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

Journal:	<i>BMJ Open</i>
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, Midwifery Science Thompson, Suzanne; Zuyd University - Brusselseweg Campus, Research Centre for Midwifery Science Feijen-de Jong, Esther I.; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science Smit, Marrit; Leiden University Medical Center, Department of Obstetrics Prins, M; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science van den Akker, Thomas; Leiden University Medical Center, Department of Obstetrics de Jonge, Ank; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science
Keywords:	QUALITATIVE RESEARCH, OBSTETRICS, PERINATOLOGY

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

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4 **Keywords:** Health care providers; Episiotomy; Understanding; Viewpoint; Qualitative research;
5 Midwives; Obstetrics
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7 **Word count:** 6,171 words
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For peer review only

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

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3 performing episiotomy. More research is required to achieve consensus on indications for
4 episiotomy.
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8 **Article Summary**

9 ***Strengths and limitations of this study***

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

Episiotomy is one of the most commonly performed surgical interventions during childbirth¹, and is primarily used to expedite the second stage of labour². There is major variation in episiotomy practice worldwide^{1,3}, with rates varying from 4% in Denmark⁴ to 91% in Thailand⁵. The World Health Organization does not recommend routine or liberal use of episiotomy for women undergoing spontaneous vaginal birth⁶. Several studies illustrate that restrictive use of episiotomy is preferable to routine or liberal use². Episiotomies can lead to physical problems, such as a reduction in postpartum urinary retention, perineal pain, dyspareunia, and pelvic floor muscle strength⁷⁻¹⁴. 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 providers⁸. 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 generalized¹⁵⁻¹⁹. 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 request¹⁵⁻²⁰.

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 values²¹. An interpretivist approach was considered appropriate for this exploration²².

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

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10 The first author and interviewer is a woman of 30 years, mother, midwife with four years of
11 clinical experience, educated in conducting qualitative studies, and employed as a PhD-candidate in
12 her final year at the time of the study. Most of the participants were unknown to her, but two of the
13 participants were aware of her previous publications on episiotomy in the Netherlands. The first
14 interview was carried out by the first and second authors together and two other interviews were
15 carried out by the second author, who is a woman of 49 years, midwife with 26 years clinical
16 experience, experienced qualitative interviewer, lecturer, and employed as a PhD-candidate in her
17 final year at the time of the study. Three interviews were conducted by third year midwifery
18 students. They were educated on interview techniques in advance, and were instructed by the first
19 author.
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26 The entire research team consisted of researchers from different disciplines, including midwives,
27 researchers, lecturers, and an obstetrician. A topic list was developed by the first author, reviewed by
28 the research team, and iteratively evolved based on the findings of the interviews.
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33 ***Recruitment***

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35 Participants were eligible if they were working as midwife in primary or secondary care,
36 obstetrician or obstetrician/urogynaecologist in secondary or tertiary care, or as obstetric registrar.
37 Purposive and snowball sampling strategies were applied after study commencement, to obtain a
38 broad sample of care providers, reflecting the possible diversity of perspectives and values. To
39 ensure variety among participants, purposive sampling was based⁶ on care providers' perceived
40 episiotomy rate and/or region of work. Participants were randomly approached by contacting care
41 providers in specific regions, or purposively approached through referrals by other care providers.
42 Participants were recruited until data saturation was obtained, which was defined by the absence of
43 new codes, and until all parts of the country were represented. A total of 34 care providers,
44 hospitals, or midwifery practices were contacted, resulting in twenty included participants. Reasons
45 for non-participation were: no response received, retired, time investment, and not having the
46 perceived episiotomy rate that was still required to obtain a varied sample of participants. In advance
47 of the interviews, participants were asked to provide personal information on place of education,
48 region of work, number of attended births per year, and their personal episiotomy rate or number of
49 episiotomies performed during the last 25 attended births. Participants were approached by email,
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3 telephone, or both. A brief overview of the aim of the interview was given and when the care
4 provider agreed to participate, location and date were set. The participant was informed that it
5 would concern an individual in-depth interview, participation would be voluntary, data would be
6 anonymized and treated confidentially, and audio material would be destroyed following
7 transcription. Data and participant names were stored separately with encrypted passwords and
8 transcripts were shared with students for transcription with encrypted passwords.
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14 **Interviews**

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16 Interviews were semi-structured, using a topic-list with open-ended questions, which was pilot-
17 tested in advance (see Table 1). The participant was informed that (s)he could withdraw from the
18 study without giving a reason and written informed consent was obtained after oral and written
19 information about the study (see Supplementary files 1 and 2). At the start of the interview, the
20 participants were informed that the aim of the interview was to investigate the full scope of
21 perspectives and values of care providers, that no value judgment would be made during the
22 interview, and that there was no right or wrong answer. Besides, they were told that the
23 perspectives and values of the interviewer would not be part of the conversation. The interview
24 commenced with an invitation to the participant to talk about his/her opinion regarding episiotomy.
25 Subsequently, in the responses given by the participant, the researchers probed, in order to elicit
26 depth, based on the topics that were brought up by the participant.
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35 Interviews were recorded on audio equipment and transcribed verbatim by the first author or
36 by student assistants. Field notes were made during and after the interviews. To ensure accuracy and
37 to facilitate deep engagement with the data, transcripts of interviews that were recorded by student
38 assistants, were read and re-read, before being checked with the original audio by the first author.
39 After each interview, member check was offered to the participant based on the transcript of each
40 interview, as a means of maintaining scientific rigor, which did not lead to responses in which
41 changes were requested.
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48 **Analysis**

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50 Data analysis was carried out concurrently with data collection, allowing the researchers to
51 reflect on the data. This allowed for the exploration and validation of emerging themes which were
52 identified from the interviews and which were used iteratively to adjust the topic list for subsequent
53 interviews. The first interviews were analysed independently by the first two authors, and
54 disagreements about codes were discussed until consensus was reached.
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3 Inductive thematic analysis was conducted, described by Braun and Clarke (2006)²³. Data were
4 read and re-read to become familiarized with them. Initial codes were generated by coding
5 interesting features of the data. After five interviews, the codes were discussed with the second and
6 last authors, and relationships between codes identified. A first coding tree was developed, and the
7 first five interviews were coded again to identify over-arching codes. During the analyses of the
8 subsequent interviews, the codes were increasingly collated into potential themes and all data
9 relevant to each theme were gathered. After potential themes were identified, these were reviewed
10 by checking the relation to the coded extracts and the entire data set, generating a thematic
11 network²⁴. Subsequently, the authors applied a name and a description for each theme. Quotes were
12 identified, providing thick description as a means of illustrating these themes. During this data
13 collection and analysis process, discussion of and reflection on the codes, sub-themes, and themes
14 were on-going between the researchers involved in this study. For framing the results into the
15 existing literature, we compared the data to the framework of Evidence Based Practice (EBP), using
16 the model of Satterfield et al. (2009) (figure 1)²⁵. This model includes the following three
17 components: *'Best available research evidence'*, *'Client's/population's characteristics, state, needs,*
18 *values, and preferences'*, and *'Resources, including practitioner's expertise'*. These three components
19 overlap in the centre, which illustrates the way decisions are made. The fourth component
20 *'Environmental and organizational contexts'*, which is placed in the outer space of the model, has
21 influence on all components.
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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.

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3 Four themes giving insight into the perspective and values of care providers towards episiotomy
4 emerged from the data. These were 'Care providers' vision on childbirth', 'Discrepancy between
5 restrictive perspective and daily practice', 'Clinical expertise versus literature-based practice', and
6 'Involvement of women in the decision'.
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10 11 **Care providers' vision on childbirth**

12 The EBP-component 'Resources, including practitioner's expertise' was the most important
13 component in the perspective and values of care providers. Care providers' visions on childbirth
14 underpin their perspective and values about episiotomy use. Views on childbirth could be
15 characterized in two paradigms: either a physiological vision, or a risk-focused vision.
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18 The physiological vision was characterized by the importance of iatrogenic harm to healthy body
19 tissues caused by episiotomies. Care providers with this vision more often articulated negative
20 feelings that they associated with performing episiotomy. They stated that episiotomy should be
21 avoided whenever possible. To this end, approaches in care that minimized the need for episiotomy
22 and reduced the likelihood of spontaneous perineal rupture were valued.
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25 *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*
26 *gynaecologists said; "If you saw such an injury on someone in the street, you'd call an ambulance". [...] Yes, it's not nothing*
27 *for a woman to have that. (Midwife 8)*
28

29 *And are there, for example, ways to learn how to perform fewer epi's (episiotomy), fewer interventions without*
30 *disadvantaging the mother, sphincter damage, or for babies, fetal distress? ... Then we have to see if we can do that.*
31 *(Obstetrician 9)*
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34 The risk-focused vision was characterized by a tendency to intervene. This approach emphasized
35 the protective effect of episiotomy for the child, but more particularly for the mother. Care providers
36 with this vision did not really articulate negative feelings when performing episiotomy. Rather, they
37 considered it as a technical operation, resulting in a clean cut that was viewed by some care
38 providers as preferable to a spontaneous perineal rupture.
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41 *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*
42 *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*
43 *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*
44 *feel no emotion about it. I perform it with professional distance. (Obstetric registrar 7)*
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50 Intrinsic and extrinsic factors contributed to care providers' visions on childbirth, and viewpoints
51 were rather dynamic, evolving over time. Intrinsically, care providers often emphasized an eagerness
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3 to learn and apply knowledge acquired in professional post registration education, in particular, skills
4 training. However, this training was mainly focused on suturing and not on performing episiotomy.
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6 Some care providers emphasized a change in their vision over time, whilst others did not. There were
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8 care providers who remained static in their practice and did not attend professional training to
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10 update their skills. This division was also noted in reflection on episiotomy usage. Some professionals
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12 reflected on their use of episiotomy by themselves, with colleagues and, occasionally, with women.
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14 On the other hand, some care providers mentioned that episiotomy was never a subject of
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16 evaluation, neither for themselves, nor in the clinic.
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18 *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*
19 *as your training progresses, you start looking around, like how is that? [...] And then you evaluate again: how did it go? Did*
20 *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*
21 *literature or what you know about other peoples' opinions, but also finding out for yourself. (Obstetrician 18)*
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25 *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*
26 *cut ... Or how many sphincter damages have you had, how many have I had... (Obstetrician 11)*
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30 Extrinsicly, care providers mentioned the importance of two things in the evolution of their
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32 professional vision on childbirth. Firstly, they highlighted that childbirth visions are highly influenced
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34 by professional and educational backgrounds. Secondly, they mentioned that working experience is
35
36 an important contributor to quality of care and that adverse events influence the tendency to
37
38 intervene.

