannot be assumed, but these are relevant to a broad context, since variation in episiotomy exists in many countries.
- The interviews were conducted by midwives and midwifery students with a physiological view on childbirth, which may have encouraged participants to give socially desirable answers or express strong opposite opinions.

## INTRODUCTION

Episiotomy is one of the most commonly performed surgical interventions during childbirth[1], and is primarily used to expedite the second stage of labour[2]. There is major variation in episiotomy practice worldwide[1 3], with rates varying from 4% in Denmark[4] to 91% in Thailand[5]. The World Health Organization does not recommend routine or liberal use of episiotomy for women undergoing spontaneous vaginal birth[6]. Several studies illustrate that restrictive use of episiotomy is preferable to routine or liberal use[2]. Episiotomies can lead to physical problems, such as a reduction in postpartum urinary retention, perineal pain, dyspareunia, and pelvic floor muscle strength[7-14]. It is unknown which episiotomy rate is appropriate for obtaining an optimal balance between harm caused by episiotomy and prevention of maternal and neonatal morbidity by its use. Moreover, there is a lack of uniform recommendations on indications for performing episiotomy, and there is major variation in applied indications among care providers[8]. This suggests that the decision to perform episiotomy is not only based on medical necessity, but is also influenced by care providers' perspectives and values. Studies into indications for episiotomy use or opinions of care providers have only been conducted among restricted subgroups of childbearing women or in settings that cannot be generalized[15-19]. In these studies, many indications for performing episiotomy were reported, including fetal distress, instrumental birth, a tight or short perineum, prevention of major tears, history of major tears or episiotomy, delay in second stage of labour, breech presentation, shoulder dystocia, preterm birth, poor maternal effort, macrosomia, nulliparity, facilitation of postpartum wound repair, vaginal bleeding, and women's request[15-20].

Furthermore, it is still unknown which underlying perspectives and values of care providers have impact on the decision to perform episiotomy. Insight into these perspectives and values can be a first step towards optimizing the balance between over- and underuse of episiotomies. The aim of this qualitative study was to gain insight into perspectives and values of midwives, obstetricians, and obstetric registrars with regard to performing episiotomy.

## METHODS

### *Design and setting*

To gain insight into the perspectives and values of care providers towards performing episiotomy, a qualitative study with a constructivist paradigm was conducted, using semi-structured interviews to allow in-depth exploration. Choosing qualitative interviews involving face to face contact, enabled an exploration of care providers' perspectives and values. This in turn, allowed for obtaining in-depth understanding of underlying perspectives and values[21]. An interpretivist approach was considered appropriate for this exploration[22].

The VU University Medical Center reviewed the study design and confirmed that ethical approval was not required for this study in the Netherlands (reference WC2016-415).

***Research team and reflexivity***

The first author and interviewer is a woman of 30 years, mother, midwife with four years of clinical experience, educated in conducting qualitative studies, and employed as a PhD-candidate in her final year at the time of the study. Most of the participants were unknown to her, but two of the participants were aware of her previous publications on episiotomy in the Netherlands. The first interview was carried out by the first and second authors together and two other interviews were carried out by the second author, who is a woman of 49 years, midwife with 26 years clinical experience, experienced qualitative interviewer, lecturer, and employed as a PhD-candidate in her final year at the time of the study. Three interviews were conducted by third year midwifery students. They were educated on interview techniques in advance, and were instructed by the first author.

The entire research team consisted of researchers from different disciplines, including midwives, researchers, lecturers, and an obstetrician. A topic list was developed by the first author, reviewed by the research team, and iteratively evolved based on the findings of the interviews.

***Recruitment***

Participants were eligible if they were working as midwife in primary or secondary care, obstetrician or obstetrician/urogynaecologist in secondary or tertiary care, or as obstetric registrar. Purposive and snowball sampling strategies were applied after study commencement, to obtain a broad sample of care providers, reflecting the possible diversity of perspectives and values. To ensure variety among participants, purposive sampling was based6 on care providers' perceived episiotomy rate and/or region of work. Participants were randomly approached by contacting care providers in specific regions, or purposively approached through referrals by other care providers. Participants were recruited until data saturation was obtained, which was defined by the absence of new codes, and until all parts of the country were represented. A total of 34 care providers, hospitals, or midwifery practices were contacted, resulting in twenty included participants. Reasons for non-participation were: no response received, retired, time investment, and not having the perceived episiotomy rate that was still required to obtain a varied sample of participants. In advance of the interviews, participants were asked to provide personal information on place of education, region of work, number of attended births per year, and their personal episiotomy rate or number of episiotomies performed during the last 25 attended births. Participants were approached by email,

telephone, or both. A brief overview of the aim of the interview was given and when the care provider agreed to participate, location and date were set. The participant was informed that it would concern an individual in-depth interview, participation would be voluntary, data would be anonymized and treated confidentially, and audio material would be destroyed following transcription. Data and participant names were stored separately with encrypted passwords and transcripts were shared with students for transcription with encrypted passwords.

***Interviews***

Interviews were semi-structured, using a topic-list with open-ended questions, which was pilot-tested in advance (see Table 1). The participant was informed that (s)he could withdraw from the study without giving a reason and written informed consent was obtained after oral and written information about the study (see Supplementary files 1 and 2). At the start of the interview, the participants were informed that the aim of the interview was to investigate the full scope of perspectives and values of care providers, that no value judgment would be made during the interview, and that there was no right or wrong answer. Besides, they were told that the perspectives and values of the interviewer would not be part of the conversation. The interview commenced with an invitation to the participant to talk about his/her opinion regarding episiotomy. Subsequently, in the responses given by the participant, the researchers probed, in order to elicit depth, based on the topics that were brought up by the participant.

Interviews were recorded on audio equipment and transcribed verbatim by the first author or by student assistants. Field notes were made during and after the interviews. To ensure accuracy and to facilitate deep engagement with the data, transcripts of interviews that were recorded by student assistants, were read and re-read, before being checked with the original audio by the first author. After each interview, member check was offered to the participant based on the transcript of each interview, as a means of maintaining scientific rigor, which did not lead to responses in which changes were requested.

***Analysis***

Data analysis was carried out concurrently with data collection, allowing the researchers to reflect on the data. This allowed for the exploration and validation of emerging themes which were identified from the interviews and which were used iteratively to adjust the topic list for subsequent interviews. The first interviews were analysed independently by the first two authors, and disagreements about codes were discussed until consensus was reached.

Inductive thematic analysis was conducted, described by Braun and Clarke (2006)[23]. Data were read and re-read to become familiarized with them. Initial codes were generated by coding interesting features of the data. After five interviews, the codes were discussed with the second and last authors, and relationships between codes identified. A first coding tree was developed, and the first five interviews were coded again to identify over-arching codes. During the analyses of the subsequent interviews, the codes were increasingly collated into potential themes and all data relevant to each theme were gathered. After potential themes were identified, these were reviewed by checking the relation to the coded extracts and the entire data set, generating a thematic network[24]. Subsequently, the authors applied a name and a description for each theme. Quotes were identified, providing thick description as a means of illustrating these themes. During this data collection and analysis process, discussion of and reflection on the codes, sub-themes, and themes were on-going between the researchers involved in this study. For framing the results into the existing literature, we compared the data to the framework of Evidence Based Practice (EBP), using the model of Satterfield et al. (2009) (figure 1)[25]. This model includes the following three components: *'Best available research evidence', 'Client's/population's characteristics, state, needs, values, and preferences',* and *'Resources, including practitioner's expertise'.* These three components overlap in the centre, which illustrates the way decisions are made. The fourth component *'Environmental and organizational contexts'*, which is places in the outer space of the model, has influence on all components.

Statistic software program MAXQDA was used during the coding process.

***Patient involvement***

Patients were not involved in this study.

## RESULTS

Twenty of the 34 invited care providers gave consent and participated in the study, thirteen women and seven men (Table 2). Ten were working as a midwife, in primary or secondary care, six were obstetricians, of which two were specialized in urogynaecology, and four obstetric registrars ranging in educational experience from the first to sixth years of education. Participants were diverse with regard to ages, ranging from 25 to 55 years; work experience, from three months to 29 years; number of births attended per year, from 12 to 20; and their approximate personal episiotomy rate, from 0% to 90%. The interviews took place between August 2017 and December 2019, at a quiet location, without other persons present, and convenient for the participant, which generally was the clinic or the participants' home. The interviews lasted between 33min and 1h 55min.

Four themes giving insight into the perspective and values of care providers towards episiotomy emerged from the data. These were *'Care providers' vision on childbirth', 'Discrepancy between restrictive perspective and daily practice', 'Clinical expertise versus literature-based practice',* and *'Involvement of women in the decision'.*

***Care providers' vision on childbirth***

The EBP-component '*Resources, including practitioner's expertise'* was the most important component in the perspective and values of care providers. Care providers' visions on childbirth underpin their perspective and values about episiotomy use. Views on childbirth could be characterized in two paradigms: either a physiological vision, or a risk-focused vision.

The physiological vision was characterized by the importance of iatrogenic harm to healthy body tissues caused by episiotomies. Care providers with this vision more often articulated negative feelings that they associated with performing episiotomy. They stated that episiotomy should be avoided whenever possible. To this end, approaches in care that minimized the need for episiotomy and reduced the likelihood of spontaneous perineal rupture were valued.

*Well, it really is a big injury that you cause to someone. We call it a little cut but, eh, I remember during my training, the gynaecologists said; "If you saw such an injury on someone in the street, you'd call an ambulance". […] Yes, it's not nothing for a woman to have that. (Midwife 8)*

*And are there, for example, ways to learn how to perform fewer epi's* (episiotomy)*, fewer interventions without disadvantaging the mother, sphincter damage, or for babies, fetal distress? … Then we have to see if we can do that. (Obstetrician 9)*

The risk-focused vision was characterized by a tendency to intervene. This approach emphasized the protective effect of episiotomy for the child, but more particularly for the mother. Care providers with this vision did not really articulate negative feelings when performing episiotomy. Rather, they considered it as a technical operation, resulting in a clean cut that was viewed by some care providers as preferable to a spontaneous perineal rupture.

*No, I don't feel bad about it* (episiotomy)*. I also don't necessarily feel bad for the woman because my idea is: "Well, if I suture well then I don't think there will be consequences". And I do it for a reason. The episiotomies I perform, I can justify them. And it's just a common, also very routine medical procedure that is just part of giving birth, so I don't feel like that… I feel no emotion about it. I perform it with professional distance. (Obstetric registrar 7)*

Intrinsic and extrinsic factors contributed to care providers' visions on childbirth, and viewpoints were rather dynamic, evolving over time. Intrinsically, care providers often emphasized an eagerness

to learn and apply knowledge acquired in professional post registration education, in particular, skills training. However, this training was mainly focused on suturing and not on performing episiotomy. Some care providers emphasized a change in their vision over time, whilst others did not. There were care providers who remained static in their practice and did not attend professional training to update their skills. This division was also noted in reflection on episiotomy usage. Some professionals reflected on their use of episiotomy by themselves, with colleagues and, occasionally, with women. On the other hand, some care providers mentioned that episiotomy was never a subject of evaluation, neither for themselves, nor in the clinic.

*Yes, I think at the start of your education you […] follow the example of those who train you and you go along with that. And as your training progresses, you start looking around, like how is that? […] And then you evaluate again: how did it go? Did it go well then? It'd gaining a bit of experience and learning from that. It isn't just about what you read in the scientific literature or what you know about other peoples' opinions, but also finding out for yourself. (Obstetrician 18)*

*No, we don't really correct each other, it* (episiotomy) *is not really a subject that regularly crops up… do you cut or don't you cut ... Or how many sphincter damages have you had, how many have I had... (Obstetrician 11)*

Extrinsically, care providers mentioned the importance of two things in the evolution of their professional vision on childbirth. Firstly, they highlighted that childbirth visions are highly influenced by professional and educational backgrounds. Secondly, they mentioned that working experience is an important contributor to quality of care and that adverse events influence the tendency to intervene.

*I think that if you look towards gynaecologists who deal with the pelvic floor ... They deal with it very differently than the obstetricians. [...] I think eh .. pelvic floor gynecologists are more likely to perform episiotomy. (Obstetric registrar 2)*

*And what they're saying here is, the arrival of hospital midwives led to the number of epi's decreasing enormously. (Midwife 13)*

*I think that if you've seen a lot of bad stuff and that is often so, in hospitals… if you see a lot of calamities, then you tend to cut earlier. (Midwife 4)*

***Discrepancy between restrictive perspective and daily practice***

There was a discrepancy between what many care providers mentioned as their perspective and values regarding episiotomy, and their daily practice. Many care providers emphasized the importance of a restrictive approach, stating that it should only be performed where there is justifiable medical need. However, in total, many justifications were mentioned as valid, suggesting

that performing episiotomies only when medically justified, may result in high episiotomy rates and large interprofessional variations. Care providers justified their episiotomy usage by balancing between the justification and the potential harm. They did this by weighing up maternal characteristics, the situation during the second stage of labour, medical technology and, to a lesser extent, women's preferences. If clearly indicated, care providers were confident that the episiotomy was justified, although the indications that were mentioned, varied significantly between the participants (see Table 3). On the other hand, feeling uncertain or inexperienced was mentioned as well.

*Because actually, we can't really demonstrate that the female pelvic floor is better off being cut into, to summarize. The female pelvic floor does not improve as a result of cutting and, eh, I sometimes grumble that we're the ones who have to suture when no-one else has the over-sight. And if it* (the perineum) *looks like a bomb went off there, guys, just perform episiotomy, don't let it tear like that. (Obstetrician 11)*

*And it, yes, it is bizarre that you affect someone's body in this way, eh, literally cut open. Eh, but with the goal of ultimately ensuring that someone has fewer problems in the future. So that's what makes it justifiable for me to do it. (Obstetrician/urogynaecologist 10).*

The lack of feedback on the consequences of their episiotomies inhibited care providers in experiencing the need of being restrictive in performing episiotomy. The possibility to evaluate practice was seen as being limited by difficulties in comparing incidences of episiotomy between low- and high-risk populations. Furthermore, the lack of evaluation of the longer-term implications of care providers' practice was seen as a limiting factor.

*It's a pity that we have a lot of hospitals... Many births where we cut an epi, eh, we of course never see them again, sometimes at six weeks but sometimes not. That is of course a shame, because it is good to get feedback from what happens with an epi. (Obstetric registrar 7)*

***Clinical expertise versus literature-based practice***

Care providers generally gave more weight to the 'practitioner expertise' component of evidence-based practice than the 'best available research' component in the decision-making for episiotomy. Care providers justified deviations from 'best available research' by pointing out the limitations of applying evidence to practice situations. Conversely, different care providers used literature differently to substantiate their own perspectives and values, resulting in varying techniques, methods, and approaches to women during the second stage of labour.

*Yes, eh, of course, eh, that we would only do it in cases of fetal distress. Eh well it sometimes happens that you, eh, have a very long second stage [...] that you might need to make some space anyway. Then again, eh, during the birth you just see that, eh, the perineum, the pelvic floor is just very tight. Or it threatens to tear badly. You still hope that it* (episiotomy*) will prevent something worse. But of course that is not very evidence based. (Midwife 13)*

*It's the same when you look at eh, at the literature around elective use of episiotomy after previous sphincter damage [...], you will probably come to the conclusion that it doesn't prevent sphincter damage happening again, you need to look at what happens and how such a scar behaves during the birth. So, if it is completely rigid and very thin and you can almost see it tear when the head crowns, yes, then I wonder if that* (the literature) *also applies to that case. (Obstetrician 18)*

At the moment of decision-making, the decision to perform episiotomy was based on the care providers' own clinical judgement. Despite having individual and often strong views and a personal way of working, the influence of colleagues on practice was mentioned as important. This is reflected by the EBP-component *'Environment and organizational context'*. Mainly for those working in secondary or tertiary care, consultation and supervision of colleagues was an important factor in decision-making. On the other hand, working autonomously without consultation and supervision was expressed by other participants. Some of the care providers articulated the fear of being judged or the feeling of having to justify or 'account' for their decision-making. Some care providers expressed negative emotions when talking about the judgements by primary care midwives about high episiotomy rates in secondary and tertiary care.

*So he* (supervising doctor) *said; "If in doubt, perform episiotomy." And I thought that was really a very simple encouragement. And not that I do it a lot, I don't think I did it then either, but I did remember thinking; "Oh yes, useful tip." And it is precisely when you are inexperienced that you should perhaps do more episiotomies so that you have babies in good condition. Better that than that you are too scared to do it and therefore get into difficulties. (Obstetric registrar 7)*

*I mean, I think ... the ... eh .. when you compare the studies with each other you might think: Yikes, it* (episiotomy) *happens way too much there* (in the hospital) *and you definitely shouldn't be in the hospital because there everyone is performing episiotomies all over the place. But I think, well, since I started working in the hospital, it's like comparing apples with oranges… I really find that so annoying! (Midwife 5)*

***Involvement of women in the decision***

The EBP-component *'Client's/population's characteristics, state, needs, values, and preferences'* was not viewed as an important factor in decision-making for most care providers. Although most care providers consider a woman's autonomy and bodily integrity as important, during second-stage labour, the decision for episiotomy is made by the care provider. Care providers consider that the 'trustful relationship' formed between a woman and her maternity care provider provides them with

the basis of informed consent. For many care providers, consent was based on opting out, with some care providers mentioning that women sometimes do not realize that episiotomy has been performed. Almost none of the care providers in this study elicited explicit consent for episiotomy during labour. They justified this by explaining that the state of the mother during the second stage of labour makes it difficult or impossible to obtain informed consent. Others placed value on informing women well about episiotomy during prenatal care, whilst others did not discuss this topic during pregnancy. Moreover, some of these care providers were dismissive of birth plans. They substantiated this with examples such as women having unrealistic expectations of childbirth, women's emotional and physical state during labour, and that women should relinquish control.

*You can imagine the setting, right? To counsel someone at the very end of second stage labor, and to think that there is still, that there is still a real chance of knowledge and ability to weigh up the options and make a personal choice. It's not really realistic [...] In short, she* (the woman) *will hear it as an announcement and not as counselling. Then she can still say no if she wants, and I would listen to that. But yeah. Interviewer: And is there a kind of informed consent? Participant: Eh… eh... No... No... No [laughing]. No... (Obstetrician 11)*

Where conflicts arose between a care providers' vision and woman's preferences, some care providers valued a woman's personal autonomy above their own vision. Most care providers would try to convince a woman by giving information. Others used strong convincing reasoning to change women's minds, and some disregarded a woman's autonomy. Such preferences expressed by women were often seen as a limitation to optimal care. Significantly, many care providers played down the severity of episiotomy. This was evident in the use of belittling language, such as 'just a little cut', suggesting that episiotomy was viewed by care providers as a minor intervention.

*So, if you have to do an instrumental delivery* (and a woman does not want episiotomy), *[...] then I can roughly calculate for that lady what her chance of a sphincter injury is. [...] Using my laptop I have, within 5 minutes, what, approximately her chance is, based on the data we have. And then I say: "Well if you know that, [...] if you have a sphincter laceration, within 20-25 years you have a 60% chance of faecal incontinence to a greater or lesser degree, is that what you want? And if I have a reasonable method, eh, to reduce that risk. Would you want me to deprive you of this? (Obstetrician/urogynaecologist 6)*

*Eh well, I tell the woman, it might be that if I make a little cut now, you'll have your baby within one or two contractions. Otherwise, you'll have to push a bit longer...and then, eh yes, then you have... you have some kind of informed consent about whether or not she wants it* (episiotomy). *And usually she wants it [laughs]. (Midwife 15)*

## DISCUSSION

In this qualitative study, twenty care providers were interviewed about their perspectives and values towards episiotomy. The results were analysed using the framework of Satterfield et al. (2009) on Evidence-Based Practice[25]. This qualitative study illustrated that the expertise of the care provider themselves was the most important component in decision-making with regard to episiotomy. Care providers' perspectives, values, and practices are strongly influenced by individual underlying visions of childbirth. Although care providers often emphasized the importance of a restrictive episiotomy policy, a discrepancy was expressed between vision and practice, and a large number of varying indications (see Table 3) mentioned as justification for performing episiotomy. All care providers considered it important to justify their actions. While the literature was used to underpin the justification of their policies, the importance of clinical expertise was used to support deviations from recommended practice. Women's autonomy was important, yet, at the moment of decision-making, women's involvement in decision-making is minimal. Informed consent is not obtained, neither during labour, nor during pregnancy. The language often used by care providers about episiotomy illustrates an underlying attitude that views episiotomy as a minor intervention.

Understanding the perspective and values of care providers towards episiotomy is essential for obtaining deeper understanding of variations in episiotomy practices. Previous studies showed large variations in episiotomy rates. In the Netherlands, rates varied among twelve regions from between 14% to 42% for nulliparous women and from between 3% to 13% for multiparous women *(Seijmonsbergen et al., personal communication)*. The Netherlands has historically been seen as a country with a physiological approach to childbirth and a corresponding high rate of home births[26]. Studies showed that giving birth at home is a protective factor for episiotomy[27]. However, although giving birth at home is more common in the Netherlands compared to all other high-income countries, the rate of episiotomy is much higher than in countries like Sweden (6% among nulliparous women), Denmark (7% among nulliparous women) *(Seijmonsbergen et al., personal communication)*, and the USA (9%)[28]. This study gives insight in the underlying perspectives and values of care providers, leading to these varying episiotomy rates.