39 *I think that if you look towards gynaecologists who deal with the pelvic floor ... They deal with it very differently than the*
40 *obstetricians. [...] I think eh .. pelvic floor gynecologists are more likely to perform episiotomy. (Obstetric registrar 2)*
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43 *And what they're saying here is, the arrival of hospital midwives led to the number of epi's decreasing enormously.*
44 *(Midwife 13)*
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47 *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*
48 *cut earlier. (Midwife 4)*
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51 ***Discrepancy between restrictive perspective and daily practice***

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53 There was a discrepancy between what many care providers mentioned as their perspective and
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55 values regarding episiotomy, and their daily practice. Many care providers emphasized the
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57 importance of a restrictive approach, stating that it should only be performed where there is
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59 justifiable medical need. However, in total, many justifications were mentioned as valid, suggesting
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3 that performing episiotomies only when medically justified, may result in high episiotomy rates and
4 large interprofessional variations. Care providers justified their episiotomy usage by balancing
5 between the justification and the potential harm. They did this by weighing up maternal
6 characteristics, the situation during the second stage of labour, medical technology and, to a lesser
7 extent, women's preferences. If clearly indicated, care providers were confident that the episiotomy
8 was justified, although the indications that were mentioned, varied significantly between the
9 participants (see Table 3). On the other hand, feeling uncertain or inexperienced was mentioned as
10 well.
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18 *Because actually, we can't really demonstrate that the female pelvic floor is better off being cut into, to summarize. The*
19 *female pelvic floor does not improve as a result of cutting and, eh, I sometimes grumble that we're the ones who have to*
20 *suture when no-one else has the over-sight. And if it (the perineum) looks like a bomb went off there, guys, just perform*
21 *episiotomy, don't let it tear like that. (Obstetrician 11)*
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25 *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*
26 *ultimately ensuring that someone has fewer problems in the future. So that's what makes it justifiable for me to do it.*
27 *(Obstetrician/urogynaecologist 10).*
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31 The lack of feedback on the consequences of their episiotomies inhibited care providers in
32 experiencing the need of being restrictive in performing episiotomy. The possibility to evaluate
33 practice was seen as being limited by difficulties in comparing incidences of episiotomy between low-
34 and high-risk populations. Furthermore, the lack of evaluation of the longer-term implications of care
35 providers' practice was seen as a limiting factor.
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40 *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,*
41 *sometimes at six weeks but sometimes not. That is of course a shame, because it is good to get feedback from what happens*
42 *with an epi. (Obstetric registrar 7)*
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46 **Clinical expertise versus literature-based practice**

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48 Care providers generally gave more weight to the 'practitioner expertise' component of
49 evidence-based practice than the 'best available research' component in the decision-making for
50 episiotomy. Care providers justified deviations from 'best available research' by pointing out the
51 limitations of applying evidence to practice situations. Conversely, different care providers used
52 literature differently to substantiate their own perspectives and values, resulting in varying
53 techniques, methods, and approaches to women during the second stage of labour.
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3 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
4 very long second stage [...] that you might need to make some space anyway. Then again, eh, during the birth you just see
5 that, eh, the perineum, the pelvic floor is just very tight. Or it threatens to tear badly. You still hope that it (episiotomy) will
6 prevent something worse. But of course that is not very evidence based. (Midwife 13)
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10 It's the same when you look at eh, at the literature around elective use of episiotomy after previous sphincter damage [...],
11 you will probably come to the conclusion that it doesn't prevent sphincter damage happening again, you need to look at
12 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
13 it tear when the head crowns, yes, then I wonder if that (the literature) also applies to that case. (Obstetrician 18)
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16
17 At the moment of decision-making, the decision to perform episiotomy was based on the care
18 providers' own clinical judgement. Despite having individual and often strong views and a personal
19 way of working, the influence of colleagues on practice was mentioned as important. This is reflected
20 by the EBP-component 'Environment and organizational context'. Mainly for those working in
21 secondary or tertiary care, consultation and supervision of colleagues was an important factor in
22 decision-making. On the other hand, working autonomously without consultation and supervision
23 was expressed by other participants. Some of the care providers articulated the fear of being judged
24 or the feeling of having to justify or 'account' for their decision-making. Some care providers
25 expressed negative emotions when talking about the judgements by primary care midwives about
26 high episiotomy rates in secondary and tertiary care.
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30 So he (supervising doctor) said; "If in doubt, perform episiotomy." And I thought that was really a very simple
31 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."
32 And it is precisely when you are inexperienced that you should perhaps do more episiotomies so that you have babies in
33 good condition. Better that than that you are too scared to do it and therefore get into difficulties. (Obstetric registrar 7)
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36
37 I mean, I think ... the ... eh .. when you compare the studies with each other you might think: Yikes, it (episiotomy) happens
38 way too much there (in the hospital) and you definitely shouldn't be in the hospital because there everyone is performing
39 episiotomies all over the place. But I think, well, since I started working in the hospital, it's like comparing apples with
40 oranges... I really find that so annoying! (Midwife 5)
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43 **Involvement of women in the decision**

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45 The EBP-component 'Client's/population's characteristics, state, needs, values, and preferences'
46 was not viewed as an important factor in decision-making for most care providers. Although most
47 care providers consider a woman's autonomy and bodily integrity as important, during second-stage
48 labour, the decision for episiotomy is made by the care provider. Care providers consider that the
49 'trustful relationship' formed between a woman and her maternity care provider provides them with
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3 the basis of informed consent. For many care providers, consent was based on opting out, with some
4 care providers mentioning that women sometimes do not realize that episiotomy has been
5 performed. Almost none of the care providers in this study elicited explicit consent for episiotomy
6 during labour. They justified this by explaining that the state of the mother during the second stage
7 of labour makes it difficult or impossible to obtain informed consent. Others placed value on
8 informing women well about episiotomy during prenatal care, whilst others did not discuss this topic
9 during pregnancy. Moreover, some of these care providers were dismissive of birth plans. They
10 substantiated this with examples such as women having unrealistic expectations of childbirth,
11 women's emotional and physical state during labour, and that women should relinquish control.
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19 *You can imagine the setting, right? To counsel someone at the very end of second stage labor, and to think that there is still,*
20 *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*
21 *realistic [...] In short, she (the woman) will hear it as an announcement and not as counselling. Then she can still say no if*
22 *she wants, and I would listen to that. But yeah. Interviewer: And is there a kind of informed consent? Participant: Eh... eh...*
23 *No... No... No [laughing]. No... (Obstetrician 11)*
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28 Where conflicts arose between a care providers' vision and woman's preferences, some care
29 providers valued a woman's personal autonomy above their own vision. Most care providers would
30 try to convince a woman by giving information. Others used strong convincing reasoning to change
31 women's minds, and some disregarded a woman's autonomy. Such preferences expressed by
32 women were often seen as a limitation to optimal care. Significantly, many care providers played
33 down the severity of episiotomy. This was evident in the use of belittling language, such as 'just a
34 little cut', suggesting that episiotomy was viewed by care providers as a minor intervention.
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41 *So, if you have to do an instrumental delivery (and a woman does not want episiotomy), [...] then I can roughly calculate for*
42 *that lady what her chance of a sphincter injury is. [...] Using my laptop I have, within 5 minutes, what, approximately her*
43 *chance is, based on the data we have. And then I say: "Well if you know that, [...] if you have a sphincter laceration, within*
44 *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*
45 *have a reasonable method, eh, to reduce that risk. Would you want me to deprive you of this?*
46 *(Obstetrician/urogynaecologist 6)*
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51 *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.*
52 *Otherwise, you'll have to push a bit longer...and then, eh yes, then you have... you have some kind of informed consent*
53 *about whether or not she wants it (episiotomy). And usually she wants it [laughs]. (Midwife 15)*
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57 DISCUSSION

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3 In this qualitative study, twenty care providers were interviewed about their perspectives and
4 values towards episiotomy. The results were analysed using the framework of Satterfield et al. (2009)
5 on Evidence-Based Practice²⁵. This qualitative study illustrated that the expertise of the care provider
6 themselves was the most important component in decision-making with regard to episiotomy. Care
7 providers' perspectives, values, and practices are strongly influenced by individual underlying visions
8 of childbirth. Although care providers often emphasized the importance of a restrictive episiotomy
9 policy, a discrepancy was expressed between vision and practice, and a large number of varying
10 indications (see Table 3) mentioned as justification for performing episiotomy. All care providers
11 considered it important to justify their actions. While the literature was used to underpin the
12 justification of their policies, the importance of clinical expertise was used to support deviations from
13 recommended practice. Women's autonomy was important, yet, at the moment of decision-making,
14 women's involvement in decision-making is minimal. Informed consent is not obtained, neither
15 during labour, nor during pregnancy. The language often used by care providers about episiotomy
16 illustrates an underlying attitude that views episiotomy as a minor intervention.
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28 Understanding the perspective and values of care providers towards episiotomy is essential for
29 obtaining deeper understanding of variations in episiotomy practices. Previous studies showed large
30 variations in episiotomy rates. In the Netherlands, rates varied among twelve regions from between
31 14% to 42% for nulliparous women and from between 3% to 13% for multiparous women
32 (*Seijmonsbergen et al., personal communication*). The Netherlands has historically been seen as a
33 country with a physiological approach to childbirth and a corresponding high rate of home births²⁶.
34 Studies showed that giving birth at home is a protective factor for episiotomy²⁷. However, although
35 giving birth at home is more common in the Netherlands compared to all other high-income
36 countries, the rate of episiotomy is much higher than in countries like Sweden (6% among nulliparous
37 women), Denmark (7% among nulliparous women) (*Seijmonsbergen et al., personal communication*),
38 and the USA (9%)²⁸. This study gives insight in the underlying perspectives and values of care
39 providers, leading to these varying episiotomy rates.
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50 ***Childbirth vision, evidence, and practice***

51 The most important contributor to episiotomy practice found in our study was the vision of care
52 providers on childbirth and episiotomy. This was rather more decisive than recommendations from
53 the literature. Although liberal use of episiotomy has no evidence-base², there are still countries, and
54 regions within countries, with high episiotomy rates^{4 5}. Overuse of episiotomy results in unnecessary
55 complaints and morbidity in many women⁷⁻¹⁴. The awareness of these insights is reflected in the
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3 literature during the last four decades²⁹ and has led to a decline in the episiotomy rates in many
4 countries, with a sharper decline in some countries versus others³⁰. Our study showed that most care
5 providers were aware of the importance of a restrictive episiotomy policy, but practices often
6 diverged from this restrictive perspective, leading to a liberal rather than restrictive episiotomy
7 practice among some care providers. In a study of Seijmonsbergen et al. on regional variation of
8 episiotomy in the Netherlands, a higher rate of episiotomy was found in regions with lower rates of
9 home births, also among women in obstetrician-led care (*personal communication*). This suggests
10 that vision may be an important contributor to the tendency to intervene. The current study
11 confirms this by showing widely diverging visions on episiotomy, which may be one of the most
12 important factors leading to variation in episiotomy rates.
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16 Moreover, previous studies confirm our finding that care providers' clinical expertise and own
17 perspectives often override recommendations based on the literature^{15 16 18 31 32}. In our study, care
18 providers mentioned the importance that practices can be justified, although those practices and
19 perspectives varied largely among these care providers, and were not always evidence-based.
20 Hussein et al. (2012) emphasized this by describing that care providers' preferred their familiar way
21 of working, and that change may evoke feelings of uncertainty and risk^{31 32}. Henriksen et al. (1994)
22 found that improving awareness of personal episiotomy rates, led to a decrease in the episiotomy
23 rate³³. Workload has been mentioned as barrier for reducing episiotomy rates in previous studies in
24 settings with routine episiotomy practices, but did not emerge as a theme in our study^{18 31 34},
25 probably because of the vision of restrictive use of episiotomy in our study. Other qualitative studies
26 into the perspectives of care providers found various perspectives towards episiotomy. They confirm
27 a limited role of evidence in episiotomy practice, and care providers' vision, beliefs, and values being
28 an important contributor to practice^{15 16 18}.
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32 Varying perspectives on episiotomy and on dealing with evidence suggest that perspectives may
33 not be evidence-based and that evidence may be insufficiently applicable and explicit for
34 implementation into practice. Although the literature is not clear on which indications are valid for
35 episiotomy, it is recommended to perform episiotomies restrictively. The meaning of 'restrictive'
36 varies largely among care providers, and recommendations in literature and guidelines are not
37 uniform. Recurrent evaluations of episiotomy indications with colleagues and educating care
38 providers on the best available evidence on episiotomy will enable care providers to revise their
39 vision and practices, and will motivate them to apply the evidence from the literature^{35 36}. However,
40 educating care providers is difficult as long as there is a lack of consensus on the meaning of
41 'restrictive' in the literature. Future research should focus on which indications are valid for
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3 episiotomy and should be well-applicable for practice, considering the complexity of situations
4 during the second stage of labour.
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8 ***Woman-centered care***

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10 The involvement of women in the decision to perform episiotomy was limited. Episiotomy is
11 performed in a situation that is comparable to other medical emergency situations. In specific
12 emergency situations, exceptions may apply to informed consent, because there is a lack of time to
13 obtain informed consent³⁷ and the woman is incapable of giving it³⁸. However, it is questionable
14 whether this applies to the situation of childbirth. In accordance to Wear (1993), the exception for
15 informed consent during emergency situations involves (1) an immediate threat to life; (2) the
16 treatment is a general recommended treatment and can appeal to the standard of practice; and (3)
17 the time to achieve informed consent would significantly increase the risk of severe adverse
18 outcomes³⁷. Considering the large variation in incidences and perspectives towards episiotomy,
19 episiotomy cannot be considered a general recommended treatment or as standard practice. Stohl
20 (2018) argued that, except from the most extreme and rare cases, childbirth is not a medical
21 emergency and women do not typically lose the ability to make decisions during childbirth.
22 Therefore, the exception for informed consent does not usually apply to childbirth³⁹. Other studies
23 confirmed that informed consent for episiotomy is not asked for in the second stage of labour^{40 41}.
24 Although care providers minimally involve women in the decision-making during the second stage of
25 labour, previous studies reported that women highly value their involvement in decision-making
26 during childbirth⁴². Van der Pijl et al. examined 438 quotes of women on negative and traumatic
27 childbirth experiences, expressed in the Dutch *#breakthesilence* campaign and found that lack of
28 informed consent was one of the most frequently expressed types of mistreatment experienced by
29 women during childbirth (*personal communication*). Besides, episiotomy was the most frequently
30 mentioned intervention, where women experienced a lack of communication by the care provider,
31 which led to feelings of disrespect. Accordingly, Hollander et al. (2017) found that lack of control,
32 communication, and involvement in decision-making were important attributions of traumatic birth
33 experiences⁴³. Not being informed or not being involved⁴⁴ in the decision to perform episiotomy can
34 result in negative and even traumatic experiences. Although the studies of Van der Pijl et al. and
35 Hollander et al. (2017) do not represent the feelings and preferences of all women, other studies
36 confirm that women may feel less satisfied after having had an episiotomy⁴⁴. Besides, studies show
37 that information regarding episiotomies is important to increase understanding and feelings of
38 comfort⁴⁵, and that being involved in decision-making is one of the most important contributors to a
39 positive childbirth experience⁴⁶. Downe et al. (2018) showed that women place high value on giving
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3 birth without non-indicated interventions, but if an intervention is needed, that they wish to be
4 involved in decision-making to retain a sense of control⁴². The difficulties concerning obtaining
5 informed consent can be solved by shared decision-making during pregnancy about indications for
6 episiotomy during labour if need arises. This is more feasible than during the second stage of labour,
7 and there is enough time for the woman to form her opinion. When discussing episiotomy, care
8 providers should be aware that women may see episiotomy as an invasive medical intervention, and
9 that belittling words and considering episiotomy a negligible intervention may not correspond with
10 women's feelings about undergoing it. The varying perspectives of care providers on episiotomy
11 make it more important to involve women in decision-making and the appropriateness of care
12 providers' practice should be placed in perspective, considering the varying existing perspectives and
13 values.
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23 ***Strengths and limitations***

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25 This study investigated the diverse range of perspectives and values of care providers towards
26 episiotomy, representing all professional backgrounds. However, this study had some limitations.
27 The perspectives of the interviewers may have encouraged participants to give socially desirable
28 answers. Nevertheless, many participants expressed comments in favour of liberal use of episiotomy,
29 and mentioned indications that were critically discussed in previous publications of the first authors⁸
30 ^{47 48}. On the other hand, it may have encouraged participants to express a strong opposite opinion.
31 Conversely, by being an expert on the topic, the interviewer was able to go into the merits of the
32 actual situations during childbirth, and to understand the difficulties care providers have to deal with.
33 The subjectivity of the researchers may also have biased the analyses. To minimise the influence of
34 this bias, we discussed the data and interpretation of the results within the author group that
35 consisted of midwives, researchers, educators, and an obstetrician.
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43 Although data saturation was reached, an element of selection bias cannot be eliminated. The
44 participants in our study represented care providers from all professional backgrounds qualified for
45 performing episiotomies, across the whole country, and of different educational backgrounds. This
46 resulted in a broad spectrum of perspectives and values, which will be present in other countries
47 with similar episiotomy rates as well. Further research into the perspective and values of care
48 providers in a variety of countries with different episiotomy rates is warranted to gain insight into
49 perspectives and values of care providers working in different birth cultures. Understanding
50 perspectives and values of care providers in various setting will provide knowledge that is required to
51 stimulate a worldwide evaluation of episiotomy practices.
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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

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2
3 All authors have completed the ICMJE uniform disclosure form at
4 www.icmje.org/coi_disclosure.pdf and declare: no support from any organisation for the submitted
5 work; no financial relationships with any organisations that might have an interest in the submitted
6 work in the previous three years; relationships or activities that could appear to have influenced the
7 submitted work, as described in the methods section.
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13 ***Author Contributions***

14 AESS, Adj, and TvdA conceived the study and AESS wrote the paper. AESS and ST interviewed
15 the participants and conducted the analyses. AESS, ST, EF-dJ, MS, MP, TvdA, and Adj contributed to
16 the methods of the study and the interpretation of the findings, and critically revised earlier drafts of
17 the article.
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23 ***Ethics approval***

24 The VU University Medical Center confirmed that ethical approval was not required for this
25 study (reference WC2016-415). Participants signed informed consent before taking part in this study.
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29

30 ***Funding***

31 This research received no specific grant from any funding agency in the public, commercial or
32 not-for-profit sectors.
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36 ***Access to the data***

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

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

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

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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:

- Own reasons for performing episiotomy.
- Opinion on reasons for others to perform episiotomy.

Prevention of spontaneous ruptures

- How?
- Role of episiotomy.
- Technique.

Own experiences and feelings

- Own feelings when performing episiotomy
- Colleagues, working environment, work culture.
- Changes in opinion and acting.

The childbearing woman

- Addressing episiotomy.
- Birthing plan.
- Informed consent.
- Women's preferences; deviating preferences.
- Unnecessary use of episiotomy by other care providers

Context

- 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

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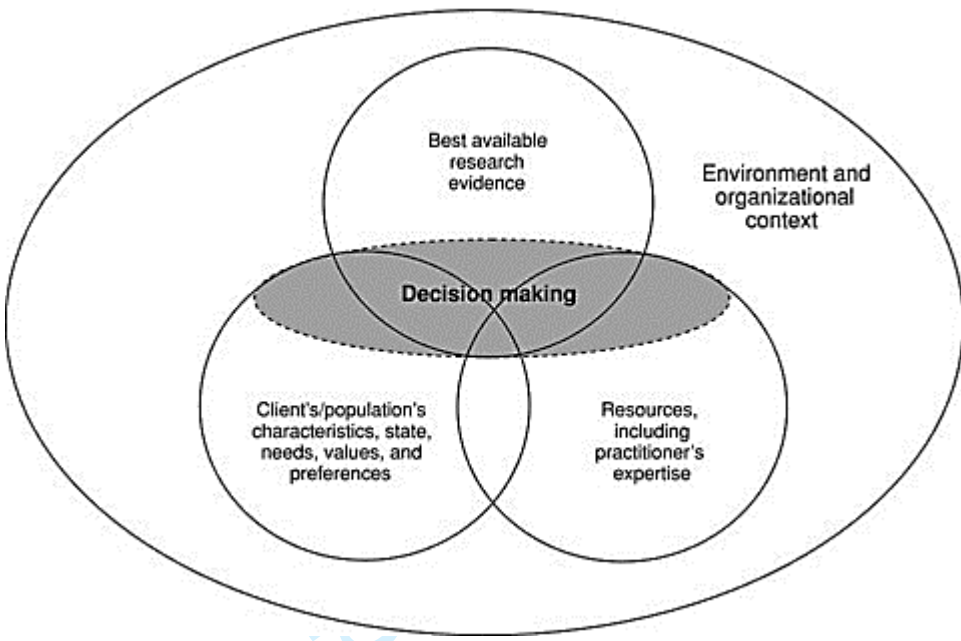
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Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)²⁵



Peer review only

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 opgaf 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
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Voor vragen over gegevensbescherming:

Michel Paardekooper (functionaris gegevensbescherming)
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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			
<i>Personal characteristics</i>			
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?	
<i>Relationship with participants</i>			
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 interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
<i>Participant selection</i>			
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?	
<i>Setting</i>			
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	
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat interviews 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 interview or focus group?	
Duration	21	What was the duration of the interviews 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.
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Domain 3: analysis and findings			
<i>Data analysis</i>			
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?	
<i>Reporting</i>			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	
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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

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

Journal:	<i>BMJ Open</i>
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, Midwifery Science Thompson, Suzanne; Zuyd University - Brusselseweg Campus, Research Centre for Midwifery Science Feijen-de Jong, Esther I.; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science Smit, Marrit; Leiden University Medical Center, Department of Obstetrics Prins, M; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science van den Akker, Thomas; Leiden University Medical Center, Department of Obstetrics 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

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4 2 **obstetric registrars regarding episiotomy: qualitative interview study**
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Keywords: Health care providers; Episiotomy; Understanding; Viewpoint; Qualitative research; Midwives; Obstetrics

Word count: 5,885 words

For peer review only

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

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3 91 performing episiotomy. More research is required to achieve consensus on indications for
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5 92 episiotomy.
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8 94 **Article Summary**

9 95 ***Strengths and limitations of this study***

- 11 96 ➤ The strength of this qualitative study is that it represents perspectives and values of care
12 97 providers from all professional backgrounds.
13
14 98 ➤ Because this study was conducted in the Netherlands, generalisability of results cannot
15 99 be assumed, but these are relevant to a broad context, since variation in episiotomy
16
17 100 exists in many countries.
18
19 101 ➤ A limitation of this study is that perspectives of the interviewers may have encouraged
20 102 participants to give socially desirable answers or express strong opposite opinions.
21
22 103 ➤ Conversely, by being an expert on the topic, the interviewer was able to understand the
23 104 participants.
24
25 105 ➤ Although data saturation was reached, an element of selection bias cannot be
26 106 eliminated.
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112 INTRODUCTION