***Childbirth vision, evidence, and practice***

The most important contributor to episiotomy practice found in our study was the vision of care providers on childbirth and episiotomy. This was rather more decisive than recommendations from the literature. Although liberal use of episiotomy has no evidence-base[2], there are still countries, and regions within countries, with high episiotomy rates[4 5]. Overuse of episiotomy results in unnecessary complaints and morbidity in many women[7-14]. The awareness of these insights is reflected in the

literature during the last four decades[29] and has led to a decline in the episiotomy rates in many countries, with a sharper decline in some countries versus others[30]. Our study showed that most care providers were aware of the importance of a restrictive episiotomy policy, but practices often diverged from this restrictive perspective, leading to a liberal rather than restrictive episiotomy practice among some care providers. In a study of Seijmonsbergen et al. on regional variation of episiotomy in the Netherlands, a higher rate of episiotomy was found in regions with lower rates of home births, also among women in obstetrician-led care *(personal communication)*. This suggests that vision may be an important contributor to the tendency to intervene. The current study confirms this by showing widely diverging visions on episiotomy, which may be one of the most important factors leading to variation in episiotomy rates.

Moreover, previous studies confirm our finding that care providers' clinical expertise and own perspectives often override recommendations based on the literature[15 16 18 31 32]. In our study, care providers mentioned the importance that practices can be justified, although those practices and perspectives varied largely among these care providers, and were not always evidence-based. Hussein et al. (2012) emphasized this by describing that care providers' preferred their familiar way of working, and that change may evoke feelings of uncertainty and risk[31 32]. Henriksen et al. (1994) found that improving awareness of personal episiotomy rates, led to a decrease in the episiotomy rate[33]. Workload has been mentioned as barrier for reducing episiotomy rates in previous studies in settings with routine episiotomy practices, but did not emerge as a theme in our study[18 31 34], probably because of the vision of restrictive use of episiotomy in our study. Other qualitative studies into the perspectives of care providers found various perspectives towards episiotomy. They confirm a limited role of evidence in episiotomy practice, and care providers' vision, beliefs, and values being an important contributor to practice[15 16 18].

Varying perspectives on episiotomy and on dealing with evidence suggest that perspectives may not be evidence-based and that evidence may be insufficiently applicable and explicit for implementation into practice. Although the literature is not clear on which indications are valid for episiotomy, it is recommended to perform episiotomies restrictively. The meaning of 'restrictive' varies largely among care providers, and recommendations in literature and guidelines are not uniform. Recurrent evaluations of episiotomy indications with colleagues and educating care providers on the best available evidence on episiotomy will enable care providers to revise their vision and practices, and will motivate them to apply the evidence from the literature[35 36]. However, educating care providers is difficult as long as there is a lack of consensus on the meaning of 'restrictive' in the literature. Future research should focus on which indications are valid for

episiotomy and should be well-applicable for practice, considering the complexity of situations during the second stage of labour.

***Woman-centered care***

The involvement of women in the decision to perform episiotomy was limited. Episiotomy is performed in a situation that is comparable to other medical emergency situations. In specific emergency situations, exceptions may apply to informed consent, because there is a lack of time to obtain informed consent[37] and the woman is incapable of giving it[38]. However, it is questionable whether this applies to the situation of childbirth. In accordance to Wear (1993), the exception for informed consent during emergency situations involves (1) an immediate threat to life; (2) the treatment is a general recommended treatment and can appeal to the standard of practice; and (3) the time to achieve informed consent would significantly increase the risk of severe adverse outcomes[37]. Considering the large variation in incidences and perspectives towards episiotomy, episiotomy cannot be considered a general recommended treatment or as standard practice. Stohl (2018) argued that, except from the most extreme and rare cases, childbirth is not a medical emergency and women do not typically lose the ability to make decisions during childbirth. Therefore, the exception for informed consent does not usually apply to childbirth[39]. Other studies confirmed that informed consent for episiotomy is not asked for in the second stage of labour[40 41]. Although care providers minimally involve women in the decision-making during the second stage of labour, previous studies reported that women highly value their involvement in decision-making during childbirth[42]. Van der Pijl et al. examined 438 quotes of women on negative and traumatic childbirth experiences, expressed in the Dutch *#breakthesilence* campaign and found that lack of informed consent was one of the most frequently expressed types of mistreatment experienced by women during childbirth *(personal communication)*. Besides, episiotomy was the most frequently mentioned intervention, where women experienced a lack of communication by the care provider, which led to feelings of disrespect. Accordingly, Hollander et al. (2017) found that lack of control, communication, and involvement in decision-making were important attributions of traumatic birth experiences[43]. Not being informed or not being involved in the decision to perform episiotomy can result in negative and even traumatic experiences. Although the studies of Van der Pijl et al. and Hollander et al. (2017) do not represent the feelings and preferences of all women, other studies confirm that women may feel less satisfied after having had an episiotomy[44]. Besides, studies show that information regarding episiotomies is important to increase understanding and feelings of comfort[45], and that being involved in decision-making is one of the most important contributors to a positive childbirth experience[46]. Downe et al. (2018) showed that women place high value on giving

birth without non-indicated interventions, but if an intervention is needed, that they wish to be involved in decision-making to retain a sense of control[42]. The difficulties concerning obtaining informed consent can be solved by shared decision-making during pregnancy about indications for episiotomy during labour if need arises. This is more feasible than during the second stage of labour, and there is enough time for the woman to form her opinion. When discussing episiotomy, care providers should be aware that women may see episiotomy as an invasive medical intervention, and that belittling words and considering episiotomy a negligible intervention may not correspond with women's feelings about undergoing it. The varying perspectives of care providers on episiotomy make it more important to involve women in decision-making and the appropriateness of care providers' practice should be placed in perspective, considering the varying existing perspectives and values.

***Strengths and limitations***

This study investigated the diverse range of perspectives and values of care providers towards episiotomy, representing all professional backgrounds. However, this study had some limitations. The perspectives of the interviewers may have encouraged participants to give socially desirable answers. Nevertheless, many participants expressed comments in favour of liberal use of episiotomy, and mentioned indications that were critically discussed in previous publications of the first authors[8 47 48]. On the other hand, it may have encouraged participants to express a strong opposite opinion. Conversely, by being an expert on the topic, the interviewer was able to go into the merits of the actual situations during childbirth, and to understand the difficulties care providers have to deal with. The subjectivity of the researchers may also have biased the analyses. To minimise the influence of this bias, we discussed the data and interpretation of the results within the author group that consisted of midwives, researchers, educators, and an obstetrician.

Although data saturation was reached, an element of selection bias cannot be eliminated. The participants in our study represented care providers from all professional backgrounds qualified for performing episiotomies, across the whole country, and of different educational backgrounds. This resulted in a broad spectrum of perspectives and values, which will be present in other countries with similar episiotomy rates as well. Further research into the perspective and values of care providers in a variety of countries with different episiotomy rates is warranted to gain insight into perspectives and values of care providers working in different birth cultures. Understanding perspectives and values of care providers in various setting will provide knowledge that is required to stimulate a worldwide evaluation of episiotomy practices.

## CONCLUSION

The decision to perform episiotomy is mainly based on care providers' own insight, which is highly influenced by care providers' vision on episiotomy and childbirth. Differences in care providers' perspectives, values, and underlying visions may be an important contributor to the large variations in episiotomy incidences. The involvement of the labouring woman in the decision is minimal. Care providers' clinical expertise generally overrules the recommendations from the literature. The recommendation to perform episiotomies restrictively is considered important, but the large number of indications for episiotomy shows that it is in practice not always performed restrictively.

Because other literature shows that women highly value their involvement in decision-making, and a lack of feeling in-control contributes to traumatic birth experiences, women should be given the opportunity to participate in shared decision-making about indications for episiotomy, preferably during pregnancy. More research is required to achieve consensus on indications for episiotomy, and to understand perspectives and values of care providers in other settings. Future research should be well-applicable for practice, considering the complexity of situations during the second stage of labour.

## WHAT THIS STUDY ADDS

***What is already known on this topic***

Previous studies showed large variations in episiotomy rates between countries, regions, and care providers. Women highly value their involvement in decision-making. Lack of feeling in-control contributes to traumatic birth experiences.

***What this study adds***

This studies provides deeper understanding of underlying factors contributing to variations in episiotomy use. Care providers' vision on childbirth and episiotomy is the most important contributing factor of episiotomy policies and practice. Recommendations from the literature are used differently across care providers, and are generally overruled by care providers' own clinical expertise. Women are minimally involved in the decision-making of episiotomy and there is a lack of informed consent.

## FOOTNOTES

***Competing interests***

All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; relationships or activities that could appear to have influenced the submitted work, as described in the methods section.

***Author Contributions***

AESS, AdJ, and TvdA conceived the study and AESS wrote the paper. AESS and ST interviewed the participants and conducted the analyses. AESS, ST, EF-dJ, MS, MP, TvdA, and AdJ contributed to the methods of the study and the interpretation of the findings, and critically revised earlier drafts of the article.

***Ethics approval***

The VU University Medical Center confirmed that ethical approval was not required for this study (reference WC2016-415). Participants signed informed consent before taking part in this study.

***Funding***

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

***Access to the data***

All authors, external and internal, can have full access to all of the data in the study and can take responsibility for the integrity of the data and the accuracy of the data analysis.

***Transparency***

The lead author affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

***Data sharing***

Participant level data are available from the corresponding author at a.seijmonsbergen@amsterdamumc.nl. Participants gave informed consent for use of anonymised data for research purposes.

***Acknowledgements***

We thank the contribution of all participants in this study. We also thank the contribution of Davita van de Heuvel, Mandeepika Singh, and Tamar Nelson for transcribing the interviews, and Tessa Schimmel and Liduine van Hoof for interviewing three participants.



***Supplemental files***

1. Participant's information sheet
2. Informed consent sheet

**Table 1. Topic list of the interviews**

| |
|---|
| Grand tour question: Can you tell me about your opinion towards episiotomy? |
| Indications:<br>- Own reasons for performing episiotomy.<br>- Opinion on reasons for others to perform episiotomy. |
| Prevention of spontaneous ruptures<br>- How?<br>- Role of episiotomy.<br>- Technique. |
| Own experiences and feelings<br>- Own feelings when performing episiotomy<br>- Colleagues, working environment, work culture.<br>- Changes in opinion and acting. |
| The childbearing woman<br>- Addressing episiotomiy.<br>- Birthing plan.<br>- Informed consent.<br>- Women's preferences; deviating preferences.<br>- Unnecessary use of episiotomy by other care providers |
| Context<br>- Opinion towards episiotomy rates and usage in the Netherlands. |

**Table 3. Indications mentioned by participants**

- fetal distress
- prematurity
- prolonged second stage
- maternal exhaustion
- instrumental birth
- history of obstetric anal sphincter injury (OASI)
- history of episiotomy
- tight perineum
- short perineum
- prevention of long-term harm
- prevention of spontaneous ruptures/OASI (without history of OASI)
- prevention of instrumental birth
- shoulder dystocia
- breech presentation
- multiple gestation
- macrosomia
- care provider's interest
- specific maternal history

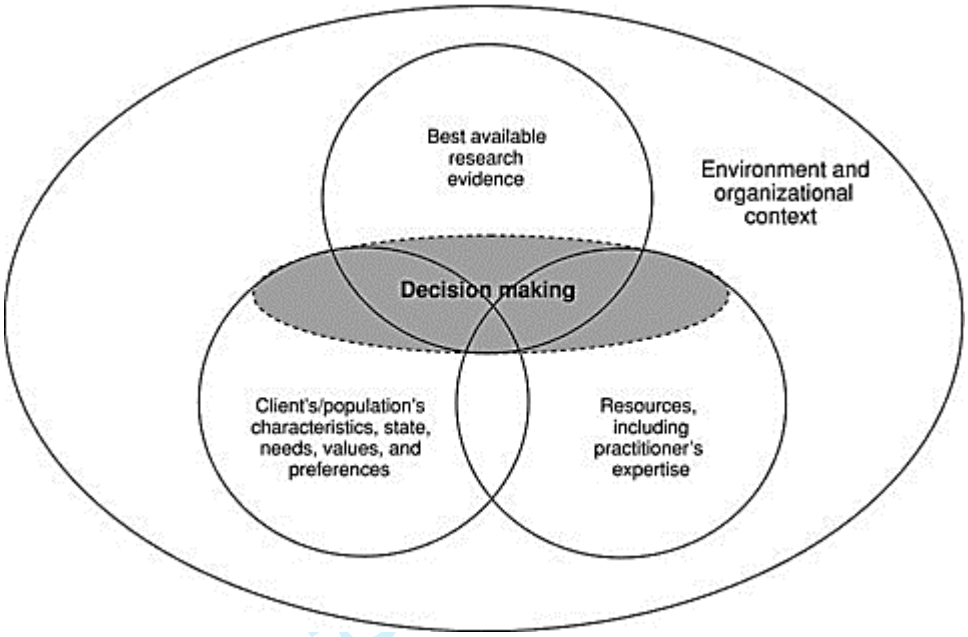
## References

1. EURO-PERISTAT Project with SCPE and EUROCAT. European Perinatal Health Report. Health and care of pregnant women and babies in Europe in 2010: EURO-PERISTAT, 2013.
2. Jiang H, Qian X, Carroli G, et al. Selective versus routine use of episiotomy for vaginal birth. *Cochrane Database Syst Rev* 2017;2:CD000081. doi: 10.1002/14651858.CD000081.pub3 [doi]
3. Graham ID, Carroli G, Davies C, et al. Episiotomy rates around the world: an update. *Birth* 2005;32(3):219-23. doi: BIR373 [pii];10.1111/j.0730-7659.2005.00373.x [doi]
4. Blondel B, Alexander S, Bjarnadottir RI, et al. Variations in rates of severe perineal tears and episiotomies in 20 European countries: a study based on routine national data in Euro-Peristat Project. *Acta Obstet Gynecol Scand* 2016 doi: 10.1111/aogs.12894 [doi]
5. Laopaiboon M, Lumbiganon P, McDonald SJ, et al. Use of evidence-based practices in pregnancy and childbirth: South East Asia Optimising Reproductive and Child Health in Developing Countries project. *PLoS One* 2008;3(7):e2646. doi: 10.1371/journal.pone.0002646 [doi]
6. World Health Organization. WHO recommendations: Intrapartum care for a positive childbirth experience. Geneva: World Health Organization 2018.
7. Sartore A, De Seta F, Maso G, et al. The effects of mediolateral episiotomy on pelvic floor function after vaginal delivery. *Obstet Gynecol* 2004;103(4):669-73. doi: 10.1097/01.AOG.0000119223.04441.c9 [doi];103/4/669 [pii]
8. Seijmonsbergen-Schermers AE, Geerts CC, Prins M, et al. The use of episiotomy in a low-risk population in the Netherlands: a secondary analysis. *Birth* 2013;40(4):247-55. doi: 10.1111/birt.12060 [doi]
9. Viswanathan M, Hartmann K, Palmieri R, et al. The use of episiotomy in obstetrical care: a systematic review. *Evid Rep Technol Assess (Summ )* 2005(112):1-8.
10. Macleod M, Strachan B, Bahl R, et al. A prospective cohort study of maternal and neonatal morbidity in relation to use of episiotomy at operative vaginal delivery. *BJOG* 2008;115(13):1688-94. doi: BJO1961 [pii];10.1111/j.1471-0528.2008.01961.x [doi]
11. Sagi-Dain L, Sagi S. Morbidity associated with episiotomy in vacuum delivery: a systematic review and meta-analysis. *Bjog* 2015;122(8):1073-81. doi: 10.1111/1471-0528.13439 [published Online First: 2015/05/08]
12. Mulder FE, Schoffelmeer MA, Hakvoort RA, et al. Risk factors for postpartum urinary retention: a systematic review and meta-analysis. *BJOG* 2012;119(12):1440-46. doi: 10.1111/j.1471-0528.2012.03459.x [doi]
13. Dietz HP, Shek KL, Chantarasorn V, et al. Do women notice the effect of childbirth-related pelvic floor trauma? *Aust N Z J Obstet Gynaecol* 2012;52(3):277-81. doi: 10.1111/j.1479-828X.2012.01432.x [doi]
14. Friedman S, Blomquist JL, Nugent JM, et al. Pelvic muscle strength after childbirth. *Obstet Gynecol* 2012;120(5):1021-28. doi: http://10.1097/AOG.0b013e318265de39 [doi];00006250-201211000-00007 [pii]
15. Heman LM, van der Linden PJ, Stigter RH. Attitude of maternity staff regarding episiotomies in an African rural hospital with high HIV prevalence: a descriptive qualitative study. *Am J Trop Med Hyg* 2014;90(5):976-79. doi: ajtmh.13-0395 [pii];10.4269/ajtmh.13-0395 [doi]
16. Wu LC, Lie D, Malhotra R, et al. What factors influence midwives' decision to perform or avoid episiotomies? A focus group study. *Midwifery* 2013;29(8):943-49. doi: S0266-6138(12)00226-4 [pii];10.1016/j.midw.2012.11.017 [doi]
17. Wu LC, Malhotra R, Allen JC, Jr., et al. Risk factors and midwife-reported reasons for episiotomy in women undergoing normal vaginal delivery. *Arch Gynecol Obstet* 2013;288(6):1249-56. doi: 10.1007/s00404-013-2897-6 [doi]
18. Schantz C, Sim KL, Ly EM, et al. Reasons for routine episiotomy: A mixed-methods study in a large maternity hospital in Phnom Penh, Cambodia. *Reprod Health Matters* 2015;23(45):68-77. doi: S0968-8080(15)00016-6 [pii];10.1016/j.rhm.2015.06.012 [doi]
19. Ahmed HM. Midwives' Clinical Reasons for Performing Episiotomies in the Kurdistan Region: Are they evidence-based? *Sultan Qaboos Univ Med J* 2014;14(3):e369-e74.
20. Sagi-Dain L, Sagi S. Indications for episiotomy performance - a cross-sectional survey and review of the literature. *Journal of obstetrics and gynaecology : the journal of the Institute of Obstetrics and Gynaecology* 2016;36(3):361-5. doi: 10.3109/01443615.2015.1065233 [published Online First: 2015/10/16]
21. Green J, Thorogood N. Qualitative Methods for Health Research. Thousand Oaks: Sage Publications Ltd 2018.
22. Kelly M, Dowling M, Millar M. The search for understanding: the role of paradigms. *Nurse researcher* 2018;25(4):9-13. doi: 10.7748/nr.2018.e1499 [published Online First: 2018/03/17]

23. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006;3(2):77-101.
24. Attride-Stirling J. Thematic networks: an analytic tool for qualitative research. *Qualitative Research* 2001;1(3):385-405.
25. Satterfield JM, Spring B, Brownson RC, et al. Toward a transdisciplinary model of evidence-based practice. *The Milbank quarterly* 2009;87(2):368-90. doi: 10.1111/j.1468-0009.2009.00561.x [published Online First: 2009/06/16]
26. De Vries R. A pleasing birth: midwives and maternity care in the Netherlands. Philadelphia: Temple University Press 2004.
27. Brocklehurst P, Hardy P, Hollowell J, et al. Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. *BMJ* 2011;343:d7400.
28. Kozhimannil KB, Karaca-Mandic P, Blauer-Peterson CJ, et al. Uptake and Utilization of Practice Guidelines in Hospitals in the United States: the Case of Routine Episiotomy. *Jt Comm J Qual Patient Saf* 2017;43(1):41-48. doi: S1553-7250(16)30015-0 [pii];10.1016/j.jcjq.2016.10.002 [doi]
29. Helewa ME. Episiotomy and severe perineal trauma. Of science and fiction. *Cmaj* 1997;156(6):811-3. [published Online First: 1997/03/15]
30. Laine K, Gissler M, Pirhonen J. Changing incidence of anal sphincter tears in four Nordic countries through the last decades. *Eur J Obstet Gynecol Reprod Biol* 2009;146(1):71-5. doi: 10.1016/j.ejogrb.2009.04.033 [published Online First: 2009/06/02]
31. Hussein SAA. The barriers and facilitators of introducing evidence-based practices around the use of episiotomy in Jordan. University of Western Sydney, 2014.
32. Hussein SA, Dahlen HG, V. S. What makes episiotomy rates change? A systematic review of the literature. *International Journal of Childbirth* 2012;2(1):29-39.
33. Henriksen TB, Bek KM, Hedegaard M, et al. Methods and consequences of changes in use of episiotomy. *Bmj* 1994;309(6964):1255-8. doi: 10.1136/bmj.309.6964.1255 [published Online First: 1994/11/12]
34. Trinh AT, Roberts CL, Ampt AJ. Knowledge, attitude and experience of episiotomy use among obstetricians and midwives in Viet Nam. *BMC Pregnancy Childbirth* 2015;15:101. doi: 10.1186/s12884-015-0531-2 [doi];10.1186/s12884-015-0531-2 [pii]
35. Lowenstein L, Drugan A, Gonen R, et al. Episiotomy: beliefs, practice and the impact of educational intervention. *Eur J Obstet Gynecol Reprod Biol* 2005;123(2):179-82. doi: 10.1016/j.ejogrb.2005.04.006 [published Online First: 2005/05/26]
36. Skeith AE, Valent AM, Marshall NE, et al. Association of a Health Care Provider Review Meeting With Cesarean Delivery Rates: A Quality Improvement Program. *Obstet Gynecol* 2018;132(3):637-42. doi: 10.1097/aog.0000000000002793 [published Online First: 2018/08/11]
37. Wear S. Exceptions to Informed Consent. Informed Consent Clinical Medical Ethics. Dordrecht: Springer 1993.
38. Moore GP, Moffett PM, Fider C, et al. What emergency physicians should know about informed consent: legal scenarios, cases, and caveats. *Academic emergency medicine : official journal of the Society for Academic Emergency Medicine* 2014;21(8):922-7. doi: 10.1111/acem.12429 [published Online First: 2014/08/27]
39. Stohl H. Childbirth Is Not a Medical Emergency: Maternal Right to Informed Consent throughout Labor and Delivery. *The Journal of legal medicine* 2018;38(3-4):329-53. doi: 10.1080/01947648.2018.1482243 [published Online First: 2019/07/17]
40. Thompson R, Miller YD. Birth control: to what extent do women report being informed and involved in decisions about pregnancy and birth procedures? *BMC pregnancy and childbirth* 2014;14:62. doi: 10.1186/1471-2393-14-62 [published Online First: 2014/02/11]
41. Diorgu FC, Steen MP, Keeling JJ, et al. Mothers and midwives perceptions of birthing position and perineal trauma: An exploratory study. *Women Birth* 2016;29(6):518-23. doi: 10.1016/j.wombi.2016.05.002 [published Online First: 2016/05/31]
42. Downe S, Finlayson K, Oladapo OT, et al. What matters to women during childbirth: A systematic qualitative review. *PLoS One* 2018;13(4):e0194906. doi: 10.1371/journal.pone.0194906 [published Online First: 2018/04/18]
43. Hollander MH, van Hastenberg E, van Dillen J, et al. Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Archives of women's mental health* 2017;20(4):515-23. doi: 10.1007/s00737-017-0729-6 [published Online First: 2017/05/30]

44. Calik KY, Karabulutlu O, Yavuz C. First do no harm - interventions during labor and maternal satisfaction: a descriptive cross-sectional study. *BMC pregnancy and childbirth* 2018;18(1):415. doi: 10.1186/s12884-018-2054-0 [published Online First: 2018/10/26]
45. Alexander JW, Karantanis E, Turner RM, et al. Patient attitude and acceptance towards episiotomy during pregnancy before and after information provision: a questionnaire. *International urogynecology journal* 2019 doi: 10.1007/s00192-019-04003-x [published Online First: 2019/06/28]
46. Hodnett ED. Pain and women's satisfaction with the experience of childbirth: a systematic review. *Am J Obstet Gynecol* 2002;186(5 Suppl Nature):S160-72. doi: 10.1067/mob.2002.121141 [published Online First: 2002/05/16]
47. Seijmonsbergen-Schermers A. Hand op de knip. Op weg naar minder episiotomieën. . *Tijdschrift voor verloskundigen* 2017;41(6):32-36.
48. Seijmonsbergen-Schermers A, Ponds E, Van Driel W. Factsheet Episiotomie: Royal Dutch Association of Midwives (KNOV); 2018 [Available from: https://www.knov.nl/serve/file/knov.nl/knov_downloads/2807/file/Factsheet_Episiotomie_definitief_juni_2018.pdf.

**Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)[25]**



Amsterdam Public Health

# Toestemmingsformulier (informed consent)

***Kwalitatief onderzoek naar meningen van zorgverleners over episiotomiegebruik en hechttechnieken***

**Verantwoordelijke onderzoeker**
Anna Seijmonsbergen-Schermers

**In te vullen door de deelnemer**

Ik verklaar hierbij op een voor mij duidelijke wijze, mondeling en schriftelijk, te zijn ingelicht over de aard, methode en het doel van dit kwalitatieve onderzoek. Ik weet dat de gegevens en resultaten van het onderzoek alleen anoniem en vertrouwelijk aan derden bekend gemaakt zullen worden. Anonieme citaten kunnen letterlijk in het te publiceren artikel gerapporteerd worden. Mijn eventuele vragen zijn naar tevredenheid beantwoord.

Ik geef toestemming voor het opnemen van het interview op audiomateriaal en begrijp dat het audiomateriaal uitsluitend voor analyse zal worden gebruikt en gedurende tien jaar bewaard zal worden.

Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud me daarbij het recht voor om op elk moment zonder opgaaf van redenen mijn deelname aan dit onderzoek te beëindigen.

Naam deelnemer:

Datum: Handtekening deelnemer:

**In te vullen door de uitvoerende onderzoeker**

Ik heb een mondelinge en schriftelijke toelichting gegeven op het onderzoek. Ik zal resterende vragen over het onderzoek naar vermogen beantwoorden. De deelnemer zal van een eventuele voortijdige beëindiging van deelname aan dit onderzoek of klachten over dit onderzoek geen nadelige gevolgen ondervinden.

Naam onderzoeker:

Datum: Handtekening onderzoeker:

# Toelichting onderzoek voorafgaand aan informed consent

***Kwalitatief onderzoek naar meningen van zorgverleners over episiotomiegebruik en hechttechnieken***

**Verantwoordelijke onderzoeker**
Anna Seijmonsbergen-Schermers
a.seijmonsbergen@vumc.nl

**Voor vragen over gegevensbescherming:**
Michel Paardekooper (functionaris gegevensbescherming)
michel.paardekooper@vumc.nl

**Type onderzoek:** kwalitatief wetenschappelijk onderzoek
**Methode:** het interviewen van zorgverleners in de geboortezorg

Het doel van dit kwalitatieve onderzoek is om de mening en visie van zorgverleners in de geboortezorg te onderzoeken. Het onderwerp is het gebruik van een episiotomie tijdens het begeleiden van een bevalling en hechttechnieken in de eerste en tweede lijn. Hiervoor zullen gynaecologen, arts-assistenten, tweedelijns verloskundigen en eerstelijns verloskundigen geïnterviewd worden. De resultaten zullen gerapporteerd worden in een artikel dat aangeboden zal worden aan een internationaal wetenschappelijk tijdschrift.

De gegevens en resultaten van het onderzoek zullen uitsluitend anoniem en vertrouwelijk aan derden bekend gemaakt worden en zullen gedurende tien jaar bewaard worden. Anonieme citaten kunnen letterlijk in het te publiceren artikel gerapporteerd worden.

Voor de analyses zullen de interviews middels audioapparatuur opgenomen worden. Dit audiomateriaal zal uitsluitend voor de analyses gebruikt worden en na het uitschrijven van de tekst definitief verwijderd worden.

Deelname aan dit onderzoek is geheel vrijwillig. Daarbij heeft u op ieder moment het recht om zonder opgaaf van redenen de deelname aan het onderzoek te beëindigen of een klacht over dit onderzoek in te dienen.

## COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| **Domain 1: Research team and reflexivity** | | | |
| *Personal characteristics* | | | |
| Interviewer/facilitator | 1 | Which author/s conducted the interview or focus group? | |
| Credentials | 2 | What were the researcher's credentials? E.g. PhD, MD | |
| Occupation | 3 | What was their occupation at the time of the study? | |
| Gender | 4 | Was the researcher male or female? | |
| Experience and training | 5 | What experience or training did the researcher have? | |
| *Relationship with participants* | | | |
| Relationship established | 6 | Was a relationship established prior to study commencement? | |
| Participant knowledge of the interviewer | 7 | What did the participants know about the researcher? e.g. personal goals, reasons for doing the research | |
| Interviewer characteristics | 8 | What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic | |
| **Domain 2: Study design** | | | |
| *Theoretical framework* | | | |
| Methodological orientation and Theory | 9 | What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis | |
| *Participant selection* | | | |
| Sampling | 10 | How were participants selected? e.g. purposive, convenience, consecutive, snowball | |
| Method of approach | 11 | How were participants approached? e.g. face-to-face, telephone, mail, email | |
| Sample size | 12 | How many participants were in the study? | |
| Non-participation | 13 | How many people refused to participate or dropped out? Reasons? | |
| *Setting* | | | |
| Setting of data collection | 14 | Where was the data collected? e.g. home, clinic, workplace | |
| Presence of non-participants | 15 | Was anyone else present besides the participants and researchers? | |
| Description of sample | 16 | What are the important characteristics of the sample? e.g. demographic data, date | |
| *Data collection* | | | |
| Interview guide | 17 | Were questions, prompts, guides provided by the authors? Was it pilot tested? | |
| Repeat interviews | 18 | Were repeat inter views carried out? If yes, how many? | |
| Audio/visual recording | 19 | Did the research use audio or visual recording to collect the data? | |
| Field notes | 20 | Were field notes made during and/or after the inter view or focus group? | |
| Duration | 21 | What was the duration of the inter views or focus group? | |
| Data saturation | 22 | Was data saturation discussed? | |
| Transcripts returned | 23 | Were transcripts returned to participants for comment and/or | |

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| | | correction? | |
| **Domain 3: analysis and findings** | | | |
| *Data analysis* | | | |
| Number of data coders | 24 | How many data coders coded the data? | |
| Description of the coding tree | 25 | Did authors provide a description of the coding tree? | |
| Derivation of themes | 26 | Were themes identified in advance or derived from the data? | |
| Software | 27 | What software, if applicable, was used to manage the data? | |
| Participant checking | 28 | Did participants provide feedback on the findings? | |
| *Reporting* | | | |
| Quotations presented | 29 | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number | |
| Data and findings consistent | 30 | Was there consistency between the data presented and the findings? | |
| Clarity of major themes | 31 | Were major themes clearly presented in the findings? | |
| Clarity of minor themes | 32 | Is there a description of diverse cases or discussion of minor themes? | |

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

**Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.**

BMJ Open

# Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars regarding episiotomy: qualitative interview study



| | |
|---|---|
| Journal: | *BMJ Open* |
| Manuscript ID | bmjopen-2020-037536.R1 |
| Article Type: | Original research |
| Date Submitted by the Author: | 26-Sep-2020 |
| Complete List of Authors: | Seijmonsbergen-Schermers, Anna; AVAG, Amsterdam Public Health research institute VU University Medical Center, Midwivery Science<br>Thompson, Suzanne; Zuyd University - Brusselseweg Campus, Research Centre for Midwifery Science<br>Feijen-de Jong, Esther I.; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science<br>Smit, Marrit; Leiden University Medical Center, Department of Obstetrics<br>Prins, M; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science<br>van den Akker, Thomas; Leiden University Medical Center, Department of Obstetrics<br>de Jonge, Ank; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science |
| Primary Subject Heading: | Obstetrics and gynaecology |
| Secondary Subject Heading: | Evidence based practice, Medical management, Patient-centred medicine, Qualitative research |
| Keywords: | QUALITATIVE RESEARCH, OBSTETRICS, PERINATOLOGY |
| | |

*I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.*

*The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.*

*Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.*

# Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars regarding episiotomy: qualitative interview study

***Authors:***

Anna Seijmonsbergen-Schermers
*PhD candidate*
*AVAG, Amsterdam UMC, Vrije Universiteit Amsterdam, Midwifery Science, Amsterdam Public Health, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands*

Suzanne Thompson
*Senior Lecturer*
*Research Centre for Midwifery Science, Maastricht, Zuyd University, PO Box 1256, 6201 BG Maastricht, The Netherlands*

Esther Feijen-de Jong
*Researcher*
*Department of Midwifery Science, AVAG, Amsterdam Public Health research institute, Amsterdam UMC, location VUmc, UMCG, Groningen, 9713 GL, The Netherlands*

Marrit Smit
*Midwife*
*Department of Obstetrics, Leiden University Medical Centre, K6-35, PO Box 9600, Leiden, 2300 RC, The Netherlands*

Marianne Prins
*Lecturer*
*Academie Verloskunde Amsterdam Groningen (AVAG), Vlaardingenlaan 1, 1059 GL Amsterdam, The Netherlands*

Thomas van den Akker
*Professor*
*Department of Obstetrics, Leiden University Medical Center, Albinusdreef 2, 2333 ZA Leiden, The Netherlands*
*Athena Institute, VU University, Amsterdam, the Netherlands*

Ank de Jonge
*Professor*
*Department of Midwifery Science, AVAG, Amsterdam Public Health research institute, Amsterdam UMC, location VUmc, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands*

***Corresponding author:***
A.E. Seijmonsbergen-Schermers
Department of Midwifery Science, AVAG, Amsterdam Public Health research institute
Amsterdam UMC, location VUmc
De Boelelaan 1117
1081 HV Amsterdam
The Netherlands
Email: a.seijmonsbergen@amsterdamumc.nl
Telephone: +31 20 444 54 79

***Keywords:*** Health care providers; Episiotomy; Understanding; Viewpoint; Qualitative research; Midwives; Obstetrics

***Word count:*** 5,885 words

## ABSTRACT

***Objectives***

Insight into perspectives and values of care providers on episiotomy can be a first step towards reducing variation in its use. We aimed to gain insight into these perspectives and values.

***Setting***

Maternity care in the Netherlands.

***Participants***

Midwives, obstetricians, and obstetric registrars working in primary, secondary, or tertiary care, purposively sampled, based on their perceived episiotomy rate and/or region of work.

***Primary and secondary outcome measures***

Perspectives and values of care providers which were explored using semi-structured in-depth interviews.

***Results***

The following four themes were identified, using the Evidence Based Practice-model of Satterfield et al. as a framework: *'Care providers' vision on childbirth', 'Discrepancy between restrictive perspective and daily practice', 'Clinical expertise versus literature-based practice',* and *'Involvement of women in the decision'.* Perspectives, values, and practices regarding episiotomy are strongly influenced by care providers' underlying visions on childbirth. Although care providers often emphasized the importance of restrictive episiotomy policy, a discrepancy was found between this vision and the large number of varying indications for episiotomy. Although on one hand care providers cited evidence to support their practice, on the other hand, many based their decision-making to a larger extent on clinical experience. Although most care providers consider women's autonomy to be important, at the moment of deciding on episiotomy, the involvement of women in the decision is perceived as minimal, and real informed consent generally does not take place, neither during labour, nor prenatally. Many care providers belittled episiotomy in their language.

***Conclusions***

Care providers' underlying vision on episiotomy and childbirth is an important contributor to the large variations in episiotomy usage. Their clinical expertise is a more important component in decision-making on episiotomy than the literature. Women are minimally involved in the decision for

performing episiotomy. More research is required to achieve consensus on indications for episiotomy.

## Article Summary

### *Strengths and limitations of this study*

- The strength of this qualitative study is that it represents perspectives and values of care providers from all professional backgrounds.
- Because this study was conducted in the Netherlands, generalisability of results cannot be assumed, but these are relevant to a broad context, since variation in episiotomy exists in many countries.
- A limitation of this study is that perspectives of the interviewers may have encouraged participants to give socially desirable answers or express strong opposite opinions.
- Conversely, by being an expert on the topic, the interviewer was able to understand the participants.
- Although data saturation was reached, an element of selection bias cannot be eliminated.

## INTRODUCTION

Episiotomy is one of the most commonly performed surgical interventions during childbirth[1], and is primarily used to expedite the second stage of labour[2]. There is major variation in episiotomy practice worldwide[1 3], with rates varying from 4% in Denmark[4] to 91% in Thailand[5]. The episiotomy rate in the Netherlands was 46% among nulliparous and 14% among multiparous women, with an instrumental-vaginal birth rate of 16% among nulliparous and 3% among multiparous women in 2013[6]. The World Health Organization does not recommend routine or liberal use of episiotomy for women undergoing spontaneous vaginal birth[7]. For instrumental births, episiotomy may be beneficial to prevent Obstetric Anal Sphincter Injury (OASI) in some women[8]. Several studies illustrate that, in general, restrictive use of episiotomy is preferable to routine or liberal use[2]. Episiotomies can lead to physical problems, such as postpartum urinary retention, perineal pain, dyspareunia, and pelvic floor muscle strength[9-16]. It is unknown which episiotomy rate is appropriate for obtaining an optimal balance between harm caused by episiotomy and prevention of maternal and neonatal morbidity by its use. Moreover, there is a lack of uniform recommendations on indications for performing episiotomy, and there is major variation in applied indications among care providers[10]. This suggests that perspectives and values of care providers influence the decision to perform an episiotomy and that this decision is not only based on medical necessity. Studies into indications for episiotomy use or opinions of care providers have only been conducted among restricted subgroups of childbearing women or in settings that cannot be generalized[17-21]. In these studies, many indications for performing episiotomy were reported, including fetal distress, instrumental birth, a tight or short perineum, prevention of major tears, history of major tears or episiotomy, delay in second stage of labour, breech presentation, shoulder dystocia, preterm birth, poor maternal effort, macrosomia, nulliparity, facilitation of postpartum wound repair, vaginal bleeding, and women's request[17-22].

Furthermore, it is still unknown which underlying perspectives and values of care providers have impact on the decision to perform episiotomy. Insight into these perspectives and values can be a first step towards optimizing the balance between over- and underuse of episiotomies. The aim of this qualitative study was to gain insight into perspectives and values of midwives, obstetricians, and obstetric registrars with regard to performing episiotomy.

## METHODS

### *Design and setting*

To gain insight into the perspectives and values of care providers towards performing episiotomy, a qualitative study with a constructivist paradigm was conducted, using semi-structured interviews. Choosing qualitative interviews involving face to face contact, enabled an exploration of

care providers' perspectives and values. [23]. An interpretivist approach was considered appropriate for this exploration[24].

The VU University Medical Center reviewed the study design and confirmed that ethical approval was not required for this study in the Netherlands (reference WC2016-415).

***Research team and reflexivity***

The first author interviewed 16 of the 20 participants and is a woman of 30 years, mother, midwife with four years of clinical experience, educated in conducting qualitative studies, and employed as a PhD-candidate in her final year at the time of the study. Most of the participants were unknown to her, but two of the participants were aware of her previous publications on episiotomy in the Netherlands. The first interview was carried out by the first and second author together and one interview was carried out by the second author, who is a woman of 49 years, midwife with 26 years clinical experience, experienced qualitative interviewer, lecturer, and employed as a PhD-candidate in her final year at the time of the study. Three interviews were conducted by third year midwifery students. They were educated on interview techniques in advance, and were instructed by the first author.

The entire research team consisted of researchers from different disciplines, including midwives, researchers, lecturers, and an obstetrician. A topic list was developed by the first author, reviewed by the research team, and iteratively evolved based on the findings of the interviews.

***Recruitment***

Participants were eligible if they were working as a midwife in primary or secondary care, obstetrician or obstetrician/urogynaecologist in secondary or tertiary care, or as an obstetric registrar. Purposive and snowball sampling strategies were applied, to obtain a broad sample of care providers, reflecting the possible diversity of perspectives and values. To ensure variety among participants, purposive sampling was based on care providers' perceived episiotomy rate and/or region of work. Participants were randomly approached by contacting care providers in specific regions, or purposively approached through referrals by other care providers. Participants were recruited until data saturation was obtained, which was defined by the absence of new codes, and until all parts of the country were represented. A total of 34 care providers, hospitals, or midwifery practices were contacted, resulting in twenty included participants. Reasons for non-participation were: no response received, retired, lack of time, and not having the perceived episiotomy rate that was still required to obtain a varied sample of participants. In advance of the interviews, participants were asked to provide personal information on place of education, region of work, number of

attended births per year, and their personal episiotomy rate or number of episiotomies performed during the last 25 attended births. An 'attended birth' was specified to the participants as a birth where the decision to perform an episiotomy would be made by the themselves. Participants were approached by email, telephone, or both. A brief overview of the aim of the interview was given before the care provider agreed to participate. The participant was informed that it would concern an individual in-depth interview, participation would be voluntary, data would be anonymized and treated confidentially, and audio material would be destroyed following transcription. Data and participant names were stored separately with encrypted passwords and transcripts were shared with students for transcription with encrypted passwords.

***Interviews***

Interviews were semi-structured, using a topic-list with open-ended questions, which was pilot-tested (see Table 1). The participant was informed that (s)he could withdraw from the study without giving a reason and written informed consent was obtained after oral and written information about the study (see Supplementary files 1 and 2). At the start of the interview, the participants were informed that the aim of the interview was to investigate the full scope of perspectives and values of care providers, that no value judgment would be made during the interview, and that there was no right or wrong answer. Besides, they were told that the perspectives and values of the interviewer would not be part of the conversation. The interview commenced with an invitation to the participant to talk about his/her opinion regarding episiotomy. Subsequently, in the responses given by the participant, the researchers probed, in order to elicit depth, based on the topics that were brought up by the participant.

Interviews were recorded on audio equipment and transcribed verbatim by the first author or by student assistants. Field notes were made during and after the interviews. To ensure accuracy and to facilitate deep engagement with the data, transcripts of interviews that were recorded by student assistants, were read and re-read, before being checked with the original audio by the first author. After each interview, member check was offered to the participant based on the transcript of each interview, as a means of maintaining scientific rigor, which did not lead to responses in which changes were requested.

***Analysis***

Data analysis was carried out concurrently with data collection, allowing the researchers to reflect on the data. This allowed for the exploration and validation of emerging themes which were identified from the interviews and which were used iteratively to adjust the topic list for subsequent

interviews. The first interviews were analysed independently by the first two authors, and disagreements about codes were discussed until consensus was reached.

Inductive thematic analysis was conducted, described by Braun and Clarke (2006)[25], making use of statistic software program MAXQDA. Data were read and re-read to become familiarized with them. Initial codes were generated by coding interesting features of the data and relationships between codes were identified. A first coding tree was developed, and the first five interviews were coded again to identify over-arching codes. During the analyses of the subsequent interviews, the codes were increasingly collated into potential themes and all data relevant to each theme were gathered. After potential themes were identified, these were reviewed by checking the relation to the coded extracts and the entire data set, generating a thematic network[26]. Subsequently, the authors applied a name and a description for each theme (see the coding tree in Supplementary file 3). Quotes were identified, providing thick description as a means of illustrating these themes. During this data collection and analysis process, discussion of and reflection on the codes, sub-themes, and themes were on-going between the researchers involved in this study. For framing the results into the existing literature, we compared the data to the framework of Evidence Based Practice (EBP), using the model of Satterfield et al. (2009) (figure 1)[27]. This model includes the following three components: *'Best available research evidence'*, *'Client's/population's characteristics, state, needs, values, and preferences',* and *'Resources, including practitioner's expertise'.* These three components overlap in the centre, which illustrates the way decisions are made. The fourth component *'Environmental and organizational contexts'*, which is places in the outer space of the model, has influence on all components.

***Patient involvement***

Patients were not involved in this study.

## RESULTS

Twenty of the 34 invited care providers gave consent and participated in the study, thirteen women and seven men (Table 2). Ten were working as a midwife, in primary or secondary care, six were obstetricians, of which two were specialized in urogynaecology, and four obstetric registrars ranging in educational experience from the first to sixth years of education. Participants were diverse with regard to ages, ranging from 25 to 55 years; work experience, from three months to 29 years; number of births attended per year, from 12 to 20; and their approximate personal episiotomy rate, from 0% to 90%. The interviews took place between August 2017 and December 2019, at a quiet

location, without other persons present, and convenient for the participant, which generally was the clinic or the participants' home. The interviews lasted between 33min and 1h 55min.