113 Episiotomy is one of the most commonly performed surgical interventions during childbirth¹,
114 and is primarily used to expedite the second stage of labour². There is major variation in episiotomy
115 practice worldwide^{1,3}, with rates varying from 4% in Denmark⁴ to 91% in Thailand⁵. The episiotomy
116 rate in the Netherlands was 46% among nulliparous and 14% among multiparous women, with an
117 instrumental-vaginal birth rate of 16% among nulliparous and 3% among multiparous women in
118 2013⁶. The World Health Organization does not recommend routine or liberal use of episiotomy for
119 women undergoing spontaneous vaginal birth⁷. For instrumental births, episiotomy may be beneficial
120 to prevent Obstetric Anal Sphincter Injury (OASI) in some women⁸. Several studies illustrate that, in
121 general, restrictive use of episiotomy is preferable to routine or liberal use². Episiotomies can lead to
122 physical problems, such as postpartum urinary retention, perineal pain, dyspareunia, and pelvic floor
123 muscle strength⁹⁻¹⁶. It is unknown which episiotomy rate is appropriate for obtaining an optimal
124 balance between harm caused by episiotomy and prevention of maternal and neonatal morbidity by
125 its use. Moreover, there is a lack of uniform recommendations on indications for performing
126 episiotomy, and there is major variation in applied indications among care providers¹⁰. This suggests
127 that perspectives and values of care providers influence the decision to perform an episiotomy and
128 that this decision is not only based on medical necessity. Studies into indications for episiotomy use
129 or opinions of care providers have only been conducted among restricted subgroups of childbearing
130 women or in settings that cannot be generalized¹⁷⁻²¹. In these studies, many indications for
131 performing episiotomy were reported, including fetal distress, instrumental birth, a tight or short
132 perineum, prevention of major tears, history of major tears or episiotomy, delay in second stage of
133 labour, breech presentation, shoulder dystocia, preterm birth, poor maternal effort, macrosomia,
134 nulliparity, facilitation of postpartum wound repair, vaginal bleeding, and women's request¹⁷⁻²².

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

140

141 METHODS

142 *Design and setting*

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

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3 146 care providers' perspectives and values.²³ An interpretivist approach was considered appropriate for
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5 147 this exploration²⁴.

6 148 The VU University Medical Center reviewed the study design and confirmed that ethical
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8 149 approval was not required for this study in the Netherlands (reference WC2016-415).

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11 151 ***Research team and reflexivity***

12
13 152 The first author interviewed 16 of the 20 participants and is a woman of 30 years, mother,
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15 153 midwife with four years of clinical experience, educated in conducting qualitative studies, and
16
17 154 employed as a PhD-candidate in her final year at the time of the study. Most of the participants were
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19 155 unknown to her, but two of the participants were aware of her previous publications on episiotomy
20
21 156 in the Netherlands. The first interview was carried out by the first and second author together and
22
23 157 one interview was carried out by the second author, who is a woman of 49 years, midwife with 26
24
25 158 years clinical experience, experienced qualitative interviewer, lecturer, and employed as a PhD-
26
27 159 candidate in her final year at the time of the study. Three interviews were conducted by third year
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29 160 midwifery students. They were educated on interview techniques in advance, and were instructed by
30
31 161 the first author.

32
33 162 The entire research team consisted of researchers from different disciplines, including midwives,
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35 163 researchers, lecturers, and an obstetrician. A topic list was developed by the first author, reviewed by
36
37 164 the research team, and iteratively evolved based on the findings of the interviews.

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40 166 ***Recruitment***

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42 167 Participants were eligible if they were working as a midwife in primary or secondary care,
43
44 168 obstetrician or obstetrician/urogynaecologist in secondary or tertiary care, or as an obstetric
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46 169 registrar. Purposive and snowball sampling strategies were applied, to obtain a broad sample of care
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48 170 providers, reflecting the possible diversity of perspectives and values. To ensure variety among
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50 171 participants, purposive sampling was based on care providers' perceived episiotomy rate and/or
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52 172 region of work. Participants were randomly approached by contacting care providers in specific
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54 173 regions, or purposively approached through referrals by other care providers. Participants were
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56 174 recruited until data saturation was obtained, which was defined by the absence of new codes, and
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58 175 until all parts of the country were represented. A total of 34 care providers, hospitals, or midwifery
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60 176 practices were contacted, resulting in twenty included participants. Reasons for non-participation
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178 were: no response received, retired, lack of time, and not having the perceived episiotomy rate that
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180 177 were still required to obtain a varied sample of participants. In advance of the interviews, participants
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182 178 were asked to provide personal information on place of education, region of work, number of

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3 180 attended births per year, and their personal episiotomy rate or number of episiotomies performed
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5 181 during the last 25 attended births. An 'attended birth' was specified to the participants as a birth
6
7 182 where the decision to perform an episiotomy would be made by the themselves. Participants were
8
9 183 approached by email, telephone, or both. A brief overview of the aim of the interview was given
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11 184 before the care provider agreed to participate. The participant was informed that it would concern
12
13 185 an individual in-depth interview, participation would be voluntary, data would be anonymized and
14
15 186 treated confidentially, and audio material would be destroyed following transcription. Data and
16
17 187 participant names were stored separately with encrypted passwords and transcripts were shared
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19 188 with students for transcription with encrypted passwords.

190 **Interviews**

20
21 191 Interviews were semi-structured, using a topic-list with open-ended questions, which was pilot-
22
23 192 tested (see Table 1). The participant was informed that (s)he could withdraw from the study without
24
25 193 giving a reason and written informed consent was obtained after oral and written information about
26
27 194 the study (see Supplementary files 1 and 2). At the start of the interview, the participants were
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29 195 informed that the aim of the interview was to investigate the full scope of perspectives and values of
30
31 196 care providers, that no value judgment would be made during the interview, and that there was no
32
33 197 right or wrong answer. Besides, they were told that the perspectives and values of the interviewer
34
35 198 would not be part of the conversation. The interview commenced with an invitation to the
36
37 199 participant to talk about his/her opinion regarding episiotomy. Subsequently, in the responses given
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39 200 by the participant, the researchers probed, in order to elicit depth, based on the topics that were
201 brought up by the participant.

40 202 Interviews were recorded on audio equipment and transcribed verbatim by the first author or
41
42 203 by student assistants. Field notes were made during and after the interviews. To ensure accuracy and
43
44 204 to facilitate deep engagement with the data, transcripts of interviews that were recorded by student
45
46 205 assistants, were read and re-read, before being checked with the original audio by the first author.
47
48 206 After each interview, member check was offered to the participant based on the transcript of each
49
50 207 interview, as a means of maintaining scientific rigor, which did not lead to responses in which
208 changes were requested.

210 **Analysis**

211 211 Data analysis was carried out concurrently with data collection, allowing the researchers to
212
213 212 reflect on the data. This allowed for the exploration and validation of emerging themes which were
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214 213 identified from the interviews and which were used iteratively to adjust the topic list for subsequent

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3 214 interviews. The first interviews were analysed independently by the first two authors, and
4
5 215 disagreements about codes were discussed until consensus was reached.

6 216 Inductive thematic analysis was conducted, described by Braun and Clarke (2006)²⁵, making use
7
8 217 of statistic software program MAXQDA. Data were read and re-read to become familiarized with
9
10 218 them. Initial codes were generated by coding interesting features of the data and relationships
11
12 219 between codes were identified. A first coding tree was developed, and the first five interviews were
13
14 220 coded again to identify over-arching codes. During the analyses of the subsequent interviews, the
15
16 221 codes were increasingly collated into potential themes and all data relevant to each theme were
17
18 222 gathered. After potential themes were identified, these were reviewed by checking the relation to
19
20 223 the coded extracts and the entire data set, generating a thematic network²⁶. Subsequently, the
21
22 224 authors applied a name and a description for each theme (see the coding tree in Supplementary file
23
24 225 3). Quotes were identified, providing thick description as a means of illustrating these themes. During
25
26 226 this data collection and analysis process, discussion of and reflection on the codes, sub-themes, and
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28 227 themes were on-going between the researchers involved in this study. For framing the results into
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30 228 the existing literature, we compared the data to the framework of Evidence Based Practice (EBP),
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32 229 using the model of Satterfield et al. (2009) (figure 1)²⁷. This model includes the following three
33
34 230 components: *'Best available research evidence'*, *'Client's/population's characteristics, state, needs,*
35
36 231 *values, and preferences'*, and *'Resources, including practitioner's expertise'*. These three components
37
38 232 overlap in the centre, which illustrates the way decisions are made. The fourth component
39
40 233 *'Environmental and organizational contexts'*, which is places in the outer space of the model, has
41
42 234 influence on all components.

43 235 44 236 **Patient involvement**

45 237 Patients were not involved in this study.

46 238 47 239 **RESULTS**

48 240 Twenty of the 34 invited care providers gave consent and participated in the study, thirteen
49
50 241 women and seven men (Table 2). Ten were working as a midwife, in primary or secondary care, six
51
52 242 were obstetricians, of which two were specialized in urogynaecology, and four obstetric registrars
53
54 243 ranging in educational experience from the first to sixth years of education. Participants were diverse
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56 244 with regard to ages, ranging from 25 to 55 years; work experience, from three months to 29 years;
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58 245 number of births attended per year, from 12 to 20; and their approximate personal episiotomy rate,
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60 246 from 0% to 90%. The interviews took place between August 2017 and December 2019, at a quiet

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3 247 location, without other persons present, and convenient for the participant, which generally was the
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5 248 clinic or the participants' home. The interviews lasted between 33min and 1h 55min.

6 249 Four themes giving insight into the perspective and values of care providers towards episiotomy
7
8 250 emerged from the data. These were *'Care providers' vision on childbirth'*, *'Discrepancy between*
9
10 251 *restrictive perspective and daily practice'*, *'Clinical expertise versus literature-based practice'*, and
11 252 *'Involvement of women in the decision'*.

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13 253

14 254 ***Care providers' vision on childbirth***

15 255 The EBP-component *'Resources, including practitioner's expertise'* was the most important
16 256 component in the perspective and values of care providers. Care providers' visions on childbirth
17 257 underpin their perspective and values about episiotomy use. Views on childbirth could be
18 258 characterized in two paradigms: either a physiological vision, or a risk-focused vision.

19 259 The physiological vision was characterized by the importance of iatrogenic harm to healthy body
20 260 tissues, avoiding episiotomies, and approaches in care that minimized episiotomy and spontaneous
21 261 perineal rupture. Care providers with this vision more often articulated negative feelings that they
22 262 associated with performing episiotomy. They stated that episiotomy should be avoided whenever
23 263 possible.

24 264

25 265 *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*
26 266 *gynaecologists said; "If you saw such an injury on someone in the street, you'd call an ambulance". [...] Yes, it's not nothing*
27 267 *for a woman to have that. (Midwife 8)*

28 268

29 269 *And are there, for example, ways to learn how to perform fewer epi's (episiotomy), fewer interventions without*
30 270 *disadvantaging the mother, sphincter damage, or for babies, fetal distress? ... Then we have to see if we can do that.*
31 271 *(Obstetrician 9)*

32 272

33 273 The risk-focused vision was characterized by a tendency to intervene. This approach emphasized
34 274 the protective effect of episiotomy for the child, but more particularly for the mother. Care providers
35 275 with this vision did not really articulate negative feelings when performing episiotomy. Rather, they
36 276 considered it as a technical operation, resulting in a clean cut that was viewed by some care
37 277 providers as preferable to a spontaneous perineal rupture.

38 278

39 279 *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*
40 280 *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*
41 281 *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*
42 282 *feel no emotion about it. I perform it with professional distance. (Obstetric registrar 7)*

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3 284 Intrinsic and extrinsic factors contributed to care providers' visions on childbirth, and viewpoints
4
5 285 were rather dynamic, evolving over time. Intrinsically, care providers often emphasized an eagerness
6
7 286 to learn, but skills training mainly focused on suturing and not on performing episiotomy, and some
8
9 287 did not attend professional training to update their skills. This division was also noted in reflection on
10
11 288 episiotomy usage. Some professionals reflected on their use of episiotomy, others mentioned that
12
13 289 episiotomy was never a subject of evaluation, neither for themselves, nor with colleagues.

14 290
15 291 *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*
16 292 *as your training progresses, you start looking around, like how is that? [...] And then you evaluate again: how did it go? Did*
17 293 *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*
18 294 *literature or what you know about other peoples' opinions, but also finding out for yourself. (Obstetrician 18)*

19 295
20 296 *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*
21 297 *cut ... Or how many sphincter damages have you had, how many have I had... (Obstetrician 11)*

22 298
23 299 Extrinsicly, care providers mentioned the importance of two things in the evolution of their
24 300 professional vision on childbirth. Firstly, they highlighted that childbirth visions are highly influenced
25 301 by professional and educational backgrounds. Secondly, they mentioned that working experience is
26 302 an important contributor to quality of care and that adverse events influence the tendency to
27 303 intervene.

28 304
29 305 *I think that if you look towards gynaecologists who deal with the pelvic floor ... They deal with it very differently than the*
30 306 *obstetricians. [...] I think eh .. pelvic floor gynecologists are more likely to perform episiotomy. (Obstetric registrar 2)*

31 307
32 308 *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*
33 309 *cut earlier. (Midwife 4)*

34 310

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

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

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3 320 a lesser extent, women's preferences. If clearly indicated, care providers were confident that the
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5 321 episiotomy was justified , but feeling uncertain or inexperienced was mentioned as well.

6 322

7
8 323 *Because actually, we can't really demonstrate that the female pelvic floor is better off being cut into, to summarize. The*
9 324 *female pelvic floor does not improve as a result of cutting and, eh, I sometimes grumble that we're the ones who have to*
10 325 *suture when no-one else has the over-sight. And if it (the perineum) looks like a bomb went off there, guys, just perform*
11 326 *episiotomy, don't let it tear like that. (Obstetrician 11)*

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15 328 *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*
16 329 *ultimately ensuring that someone has fewer problems in the future. So that's what makes it justifiable for me to do it.*
17 330 *(Obstetrician/urogynaecologist 10).*

18 331

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21 332 The lack of evaluation of the longer-term implications and feedback on the consequences of
22 333 their episiotomies inhibited care providers in experiencing the need of being restrictive in performing
23 334 episiotomy. The possibility to evaluate practice was seen as being limited by difficulties in comparing
24 335 incidences of episiotomy between low- and high-risk populations.

25 336

26
27 337 *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,*
28 338 *sometimes at six weeks but sometimes not. That is of course a shame, because it is good to get feedback from what happens*
29 339 *with an epi. (Obstetric registrar 7)*

30 340

31 341 **Clinical expertise versus literature-based practice**

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33 342 Care providers generally gave more weight to the 'practitioner expertise' component of
34 343 evidence-based practice than the 'best available research' component in the decision-making for
35 344 episiotomy. Care providers justified deviations from 'best available research' by pointing out the
36 345 limitations of applying evidence to practice situations. Conversely, different care providers used
37 346 literature differently to substantiate their own perspectives and values, resulting in varying
38 347 techniques, methods, and approaches to women during the second stage of labour.

39 348

40 349 *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*
41 350 *very long second stage [...] that you might need to make some space anyway. Then again, eh, during the birth you just see*
42 351 *that, eh, the perineum, the pelvic floor is just very tight. Or it threatens to tear badly. You still hope that it (episiotomy) will*
43 352 *prevent something worse. But of course that is not very evidence based. (Midwife 13)*

44 353

45 354 *It's the same when you look at eh, at the literature around elective use of episiotomy after previous sphincter damage [...],*
46 355 *you will probably come to the conclusion that it doesn't prevent sphincter damage happening again, you need to look at*
47 356 *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*
48 357 *it tear when the head crowns, yes, then I wonder if that (the literature) also applies to that case. (Obstetrician 18)*

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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

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3 394 *realistic [...] In short, she (the woman) will hear it as an announcement and not as counselling. Then she can still say no if*
4 395 *she wants, and I would listen to that. But yeah. Interviewer: And is there a kind of informed consent? Participant: Eh... eh...*
5 396 *No... No... No [laughing]. No... (Obstetrician 11)*

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9 398 Where conflicts arose between a care providers' vision and woman's preferences, some care
10 399 providers valued a woman's personal autonomy above their own vision. Most care providers would
11 400 try to convince a woman by giving information. Others used strong convincing reasoning to change
12 401 women's minds, and some disregarded a woman's autonomy. Such preferences expressed by
13 402 women were often seen as a limitation to optimal care. Significantly, many care providers played
14 403 down the severity of episiotomy. This was evident in the use of belittling language, such as 'just a
15 404 little cut', suggesting that episiotomy was viewed by care providers as a minor intervention.

16 405
17 406 *So, if you have to do an instrumental delivery (and a woman does not want episiotomy), [...] then I can roughly calculate for*
18 407 *that lady what her chance of a sphincter injury is. [...] Using my laptop I have, within 5 minutes, what, approximately her*
19 408 *chance is, based on the data we have. And then I say: "Well if you know that, [...] if you have a sphincter laceration, within*
20 409 *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*
21 410 *have a reasonable method, eh, to reduce that risk. Would you want me to deprive you of this?*
22 411 *(Obstetrician/urogynaecologist 6)*

23 412
24 413 *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.*
25 414 *Otherwise, you'll have to push a bit longer...and then, eh yes, then you have... you have some kind of informed consent*
26 415 *about whether or not she wants it (episiotomy). And usually she wants it [laughs]. (Midwife 15)*

27 416

28 417 **DISCUSSION**

29 418 In this qualitative study, twenty care providers were interviewed about their perspectives and
30 419 values towards episiotomy. The results were analysed using the framework of Satterfield et al. (2009)
31 420 on Evidence-Based Practice²⁷. This qualitative study illustrated that the expertise of the care provider
32 421 themselves was the most important component in decision-making with regard to episiotomy. Care
33 422 providers' perspectives, values, and practices are strongly influenced by individual underlying visions
34 423 of childbirth. Although care providers often emphasized the importance of a restrictive episiotomy
35 424 policy, a discrepancy was expressed between vision and practice, and a large number of varying
36 425 indications (see Table 3) mentioned as justification for performing episiotomy. All care providers
37 426 considered it important to justify their actions. While the literature was used to underpin the
38 427 justification of their policies, the importance of clinical expertise was used to support deviations from
39 428 recommended practice. Women's autonomy was important, yet, at the moment of decision-making,
40 429 women's involvement in decision-making is minimal. Informed consent is not obtained, neither

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3 430 during labour, nor during pregnancy. The language often used by care providers about episiotomy
4 431 illustrates an underlying attitude that views episiotomy as a minor intervention.

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7 433 Understanding the perspective and values of care providers towards episiotomy is essential for
8
9 434 obtaining deeper understanding of variations in episiotomy practices. Previous studies showed large
10 435 variations in episiotomy rates. In the Netherlands, rates varied among twelve regions from between
11 436 14% to 42% for nulliparous women and from between 3% to 13% for multiparous women²⁸. The
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13 437 Netherlands has historically been seen as a country with a physiological approach to childbirth and a
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15 438 corresponding high rate of home births²⁹. Studies showed that giving birth at home is a protective
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17 439 factor for episiotomy³⁰. However, although giving birth at home is more common in the Netherlands
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19 440 compared to all other high-income countries, the rate of episiotomy is much higher than in countries
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21 441 like Sweden (6% among nulliparous women), Denmark (7% among nulliparous women)⁶, and the USA
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23 442 (9%)³¹. This study gives insight in the underlying perspectives and values of care providers, leading to
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25 443 these varying episiotomy rates.

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27 28 445 ***Childbirth vision, evidence, and practice***

29 446 The most important contributor to episiotomy practice found in our study was the vision of care
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31 447 providers on childbirth and episiotomy. This was rather more decisive than recommendations from
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33 448 the literature. Although liberal use of episiotomy has no evidence-base², there are still countries, and
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35 449 regions within countries, with high episiotomy rates^{4 5}. On one hand, literature suggests that
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37 450 episiotomy may be beneficial to prevent OASI in some women⁸, particularly in case of instrumental
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39 451 vaginal birth. On the other hand, routine use of episiotomy may paradoxically result in increased
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41 452 rates of OASI⁸ and overuse of episiotomy results in unnecessary complaints and morbidity among
42
43 453 many women⁹⁻¹⁶. The awareness of these insights is reflected in the literature during the last four
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45 454 decades³² and has led to a decline in the episiotomy rates in many countries, with a sharper decline
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47 455 in some countries versus others³³. Our study showed that most care providers were aware of the
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49 456 importance of a restrictive episiotomy policy, but practices often diverged from this restrictive
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51 457 perspective, leading to a liberal rather than restrictive episiotomy practice among some care
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53 458 providers. In a study of Seijmonsbergen et al. on regional variation of episiotomy in the Netherlands,
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55 459 a higher rate of episiotomy was found in regions with lower rates of home births, also among women
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57 460 in obstetrician-led care²⁸. This suggests that vision may be an important contributor to the tendency
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59 461 to intervene. The current study confirms this by showing widely diverging visions on episiotomy,
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462 which may be one of the most important factors leading to variation in episiotomy rates.

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3 463 Moreover, previous studies confirm our finding that care providers' clinical expertise and own
4 464 perspectives often override recommendations based on the literature^{17 18 20 34 35}. In our study, care
5 465 providers mentioned the importance that practices can be justified, although those practices and
6 466 perspectives varied largely among these care providers, and were not always evidence-based.
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8 467 Hussein et al. (2012) emphasized this by describing that care providers' preferred their familiar way
9 468 of working, and that change may evoke feelings of uncertainty and risk^{34 35}. Henriksen et al. (1994)
10 469 found that improving awareness of personal episiotomy rates, led to a decrease in the episiotomy
11 470 rate³⁶. Workload has been mentioned as barrier for reducing episiotomy rates in previous studies in
12 471 settings with routine episiotomy practices, but did not emerge as a theme in our study^{20 34 37},
13 472 probably because of the vision of restrictive use of episiotomy in our study. Other qualitative studies
14 473 into the perspectives of care providers found various perspectives towards episiotomy. They confirm
15 474 a limited role of evidence in episiotomy practice, and care providers' vision, beliefs, and values being
16 475 an important contributor to practice^{17 18 20}.