Four themes giving insight into the perspective and values of care providers towards episiotomy emerged from the data. These were *'Care providers' vision on childbirth', 'Discrepancy between restrictive perspective and daily practice', 'Clinical expertise versus literature-based practice',* and *'Involvement of women in the decision'.*

***Care providers' vision on childbirth***

The EBP-component '*Resources, including practitioner's expertise'* was the most important component in the perspective and values of care providers. Care providers' visions on childbirth underpin their perspective and values about episiotomy use. Views on childbirth could be characterized in two paradigms: either a physiological vision, or a risk-focused vision.

The physiological vision was characterized by the importance of iatrogenic harm to healthy body tissues, avoiding episiotomies, and approaches in care that minimized episiotomy and spontaneous perineal rupture. Care providers with this vision more often articulated negative feelings that they associated with performing episiotomy. They stated that episiotomy should be avoided whenever possible.

*Well, it really is a big injury that you cause to someone. We call it a little cut but, eh, I remember during my training, the gynaecologists said; "If you saw such an injury on someone in the street, you'd call an ambulance". […] Yes, it's not nothing for a woman to have that. (Midwife 8)*

*And are there, for example, ways to learn how to perform fewer epi's (*episiotomy*), fewer interventions without disadvantaging the mother, sphincter damage, or for babies, fetal distress? … Then we have to see if we can do that. (Obstetrician 9)*

The risk-focused vision was characterized by a tendency to intervene. This approach emphasized the protective effect of episiotomy for the child, but more particularly for the mother. Care providers with this vision did not really articulate negative feelings when performing episiotomy. Rather, they considered it as a technical operation, resulting in a clean cut that was viewed by some care providers as preferable to a spontaneous perineal rupture.

*No, I don't feel bad about it* (episiotomy). *I also don't necessarily feel bad for the woman because my idea is: "Well, if I suture well then I don't think there will be consequences". And I do it for a reason. The episiotomies I perform, I can justify them. And it's just a common, also very routine medical procedure that is just part of giving birth, so I don't feel like that… I feel no emotion about it. I perform it with professional distance. (Obstetric registrar 7)*

Intrinsic and extrinsic factors contributed to care providers' visions on childbirth, and viewpoints were rather dynamic, evolving over time. Intrinsically, care providers often emphasized an eagerness to learn, but skills training mainly focused on suturing and not on performing episiotomy, and some did not attend professional training to update their skills. This division was also noted in reflection on episiotomy usage. Some professionals reflected on their use of episiotomy, others mentioned that episiotomy was never a subject of evaluation, neither for themselves, nor with colleagues.

*Yes, I think at the start of your education you […] follow the example of those who train you and you go along with that. And as your training progresses, you start looking around, like how is that? […] And then you evaluate again: how did it go? Did it go well then? It'd gaining a bit of experience and learning from that. It isn't just about what you read in the scientific literature or what you know about other peoples' opinions, but also finding out for yourself. (Obstetrician 18)*

*No, we don't really correct each other, it* (episiotomy) *is not really a subject that regularly crops up… do you cut or don't you cut ... Or how many sphincter damages have you had, how many have I had... (Obstetrician 11)*

Extrinsically, care providers mentioned the importance of two things in the evolution of their professional vision on childbirth. Firstly, they highlighted that childbirth visions are highly influenced by professional and educational backgrounds. Secondly, they mentioned that working experience is an important contributor to quality of care and that adverse events influence the tendency to intervene.

*I think that if you look towards gynaecologists who deal with the pelvic floor ... They deal with it very differently than the obstetricians. [...] I think eh .. pelvic floor gynecologists are more likely to perform episiotomy. (Obstetric registrar 2)*

*I think that if you've seen a lot of bad stuff and that is often so, in hospitals… if you see a lot of calamities, then you tend to cut earlier. (Midwife 4)*

***Discrepancy between restrictive perspective and daily practice***

There was a discrepancy between what many care providers mentioned as their perspective and values regarding episiotomy, and their daily practice. Many care providers emphasized the importance of a restrictive approach, stating that it should only be performed where there is justifiable medical need. However, in total, many different justifications were mentioned as valid, suggesting that performing episiotomies only when medically justified, may result in high episiotomy rates and large interprofessional variations (see Table 3). Care providers justified their episiotomy usage by balancing between the justification and the potential harm. They did this by weighing up maternal characteristics, the situation during the second stage of labour, medical technology and, to

a lesser extent, women's preferences. If clearly indicated, care providers were confident that the episiotomy was justified , but feeling uncertain or inexperienced was mentioned as well.

*Because actually, we can't really demonstrate that the female pelvic floor is better off being cut into, to summarize. The female pelvic floor does not improve as a result of cutting and, eh, I sometimes grumble that we're the ones who have to suture when no-one else has the over-sight. And if it* (the perineum) *looks like a bomb went off there, guys, just perform episiotomy, don't let it tear like that. (Obstetrician 11)*

*And it, yes, it is bizarre that you affect someone's body in this way, eh, literally cut open. Eh, but with the goal of ultimately ensuring that someone has fewer problems in the future. So that's what makes it justifiable for me to do it. (Obstetrician/urogynaecologist 10).*

The lack of evaluation of the longer-term implications and feedback on the consequences of their episiotomies inhibited care providers in experiencing the need of being restrictive in performing episiotomy. The possibility to evaluate practice was seen as being limited by difficulties in comparing incidences of episiotomy between low- and high-risk populations.

*It's a pity that we have a lot of hospitals... Many births where we perform an epi, eh, we of course never see them again, sometimes at six weeks but sometimes not. That is of course a shame, because it is good to get feedback from what happens with an epi. (Obstetric registrar 7)*

***Clinical expertise versus literature-based practice***

Care providers generally gave more weight to the 'practitioner expertise' component of evidence-based practice than the 'best available research' component in the decision-making for episiotomy. Care providers justified deviations from 'best available research' by pointing out the limitations of applying evidence to practice situations. Conversely, different care providers used literature differently to substantiate their own perspectives and values, resulting in varying techniques, methods, and approaches to women during the second stage of labour.

*Yes, eh, of course, eh, that we would only do it in cases of fetal distress. Eh well it sometimes happens that you, eh, have a very long second stage [...] that you might need to make some space anyway. Then again, eh, during the birth you just see that, eh, the perineum, the pelvic floor is just very tight. Or it threatens to tear badly. You still hope that it* (episiotomy) *will prevent something worse. But of course that is not very evidence based. (Midwife 13)*

*It's the same when you look at eh, at the literature around elective use of episiotomy after previous sphincter damage [...], you will probably come to the conclusion that it doesn't prevent sphincter damage happening again, you need to look at what happens and how such a scar behaves during the birth. So, if it is completely rigid and very thin and you can almost see it tear when the head crowns, yes, then I wonder if that* (the literature) *also applies to that case. (Obstetrician 18)*

At the moment of decision-making, the decision to perform episiotomy was based on the care providers' own clinical judgement. Despite having individual and often strong views and a personal way of working, the influence of colleagues on practice was mentioned as important. This is reflected by the EBP-component *'Environment and organizational context'*. Mainly for those working in secondary or tertiary care, consultation and supervision of colleagues was an important factor in decision-making. On the other hand, working autonomously was expressed by other participants. Some of the care providers articulated the fear of being judged or the feeling of having to justify or 'account' for their decision-making.

*So he* (supervising doctor) *said; "If in doubt, perform episiotomy." And I thought that was really a very simple encouragement. And not that I do it a lot, I don't think I did it then either, but I did remember thinking; "Oh yes, useful tip." And it is precisely when you are inexperienced that you should perhaps do more episiotomies so that you have babies in good condition. Better that than that you are too scared to do it and therefore get into difficulties. (Obstetric registrar 7)*

*I mean, I think ... the ... eh .. when you compare the studies with each other you might think: Yikes, it* (episiotomy) *happens way too much there* (in the hospital) *and you definitely shouldn't be in the hospital because there everyone is performing episiotomies all over the place. But I think, well, since I started working in the hospital, it's like comparing apples with oranges… I really find that so annoying! (Midwife 5)*

***Involvement of women in the decision***

The EBP-component *'Client's/population's characteristics, state, needs, values, and preferences'* was not viewed as an important factor in decision-making for most care providers. Although most care providers consider a woman's autonomy and bodily integrity as important, during second-stage labour, the decision for episiotomy is made by the care provider. Care providers consider that the 'trustful relationship' formed between a woman and her maternity care provider provides them with the basis of informed consent. For many care providers, consent was based on opting out, with some care providers mentioning that the state of the mother during the second stage of labour, makes it difficult or impossible to obtain informed consent and that women sometimes do not realize that episiotomy has been performed. Some placed value on informing women well about episiotomy during prenatal care. However, some of the care providers were dismissive of birth plans. They substantiated this with examples such as women having unrealistic expectations of childbirth, women's emotional and physical state during labour, and that women should relinquish control.

*You can imagine the setting, right? To counsel someone at the very end of second stage labor, and to think that there is still, that there is still a real chance of knowledge and ability to weigh up the options and make a personal choice. It's not really*

*realistic [...] In short, she* (the woman) *will hear it as an announcement and not as counselling. Then she can still say no if she wants, and I would listen to that. But yeah. Interviewer: And is there a kind of informed consent? Participant: Eh… eh... No... No... No [laughing]. No... (Obstetrician 11)*

Where conflicts arose between a care providers' vision and woman's preferences, some care providers valued a woman's personal autonomy above their own vision. Most care providers would try to convince a woman by giving information. Others used strong convincing reasoning to change women's minds, and some disregarded a woman's autonomy. Such preferences expressed by women were often seen as a limitation to optimal care. Significantly, many care providers played down the severity of episiotomy. This was evident in the use of belittling language, such as 'just a little cut', suggesting that episiotomy was viewed by care providers as a minor intervention.

*So, if you have to do an instrumental delivery* (and a woman does not want episiotomy)*, [...] then I can roughly calculate for that lady what her chance of a sphincter injury is. [...] Using my laptop I have, within 5 minutes, what, approximately her chance is, based on the data we have. And then I say: "Well if you know that, [...] if you have a sphincter laceration, within 20-25 years you have a 60% chance of faecal incontinence to a greater or lesser degree, is that what you want? And if I have a reasonable method, eh, to reduce that risk. Would you want me to deprive you of this? (Obstetrician/urogynaecologist 6)*

*Eh well, I tell the woman, it might be that if I make a little cut now, you'll have your baby within one or two contractions. Otherwise, you'll have to push a bit longer...and then, eh yes, then you have... you have some kind of informed consent about whether or not she wants it* (episiotomy)*. And usually she wants it [laughs]. (Midwife 15)*

## DISCUSSION

In this qualitative study, twenty care providers were interviewed about their perspectives and values towards episiotomy. The results were analysed using the framework of Satterfield et al. (2009) on Evidence-Based Practice[27]. This qualitative study illustrated that the expertise of the care provider themselves was the most important component in decision-making with regard to episiotomy. Care providers' perspectives, values, and practices are strongly influenced by individual underlying visions of childbirth. Although care providers often emphasized the importance of a restrictive episiotomy policy, a discrepancy was expressed between vision and practice, and a large number of varying indications (see Table 3) mentioned as justification for performing episiotomy. All care providers considered it important to justify their actions. While the literature was used to underpin the justification of their policies, the importance of clinical expertise was used to support deviations from recommended practice. Women's autonomy was important, yet, at the moment of decision-making, women's involvement in decision-making is minimal. Informed consent is not obtained, neither

during labour, nor during pregnancy. The language often used by care providers about episiotomy illustrates an underlying attitude that views episiotomy as a minor intervention.

Understanding the perspective and values of care providers towards episiotomy is essential for obtaining deeper understanding of variations in episiotomy practices. Previous studies showed large variations in episiotomy rates. In the Netherlands, rates varied among twelve regions from between 14% to 42% for nulliparous women and from between 3% to 13% for multiparous women[28]. The Netherlands has historically been seen as a country with a physiological approach to childbirth and a corresponding high rate of home births[29]. Studies showed that giving birth at home is a protective factor for episiotomy[30]. However, although giving birth at home is more common in the Netherlands compared to all other high-income countries, the rate of episiotomy is much higher than in countries like Sweden (6% among nulliparous women), Denmark (7% among nulliparous women)[6], and the USA (9%)[31]. This study gives insight in the underlying perspectives and values of care providers, leading to these varying episiotomy rates.

***Childbirth vision, evidence, and practice***

The most important contributor to episiotomy practice found in our study was the vision of care providers on childbirth and episiotomy. This was rather more decisive than recommendations from the literature. Although liberal use of episiotomy has no evidence-base[2], there are still countries, and regions within countries, with high episiotomy rates[4 5]. On one hand, literature suggests that episiotomy may be beneficial to prevent OASI in some women[8], particularly in case of instrumental vaginal birth. On the other hand, routine use of episiotomy may paradoxically result in increased rates of OASI[8] and overuse of episiotomy results in unnecessary complaints and morbidity among many women[9-16]. The awareness of these insights is reflected in the literature during the last four decades[32] and has led to a decline in the episiotomy rates in many countries, with a sharper decline in some countries versus others[33]. Our study showed that most care providers were aware of the importance of a restrictive episiotomy policy, but practices often diverged from this restrictive perspective, leading to a liberal rather than restrictive episiotomy practice among some care providers. In a study of Seijmonsbergen et al. on regional variation of episiotomy in the Netherlands, a higher rate of episiotomy was found in regions with lower rates of home births, also among women in obstetrician-led care[28]. This suggests that vision may be an important contributor to the tendency to intervene. The current study confirms this by showing widely diverging visions on episiotomy, which may be one of the most important factors leading to variation in episiotomy rates.

Moreover, previous studies confirm our finding that care providers' clinical expertise and own perspectives often override recommendations based on the literature[17 18 20 34 35]. In our study, care providers mentioned the importance that practices can be justified, although those practices and perspectives varied largely among these care providers, and were not always evidence-based. Hussein et al. (2012) emphasized this by describing that care providers' preferred their familiar way of working, and that change may evoke feelings of uncertainty and risk[34 35]. Henriksen et al. (1994) found that improving awareness of personal episiotomy rates, led to a decrease in the episiotomy rate[36]. Workload has been mentioned as barrier for reducing episiotomy rates in previous studies in settings with routine episiotomy practices, but did not emerge as a theme in our study[20 34 37], probably because of the vision of restrictive use of episiotomy in our study. Other qualitative studies into the perspectives of care providers found various perspectives towards episiotomy. They confirm a limited role of evidence in episiotomy practice, and care providers' vision, beliefs, and values being an important contributor to practice[17 18 20].

Varying perspectives on episiotomy and on dealing with evidence suggest that perspectives may not be evidence-based and that evidence may be insufficiently applicable and explicit for implementation into practice. Although the literature is not clear on which indications are valid for episiotomy, it is recommended to perform episiotomies restrictively. The meaning of 'restrictive' varies largely among care providers, and recommendations in literature and guidelines are not uniform. However, in some countries national uniform recommendations on episiotomy practice are available, such as the clinical guideline "Intrapartum care for healthy women and babies" from the National Institute for Health and Care Excellence Guidance[38]. In the Netherlands, national guidelines or recommendations on episiotomy practice are lacking. Recurrent evaluations of episiotomy indications with colleagues and educating care providers on the best available evidence on episiotomy will enable care providers to revise their vision and practices, and will motivate them to apply the evidence from the literature[39 40]. However, educating care providers is difficult as long as there is a lack of consensus on the meaning of 'restrictive' in the literature. Future research should focus on which indications are valid for episiotomy and should be well-applicable for practice, considering the complexity of situations during the second stage of labour.

***Woman-centered care***

The involvement of women in the decision to perform episiotomy was limited. Episiotomy is performed in a situation that is comparable to other medical emergency situations. In specific emergency situations, exceptions may apply to informed consent, because there is a lack of time to obtain informed consent[41] and the woman is incapable of giving it[42]. However, it is questionable

whether this applies to the situation of childbirth. In accordance to Wear (1993), the exception for informed consent during emergency situations involves (1) an immediate threat to life; (2) the treatment is a general recommended treatment and can appeal to the standard of practice; and (3) the time to achieve informed consent would significantly increase the risk of severe adverse outcomes[41]. Considering the large variation in incidences and perspectives towards episiotomy, episiotomy cannot be considered a general recommended treatment or as standard practice. Stohl (2018) argued that, except from the most extreme and rare cases, childbirth is not a medical emergency and women do not typically lose the ability to make decisions during childbirth. Therefore, the exception for informed consent does not usually apply to childbirth[43]. Other studies confirmed that informed consent for episiotomy is not asked for in the second stage of labour[44 45]. Although care providers minimally involve women in the decision-making during the second stage of labour, previous studies reported that women highly value their involvement in decision-making during childbirth[46]. Van der Pijl et al. examined 438 quotes of women on negative and traumatic childbirth experiences, expressed in the Dutch *#breakthesilence* campaign and found that lack of informed consent was one of the most frequently expressed types of mistreatment experienced by women during childbirth[47]. Besides, episiotomy was the most frequently mentioned intervention, where women experienced a lack of communication by the care provider, which led to feelings of disrespect. Accordingly, Hollander et al. (2017) found that lack of control, communication, and involvement in decision-making were important attributions of traumatic birth experiences[48]. Not being informed or not being involved in the decision to perform episiotomy can result in negative and even traumatic experiences. Although the studies of Van der Pijl et al. and Hollander et al. (2017) do not represent the feelings and preferences of all women, other studies confirm that women may feel less satisfied after having had an episiotomy[47 49]. Besides, studies show that information regarding episiotomies is important to increase understanding and feelings of comfort[50], and that being involved in decision-making is one of the most important contributors to a positive childbirth experience[51]. Downe et al. (2018) showed that women place high value on giving birth without non-indicated interventions, but if an intervention is needed, that they wish to be involved in decision-making to retain a sense of control[46]. The difficulties concerning obtaining informed consent can be solved by shared decision-making during pregnancy about indications for episiotomy during labour if need arises. This is more feasible than during the second stage of labour, and there is enough time for the woman to form her opinion. When discussing episiotomy, care providers should be aware that women may see episiotomy as an invasive medical intervention, and that belittling words and considering episiotomy a negligible intervention may not correspond with women's feelings about undergoing it. The varying perspectives of care providers on episiotomy make it more important to

involve women in decision-making and the appropriateness of care providers' practice should be placed in perspective, considering the varying existing perspectives and values.

***Strengths and limitations***

This study investigated the diverse range of perspectives and values of care providers towards episiotomy, representing all professional backgrounds. However, this study had some limitations. The perspectives of the interviewers may have encouraged participants to give socially desirable answers. Nevertheless, many participants expressed comments in favour of liberal use of episiotomy, and mentioned indications that were critically discussed in previous publications of the first authors[10 52 53]. On the other hand, it may have encouraged participants to express a strong opposite opinion. Conversely, by being an expert on the topic, the interviewer was able to go into the merits of the actual situations during childbirth, and to understand the difficulties care providers have to deal with. The subjectivity of the researchers may also have biased the analyses. To minimise the influence of this bias, we discussed the data and interpretation of the results within the author group that consisted of midwives, researchers, educators, and an obstetrician.

Although data saturation was reached, an element of selection bias cannot be eliminated. The participants in our study represented care providers from all professional backgrounds qualified for performing episiotomies, across the whole country, and of different educational backgrounds. This resulted in a broad spectrum of perspectives and values, which will be present in other countries with similar episiotomy rates as well. Further research into the perspective and values of care providers in a variety of countries with different episiotomy rates is warranted to gain insight into perspectives and values of care providers working in different birth cultures. Understanding perspectives and values of care providers in various setting will provide knowledge that is required to stimulate a worldwide evaluation of episiotomy practices.

## CONCLUSION

The decision to perform episiotomy is mainly based on care providers' own insight, which is highly influenced by care providers' vision on episiotomy and childbirth. Differences in care providers' perspectives, values, and underlying visions may be an important contributor to the large variations in episiotomy incidences. The involvement of the labouring woman in the decision is minimal. Care providers' clinical expertise generally overrules the recommendations from the literature. The recommendation to perform episiotomies restrictively is considered important, but the large number of indications for episiotomy shows that it is in practice not always performed restrictively.

Because other literature shows that women highly value their involvement in decision-making, and a lack of feeling in-control contributes to traumatic birth experiences, women should be given the opportunity to participate in shared decision-making about indications for episiotomy, preferably during pregnancy. More research is required to achieve consensus on indications for episiotomy, and to understand perspectives and values of care providers in other settings. Future research should be well-applicable for practice, considering the complexity of situations during the second stage of labour.

## FOOTNOTES

***Competing interests***

All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; relationships or activities that could appear to have influenced the submitted work, as described in the methods section.

***Author Contributions***

AESS, AdJ, and TvdA conceived the study and AESS wrote the paper. AESS and ST interviewed the participants and conducted the analyses. AESS, ST, EF-dJ, MS, MP, TvdA, and AdJ contributed to the methods of the study and the interpretation of the findings, and critically revised earlier drafts of the article.

***Ethics approval***

The VU University Medical Center confirmed that ethical approval was not required for this study (reference WC2016-415). Participants signed informed consent before taking part in this study.

***Funding***

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

***Access to the data***

All authors, external and internal, can have full access to all of the data in the study and can take responsibility for the integrity of the data and the accuracy of the data analysis.

***Transparency***

The lead author affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

***Data sharing***

Participant level data are available from the corresponding author at a.seijmonsbergen@amsterdamumc.nl. Participants gave informed consent for use of anonymised data for research purposes.

***Acknowledgements***

We thank the contribution of all participants in this study. We also thank the contribution of Davita van de Heuvel, Mandeepika Singh, and Tamar Nelson for transcribing the interviews, and Tessa Schimmel and Liduine van Hoof for interviewing three participants.