17 476 Varying perspectives on episiotomy and on dealing with evidence suggest that perspectives may
18 477 not be evidence-based and that evidence may be insufficiently applicable and explicit for
19 478 implementation into practice. Although the literature is not clear on which indications are valid for
20 479 episiotomy, it is recommended to perform episiotomies restrictively. The meaning of 'restrictive'
21 480 varies largely among care providers, and recommendations in literature and guidelines are not
22 481 uniform. However, in some countries national uniform recommendations on episiotomy practice are
23 482 available, such as the clinical guideline "Intrapartum care for healthy women and babies" from the
24 483 National Institute for Health and Care Excellence Guidance³⁸. In the Netherlands, national guidelines
25 484 or recommendations on episiotomy practice are lacking. Recurrent evaluations of episiotomy
26 485 indications with colleagues and educating care providers on the best available evidence on
27 486 episiotomy will enable care providers to revise their vision and practices, and will motivate them to
28 487 apply the evidence from the literature^{39 40}. However, educating care providers is difficult as long as
29 488 there is a lack of consensus on the meaning of 'restrictive' in the literature. Future research should
30 489 focus on which indications are valid for episiotomy and should be well-applicable for practice,
31 490 considering the complexity of situations during the second stage of labour.

32 491

33 492 ***Woman-centered care***

34 493 The involvement of women in the decision to perform episiotomy was limited. Episiotomy is
35 494 performed in a situation that is comparable to other medical emergency situations. In specific
36 495 emergency situations, exceptions may apply to informed consent, because there is a lack of time to
37 496 obtain informed consent⁴¹ and the woman is incapable of giving it⁴². However, it is questionable

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3 497 whether this applies to the situation of childbirth. In accordance to Wear (1993), the exception for
4 498 informed consent during emergency situations involves (1) an immediate threat to life; (2) the
5 499 treatment is a general recommended treatment and can appeal to the standard of practice; and (3)
6 500 the time to achieve informed consent would significantly increase the risk of severe adverse
7 501 outcomes⁴¹. Considering the large variation in incidences and perspectives towards episiotomy,
8 502 episiotomy cannot be considered a general recommended treatment or as standard practice. Stohl
9 503 (2018) argued that, except from the most extreme and rare cases, childbirth is not a medical
10 504 emergency and women do not typically lose the ability to make decisions during childbirth.
11 505 Therefore, the exception for informed consent does not usually apply to childbirth⁴³. Other studies
12 506 confirmed that informed consent for episiotomy is not asked for in the second stage of labour^{44 45}.
13 507 Although care providers minimally involve women in the decision-making during the second stage of
14 508 labour, previous studies reported that women highly value their involvement in decision-making
15 509 during childbirth⁴⁶. Van der Pijl et al. examined 438 quotes of women on negative and traumatic
16 510 childbirth experiences, expressed in the Dutch *#breakthesilence* campaign and found that lack of
17 511 informed consent was one of the most frequently expressed types of mistreatment experienced by
18 512 women during childbirth⁴⁷. Besides, episiotomy was the most frequently mentioned intervention,
19 513 where women experienced a lack of communication by the care provider, which led to feelings of
20 514 disrespect. Accordingly, Hollander et al. (2017) found that lack of control, communication, and
21 515 involvement in decision-making were important attributions of traumatic birth experiences⁴⁸. Not
22 516 being informed or not being involved in the decision to perform episiotomy can result in negative
23 517 and even traumatic experiences. Although the studies of Van der Pijl et al. and Hollander et al. (2017)
24 518 do not represent the feelings and preferences of all women, other studies confirm that women may
25 519 feel less satisfied after having had an episiotomy^{47 49}. Besides, studies show that information
26 520 regarding episiotomies is important to increase understanding and feelings of comfort⁵⁰, and that
27 521 being involved in decision-making is one of the most important contributors to a positive childbirth
28 522 experience⁵¹. Downe et al. (2018) showed that women place high value on giving birth without non-
29 523 indicated interventions, but if an intervention is needed, that they wish to be involved in decision-
30 524 making to retain a sense of control⁴⁶. The difficulties concerning obtaining informed consent can be
31 525 solved by shared decision-making during pregnancy about indications for episiotomy during labour if
32 526 need arises. This is more feasible than during the second stage of labour, and there is enough time
33 527 for the woman to form her opinion. When discussing episiotomy, care providers should be aware
34 528 that women may see episiotomy as an invasive medical intervention, and that belittling words and
35 529 considering episiotomy a negligible intervention may not correspond with women's feelings about
36 530 undergoing it. The varying perspectives of care providers on episiotomy make it more important to

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3 531 involve women in decision-making and the appropriateness of care providers' practice should be
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5 532 placed in perspective, considering the varying existing perspectives and values.

6 533

7
8 534 ***Strengths and limitations***

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10 535 This study investigated the diverse range of perspectives and values of care providers towards
11 536 episiotomy, representing all professional backgrounds. However, this study had some limitations.
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13 537 The perspectives of the interviewers may have encouraged participants to give socially desirable
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15 538 answers. Nevertheless, many participants expressed comments in favour of liberal use of episiotomy,
16 539 and mentioned indications that were critically discussed in previous publications of the first authors¹⁰
17 540^{52 53}. On the other hand, it may have encouraged participants to express a strong opposite opinion.
18 541 Conversely, by being an expert on the topic, the interviewer was able to go into the merits of the
19 542 actual situations during childbirth, and to understand the difficulties care providers have to deal with.
20
21 543 The subjectivity of the researchers may also have biased the analyses. To minimise the influence of
22 544 this bias, we discussed the data and interpretation of the results within the author group that
23 545 consisted of midwives, researchers, educators, and an obstetrician.

24
25 546 Although data saturation was reached, an element of selection bias cannot be eliminated. The
26 547 participants in our study represented care providers from all professional backgrounds qualified for
27 548 performing episiotomies, across the whole country, and of different educational backgrounds. This
28 549 resulted in a broad spectrum of perspectives and values, which will be present in other countries
29 550 with similar episiotomy rates as well. Further research into the perspective and values of care
30 551 providers in a variety of countries with different episiotomy rates is warranted to gain insight into
31 552 perspectives and values of care providers working in different birth cultures. Understanding
32 553 perspectives and values of care providers in various setting will provide knowledge that is required to
33 554 stimulate a worldwide evaluation of episiotomy practices.

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35
36 556 **CONCLUSION**

37 557 The decision to perform episiotomy is mainly based on care providers' own insight, which is
38 558 highly influenced by care providers' vision on episiotomy and childbirth. Differences in care
39 559 providers' perspectives, values, and underlying visions may be an important contributor to the large
40 560 variations in episiotomy incidences. The involvement of the labouring woman in the decision is
41 561 minimal. Care providers' clinical expertise generally overrules the recommendations from the
42 562 literature. The recommendation to perform episiotomies restrictively is considered important, but
43 563 the large number of indications for episiotomy shows that it is in practice not always performed
44 564 restrictively.

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3 565 Because other literature shows that women highly value their involvement in decision-making,
4 566 and a lack of feeling in-control contributes to traumatic birth experiences, women should be given
5 567 the opportunity to participate in shared decision-making about indications for episiotomy, preferably
6 568 during pregnancy. More research is required to achieve consensus on indications for episiotomy, and
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8 569 to understand perspectives and values of care providers in other settings. Future research should be
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10 570 well-applicable for practice, considering the complexity of situations during the second stage of
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12 571 labour.
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16 573 **FOOTNOTES**

17 574 ***Competing interests***

18 575 All authors have completed the ICMJE uniform disclosure form at
19
20 576 www.icmje.org/coi_disclosure.pdf and declare: no support from any organisation for the submitted
21
22 577 work; no financial relationships with any organisations that might have an interest in the submitted
23
24 578 work in the previous three years; relationships or activities that could appear to have influenced the
25
26 579 submitted work, as described in the methods section.
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28 580

29 581 ***Author Contributions***

30 582 AESS, AdJ, and TvdA conceived the study and AESS wrote the paper. AESS and ST interviewed
31
32 583 the participants and conducted the analyses. AESS, ST, EF-dJ, MS, MP, TvdA, and AdJ contributed to
33
34 584 the methods of the study and the interpretation of the findings, and critically revised earlier drafts of
35
36 585 the article.
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38 586

39 587 ***Ethics approval***

40 588 The VU University Medical Center confirmed that ethical approval was not required for this
41
42 589 study (reference WC2016-415). Participants signed informed consent before taking part in this study.
43
44 590

45 591 ***Funding***

46 592 This research received no specific grant from any funding agency in the public, commercial or
47
48 593 not-for-profit sectors.
49
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51 595 ***Access to the data***

52 596 All authors, external and internal, can have full access to all of the data in the study and can take
53
54 597 responsibility for the integrity of the data and the accuracy of the data analysis.
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56 598

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2
3 599 **Transparency**

4 600 The lead author affirms that this manuscript is an honest, accurate, and transparent account of
5 601 the study being reported; that no important aspects of the study have been omitted; and that any
6 602 discrepancies from the study as planned (and, if relevant, registered) have been explained.
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10 603

11 604 **Data sharing**

12 605 Participant level data are available from the corresponding author at
13 606 a.seijmonsbergen@amsterdamumc.nl. Participants gave informed consent for use of anonymised
14 607 data for research purposes.
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18 608

19 609 **Acknowledgements**

20 610 We thank the contribution of all participants in this study. We also thank the contribution of
21 611 Davita van de Heuvel, Mandeepika Singh, and Tamar Nelson for transcribing the interviews, and
22 612 Tessa Schimmel and Liduine van Hoof for interviewing three participants.
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27 614 **Exclusive licence statement**

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46 625 **Supplemental files**

- 47 626 1. Participant’s information sheet
48 627 2. Informed consent sheet
49 628 3. Coding tree
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3 **632 Table 1. Topic list of the interviews**

4 Grand tour question: Can you tell me about your opinion towards episiotomy?

5
6 **Indications:**

- 7 - Own reasons for performing episiotomy.
8 - Opinion on reasons for others to perform episiotomy.
9

10 **Prevention of spontaneous ruptures**

- 11 - How?
12 - Role of episiotomy.
13 - Technique.
14

15 **Own experiences and feelings**

- 16 - Own feelings when performing episiotomy
17 - Colleagues, working environment, work culture.
18 - Changes in opinion and acting.
19

20 **The childbearing woman**

- 21 - Addressing episiotomy.
22 - Birthing plan.
23 - Informed consent.
24 - Women's preferences; deviating preferences.
25 - Unnecessary use of episiotomy by other care providers
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28 **Context**

- 29 - Opinion towards episiotomy rates and usage in the Netherlands.
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32 **634**

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

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

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3 638 **Table 3. Indications mentioned by participants**