***Supplemental files***

1. Participant's information sheet
2. Informed consent sheet
3. Coding tree

**Table 1. Topic list of the interviews**

| |
|---|
| Grand tour question: Can you tell me about your opinion towards episiotomy? |
| Indications:<br>- Own reasons for performing episiotomy.<br>- Opinion on reasons for others to perform episiotomy. |
| Prevention of spontaneous ruptures<br>- How?<br>- Role of episiotomy.<br>- Technique. |
| Own experiences and feelings<br>- Own feelings when performing episiotomy<br>- Colleagues, working environment, work culture.<br>- Changes in opinion and acting. |
| The childbearing woman<br>- Addressing episiotomy.<br>- Birthing plan.<br>- Informed consent.<br>- Women's preferences; deviating preferences.<br>- Unnecessary use of episiotomy by other care providers |
| Context<br>- Opinion towards episiotomy rates and usage in the Netherlands. |

**Table 2. Summary of characteristics of participants in in-depth interviews**

| ***Characteristic*** | ***Summary of participants*** |
|---|---|
| *Gender* | 13 women<br>7 men |
| *Age* | Ranging from 25-56 years |
| *Profession* | 5 midwives, working in primary care<br>4 midwives, working in secondary care<br>1 midwife, working in both primary and secondary care<br>3 obstetricians, working in secondary care<br>1 obstetrician, working in tertiary care<br>1 obstetric registrar, in sixth year, working in secondary care<br>3 obstetric registrars, from first to sixth year, working in tertiary care<br>2 urogynaecologists, working in secondary care |
| *Working experience* | Ranging from 3 months to 29 years |
| *Approximate number of attended births a year* | Ranging from 12 to 200 |
| *Approximate personal episiotomy rate* | Ranging from 0% to 90% |

**Table 3. Indications mentioned by participants**

- fetal distress
- prematurity
- prolonged second stage
- maternal exhaustion
- instrumental birth
- history of obstetric anal sphincter injury (OASI)
- history of episiotomy
- tight perineum
- short perineum
- prevention of long-term harm
- prevention of spontaneous ruptures/OASI (without history of OASI)
- prevention of instrumental birth
- shoulder dystocia
- breech presentation
- multiple gestation
- macrosomia
- care provider's interest
- specific maternal history

**Caption of figure enclosed:**

Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)[27]

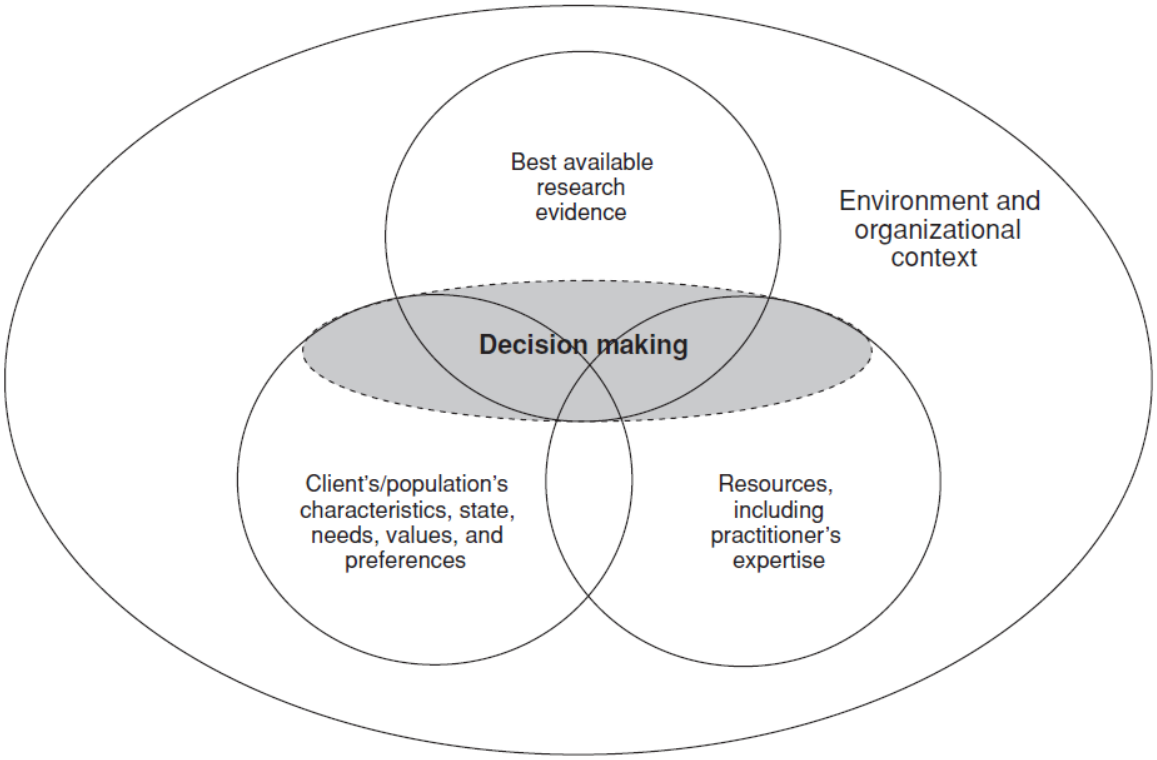
## References

1. EURO-PERISTAT Project with SCPE and EUROCAT. European Perinatal Health Report. Health and care of pregnant women and babies in Europe in 2010: EURO-PERISTAT, 2013.
2. Jiang H, Qian X, Carroli G, et al. Selective versus routine use of episiotomy for vaginal birth. *Cochrane Database Syst Rev* 2017;2:CD000081. doi: 10.1002/14651858.CD000081.pub3 [doi]
3. Graham ID, Carroli G, Davies C, et al. Episiotomy rates around the world: an update. *Birth* 2005;32(3):219-23. doi: BIR373 [pii];10.1111/j.0730-7659.2005.00373.x [doi]
4. Blondel B, Alexander S, Bjarnadottir RI, et al. Variations in rates of severe perineal tears and episiotomies in 20 European countries: a study based on routine national data in Euro-Peristat Project. *Acta Obstet Gynecol Scand* 2016 doi: 10.1111/aogs.12894 [doi]
5. Laopaiboon M, Lumbiganon P, McDonald SJ, et al. Use of evidence-based practices in pregnancy and childbirth: South East Asia Optimising Reproductive and Child Health in Developing Countries project. *PLoS One* 2008;3(7):e2646. doi: 10.1371/journal.pone.0002646 [doi]
6. Seijmonsbergen-Schermers AE, van den Akker T, Rydahl E, et al. Variations in use of childbirth interventions in 13 high-income countries: A multinational cross-sectional study. *PLoS Med* 2020;17(5):e1003103.
7. World Health Organization. WHO recommendations: Intrapartum care for a positive childbirth experience. Geneva: World Health Organization 2018.
8. Lund NS, Persson LK, Jango H, et al. Episiotomy in vacuum-assisted delivery affects the risk of obstetric anal sphincter injury: a systematic review and meta-analysis. *Eur J Obstet Gynecol Reprod Biol* 2016;207:193-99. doi: 10.1016/j.ejogrb.2016.10.013 [published Online First: 2016/11/21]
9. Sartore A, De Seta F, Maso G, et al. The effects of mediolateral episiotomy on pelvic floor function after vaginal delivery. *Obstet Gynecol* 2004;103(4):669-73. doi: 10.1097/01.AOG.0000119223.04441.c9 [doi];103/4/669 [pii]
10. Seijmonsbergen-Schermers AE, Geerts CC, Prins M, et al. The use of episiotomy in a low-risk population in the Netherlands: a secondary analysis. *Birth* 2013;40(4):247-55. doi: 10.1111/birt.12060 [doi]
11. Viswanathan M, Hartmann K, Palmieri R, et al. The use of episiotomy in obstetrical care: a systematic review. *Evid Rep Technol Assess (Summ )* 2005(112):1-8.
12. Macleod M, Strachan B, Bahl R, et al. A prospective cohort study of maternal and neonatal morbidity in relation to use of episiotomy at operative vaginal delivery. *BJOG* 2008;115(13):1688-94. doi: BJO1961 [pii];10.1111/j.1471-0528.2008.01961.x [doi]
13. Sagi-Dain L, Sagi S. Morbidity associated with episiotomy in vacuum delivery: a systematic review and meta-analysis. *BJOG* 2015;122(8):1073-81. doi: 10.1111/1471-0528.13439 [published Online First: 2015/05/08]
14. Mulder FE, Schoffelmeer MA, Hakvoort RA, et al. Risk factors for postpartum urinary retention: a systematic review and meta-analysis. *BJOG* 2012;119(12):1440-46. doi: 10.1111/j.1471-0528.2012.03459.x [doi]
15. Dietz HP, Shek KL, Chantarasorn V, et al. Do women notice the effect of childbirth-related pelvic floor trauma? *Aust N Z J Obstet Gynaecol* 2012;52(3):277-81. doi: 10.1111/j.1479-828X.2012.01432.x [doi]
16. Friedman S, Blomquist JL, Nugent JM, et al. Pelvic muscle strength after childbirth. *Obstet Gynecol* 2012;120(5):1021-28. doi: http://10.1097/AOG.0b013e318265de39 [doi];00006250-201211000-00007 [pii]
17. Heman LM, van der Linden PJ, Stigter RH. Attitude of maternity staff regarding episiotomies in an African rural hospital with high HIV prevalence: a descriptive qualitative study. *Am J Trop Med Hyg* 2014;90(5):976-79. doi: ajtmh.13-0395 [pii];10.4269/ajtmh.13-0395 [doi]
18. Wu LC, Lie D, Malhotra R, et al. What factors influence midwives' decision to perform or avoid episiotomies? A focus group study. *Midwifery* 2013;29(8):943-49. doi: S0266-6138(12)00226-4 [pii];10.1016/j.midw.2012.11.017 [doi]
19. Wu LC, Malhotra R, Allen JC, Jr., et al. Risk factors and midwife-reported reasons for episiotomy in women undergoing normal vaginal delivery. *Arch Gynecol Obstet* 2013;288(6):1249-56. doi: 10.1007/s00404-013-2897-6 [doi]
20. Schantz C, Sim KL, Ly EM, et al. Reasons for routine episiotomy: A mixed-methods study in a large maternity hospital in Phnom Penh, Cambodia. *Reprod Health Matters* 2015;23(45):68-77. doi: S0968-8080(15)00016-6 [pii];10.1016/j.rhm.2015.06.012 [doi]
21. Ahmed HM. Midwives' Clinical Reasons for Performing Episiotomies in the Kurdistan Region: Are they evidence-based? *Sultan Qaboos Univ Med J* 2014;14(3):e369-e74.
22. Sagi-Dain L, Sagi S. Indications for episiotomy performance - a cross-sectional survey and review of the literature. *J Obstet Gynaecol* 2016;36(3):361-5. doi: 10.3109/01443615.2015.1065233 [published Online First: 2015/10/16]
23. Green J, Thorogood N. Qualitative Methods for Health Research. Thousand Oaks: Sage Publications Ltd 2018.
24. Kelly M, Dowling M, Millar M. The search for understanding: the role of paradigms. *Nurse Res* 2018;25(4):9-13. doi: 10.7748/nr.2018.e1499 [published Online First: 2018/03/17]
25. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006;3(2):77-101.
26. Attride-Stirling J. Thematic networks: an analytic tool for qualitative research. *Qualitative Research* 2001;1(3):385-405.
27. Satterfield JM, Spring B, Brownson RC, et al. Toward a transdisciplinary model of evidence-based practice. *Milbank Q* 2009;87(2):368-90. doi: 10.1111/j.1468-0009.2009.00561.x [published Online First: 2009/06/16]

28. Seijmonsbergen-Schermers AE, Zondag DC, Nieuwenhuijze M, et al. Regional variations in childbirth interventions and their correlations with adverse outcomes, birthplace and care provider: a nationwide explorative study. *PLoS One* 2020;15(3):e0229488.
29. De Vries R. A pleasing birth: midwives and maternity care in the Netherlands. Philadelphia: Temple University Press 2004.
30. Brocklehurst P, Hardy P, Hollowell J, et al. Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. *BMJ* 2011;343:d7400.
31. Kozhimannil KB, Karaca-Mandic P, Blauer-Peterson CJ, et al. Uptake and Utilization of Practice Guidelines in Hospitals in the United States: the Case of Routine Episiotomy. *Jt Comm J Qual Patient Saf* 2017;43(1):41-48. doi: S1553-7250(16)30015-0 [pii];10.1016/j.jcjq.2016.10.002 [doi]
32. Helewa ME. Episiotomy and severe perineal trauma. Of science and fiction. *CMAJ* 1997;156(6):811-3. [published Online First: 1997/03/15]
33. Laine K, Gissler M, Pirhonen J. Changing incidence of anal sphincter tears in four Nordic countries through the last decades. *Eur J Obstet Gynecol Reprod Biol* 2009;146(1):71-5. doi: 10.1016/j.ejogrb.2009.04.033 [published Online First: 2009/06/02]
34. Hussein SAA. The barriers and facilitators of introducing evidence-based practices around the use of episiotomy in Jordan. University of Western Sydney, 2014.
35. Hussein SA, Dahlen HG, V. S. What makes episiotomy rates change? A systematic review of the literature. *International Journal of Childbirth* 2012;2(1):29-39.
36. Henriksen TB, Bek KM, Hedegaard M, et al. Methods and consequences of changes in use of episiotomy. *BMJ* 1994;309(6964):1255-8. doi: 10.1136/bmj.309.6964.1255 [published Online First: 1994/11/12]
37. Trinh AT, Roberts CL, Ampt AJ. Knowledge, attitude and experience of episiotomy use among obstetricians and midwives in Viet Nam. *BMC Pregnancy Childbirth* 2015;15:101. doi: 10.1186/s12884-015-0531-2 [doi];10.1186/s12884-015-0531-2 [pii]
38. National Institute for Health and Care Excellence. Intrapartum care for healthy women and babies. Clinical guideline [CG190]. London: NICE guideline 2017.
39. Lowenstein L, Drugan A, Gonen R, et al. Episiotomy: beliefs, practice and the impact of educational intervention. *Eur J Obstet Gynecol Reprod Biol* 2005;123(2):179-82. doi: 10.1016/j.ejogrb.2005.04.006 [published Online First: 2005/05/26]
40. Skeith AE, Valent AM, Marshall NE, et al. Association of a Health Care Provider Review Meeting With Cesarean Delivery Rates: A Quality Improvement Program. *Obstet Gynecol* 2018;132(3):637-42. doi: 10.1097/aog.0000000000002793 [published Online First: 2018/08/11]
41. Wear S. Exceptions to Informed Consent. Informed Consent Clinical Medical Ethics. Dordrecht: Springer 1993.
42. Moore GP, Moffett PM, Fider C, et al. What emergency physicians should know about informed consent: legal scenarios, cases, and caveats. *Acad Emerg Med* 2014;21(8):922-7. doi: 10.1111/acem.12429 [published Online First: 2014/08/27]
43. Stohl H. Childbirth Is Not a Medical Emergency: Maternal Right to Informed Consent throughout Labor and Delivery. *J Leg Med* 2018;38(3-4):329-53. doi: 10.1080/01947648.2018.1482243 [published Online First: 2019/07/17]
44. Thompson R, Miller YD. Birth control: to what extent do women report being informed and involved in decisions about pregnancy and birth procedures? *BMC Pregnancy Childbirth* 2014;14:62. doi: 10.1186/1471-2393-14-62 [published Online First: 2014/02/11]
45. Diorgu FC, Steen MP, Keeling JJ, et al. Mothers and midwives perceptions of birthing position and perineal trauma: An exploratory study. *Women Birth* 2016;29(6):518-23. doi: 10.1016/j.wombi.2016.05.002 [published Online First: 2016/05/31]
46. Downe S, Finlayson K, Oladapo OT, et al. What matters to women during childbirth: A systematic qualitative review. *PLoS One* 2018;13(4):e0194906. doi: 10.1371/journal.pone.0194906 [published Online First: 2018/04/18]
47. van der Pijl MSG, Hollander MH, van der Linden T, et al. Left powerless: A qualitative social media content analysis of the Dutch #breakthesilence campaign on negative and traumatic experiences of labour and birth. *PLoS One* 2020;15(5):e0233114.
48. Hollander MH, van Hastenberg E, van Dillen J, et al. Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Arch Womens Ment Health* 2017;20(4):515-23. doi: 10.1007/s00737-017-0729-6 [published Online First: 2017/05/30]
49. Calik KY, Karabulutlu O, Yavuz C. First do no harm - interventions during labor and maternal satisfaction: a descriptive cross-sectional study. *BMC Pregnancy Childbirth* 2018;18(1):415. doi: 10.1186/s12884-018-2054-0 [published Online First: 2018/10/26]
50. Alexander JW, Karantanis E, Turner RM, et al. Patient attitude and acceptance towards episiotomy during pregnancy before and after information provision: a questionnaire. *Int Urogynecol J* 2019 doi: 10.1007/s00192-019-04003-x [published Online First: 2019/06/28]
51. Hodnett ED. Pain and women's satisfaction with the experience of childbirth: a systematic review. *Am J Obstet Gynecol* 2002;186(5 Suppl Nature):S160-72. doi: 10.1067/mob.2002.121141 [published Online First: 2002/05/16]
52. Seijmonsbergen-Schermers A. Hand op de knip. Op weg naar minder episiotomieën. . *Tijdschrift voor verloskundigen* 2017;41(6):32-36.

53. Seijmonsbergen-Schermers A, Ponds E, Van Driel W. Factsheet Episiotomie: Royal Dutch Association of Midwives (KNOV); 2018 [Available from: https://www.knov.nl/serve/file/knov.nl/knov_downloads/2807/file/Factsheet_Episiotomie_definitief_juni_2018.pdf.

**Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)[27]**



Amsterdam Public Health

# Toestemmingsformulier (informed consent)

***Kwalitatief onderzoek naar meningen van zorgverleners over episiotomiegebruik en hechttechnieken***

**Verantwoordelijke onderzoeker**
Anna Seijmonsbergen-Schermers

**In te vullen door de deelnemer**

Ik verklaar hierbij op een voor mij duidelijke wijze, mondeling en schriftelijk, te zijn ingelicht over de aard, methode en het doel van dit kwalitatieve onderzoek. Ik weet dat de gegevens en resultaten van het onderzoek alleen anoniem en vertrouwelijk aan derden bekend gemaakt zullen worden. Anonieme citaten kunnen letterlijk in het te publiceren artikel gerapporteerd worden. Mijn eventuele vragen zijn naar tevredenheid beantwoord.

Ik geef toestemming voor het opnemen van het interview op audiomateriaal en begrijp dat het audiomateriaal uitsluitend voor analyse zal worden gebruikt en gedurende tien jaar bewaard zal worden.

Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud me daarbij het recht voor om op elk moment zonder opgaaf van redenen mijn deelname aan dit onderzoek te beëindigen.

Naam deelnemer:

Datum: Handtekening deelnemer:

**In te vullen door de uitvoerende onderzoeker**

Ik heb een mondelinge en schriftelijke toelichting gegeven op het onderzoek. Ik zal resterende vragen over het onderzoek naar vermogen beantwoorden. De deelnemer zal van een eventuele voortijdige beëindiging van deelname aan dit onderzoek of klachten over dit onderzoek geen nadelige gevolgen ondervinden.

Naam onderzoeker:

Datum: Handtekening onderzoeker:

# Toelichting onderzoek voorafgaand aan informed consent

***Kwalitatief onderzoek naar meningen van zorgverleners over episiotomiegebruik en hechttechnieken***

**Verantwoordelijke onderzoeker**
Anna Seijmonsbergen-Schermers
a.seijmonsbergen@vumc.nl

**Voor vragen over gegevensbescherming:**
Michel Paardekooper (functionaris gegevensbescherming)
michel.paardekooper@vumc.nl

**Type onderzoek:** kwalitatief wetenschappelijk onderzoek
**Methode:** het interviewen van zorgverleners in de geboortezorg

Het doel van dit kwalitatieve onderzoek is om de mening en visie van zorgverleners in de geboortezorg te onderzoeken. Het onderwerp is het gebruik van een episiotomie tijdens het begeleiden van een bevalling en hechttechnieken in de eerste en tweede lijn. Hiervoor zullen gynaecologen, arts-assistenten, tweedelijns verloskundigen en eerstelijns verloskundigen geïnterviewd worden. De resultaten zullen gerapporteerd worden in een artikel dat aangeboden zal worden aan een internationaal wetenschappelijk tijdschrift.

De gegevens en resultaten van het onderzoek zullen uitsluitend anoniem en vertrouwelijk aan derden bekend gemaakt worden en zullen gedurende tien jaar bewaard worden. Anonieme citaten kunnen letterlijk in het te publiceren artikel gerapporteerd worden.

Voor de analyses zullen de interviews middels audioapparatuur opgenomen worden. Dit audiomateriaal zal uitsluitend voor de analyses gebruikt worden en na het uitschrijven van de tekst definitief verwijderd worden.

Deelname aan dit onderzoek is geheel vrijwillig. Daarbij heeft u op ieder moment het recht om zonder opgaaf van redenen de deelname aan het onderzoek te beëindigen of een klacht over dit onderzoek in te dienen.

## Coding tree of article entitled
## "Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars towards episiotomy: qualitative interview study"

1) **Vision on childbirth**
    a. Harm versus protection
        i. Effect episiotomy
        ii. Anatomic result
        iii. Episiotomy versus spontaneous ruptures
        iv. Seeing episiotomy as a technical operation
    b. Tendency to intervene
        i. Physiological versus pathological
        ii. Perspectives on national incidences
        iii. Variation in / vision on methods during second stage of labour
    c. Paternalistic versus client – who decides
    d. Narrow idea on others' way of acting/thinking
        i. Standard way of working
        ii. Feeling of being judged by care providers from other professional background
    e. Personal evaluation
        i. Evaluating with themselves/colleagues/woman
        ii. Training, eagerness to learn
        iii. Too few of overuse of episiotomies
    f. External factors
        i. Experience
        ii. Profession/education
        iii. Colleagues

2) **Discrepancy between vision or literature and daily practice**
    a. Restrictive vision versus list of indications
        i. Fetal distress, prolonged second stage, exhaustion, instrumental birth, OASI in history, tight perineum, short perineum, prevention of long-term harm, prevention of spontaneous ruptures/OASI, prevention of instrumental birth, shoulder dystocia, breech presentation, macrosomia, care provider's interest, specific maternal history.
        ii. High national incidences
    b. Justification – harm versus aim
        i. Feeling confident in policy and practice
        ii. Feeling uncertain/unexperienced
        iii. Intrapartum factors influencing decision making: birthing situation, maternal characteristics, medical technology, women's desires (to a lesser extent)

iv. Justification of high incidence in obstetric-led care
c. Fear of the demand to justify
d. Limitations for optimal care
i. Women's desires
ii. Lack of postpartum check-ups
iii. Blunt scissors
iv. Difficulties with evaluation
e. Literature versus practice
i. Only for fetal distress
ii. Limitations in applying the literature
iii. Using literature to justify actions
iv. Variation in episiotomy techniques
v. Variation in pelvic floor protection and pushing instructions
f. Deciding on own clinical expertise
i. Personal methods
ii. Acting autonomously
g. Influence of other care providers:
i. Supervision, final responsibility
ii. Practices that are imposed
iii. Shared decisions

**3) Women's involvement**

a. Absence of women's voice
i. Birth plan
b. Absence of informed consent
i. Trusting bond
ii. Opting out
iii. Convincing/threatening
iv. Women's inability:
- State during second stage
- Unrealistic expectations
- Letting go of control
- Wrong perception of episiotomy
c. Women's autonomy
i. Body integrity
ii. Individualized support
iii. Influence of birthplace
iv. Decision made by care provider
d. Being informed prenatally
e. Use of trivializing words

## COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| **Domain 1: Research team and reflexivity** | | | |
| *Personal characteristics* | | | |
| Interviewer/facilitator | 1 | Which author/s conducted the interview or focus group? | |
| Credentials | 2 | What were the researcher's credentials? E.g. PhD, MD | |
| Occupation | 3 | What was their occupation at the time of the study? | |
| Gender | 4 | Was the researcher male or female? | |
| Experience and training | 5 | What experience or training did the researcher have? | |
| *Relationship with participants* | | | |
| Relationship established | 6 | Was a relationship established prior to study commencement? | |
| Participant knowledge of the interviewer | 7 | What did the participants know about the researcher? e.g. personal goals, reasons for doing the research | |
| Interviewer characteristics | 8 | What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic | |
| **Domain 2: Study design** | | | |
| *Theoretical framework* | | | |
| Methodological orientation and Theory | 9 | What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis | |
| *Participant selection* | | | |
| Sampling | 10 | How were participants selected? e.g. purposive, convenience, consecutive, snowball | |
| Method of approach | 11 | How were participants approached? e.g. face-to-face, telephone, mail, email | |
| Sample size | 12 | How many participants were in the study? | |
| Non-participation | 13 | How many people refused to participate or dropped out? Reasons? | |
| *Setting* | | | |
| Setting of data collection | 14 | Where was the data collected? e.g. home, clinic, workplace | |
| Presence of non-participants | 15 | Was anyone else present besides the participants and researchers? | |
| Description of sample | 16 | What are the important characteristics of the sample? e.g. demographic data, date | |
| *Data collection* | | | |
| Interview guide | 17 | Were questions, prompts, guides provided by the authors? Was it pilot tested? | |
| Repeat interviews | 18 | Were repeat inter views carried out? If yes, how many? | |
| Audio/visual recording | 19 | Did the research use audio or visual recording to collect the data? | |
| Field notes | 20 | Were field notes made during and/or after the inter view or focus group? | |
| Duration | 21 | What was the duration of the inter views or focus group? | |
| Data saturation | 22 | Was data saturation discussed? | |
| Transcripts returned | 23 | Were transcripts returned to participants for comment and/or | |

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| | | correction? | |
| **Domain 3: analysis and findings** | | | |
| *Data analysis* | | | |
| Number of data coders | 24 | How many data coders coded the data? | |
| Description of the coding tree | 25 | Did authors provide a description of the coding tree? | |
| Derivation of themes | 26 | Were themes identified in advance or derived from the data? | |
| Software | 27 | What software, if applicable, was used to manage the data? | |
| Participant checking | 28 | Did participants provide feedback on the findings? | |
| *Reporting* | | | |
| Quotations presented | 29 | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number | |
| Data and findings consistent | 30 | Was there consistency between the data presented and the findings? | |
| Clarity of major themes | 31 | Were major themes clearly presented in the findings? | |
| Clarity of minor themes | 32 | Is there a description of diverse cases or discussion of minor themes? | |

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

**Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.**

BMJ Open

# Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars regarding episiotomy: qualitative interview study



| | |
|---|---|
| Journal: | *BMJ Open* |
| Manuscript ID | bmjopen-2020-037536.R2 |
| Article Type: | Original research |
| Date Submitted by the Author: | 26-Oct-2020 |
| Complete List of Authors: | Seijmonsbergen-Schermers, Anna; AVAG, Amsterdam Public Health research institute VU University Medical Center, Midwivery Science<br>Thompson, Suzanne; Zuyd University - Brusselseweg Campus, Research Centre for Midwifery Science<br>Feijen-de Jong, Esther I.; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science<br>Smit, Marrit; Leiden University Medical Center, Department of Obstetrics<br>Prins, M; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science<br>van den Akker, Thomas; Leiden University Medical Center, Department of Obstetrics<br>de Jonge, Ank; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science |
| Primary Subject Heading: | Obstetrics and gynaecology |
| Secondary Subject Heading: | Evidence based practice, Medical management, Patient-centred medicine, Qualitative research |
| Keywords: | QUALITATIVE RESEARCH, OBSTETRICS, PERINATOLOGY |
| | |

*I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.*

*The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.*

*Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.*

# Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars regarding episiotomy: qualitative interview study

***Authors:***

Anna Seijmonsbergen-Schermers
*PhD candidate*
*AVAG, Amsterdam UMC, Vrije Universiteit Amsterdam, Midwifery Science, Amsterdam Public Health, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands*

Suzanne Thompson
*Senior Lecturer*
*Research Centre for Midwifery Science, Maastricht, Zuyd University, PO Box 1256, 6201 BG Maastricht, The Netherlands*

Esther Feijen-de Jong
*Researcher*
*Department of Midwifery Science, AVAG, Amsterdam Public Health research institute, Amsterdam UMC, location VUmc, UMCG, Groningen, 9713 GL, The Netherlands*

Marrit Smit
*Midwife*
*Department of Obstetrics, Leiden University Medical Centre, K6-35, PO Box 9600, Leiden, 2300 RC, The Netherlands*

Marianne Prins
*Lecturer*
*Academie Verloskunde Amsterdam Groningen (AVAG), Vlaardingenlaan 1, 1059 GL Amsterdam, The Netherlands*

Thomas van den Akker
*Professor*
*Department of Obstetrics, Leiden University Medical Center, Albinusdreef 2, 2333 ZA Leiden, The Netherlands*
*Athena Institute, VU University, Amsterdam, the Netherlands*

Ank de Jonge
*Professor*
*Department of Midwifery Science, AVAG, Amsterdam Public Health research institute, Amsterdam UMC, location VUmc, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands*

***Corresponding author:***
A.E. Seijmonsbergen-Schermers
Department of Midwifery Science, AVAG, Amsterdam Public Health research institute
Amsterdam UMC, location VUmc
De Boelelaan 1117
1081 HV Amsterdam
The Netherlands
Email: a.seijmonsbergen@amsterdamumc.nl
Telephone: +31 20 444 54 79

***Keywords:*** Health care providers; Episiotomy; Understanding; Viewpoint; Qualitative research; Midwives; Obstetrics

***Word count:*** 5,923 words

## ABSTRACT

***Objectives***

Insight into perspectives and values of care providers on episiotomy can be a first step towards reducing variation in its use. We aimed to gain insight into these perspectives and values.

***Setting***

Maternity care in the Netherlands.

***Participants***

Midwives, obstetricians, and obstetric registrars working in primary, secondary, or tertiary care, purposively sampled, based on their perceived episiotomy rate and/or region of work.

***Primary and secondary outcome measures***

Perspectives and values of care providers which were explored using semi-structured in-depth interviews.

***Results***

The following four themes were identified, using the Evidence Based Practice-model of Satterfield et al. as a framework: *'Care providers' vision on childbirth', 'Discrepancy between restrictive perspective and daily practice', 'Clinical expertise versus literature-based practice',* and *'Involvement of women in the decision'.* Perspectives, values, and practices regarding episiotomy were strongly influenced by care providers' underlying visions on childbirth. Although care providers often emphasized the importance of restrictive episiotomy policy, a discrepancy was found between this vision and the large number of varying indications for episiotomy. Although on one hand care providers cited evidence to support their practice, on the other hand, many based their decision-making to a larger extent on clinical experience. Although most care providers considered women's autonomy to be important, at the moment of deciding on episiotomy, the involvement of women in the decision was perceived as minimal, and real informed consent generally did not take place, neither during labour, nor prenatally. Many care providers belittled episiotomy in their language.

***Conclusions***

Care providers' underlying vision on episiotomy and childbirth was an important contributor to the large variations in episiotomy usage. Their clinical expertise was a more important component in decision-making on episiotomy than the literature. Women were minimally involved in the decision

for performing episiotomy. More research is required to achieve consensus on indications for episiotomy.

## Article Summary

### *Strengths and limitations of this study*

- The strength of this qualitative study is that it represents perspectives and values of care providers from all professional backgrounds.
- Because this study was conducted in the Netherlands, generalisability of results cannot be assumed, but these are relevant to a broad context, since variation in episiotomy exists in many countries.
- A limitation of this study is that perspectives of the interviewers may have encouraged participants to give socially desirable answers or express strong opposite opinions.
- Conversely, by being an expert on the topic, the interviewer was able to understand the participants.
- Although data saturation was reached, an element of selection bias cannot be eliminated.

## INTRODUCTION

Episiotomy is one of the most commonly performed surgical interventions during childbirth[1], and is primarily used to expedite the second stage of labour[2]. There is major variation in episiotomy practice worldwide[1 3], with rates varying from 4% in Denmark[4] to 91% in Thailand[5]. The episiotomy rate in the Netherlands was 46% among nulliparous and 14% among multiparous women, with an instrumental-vaginal birth rate of 16% among nulliparous and 3% among multiparous women in 2013[6]. Rates varied among twelve regions from 14% to 42% for nulliparous women and from 3% to 13% for multiparous women[7]. The World Health Organization does not recommend routine or liberal use of episiotomy for women undergoing spontaneous vaginal birth[8]. For instrumental births, episiotomy may be beneficial to prevent Obstetric Anal Sphincter Injury (OASI)[9]. Several studies illustrate that, in general, restrictive use of episiotomy is preferable to routine or liberal use[2]. Episiotomies can lead to physical problems, such as postpartum urinary retention, perineal pain, dyspareunia, and pelvic floor muscle strength[10-17]. It is unknown which episiotomy rate is appropriate for obtaining an optimal balance between harm caused by episiotomy and prevention of maternal and neonatal morbidity by its use. Moreover, there is a lack of uniform recommendations on indications for performing episiotomy, and there is major variation in applied indications among care providers[11]. This suggests that perspectives and values of care providers influence the decision to perform an episiotomy and that this decision is not only based on medical necessity. Studies into indications for episiotomy use or opinions of care providers have only been conducted among restricted subgroups of childbearing women or in settings that cannot be generalized[18-22]. In these studies, many indications for performing episiotomy were reported, including fetal distress, instrumental birth, a tight or short perineum, prevention of major tears, history of major tears or episiotomy, delay in second stage of labour, breech presentation, shoulder dystocia, preterm birth, poor maternal effort, macrosomia, nulliparity, facilitation of postpartum wound repair, vaginal bleeding, and women's request[18-23].

Furthermore, it is still unknown which underlying perspectives and values of care providers have impact on the decision to perform episiotomy. Insight into these perspectives and values can be a first step towards optimizing the balance between over- and underuse of episiotomies. The aim of this qualitative study was to gain insight into perspectives and values of midwives, obstetricians, and obstetric registrars with regard to performing episiotomy.

## METHODS

***Design and setting***

To gain insight into the perspectives and values of care providers towards performing episiotomy, a qualitative study with a constructivist paradigm was conducted, using semi-structured interviews. Choosing qualitative interviews involving face to face contact, enabled an exploration of care providers' perspectives and values. [24]. An interpretivist approach was considered appropriate for this exploration[25].

The VU University Medical Center reviewed the study design and confirmed that ethical approval was not required for this study in the Netherlands (reference WC2016-415).

***Research team and reflexivity***

The first author interviewed 16 of the 20 participants and is a woman of 30 years, mother, midwife with four years of clinical experience, educated in conducting qualitative studies, and employed as a PhD-candidate in her final year at the time of the study. Most of the participants were unknown to her, but two of the participants were aware of her previous publications on episiotomy in the Netherlands. The first interview was carried out by the first and second author together and one interview was carried out by the second author, who is a woman of 49 years, midwife with 26 years clinical experience, experienced qualitative interviewer, lecturer, and employed as a PhD-candidate in her final year at the time of the study. Three interviews were conducted by third year midwifery students. They were educated on interview techniques in advance, and were instructed by the first author.

The entire research team consisted of researchers from different disciplines, including midwives, researchers, lecturers, and an obstetrician. A topic list was developed by the first author, reviewed by the research team, and iteratively evolved based on the findings of the interviews.

***Recruitment***

Participants were eligible if they were working as a midwife in primary or secondary care, obstetrician or obstetrician/urogynaecologist in secondary or tertiary care, or as an obstetric registrar. Purposive and snowball sampling strategies were applied, to obtain a broad sample of care providers, reflecting the possible diversity of perspectives and values. To ensure variety among participants, purposive sampling was based on care providers' perceived episiotomy rate and/or region of work. Participants were randomly approached by contacting care providers in specific regions, or purposively approached through referrals by other care providers. Participants were recruited until data saturation was obtained, which was defined by the absence of new codes, and until all parts of the country were represented. A total of 34 care providers, hospitals, or midwifery practices were contacted, resulting in twenty included participants. Reasons for non-participation

were: no response received, retired, lack of time, and not having the perceived episiotomy rate that was still required to obtain a varied sample of participants. In advance of the interviews, participants were asked to provide personal information on place of education, region of work, number of attended births per year, and their personal episiotomy rate or number of episiotomies performed during the last 25 attended births. An 'attended birth' was specified to the participants as a birth where the decision to perform an episiotomy would be made by themselves. Participants were approached by email, telephone, or both. A brief overview of the aim of the interview was given before the care provider agreed to participate. The participant was informed that it would concern an individual in-depth interview, participation would be voluntary, data would be anonymized and treated confidentially, and audio material would be destroyed following transcription. Data and participant names were stored separately with encrypted passwords and transcripts were shared with students for transcription with encrypted passwords.

***Interviews***

Interviews were semi-structured, using a topic-list with open-ended questions, which was pilot-tested (see Table 1). The participant was informed that (s)he could withdraw from the study without giving a reason and written informed consent was obtained after oral and written information about the study (see Supplementary files 1 and 2). At the start of the interview, the participants were informed that the aim of the interview was to investigate the full scope of perspectives and values of care providers, that no value judgment would be made during the interview, and that there was no right or wrong answer. Besides, they were told that the perspectives and values of the interviewer would not be part of the conversation. The interview commenced with an invitation to the participant to talk about his/her opinion regarding episiotomy. Subsequently, in the responses given by the participant, the researchers probed, in order to elicit depth, based on the topics that were brought up by the participant.

Interviews were recorded on audio equipment and transcribed verbatim by the first author or by student assistants. Field notes were made during and after the interviews. To ensure accuracy and to facilitate deep engagement with the data, transcripts of interviews that were recorded by student assistants, were read and re-read, before being checked with the original audio by the first author. After each interview, member check was offered to the participant based on the transcript of each interview, as a means of maintaining scientific rigor, which did not lead to responses in which changes were requested.

***Analysis***

Data analysis was carried out concurrently with data collection, allowing the researchers to reflect on the data. This allowed for the exploration and validation of emerging themes which were identified from the interviews and which were used iteratively to adjust the topic list for subsequent interviews. The first interviews were analysed independently by the first two authors, and disagreements about codes were discussed until consensus was reached.

Inductive thematic analysis was conducted, described by Braun and Clarke (2006)[26], making use of statistic software program MAXQDA. Data were read and re-read to become familiarized with them. Initial codes were generated by coding interesting features of the data and relationships between codes were identified. A first coding tree was developed, and the first five interviews were coded again to identify over-arching codes. During the analyses of the subsequent interviews, the codes were increasingly collated into potential themes and all data relevant to each theme were gathered. After potential themes were identified, these were reviewed by checking the relation to the coded extracts and the entire data set, generating a thematic network[27]. Subsequently, the authors applied a name and a description for each theme (see the coding tree in Supplementary file 3). Quotes were identified, providing thick description as a means of illustrating these themes. During this data collection and analysis process, discussion of and reflection on the codes, sub-themes, and themes were on-going between the researchers involved in this study. For framing the results into the existing literature, we compared the data to the framework of Evidence Based Practice (EBP), using the model of Satterfield et al. (2009) (figure 1)[28]. This model includes the following three components: *'Best available research evidence', 'Client's/population's characteristics, state, needs, values, and preferences',* and *'Resources, including practitioner's expertise'.* These three components overlap in the centre, which illustrates the way decisions are made. The fourth component *'Environmental and organizational contexts'*, which is places in the outer space of the model, has influence on all components.

***Patient involvement***

Patients were not involved in this study.

## RESULTS

Twenty of the 34 invited care providers gave consent and participated in the study, thirteen women and seven men (Table 2). Ten were working as a midwife, in primary or secondary care, six were obstetricians, of which two were specialized in urogynaecology, and four obstetric registrars ranging in educational experience from the first to sixth years of education. Participants were diverse with regard to ages, ranging from 25 to 55 years; work experience, from three months to 29 years;

number of births attended per year, from 12 to 20; and their approximate personal episiotomy rate, from 0% to 90%. The interviews took place between August 2017 and December 2019, at a quiet location, without other persons present, and convenient for the participant, which generally was the clinic or the participants' home. The interviews lasted between 33min and 1h 55min.

Four themes giving insight into the perspective and values of care providers towards episiotomy emerged from the data. These were *'Care providers' vision on childbirth', 'Discrepancy between restrictive perspective and daily practice', 'Clinical expertise versus literature-based practice',* and *'Involvement of women in the decision'.*

***Care providers' vision on childbirth***

The EBP-component '*Resources, including practitioner's expertise'* was the most important component in the perspective and values of care providers. Care providers' visions on childbirth underpin their perspective and values about episiotomy use. Views on childbirth could be characterized in two paradigms: either a physiological vision, or a risk-focused vision.

The physiological vision was characterized by the importance of iatrogenic harm to healthy body tissues, avoiding episiotomies, and approaches in care that minimized episiotomy and spontaneous perineal rupture. Care providers with this vision more often articulated negative feelings that they associated with performing episiotomy. They stated that episiotomy should be avoided whenever possible.

*Well, it really is a big injury that you cause to someone. We call it a little cut but, eh, I remember during my training, the gynaecologists said; "If you saw such an injury on someone in the street, you'd call an ambulance". […] Yes, it's not nothing for a woman to have that. (Midwife 8)*

*And are there, for example, ways to learn how to perform fewer epi's (*episiotomy*), fewer interventions without disadvantaging the mother, sphincter damage, or for babies, fetal distress? … Then we have to see if we can do that. (Obstetrician 9)*

The risk-focused vision was characterized by a tendency to intervene. This approach emphasized the protective effect of episiotomy for the child, but more particularly for the mother. Care providers with this vision did not really articulate negative feelings when performing episiotomy. Rather, they considered it as a technical operation, resulting in a clean cut that was viewed by some care providers as preferable to a spontaneous perineal rupture.

*No, I don't feel bad about it* (episiotomy). *I also don't necessarily feel bad for the woman because my idea is: "Well, if I suture well then I don't think there will be consequences". And I do it for a reason. The episiotomies I perform, I can justify*

*them. And it's just a common, also very routine medical procedure that is just part of giving birth, so I don't feel like that… I feel no emotion about it. I perform it with professional distance. (Obstetric registrar 7)*

Intrinsic and extrinsic factors contributed to care providers' visions on childbirth, and viewpoints were rather dynamic, evolving over time. Intrinsically, care providers often emphasized an eagerness to learn, but skills training mainly focused on suturing and not on performing episiotomy, and some did not attend professional training to update their skills. This division was also noted in reflection on episiotomy usage. Some professionals reflected on their use of episiotomy, others mentioned that episiotomy was never a subject of evaluation, neither for themselves, nor with colleagues.

*Yes, I think at the start of your education you […] follow the example of those who train you and you go along with that. And as your training progresses, you start looking around, like how is that? […] And then you evaluate again: how did it go? Did it go well then? It'd gaining a bit of experience and learning from that. It isn't just about what you read in the scientific literature or what you know about other peoples' opinions, but also finding out for yourself. (Obstetrician 18)*

*No, we don't really correct each other, it* (episiotomy) *is not really a subject that regularly crops up… do you cut or don't you cut ... Or how many sphincter damages have you had, how many have I had... (Obstetrician 11)*

Extrinsically, care providers mentioned the importance of two things in the evolution of their professional vision on childbirth. Firstly, they highlighted that childbirth visions are highly influenced by professional and educational backgrounds. Secondly, they mentioned that working experience is an important contributor to quality of care and that adverse events influence the tendency to intervene.