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- 6 - fetal distress
- 7 - prematurity
- 8 - prolonged second stage
- 9 - maternal exhaustion
- 10 - instrumental birth
- 11 - history of obstetric anal sphincter injury (OASI)
- 12 - history of episiotomy
- 13 - tight perineum
- 14 - short perineum
- 15 - prevention of long-term harm
- 16 - prevention of spontaneous ruptures/OASI (without history of OASI)
- 17 - prevention of instrumental birth
- 18 - shoulder dystocia
- 19 - breech presentation
- 20 - multiple gestation
- 21 - macrosomia
- 22 - care provider's interest
- 23 - specific maternal history

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31 641 **Caption of figure enclosed:**

32
33 642 Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)²⁷

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3 643 **References**
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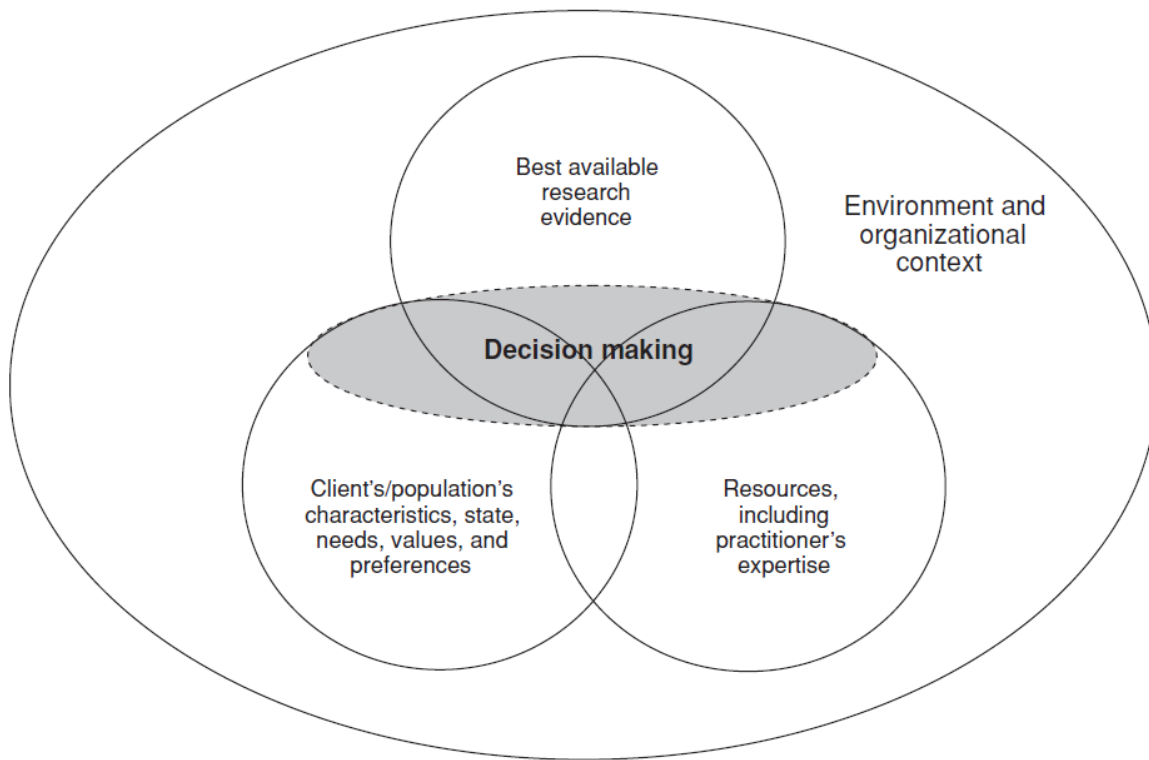
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For peer review only

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



review only

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 opgave 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

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Voor vragen over gegevensbescherming:

Michel Paardekooper (functionaris gegevensbescherming)
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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 opgaaft van redenen de deelname aan het onderzoek te beëindigen of een klacht over dit onderzoek in te dienen.

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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			
<i>Personal characteristics</i>			
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?	
<i>Relationship with participants</i>			
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 interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
<i>Participant selection</i>			
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?	
<i>Setting</i>			
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	
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat interviews 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 interview or focus group?	
Duration	21	What was the duration of the interviews 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			
<i>Data analysis</i>			
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?	
<i>Reporting</i>			
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

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BMJ Open

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

Journal:	<i>BMJ Open</i>
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, Midwifery Science Thompson, Suzanne; Zuyd University - Brusselseweg Campus, Research Centre for Midwifery Science Feijen-de Jong, Esther I.; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science Smit, Marrit; Leiden University Medical Center, Department of Obstetrics Prins, M; AVAG, APH research institute, Amsterdam UMC, locatie VUMC, Midwifery Science van den Akker, Thomas; Leiden University Medical Center, Department of Obstetrics 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

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4 2 **obstetric registrars regarding episiotomy: qualitative interview study**
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Keywords: Health care providers; Episiotomy; Understanding; Viewpoint; Qualitative research; Midwives; Obstetrics

Word count: 5,923 words

For peer review only

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

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3 91 for performing episiotomy. More research is required to achieve consensus on indications for
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5 92 episiotomy.
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7 93

8 94 **Article Summary**

9 95 ***Strengths and limitations of this study***

- 11 96 ➤ The strength of this qualitative study is that it represents perspectives and values of care
12
13 97 providers from all professional backgrounds.
14
15 98 ➤ Because this study was conducted in the Netherlands, generalisability of results cannot
16
17 99 be assumed, but these are relevant to a broad context, since variation in episiotomy
18
19 100 exists in many countries.
20
21 101 ➤ A limitation of this study is that perspectives of the interviewers may have encouraged
22
23 102 participants to give socially desirable answers or express strong opposite opinions.
24
25 103 ➤ Conversely, by being an expert on the topic, the interviewer was able to understand the
26
27 104 participants.
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29 105 ➤ Although data saturation was reached, an element of selection bias cannot be
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31 106 eliminated.
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112 INTRODUCTION

113 Episiotomy is one of the most commonly performed surgical interventions during childbirth¹,
114 and is primarily used to expedite the second stage of labour². There is major variation in episiotomy
115 practice worldwide^{1,3}, with rates varying from 4% in Denmark⁴ to 91% in Thailand⁵. The episiotomy
116 rate in the Netherlands was 46% among nulliparous and 14% among multiparous women, with an
117 instrumental-vaginal birth rate of 16% among nulliparous and 3% among multiparous women in
118 2013⁶. Rates varied among twelve regions from 14% to 42% for nulliparous women and from 3% to
119 13% for multiparous women⁷. The World Health Organization does not recommend routine or liberal
120 use of episiotomy for women undergoing spontaneous vaginal birth⁸. For instrumental births,
121 episiotomy may be beneficial to prevent Obstetric Anal Sphincter Injury (OASI)⁹. Several studies
122 illustrate that, in general, restrictive use of episiotomy is preferable to routine or liberal use².
123 Episiotomies can lead to physical problems, such as postpartum urinary retention, perineal pain,
124 dyspareunia, and pelvic floor muscle strength¹⁰⁻¹⁷. It is unknown which episiotomy rate is appropriate
125 for obtaining an optimal balance between harm caused by episiotomy and prevention of maternal
126 and neonatal morbidity by its use. Moreover, there is a lack of uniform recommendations on
127 indications for performing episiotomy, and there is major variation in applied indications among care
128 providers¹¹. This suggests that perspectives and values of care providers influence the decision to
129 perform an episiotomy and that this decision is not only based on medical necessity. Studies into
130 indications for episiotomy use or opinions of care providers have only been conducted among
131 restricted subgroups of childbearing women or in settings that cannot be generalized¹⁸⁻²². In these
132 studies, many indications for performing episiotomy were reported, including fetal distress,
133 instrumental birth, a tight or short perineum, prevention of major tears, history of major tears or
134 episiotomy, delay in second stage of labour, breech presentation, shoulder dystocia, preterm birth,
135 poor maternal effort, macrosomia, nulliparity, facilitation of postpartum wound repair, vaginal
136 bleeding, and women's request¹⁸⁻²³.

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

142

143 METHODS

144 *Design and setting*

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2
3 145 To gain insight into the perspectives and values of care providers towards performing
4 146 episiotomy, a qualitative study with a constructivist paradigm was conducted, using semi-structured
5 147 interviews. Choosing qualitative interviews involving face to face contact, enabled an exploration of
6 148 care providers' perspectives and values.²⁴ An interpretivist approach was considered appropriate for
7 149 this exploration²⁵.

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11 150 The VU University Medical Center reviewed the study design and confirmed that ethical
12 151 approval was not required for this study in the Netherlands (reference WC2016-415).

13 152

14 153 ***Research team and reflexivity***

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16 154 The first author interviewed 16 of the 20 participants and is a woman of 30 years, mother,
17 155 midwife with four years of clinical experience, educated in conducting qualitative studies, and
18 156 employed as a PhD-candidate in her final year at the time of the study. Most of the participants were
19 157 unknown to her, but two of the participants were aware of her previous publications on episiotomy
20 158 in the Netherlands. The first interview was carried out by the first and second author together and
21 159 one interview was carried out by the second author, who is a woman of 49 years, midwife with 26
22 160 years clinical experience, experienced qualitative interviewer, lecturer, and employed as a PhD-
23 161 candidate in her final year at the time of the study. Three interviews were conducted by third year
24 162 midwifery students. They were educated on interview techniques in advance, and were instructed by
25 163 the first author.

26 164 The entire research team consisted of researchers from different disciplines, including midwives,
27 165 researchers, lecturers, and an obstetrician. A topic list was developed by the first author, reviewed by
28 166 the research team, and iteratively evolved based on the findings of the interviews.

29 167

30 168 ***Recruitment***

31 169 Participants were eligible if they were working as a midwife in primary or secondary care,
32 170 obstetrician or obstetrician/urogynaecologist in secondary or tertiary care, or as an obstetric
33 171 registrar. Purposive and snowball sampling strategies were applied, to obtain a broad sample of care
34 172 providers, reflecting the possible diversity of perspectives and values. To ensure variety among
35 173 participants, purposive sampling was based on care providers' perceived episiotomy rate and/or
36 174 region of work. Participants were randomly approached by contacting care providers in specific
37 175 regions, or purposively approached through referrals by other care providers. Participants were
38 176 recruited until data saturation was obtained, which was defined by the absence of new codes, and
39 177 until all parts of the country were represented. A total of 34 care providers, hospitals, or midwifery
40 178 practices were contacted, resulting in twenty included participants. Reasons for non-participation

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3 179 were: no response received, retired, lack of time, and not having the perceived episiotomy rate that
4
5 180 was still required to obtain a varied sample of participants. In advance of the interviews, participants
6
7 181 were asked to provide personal information on place of education, region of work, number of
8
9 182 attended births per year, and their personal episiotomy rate or number of episiotomies performed
10
11 183 during the last 25 attended births. An 'attended birth' was specified to the participants as a birth
12
13 184 where the decision to perform an episiotomy would be made by themselves. Participants were
14
15 185 approached by email, telephone, or both. A brief overview of the aim of the interview was given
16
17 186 before the care provider agreed to participate. The participant was informed that it would concern
18
19 187 an individual in-depth interview, participation would be voluntary, data would be anonymized and
20
21 188 treated confidentially, and audio material would be destroyed following transcription. Data and
22
23 189 participant names were stored separately with encrypted passwords and transcripts were shared
24
25 190 with students for transcription with encrypted passwords.