*I think that if you look towards gynaecologists who deal with the pelvic floor ... They deal with it very differently than the obstetricians. [...] I think eh .. pelvic floor gynecologists are more likely to perform episiotomy. (Obstetric registrar 2)*

*I think that if you've seen a lot of bad stuff and that is often so, in hospitals… if you see a lot of calamities, then you tend to cut earlier. (Midwife 4)*

***Discrepancy between restrictive perspective and daily practice***

There was a discrepancy between what many care providers mentioned as their perspective and values regarding episiotomy, and their daily practice. Many care providers emphasized the importance of a restrictive approach, stating that it should only be performed where there is justifiable medical need. However, in total, many different justifications were mentioned as valid, suggesting that performing episiotomies only when medically justified, may result in high episiotomy rates and large interprofessional variations (see Table 3). Care providers justified their episiotomy

usage by balancing between the justification and the potential harm. They did this by weighing up maternal characteristics, the situation during the second stage of labour, medical technology and, to a lesser extent, women's preferences. If clearly indicated, care providers were confident that the episiotomy was justified , but feeling uncertain or inexperienced was mentioned as well.

*Because actually, we can't really demonstrate that the female pelvic floor is better off being cut into, to summarize. The female pelvic floor does not improve as a result of cutting and, eh, I sometimes grumble that we're the ones who have to suture when no-one else has the over-sight. And if it* (the perineum) *looks like a bomb went off there, guys, just perform episiotomy, don't let it tear like that. (Obstetrician 11)*

*And it, yes, it is bizarre that you affect someone's body in this way, eh, literally cut open. Eh, but with the goal of ultimately ensuring that someone has fewer problems in the future. So that's what makes it justifiable for me to do it. (Obstetrician/urogynaecologist 10).*

The lack of evaluation of the longer-term implications and feedback on the consequences of their episiotomies inhibited care providers in experiencing the need of being restrictive in performing episiotomy. The possibility to evaluate practice was seen as being limited by difficulties in comparing incidences of episiotomy between low- and high-risk populations.

*It's a pity that we have a lot of hospitals... Many births where we perform an epi, eh, we of course never see them again, sometimes at six weeks but sometimes not. That is of course a shame, because it is good to get feedback from what happens with an epi. (Obstetric registrar 7)*

***Clinical expertise versus literature-based practice***

Care providers generally gave more weight to the 'practitioner expertise' component of evidence-based practice than the 'best available research' component in the decision-making for episiotomy. Care providers justified deviations from 'best available research' by pointing out the limitations of applying evidence to practice situations. Conversely, different care providers used literature differently to substantiate their own perspectives and values, resulting in varying techniques, methods, and approaches to women during the second stage of labour.

*Yes, eh, of course, eh, that we would only do it in cases of fetal distress. Eh well it sometimes happens that you, eh, have a very long second stage [...] that you might need to make some space anyway. Then again, eh, during the birth you just see that, eh, the perineum, the pelvic floor is just very tight. Or it threatens to tear badly. You still hope that it* (episiotomy) *will prevent something worse. But of course that is not very evidence based. (Midwife 13)*

*It's the same when you look at eh, at the literature around elective use of episiotomy after previous sphincter damage [...], you will probably come to the conclusion that it doesn't prevent sphincter damage happening again, you need to look at*

*what happens and how such a scar behaves during the birth. So, if it is completely rigid and very thin and you can almost see it tear when the head crowns, yes, then I wonder if that* (the literature) *also applies to that case. (Obstetrician 18)*

At the moment of decision-making, the decision to perform episiotomy was based on the care providers' own clinical judgement. Despite having individual and often strong views and a personal way of working, the influence of colleagues on practice was mentioned as important. This is reflected by the EBP-component *'Environment and organizational context'*. Mainly for those working in secondary or tertiary care, consultation and supervision of colleagues was an important factor in decision-making. On the other hand, working autonomously was expressed by other participants. Some of the care providers articulated the fear of being judged or the feeling of having to justify or 'account' for their decision-making.

*So he* (supervising doctor) *said; "If in doubt, perform episiotomy." And I thought that was really a very simple encouragement. And not that I do it a lot, I don't think I did it then either, but I did remember thinking; "Oh yes, useful tip." And it is precisely when you are inexperienced that you should perhaps do more episiotomies so that you have babies in good condition. Better that than that you are too scared to do it and therefore get into difficulties. (Obstetric registrar 7)*

*I mean, I think ... the ... eh .. when you compare the studies with each other you might think: Yikes, it* (episiotomy) *happens way too much there* (in the hospital) *and you definitely shouldn't be in the hospital because there everyone is performing episiotomies all over the place. But I think, well, since I started working in the hospital, it's like comparing apples with oranges… I really find that so annoying! (Midwife 5)*

***Involvement of women in the decision***

The EBP-component *'Client's/population's characteristics, state, needs, values, and preferences'* was not viewed as an important factor in decision-making for most care providers. Although most care providers consider a woman's autonomy and bodily integrity as important, during second-stage labour, the decision for episiotomy is made by the care provider. Care providers consider that the 'trustful relationship' formed between a woman and her maternity care provider provides them with the basis of informed consent. For many care providers, consent was based on opting out, with some care providers mentioning that the state of the mother during the second stage of labour, makes it difficult or impossible to obtain informed consent and that women sometimes do not realize that episiotomy has been performed. Some placed value on informing women well about episiotomy during prenatal care. However, some of the care providers were dismissive of birth plans. They substantiated this with examples such as women having unrealistic expectations of childbirth, women's emotional and physical state during labour, and that women should relinquish control.

*You can imagine the setting, right? To counsel someone at the very end of second stage labor, and to think that there is still, that there is still a real chance of knowledge and ability to weigh up the options and make a personal choice. It's not really realistic [...] In short, she* (the woman) *will hear it as an announcement and not as counselling. Then she can still say no if she wants, and I would listen to that. But yeah. Interviewer: And is there a kind of informed consent? Participant: Eh… eh... No... No... No [laughing]. No... (Obstetrician 11)*

Where conflicts arose between a care providers' vision and woman's preferences, some care providers valued a woman's personal autonomy above their own vision. Most care providers would try to convince a woman by giving information. Others used strong convincing reasoning to change women's minds, and some disregarded a woman's autonomy. Such preferences expressed by women were often seen as a limitation to optimal care. Significantly, many care providers played down the severity of episiotomy. This was evident in the use of belittling language, such as 'just a little cut', suggesting that episiotomy was viewed by care providers as a minor intervention.

*So, if you have to do an instrumental delivery* (and a woman does not want episiotomy)*, [...] then I can roughly calculate for that lady what her chance of a sphincter injury is. [...] Using my laptop I have, within 5 minutes, what, approximately her chance is, based on the data we have. And then I say: "Well if you know that, [...] if you have a sphincter laceration, within 20-25 years you have a 60% chance of faecal incontinence to a greater or lesser degree, is that what you want? And if I have a reasonable method, eh, to reduce that risk. Would you want me to deprive you of this? (Obstetrician/urogynaecologist 6)*

*Eh well, I tell the woman, it might be that if I make a little cut now, you'll have your baby within one or two contractions. Otherwise, you'll have to push a bit longer...and then, eh yes, then you have... you have some kind of informed consent about whether or not she wants it* (episiotomy)*. And usually she wants it [laughs]. (Midwife 15)*

## DISCUSSION

In this qualitative study, twenty care providers were interviewed about their perspectives and values towards episiotomy. The results were analysed using the framework of Satterfield et al. (2009) on Evidence-Based Practice[28]. This qualitative study illustrated that the expertise of the care provider themselves was the most important component in decision-making with regard to episiotomy. Care providers' perspectives, values, and practices are strongly influenced by individual underlying visions of childbirth. Although care providers often emphasized the importance of a restrictive episiotomy policy, a discrepancy was expressed between vision and practice, and a large number of varying indications (see Table 3) mentioned as justification for performing episiotomy. All care providers considered it important to justify their actions. While the literature was used to underpin the justification of their policies, the importance of clinical expertise was used to support deviations from recommended practice. Women's autonomy was important, yet, at the moment of decision-making,

women's involvement in decision-making is minimal. Informed consent is not obtained, neither during labour, nor during pregnancy. The language often used by care providers about episiotomy illustrates an underlying attitude that views episiotomy as a minor intervention.

Understanding the perspective and values of care providers towards episiotomy is essential for obtaining deeper understanding of variations in episiotomy practices. Previous studies showed large variations in episiotomy rates. The Netherlands has historically been seen as a country with a physiological approach to childbirth and a corresponding high rate of home births[29]. Studies showed that giving birth at home is a protective factor for episiotomy[30]. However, although giving birth at home is more common in the Netherlands compared to all other high-income countries, the rate of episiotomy is much higher than in countries like Sweden (6% among nulliparous women), Denmark (7% among nulliparous women)[6], and the USA (9%)[31]. This study gives insight in the underlying perspectives and values of care providers, leading to these varying episiotomy rates.

***Childbirth vision, evidence, and practice***

The most important contributor to episiotomy practice found in our study was the vision of care providers on childbirth and episiotomy. This was rather more decisive than recommendations from the literature. Although liberal use of episiotomy has no evidence-base[2], there are still countries, and regions within countries, with high episiotomy rates[4 5]. On one hand, literature suggests that episiotomy may be beneficial to prevent OASI in some women[9], particularly in case of instrumental vaginal birth. On the other hand, routine use of episiotomy may paradoxically result in increased rates of OASI[9] and overuse of episiotomy results in unnecessary complaints and morbidity among many women[10-17]. The awareness of these insights is reflected in the literature during the last four decades[32] and has led to a decline in the episiotomy rates in many countries, with a sharper decline in some countries versus others[33]. Our study showed that most care providers were aware of the importance of a restrictive episiotomy policy, but practices often diverged from this restrictive perspective, leading to a liberal rather than restrictive episiotomy practice among some care providers. In a study of Seijmonsbergen et al. on regional variation of episiotomy in the Netherlands, a higher rate of episiotomy was found in regions with lower rates of home births. In regions with lower rates of home births, episiotomy rates in obstetrician-led care were also higher[7]. This suggests that vision may be an important contributor to the tendency to intervene. The current study confirms this by showing widely diverging visions on episiotomy, which may be one of the most important factors leading to variation in episiotomy rates.

Moreover, previous studies confirm our finding that care providers' clinical expertise and own perspectives often override recommendations based on the literature[18 19 21 34 35]. In our study, care providers mentioned the importance that practices can be justified, although those practices and perspectives varied largely among these care providers, and were not always evidence-based. Hussein et al. (2012) emphasized this by describing that care providers' preferred their familiar way of working, and that change may evoke feelings of uncertainty and risk[34 35]. Henriksen et al. (1994) found that improving awareness of personal episiotomy rates, led to a decrease in the episiotomy rate[36]. Workload has been mentioned as barrier for reducing episiotomy rates in previous studies in settings with routine episiotomy practices, but did not emerge as a theme in our study[21 34 37], probably because of the vision of restrictive use of episiotomy in our study. Other qualitative studies into the perspectives of care providers found various perspectives towards episiotomy. They confirm a limited role of evidence in episiotomy practice, and care providers' vision, beliefs, and values being an important contributor to practice[18 19 21].

Varying perspectives on episiotomy and on dealing with evidence suggest that perspectives may not be evidence-based and that evidence may be insufficiently applicable and explicit for implementation into practice. Although the literature is not clear on which indications are valid for episiotomy, it is recommended to perform episiotomies restrictively. The meaning of 'restrictive' varies largely among care providers, and recommendations in literature and guidelines are not uniform. However, in some countries national uniform recommendations on episiotomy practice are available, such as the clinical guideline "Intrapartum care for healthy women and babies" from the National Institute for Health and Care Excellence Guidance[38]. On the other hand, this guideline leaves room for different understandings of the clinical need for an episiotomy. In the Netherlands, national guidelines or recommendations on episiotomy practice are lacking. Recurrent evaluations of episiotomy indications with colleagues and educating care providers on the best available evidence on episiotomy will enable care providers to revise their vision and practices, and will motivate them to apply the evidence from the literature[39 40]. However, educating care providers is difficult as long as there is a lack of consensus on the meaning of 'restrictive' in the literature. Future research should focus on which indications are valid for episiotomy and should be well-applicable for practice, considering the complexity of situations during the second stage of labour.

***Woman-centered care***

The involvement of women in the decision to perform episiotomy was limited. Episiotomy is performed in a situation that is comparable to other medical emergency situations. In specific emergency situations, exceptions may apply to informed consent, because there is a lack of time to

obtain informed consent[41] and the woman is incapable of giving it[42]. However, it is questionable whether this applies to the situation of childbirth. In accordance to Wear (1993), the exception for informed consent during emergency situations involves (1) an immediate threat to life; (2) the treatment is a general recommended treatment and can appeal to the standard of practice; and (3) the time to achieve informed consent would significantly increase the risk of severe adverse outcomes[41]. Considering the large variation in incidences and perspectives towards episiotomy, episiotomy cannot be considered a general recommended treatment or as standard practice. Stohl (2018) argued that, except from the most extreme and rare cases, childbirth is not a medical emergency and women do not typically lose the ability to make decisions during childbirth. Therefore, the exception for informed consent does not usually apply to childbirth[43]. Other studies confirmed that informed consent for episiotomy is not asked for in the second stage of labour[44 45]. Although care providers minimally involve women in the decision-making during the second stage of labour, previous studies reported that women highly value their involvement in decision-making during childbirth[46]. Van der Pijl et al. examined 438 quotes of women on negative and traumatic childbirth experiences, expressed in the Dutch *#breakthesilence* campaign and found that lack of informed consent was one of the most frequently expressed types of mistreatment experienced by women during childbirth[47]. Besides, episiotomy was the most frequently mentioned intervention, where women experienced a lack of communication by the care provider, which led to feelings of disrespect. Accordingly, Hollander et al. (2017) found that lack of control, communication, and involvement in decision-making were important attributions of traumatic birth experiences[48]. Not being informed or not being involved in the decision to perform episiotomy can result in negative and even traumatic experiences. Although the studies of Van der Pijl et al. and Hollander et al. (2017) do not represent the feelings and preferences of all women, other studies confirm that women may feel less satisfied after having had an episiotomy[47 49]. Besides, studies show that information regarding episiotomies is important to increase understanding and feelings of comfort[50], and that being involved in decision-making is one of the most important contributors to a positive childbirth experience[51]. Downe et al. (2018) showed that women place high value on giving birth without non-indicated interventions, but if an intervention is needed, that they wish to be involved in decision-making to retain a sense of control[46]. The difficulties concerning obtaining informed consent can be solved by shared decision-making during pregnancy about indications for episiotomy during labour if need arises. This is more feasible than during the second stage of labour, and there is enough time for the woman to form her opinion. When discussing episiotomy, care providers should be aware that women may see episiotomy as an invasive medical intervention, and that belittling words and considering episiotomy a negligible intervention may not correspond with women's feelings about

undergoing it. The varying perspectives of care providers on episiotomy make it more important to involve women in decision-making and the appropriateness of care providers' practice should be placed in perspective, considering the varying existing perspectives and values.

***Strengths and limitations***

This study investigated the diverse range of perspectives and values of care providers towards episiotomy, representing all professional backgrounds. However, this study had some limitations. The perspectives of the interviewers may have encouraged participants to give socially desirable answers. Nevertheless, many participants expressed comments in favour of liberal use of episiotomy, and mentioned indications that were critically discussed in previous publications of the first authors[11 52 53]. On the other hand, it may have encouraged participants to express a strong opposite opinion. Conversely, by being an expert on the topic, the interviewer was able to go into the merits of the actual situations during childbirth, and to understand the difficulties care providers have to deal with. The subjectivity of the researchers may also have biased the analyses. To minimise the influence of this bias, we discussed the data and interpretation of the results within the author group that consisted of midwives, researchers, educators, and an obstetrician.

Although data saturation was reached, an element of selection bias cannot be eliminated. The participants in our study represented care providers from all professional backgrounds qualified for performing episiotomies, across the whole country, and of different educational backgrounds. This resulted in a broad spectrum of perspectives and values, which will be present in other countries with similar episiotomy rates as well. Further research into the perspective and values of care providers in a variety of countries with different episiotomy rates is warranted to gain insight into perspectives and values of care providers working in different birth cultures. Understanding perspectives and values of care providers in various setting will provide knowledge that is required to stimulate a worldwide evaluation of episiotomy practices.

## CONCLUSION

The decision to perform episiotomy was mainly based on care providers' own insight, which was highly influenced by care providers' vision on episiotomy and childbirth. Differences in care providers' perspectives, values, and underlying visions may be an important contributor to the large variations in episiotomy incidences. The involvement of the labouring woman in the decision was minimal. Care providers' clinical expertise generally overruled the recommendations from the literature. The recommendation to perform episiotomies restrictively was considered important, but

the large number of indications for episiotomy showed that it is in practice not always performed restrictively.

Because other literature shows that women highly value their involvement in decision-making, and a lack of feeling in-control contributes to traumatic birth experiences, women should be given the opportunity to participate in shared decision-making about indications for episiotomy, preferably during pregnancy. More research is required to achieve consensus on indications for episiotomy, and to understand perspectives and values of care providers in other settings. Future research should be well-applicable for practice, considering the complexity of situations during the second stage of labour.

## FOOTNOTES

***Competing interests***

All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; relationships or activities that could appear to have influenced the submitted work, as described in the methods section.

***Author Contributions***

AESS, AdJ, and TvdA conceived the study and AESS wrote the paper. AESS and ST interviewed the participants and conducted the analyses. AESS, ST, EF-dJ, MS, MP, TvdA, and AdJ contributed to the methods of the study and the interpretation of the findings, and critically revised earlier drafts of the article.

***Ethics approval***

The VU University Medical Center confirmed that ethical approval was not required for this study (reference WC2016-415). Participants signed informed consent before taking part in this study.

***Funding***

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

***Access to the data***

All authors, external and internal, can have full access to all of the data in the study and can take responsibility for the integrity of the data and the accuracy of the data analysis.

***Transparency***

The lead author affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

***Data sharing***

Participant level data are available from the corresponding author at a.seijmonsbergen@amsterdamumc.nl. Participants gave informed consent for use of anonymised data for research purposes.

***Acknowledgements***

We thank the contribution of all participants in this study. We also thank the contribution of Davita van de Heuvel, Mandeepika Singh, and Tamar Nelson for transcribing the interviews, and Tessa Schimmel and Liduine van Hoof for interviewing three participants.



***Supplemental files***

1. Participant's information sheet
2. Informed consent sheet
3. Coding tree

632
633

**Table 1. Topic list of the interviews**

| |
|---|
| Grand tour question: Can you tell me about your opinion towards episiotomy? |
| Indications:<br>- Own reasons for performing episiotomy.<br>- Opinion on reasons for others to perform episiotomy. |
| Prevention of spontaneous ruptures<br>- How?<br>- Role of episiotomy.<br>- Technique. |
| Own experiences and feelings<br>- Own feelings when performing episiotomy<br>- Colleagues, working environment, work culture.<br>- Changes in opinion and acting. |
| The childbearing woman<br>- Addressing episiotomy.<br>- Birthing plan.<br>- Informed consent.<br>- Women's preferences; deviating preferences.<br>- Unnecessary use of episiotomy by other care providers |
| Context<br>- Opinion towards episiotomy rates and usage in the Netherlands. |

638 **Table 2. Summary of characteristics of participants in in-depth interviews**

| ***Characteristic*** | ***Summary of participants*** |
|---|---|
| *Gender* | 13 women<br>7 men |
| *Age* | Ranging from 25-56 years |
| *Profession* | 5 midwives, working in primary care<br>4 midwives, working in secondary care<br>1 midwife, working in both primary and secondary care<br>3 obstetricians, working in secondary care<br>1 obstetrician, working in tertiary care<br>1 obstetric registrar, in sixth year, working in secondary care<br>3 obstetric registrars, from first to sixth year, working in tertiary care<br>2 urogynaecologists, working in secondary care |
| *Working experience* | Ranging from 3 months to 29 years |
| *Approximate number of attended births a year* | Ranging from 12 to 200 |
| *Approximate personal episiotomy rate* | Ranging from 0% to 90% |

639

**Table 3. Indications mentioned by participants**

- fetal distress
- prematurity
- prolonged second stage
- maternal exhaustion
- instrumental birth
- history of obstetric anal sphincter injury (OASI)
- history of episiotomy
- tight perineum
- short perineum
- prevention of long-term harm
- prevention of spontaneous ruptures/OASI (without history of OASI)
- prevention of instrumental birth
- shoulder dystocia
- breech presentation
- multiple gestation
- macrosomia
- care provider's interest
- specific maternal history

**Caption of figure enclosed:**

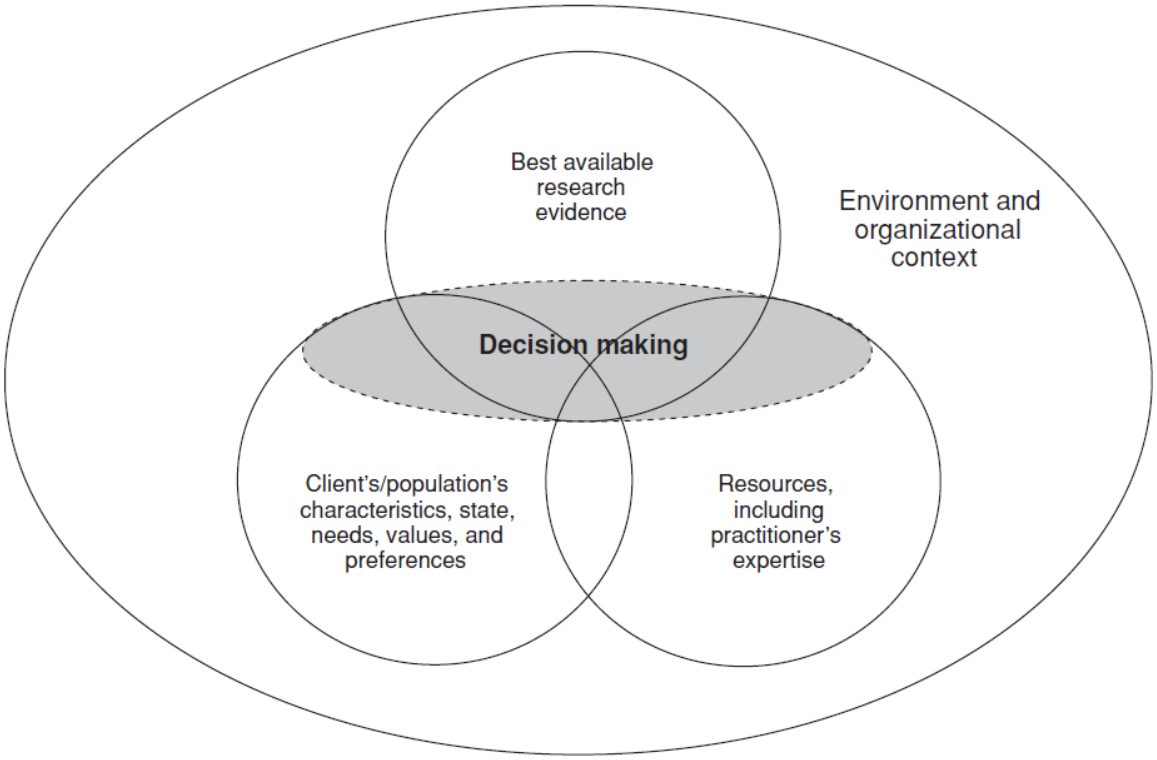
Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)[27]

## Reference List


1. EURO-PERISTAT Project with SCPE and EUROCAT. European Perinatal Health Report. Health and care of pregnant women and babies in Europe in 2010: EURO-PERISTAT, 2013.
2. Jiang H, Qian X, Carroli G, et al. Selective versus routine use of episiotomy for vaginal birth. *Cochrane Database Syst Rev* 2017;2:CD000081. doi: 10.1002/14651858.CD000081.pub3
3. Graham ID, Carroli G, Davies C, et al. Episiotomy rates around the world: an update. *Birth* 2005;32(3):219-23. doi: BIR373 [pii];10.1111/j.0730-7659.2005.00373.x
4. Blondel B, Alexander S, Bjarnadottir RI, et al. Variations in rates of severe perineal tears and episiotomies in 20 European countries: a study based on routine national data in Euro-Peristat Project. *Acta Obstet Gynecol Scand* 2016 doi: 10.1111/aogs.12894
5. Laopaiboon M, Lumbiganon P, McDonald SJ, et al. Use of evidence-based practices in pregnancy and childbirth: South East Asia Optimising Reproductive and Child Health in Developing Countries project. *PLoS One* 2008;3(7):e2646. doi: 10.1371/journal.pone.0002646
6. Seijmonsbergen-Schermers AE, van den Akker T, Rydahl E, et al. Variations in use of childbirth interventions in 13 high-income countries: A multinational cross-sectional study. *PLoS Med* 2020;17(5):e1003103.
7. Seijmonsbergen-Schermers AE, Zondag DC, Nieuwenhuijze M, et al. Regional variations in childbirth interventions and their correlations with adverse outcomes, birthplace and care provider: a nationwide explorative study. *PLoS One* 2020;15(3):e0229488.
8. World Health Organization. WHO recommendations: Intrapartum care for a positive childbirth experience. Geneva: World Health Organization 2018.
9. Lund NS, Persson LK, Jango H, et al. Episiotomy in vacuum-assisted delivery affects the risk of obstetric anal sphincter injury: a systematic review and meta-analysis. *Eur J Obstet Gynecol Reprod Biol* 2016;207:193-99. doi: 10.1016/j.ejogrb.2016.10.013
10. Sartore A, De Seta F, Maso G, et al. The effects of mediolateral episiotomy on pelvic floor function after vaginal delivery. *Obstet Gynecol* 2004;103(4):669-73. doi: 10.1097/01.AOG.0000119223.04441.c9 ;103/4/669
11. Seijmonsbergen-Schermers AE, Geerts CC, Prins M, et al. The use of episiotomy in a low-risk population in the Netherlands: a secondary analysis. *Birth* 2013;40(4):247-55. doi: 10.1111/birt.12060
12. Viswanathan M, Hartmann K, Palmieri R, et al. The use of episiotomy in obstetrical care: a systematic review. *Evid Rep Technol Assess (Summ )* 2005(112):1-8.
13. Macleod M, Strachan B, Bahl R, et al. A prospective cohort study of maternal and neonatal morbidity in relation to use of episiotomy at operative vaginal delivery. *BJOG* 2008;115(13):1688-94. doi: BJO1961 [pii];10.1111/j.1471-0528.2008.01961.x
14. Sagi-Dain L, Sagi S. Morbidity associated with episiotomy in vacuum delivery: a systematic review and meta-analysis. *BJOG* 2015;122(8):1073-81. doi: 10.1111/1471-0528.13439 [published Online First: 2015/05/08]
15. Mulder FE, Schoffelmeer MA, Hakvoort RA, et al. Risk factors for postpartum urinary retention: a systematic review and meta-analysis. *BJOG* 2012;119(12):1440-46. doi: 10.1111/j.1471-0528.2012.03459.x
16. Dietz HP, Shek KL, Chantarasorn V, et al. Do women notice the effect of childbirth-related pelvic floor trauma? *Aust N Z J Obstet Gynaecol* 2012;52(3):277-81. doi: 10.1111/j.1479-828X.2012.01432.x
17. Friedman S, Blomquist JL, Nugent JM, et al. Pelvic muscle strength after childbirth. *Obstet Gynecol* 2012;120(5):1021-28. doi: http://10.1097/AOG.0b013e318265de39
18. Heman LM, van der Linden PJ, Stigter RH. Attitude of maternity staff regarding episiotomies in an African rural hospital with high HIV prevalence: a descriptive qualitative study. *Am J Trop Med Hyg* 2014;90(5):976-79. doi: ajtmh.13-0395
19. Wu LC, Lie D, Malhotra R, et al. What factors influence midwives' decision to perform or avoid episiotomies? A focus group study. *Midwifery* 2013;29(8):943-49. doi: S0266-6138(12)00226-4
20. Wu LC, Malhotra R, Allen JC, Jr., et al. Risk factors and midwife-reported reasons for episiotomy in women undergoing normal vaginal delivery. *Arch Gynecol Obstet* 2013;288(6):1249-56. doi: 10.1007/s00404-013-2897-6
21. Schantz C, Sim KL, Ly EM, et al. Reasons for routine episiotomy: A mixed-methods study in a large maternity hospital in Phnom Penh, Cambodia. *Reprod Health Matters* 2015;23(45):68-77. doi: S0968-8080(15)00016-6
22. Ahmed HM. Midwives' Clinical Reasons for Performing Episiotomies in the Kurdistan Region: Are they evidence-based? *Sultan Qaboos Univ Med J* 2014;14(3):e369-e74.
23. Sagi-Dain L, Sagi S. Indications for episiotomy performance - a cross-sectional survey and review of the literature. *J Obstet Gynaecol* 2016;36(3):361-5. doi: 10.3109/01443615.2015.1065233
24. Green J, Thorogood N. Qualitative Methods for Health Research. Thousand Oaks: Sage Publications Ltd 2018.
25. Kelly M, Dowling M, Millar M. The search for understanding: the role of paradigms. *Nurse Res* 2018;25(4):9-13. doi: 10.7748/nr.2018.e1499
26. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006;3(2):77-101.
27. Attride-Stirling J. Thematic networks: an analytic tool for qualitative research. *Qualitative Research* 2001;1(3):385-405.
28. Satterfield JM, Spring B, Brownson RC, et al. Toward a transdisciplinary model of evidence-based practice. *Milbank Q* 2009;87(2):368-90. doi: 10.1111/j.1468-0009.2009.00561.x

29. De Vries R. A pleasing birth: midwives and maternity care in the Netherlands. Philadelphia: Temple University Press 2004.
30. Brocklehurst P, Hardy P, Hollowell J, et al. Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. *BMJ* 2011;343:d7400.
31. Kozhimannil KB, Karaca-Mandic P, Blauer-Peterson CJ, et al. Uptake and Utilization of Practice Guidelines in Hospitals in the United States: the Case of Routine Episiotomy. *Jt Comm J Qual Patient Saf* 2017;43(1):41-48. doi: S1553-7250(16)30015-0
32. Helewa ME. Episiotomy and severe perineal trauma. Of science and fiction. *CMAJ* 1997;156(6):811-3.
33. Laine K, Gissler M, Pirhonen J. Changing incidence of anal sphincter tears in four Nordic countries through the last decades. *Eur J Obstet Gynecol Reprod Biol* 2009;146(1):71-5. doi: 10.1016/j.ejogrb.2009.04.033
34. Hussein SAA. The barriers and facilitators of introducing evidence-based practices around the use of episiotomy in Jordan. University of Western Sydney, 2014.
35. Hussein SA, Dahlen HG, V. S. What makes episiotomy rates change? A systematic review of the literature. *International Journal of Childbirth* 2012;2(1):29-39.
36. Henriksen TB, Bek KM, Hedegaard M, et al. Methods and consequences of changes in use of episiotomy. *BMJ* 1994;309(6964):1255-8. doi: 10.1136/bmj.309.6964.1255
37. Trinh AT, Roberts CL, Ampt AJ. Knowledge, attitude and experience of episiotomy use among obstetricians and midwives in Viet Nam. *BMC Pregnancy Childbirth* 2015;15:101. doi: 10.1186/s12884-015-0531-2 ;10.1186/s12884-015-0531-2
38. National Institute for Health and Care Excellence. Intrapartum care for healthy women and babies. Clinical guideline [CG190]. London: NICE guideline 2017.
39. Lowenstein L, Drugan A, Gonen R, et al. Episiotomy: beliefs, practice and the impact of educational intervention. *Eur J Obstet Gynecol Reprod Biol* 2005;123(2):179-82. doi: 10.1016/j.ejogrb.2005.04.006
40. Skeith AE, Valent AM, Marshall NE, et al. Association of a Health Care Provider Review Meeting With Cesarean Delivery Rates: A Quality Improvement Program. *Obstet Gynecol* 2018;132(3):637-42. doi: 10.1097/aog.0000000000002793
41. Wear S. Exceptions to Informed Consent. Informed Consent Clinical Medical Ethics. Dordrecht: Springer 1993.
42. Moore GP, Moffett PM, Fider C, et al. What emergency physicians should know about informed consent: legal scenarios, cases, and caveats. *Acad Emerg Med* 2014;21(8):922-7. doi: 10.1111/acem.12429
43. Stohl H. Childbirth Is Not a Medical Emergency: Maternal Right to Informed Consent throughout Labor and Delivery. *J Leg Med* 2018;38(3-4):329-53. doi: 10.1080/01947648.2018.1482243
44. Thompson R, Miller YD. Birth control: to what extent do women report being informed and involved in decisions about pregnancy and birth procedures? *BMC Pregnancy Childbirth* 2014;14:62. doi: 10.1186/1471-2393-14-62
45. Diorgu FC, Steen MP, Keeling JJ, et al. Mothers and midwives perceptions of birthing position and perineal trauma: An exploratory study. *Women Birth* 2016;29(6):518-23. doi: 10.1016/j.wombi.2016.05.002
46. Downe S, Finlayson K, Oladapo OT, et al. What matters to women during childbirth: A systematic qualitative review. *PLoS One* 2018;13(4):e0194906. doi: 10.1371/journal.pone.0194906
47. van der Pijl MSG, Hollander MH, van der Linden T, et al. Left powerless: A qualitative social media content analysis of the Dutch #breakthesilence campaign on negative and traumatic experiences of labour and birth. *PLoS One* 2020;15(5):e0233114.
48. Hollander MH, van Hastenberg E, van Dillen J, et al. Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Arch Womens Ment Health* 2017;20(4):515-23. doi: 10.1007/s00737-017-0729-6
49. Calik KY, Karabulutlu O, Yavuz C. First do no harm - interventions during labor and maternal satisfaction: a descriptive cross-sectional study. *BMC Pregnancy Childbirth* 2018;18(1):415. doi: 10.1186/s12884-018-2054-0
50. Alexander JW, Karantanis E, Turner RM, et al. Patient attitude and acceptance towards episiotomy during pregnancy before and after information provision: a questionnaire. *Int Urogynecol J* 2019 doi: 10.1007/s00192-019-04003-x
51. Hodnett ED. Pain and women's satisfaction with the experience of childbirth: a systematic review. *Am J Obstet Gynecol* 2002;186(5 Suppl Nature):S160-72. doi: 10.1067/mob.2002.121141
52. Seijmonsbergen-Schermers A. Hand op de knip. Op weg naar minder episiotomieën. . *Tijdschrift voor verloskundigen* 2017;41(6):32-36.
53. Seijmonsbergen-Schermers A, Ponds E, Van Driel W. Factsheet Episiotomie: Royal Dutch Association of Midwives (KNOV); 2018 [Available from: https://www.knov.nl/serve/file/knov.nl/knov_downloads/2807/file/Factsheet_Episiotomie_definitief_juni_2018.pdf.

**Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)[27]**



Amsterdam Public Health

# Toelichting onderzoek voorafgaand aan informed consent

***Kwalitatief onderzoek naar meningen van zorgverleners over episiotomiegebruik en hechttechnieken***

**Verantwoordelijke onderzoeker**
Anna Seijmonsbergen-Schermers
a.seijmonsbergen@vumc.nl

**Voor vragen over gegevensbescherming:**
Michel Paardekooper (functionaris gegevensbescherming)
michel.paardekooper@vumc.nl

**Type onderzoek:** kwalitatief wetenschappelijk onderzoek
**Methode:** het interviewen van zorgverleners in de geboortezorg

Het doel van dit kwalitatieve onderzoek is om de mening en visie van zorgverleners in de geboortezorg te onderzoeken. Het onderwerp is het gebruik van een episiotomie tijdens het begeleiden van een bevalling en hechttechnieken in de eerste en tweede lijn. Hiervoor zullen gynaecologen, arts-assistenten, tweedelijns verloskundigen en eerstelijns verloskundigen geïnterviewd worden. De resultaten zullen gerapporteerd worden in een artikel dat aangeboden zal worden aan een internationaal wetenschappelijk tijdschrift.

De gegevens en resultaten van het onderzoek zullen uitsluitend anoniem en vertrouwelijk aan derden bekend gemaakt worden en zullen gedurende tien jaar bewaard worden. Anonieme citaten kunnen letterlijk in het te publiceren artikel gerapporteerd worden.

Voor de analyses zullen de interviews middels audioapparatuur opgenomen worden. Dit audiomateriaal zal uitsluitend voor de analyses gebruikt worden en na het uitschrijven van de tekst definitief verwijderd worden.

Deelname aan dit onderzoek is geheel vrijwillig. Daarbij heeft u op ieder moment het recht om zonder opgaaf van redenen de deelname aan het onderzoek te beëindigen of een klacht over dit onderzoek in te dienen.

Amsterdam Public Health

# Toestemmingsformulier (informed consent)

***Kwalitatief onderzoek naar meningen van zorgverleners over episiotomiegebruik en hechttechnieken***

**Verantwoordelijke onderzoeker**
Anna Seijmonsbergen-Schermers

**In te vullen door de deelnemer**

Ik verklaar hierbij op een voor mij duidelijke wijze, mondeling en schriftelijk, te zijn ingelicht over de aard, methode en het doel van dit kwalitatieve onderzoek. Ik weet dat de gegevens en resultaten van het onderzoek alleen anoniem en vertrouwelijk aan derden bekend gemaakt zullen worden. Anonieme citaten kunnen letterlijk in het te publiceren artikel gerapporteerd worden. Mijn eventuele vragen zijn naar tevredenheid beantwoord.

Ik geef toestemming voor het opnemen van het interview op audiomateriaal en begrijp dat het audiomateriaal uitsluitend voor analyse zal worden gebruikt en gedurende tien jaar bewaard zal worden.

Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud me daarbij het recht voor om op elk moment zonder opgaaf van redenen mijn deelname aan dit onderzoek te beëindigen.

Naam deelnemer:

Datum: Handtekening deelnemer:

**In te vullen door de uitvoerende onderzoeker**

Ik heb een mondelinge en schriftelijke toelichting gegeven op het onderzoek. Ik zal resterende vragen over het onderzoek naar vermogen beantwoorden. De deelnemer zal van een eventuele voortijdige beëindiging van deelname aan dit onderzoek of klachten over dit onderzoek geen nadelige gevolgen ondervinden.

Naam onderzoeker:

Datum: Handtekening onderzoeker:

## Coding tree of article entitled
## "Understanding the perspectives and values of midwives, obstetricians, and obstetric registrars towards episiotomy: qualitative interview study"

1) **Vision on childbirth**
    a. Harm versus protection
        i. Effect episiotomy
        ii. Anatomic result
        iii. Episiotomy versus spontaneous ruptures
        iv. Seeing episiotomy as a technical operation
    b. Tendency to intervene
        i. Physiological versus pathological
        ii. Perspectives on national incidences
        iii. Variation in / vision on methods during second stage of labour
    c. Paternalistic versus client – who decides
    d. Narrow idea on others' way of acting/thinking
        i. Standard way of working
        ii. Feeling of being judged by care providers from other professional background
    e. Personal evaluation
        i. Evaluating with themselves/colleagues/woman
        ii. Training, eagerness to learn
        iii. Too few of overuse of episiotomies
    f. External factors
        i. Experience
        ii. Profession/education
        iii. Colleagues

2) **Discrepancy between vision or literature and daily practice**
    a. Restrictive vision versus list of indications
        i. Fetal distress, prolonged second stage, exhaustion, instrumental birth, OASI in history, tight perineum, short perineum, prevention of long-term harm, prevention of spontaneous ruptures/OASI, prevention of instrumental birth, shoulder dystocia, breech presentation, macrosomia, care provider's interest, specific maternal history.
        ii. High national incidences
    b. Justification – harm versus aim
        i. Feeling confident in policy and practice
        ii. Feeling uncertain/unexperienced
        iii. Intrapartum factors influencing decision making: birthing situation, maternal characteristics, medical technology, women's desires (to a lesser extent)

iv. Justification of high incidence in obstetric-led care
c. Fear of the demand to justify
d. Limitations for optimal care
i. Women's desires
ii. Lack of postpartum check-ups
iii. Blunt scissors
iv. Difficulties with evaluation
e. Literature versus practice
i. Only for fetal distress
ii. Limitations in applying the literature
iii. Using literature to justify actions
iv. Variation in episiotomy techniques
v. Variation in pelvic floor protection and pushing instructions
f. Deciding on own clinical expertise
i. Personal methods
ii. Acting autonomously
g. Influence of other care providers:
i. Supervision, final responsibility
ii. Practices that are imposed
iii. Shared decisions

**3) Women's involvement**

a. Absence of women's voice
i. Birth plan
b. Absence of informed consent
i. Trusting bond
ii. Opting out
iii. Convincing/threatening
iv. Women's inability:
- State during second stage
- Unrealistic expectations
- Letting go of control
- Wrong perception of episiotomy
c. Women's autonomy
i. Body integrity
ii. Individualized support
iii. Influence of birthplace
iv. Decision made by care provider
d. Being informed prenatally
e. Use of trivializing words

## COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| **Domain 1: Research team and reflexivity** | | | |
| *Personal characteristics* | | | |
| Interviewer/facilitator | 1 | Which author/s conducted the interview or focus group? | |
| Credentials | 2 | What were the researcher's credentials? E.g. PhD, MD | |
| Occupation | 3 | What was their occupation at the time of the study? | |
| Gender | 4 | Was the researcher male or female? | |
| Experience and training | 5 | What experience or training did the researcher have? | |
| *Relationship with participants* | | | |
| Relationship established | 6 | Was a relationship established prior to study commencement? | |
| Participant knowledge of the interviewer | 7 | What did the participants know about the researcher? e.g. personal goals, reasons for doing the research | |
| Interviewer characteristics | 8 | What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic | |
| **Domain 2: Study design** | | | |
| *Theoretical framework* | | | |
| Methodological orientation and Theory | 9 | What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis | |
| *Participant selection* | | | |
| Sampling | 10 | How were participants selected? e.g. purposive, convenience, consecutive, snowball | |
| Method of approach | 11 | How were participants approached? e.g. face-to-face, telephone, mail, email | |
| Sample size | 12 | How many participants were in the study? | |
| Non-participation | 13 | How many people refused to participate or dropped out? Reasons? | |
| *Setting* | | | |
| Setting of data collection | 14 | Where was the data collected? e.g. home, clinic, workplace | |
| Presence of non-participants | 15 | Was anyone else present besides the participants and researchers? | |
| Description of sample | 16 | What are the important characteristics of the sample? e.g. demographic data, date | |
| *Data collection* | | | |
| Interview guide | 17 | Were questions, prompts, guides provided by the authors? Was it pilot tested? | |
| Repeat interviews | 18 | Were repeat inter views carried out? If yes, how many? | |
| Audio/visual recording | 19 | Did the research use audio or visual recording to collect the data? | |
| Field notes | 20 | Were field notes made during and/or after the inter view or focus group? | |
| Duration | 21 | What was the duration of the inter views or focus group? | |
| Data saturation | 22 | Was data saturation discussed? | |
| Transcripts returned | 23 | Were transcripts returned to participants for comment and/or | |

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| | | correction? | |
| **Domain 3: analysis and findings** | | | |
| *Data analysis* | | | |
| Number of data coders | 24 | How many data coders coded the data? | |
| Description of the coding tree | 25 | Did authors provide a description of the coding tree? | |
| Derivation of themes | 26 | Were themes identified in advance or derived from the data? | |
| Software | 27 | What software, if applicable, was used to manage the data? | |
| Participant checking | 28 | Did participants provide feedback on the findings? | |
| *Reporting* | | | |
| Quotations presented | 29 | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number | |
| Data and findings consistent | 30 | Was there consistency between the data presented and the findings? | |
| Clarity of major themes | 31 | Were major themes clearly presented in the findings? | |
| Clarity of minor themes | 32 | Is there a description of diverse cases or discussion of minor themes? | |

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

**Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.**