191

192 ***Interviews***

26 193 Interviews were semi-structured, using a topic-list with open-ended questions, which was pilot-
27
28 194 tested (see Table 1). The participant was informed that (s)he could withdraw from the study without
29
30 195 giving a reason and written informed consent was obtained after oral and written information about
31
32 196 the study (see Supplementary files 1 and 2). At the start of the interview, the participants were
33
34 197 informed that the aim of the interview was to investigate the full scope of perspectives and values of
35
36 198 care providers, that no value judgment would be made during the interview, and that there was no
37
38 199 right or wrong answer. Besides, they were told that the perspectives and values of the interviewer
39
40 200 would not be part of the conversation. The interview commenced with an invitation to the
41
42 201 participant to talk about his/her opinion regarding episiotomy. Subsequently, in the responses given
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44 202 by the participant, the researchers probed, in order to elicit depth, based on the topics that were
45
46 203 brought up by the participant.

47 204 Interviews were recorded on audio equipment and transcribed verbatim by the first author or
48
49 205 by student assistants. Field notes were made during and after the interviews. To ensure accuracy and
50
51 206 to facilitate deep engagement with the data, transcripts of interviews that were recorded by student
52
53 207 assistants, were read and re-read, before being checked with the original audio by the first author.
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55 208 After each interview, member check was offered to the participant based on the transcript of each
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57 209 interview, as a means of maintaining scientific rigor, which did not lead to responses in which
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59 210 changes were requested.

211

212 ***Analysis***

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2
3 213 Data analysis was carried out concurrently with data collection, allowing the researchers to
4 214 reflect on the data. This allowed for the exploration and validation of emerging themes which were
5 215 identified from the interviews and which were used iteratively to adjust the topic list for subsequent
6 216 interviews. The first interviews were analysed independently by the first two authors, and
7 217 disagreements about codes were discussed until consensus was reached.

8 218 Inductive thematic analysis was conducted, described by Braun and Clarke (2006)²⁶, making use
9 219 of statistic software program MAXQDA. Data were read and re-read to become familiarized with
10 220 them. Initial codes were generated by coding interesting features of the data and relationships
11 221 between codes were identified. A first coding tree was developed, and the first five interviews were
12 222 coded again to identify over-arching codes. During the analyses of the subsequent interviews, the
13 223 codes were increasingly collated into potential themes and all data relevant to each theme were
14 224 gathered. After potential themes were identified, these were reviewed by checking the relation to
15 225 the coded extracts and the entire data set, generating a thematic network²⁷. Subsequently, the
16 226 authors applied a name and a description for each theme (see the coding tree in Supplementary file
17 227 3). Quotes were identified, providing thick description as a means of illustrating these themes. During
18 228 this data collection and analysis process, discussion of and reflection on the codes, sub-themes, and
19 229 themes were on-going between the researchers involved in this study. For framing the results into
20 230 the existing literature, we compared the data to the framework of Evidence Based Practice (EBP),
21 231 using the model of Satterfield et al. (2009) (figure 1)²⁸. This model includes the following three
22 232 components: *'Best available research evidence'*, *'Client's/population's characteristics, state, needs,*
23 233 *values, and preferences'*, and *'Resources, including practitioner's expertise'*. These three components
24 234 overlap in the centre, which illustrates the way decisions are made. The fourth component
25 235 *'Environmental and organizational contexts'*, which is places in the outer space of the model, has
26 236 influence on all components.

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237 238 ***Patient involvement***

239 Patients were not involved in this study.

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241 **RESULTS**

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

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3 247 number of births attended per year, from 12 to 20; and their approximate personal episiotomy rate,
4 248 from 0% to 90%. The interviews took place between August 2017 and December 2019, at a quiet
5
6 249 location, without other persons present, and convenient for the participant, which generally was the
7
8 250 clinic or the participants' home. The interviews lasted between 33min and 1h 55min.

9
10 251 Four themes giving insight into the perspective and values of care providers towards episiotomy
11 252 emerged from the data. These were *'Care providers' vision on childbirth*, *'Discrepancy between*
12 253 *restrictive perspective and daily practice*, *'Clinical expertise versus literature-based practice*, and
13 254 *'Involvement of women in the decision*'.

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16 255

17 256 ***Care providers' vision on childbirth***

18
19 257 The EBP-component *'Resources, including practitioner's expertise'* was the most important
20 258 component in the perspective and values of care providers. Care providers' visions on childbirth
21 259 underpin their perspective and values about episiotomy use. Views on childbirth could be
22 260 characterized in two paradigms: either a physiological vision, or a risk-focused vision.

23 261 The physiological vision was characterized by the importance of iatrogenic harm to healthy body
24 262 tissues, avoiding episiotomies, and approaches in care that minimized episiotomy and spontaneous
25 263 perineal rupture. Care providers with this vision more often articulated negative feelings that they
26 264 associated with performing episiotomy. They stated that episiotomy should be avoided whenever
27 265 possible.

28 266

29 267 *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*
30 268 *gynaecologists said; "If you saw such an injury on someone in the street, you'd call an ambulance". [...] Yes, it's not nothing*
31 269 *for a woman to have that. (Midwife 8)*

32 270

33 271 *And are there, for example, ways to learn how to perform fewer epi's (episiotomy), fewer interventions without*
34 272 *disadvantaging the mother, sphincter damage, or for babies, fetal distress? ... Then we have to see if we can do that.*
35 273 *(Obstetrician 9)*

36 274

37 275 The risk-focused vision was characterized by a tendency to intervene. This approach emphasized
38 276 the protective effect of episiotomy for the child, but more particularly for the mother. Care providers
39 277 with this vision did not really articulate negative feelings when performing episiotomy. Rather, they
40 278 considered it as a technical operation, resulting in a clean cut that was viewed by some care
41 279 providers as preferable to a spontaneous perineal rupture.

42 280

43 281 *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*
44 282 *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*

283 *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*
284 *feel no emotion about it. I perform it with professional distance. (Obstetric registrar 7)*

285
286 Intrinsic and extrinsic factors contributed to care providers' visions on childbirth, and viewpoints
287 were rather dynamic, evolving over time. Intrinsically, care providers often emphasized an eagerness
288 to learn, but skills training mainly focused on suturing and not on performing episiotomy, and some
289 did not attend professional training to update their skills. This division was also noted in reflection on
290 episiotomy usage. Some professionals reflected on their use of episiotomy, others mentioned that
291 episiotomy was never a subject of evaluation, neither for themselves, nor with colleagues.

292
293 *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*
294 *as your training progresses, you start looking around, like how is that? [...] And then you evaluate again: how did it go? Did*
295 *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*
296 *literature or what you know about other peoples' opinions, but also finding out for yourself. (Obstetrician 18)*

297
298 *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*
299 *cut ... Or how many sphincter damages have you had, how many have I had... (Obstetrician 11)*

300
301 Extrinsicly, care providers mentioned the importance of two things in the evolution of their
302 professional vision on childbirth. Firstly, they highlighted that childbirth visions are highly influenced
303 by professional and educational backgrounds. Secondly, they mentioned that working experience is
304 an important contributor to quality of care and that adverse events influence the tendency to
305 intervene.

306
307 *I think that if you look towards gynaecologists who deal with the pelvic floor ... They deal with it very differently than the*
308 *obstetricians. [...] I think eh .. pelvic floor gynecologists are more likely to perform episiotomy. (Obstetric registrar 2)*

309
310 *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*
311 *cut earlier. (Midwife 4)*

312

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

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

1
2
3 320 usage by balancing between the justification and the potential harm. They did this by weighing up
4
5 321 maternal characteristics, the situation during the second stage of labour, medical technology and, to
6
7 322 a lesser extent, women's preferences. If clearly indicated, care providers were confident that the
8
9 323 episiotomy was justified, but feeling uncertain or inexperienced was mentioned as well.

10 324
11 325 *Because actually, we can't really demonstrate that the female pelvic floor is better off being cut into, to summarize. The*
12
13 326 *female pelvic floor does not improve as a result of cutting and, eh, I sometimes grumble that we're the ones who have to*
14
15 327 *suture when no-one else has the over-sight. And if it (the perineum) looks like a bomb went off there, guys, just perform*
16
17 328 *episiotomy, don't let it tear like that. (Obstetrician 11)*

18 329
19 330 *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*
20
21 331 *ultimately ensuring that someone has fewer problems in the future. So that's what makes it justifiable for me to do it.*
22
23 332 *(Obstetrician/urogynaecologist 10).*

24 333
25 334 The lack of evaluation of the longer-term implications and feedback on the consequences of
26
27 335 their episiotomies inhibited care providers in experiencing the need of being restrictive in performing
28
29 336 episiotomy. The possibility to evaluate practice was seen as being limited by difficulties in comparing
30
31 337 incidences of episiotomy between low- and high-risk populations.

32 338
33 339 *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,*
34
35 340 *sometimes at six weeks but sometimes not. That is of course a shame, because it is good to get feedback from what happens*
36
37 341 *with an epi. (Obstetric registrar 7)*

38 342 39 343 **Clinical expertise versus literature-based practice**

40 344 Care providers generally gave more weight to the 'practitioner expertise' component of
41
42 345 evidence-based practice than the 'best available research' component in the decision-making for
43
44 346 episiotomy. Care providers justified deviations from 'best available research' by pointing out the
45
46 347 limitations of applying evidence to practice situations. Conversely, different care providers used
47
48 348 literature differently to substantiate their own perspectives and values, resulting in varying
49
50 349 techniques, methods, and approaches to women during the second stage of labour.

51 350
52 351 *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*
53
54 352 *very long second stage [...] that you might need to make some space anyway. Then again, eh, during the birth you just see*
55
56 353 *that, eh, the perineum, the pelvic floor is just very tight. Or it threatens to tear badly. You still hope that it (episiotomy) will*
57
58 354 *prevent something worse. But of course that is not very evidence based. (Midwife 13)*

59 355
60 356 *It's the same when you look at eh, at the literature around elective use of episiotomy after previous sphincter damage [...],*
61
62 357 *you will probably come to the conclusion that it doesn't prevent sphincter damage happening again, you need to look at*

1
2
3 358 *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*
4 359 *it tear when the head crowns, yes, then I wonder if that (the literature) also applies to that case. (Obstetrician 18)*
5
6 360

7 361 At the moment of decision-making, the decision to perform episiotomy was based on the care
8 providers' own clinical judgement. Despite having individual and often strong views and a personal
9 362 way of working, the influence of colleagues on practice was mentioned as important. This is reflected
10 363 by the EBP-component '*Environment and organizational context*'. Mainly for those working in
11 364 secondary or tertiary care, consultation and supervision of colleagues was an important factor in
12 365 decision-making. On the other hand, working autonomously was expressed by other participants.
13 366 Some of the care providers articulated the fear of being judged or the feeling of having to justify or
14 367 'account' for their decision-making.
15 368

16 369
17 370 *So he (supervising doctor) said; "If in doubt, perform episiotomy." And I thought that was really a very simple*
18 371 *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."*
19 372 *And it is precisely when you are inexperienced that you should perhaps do more episiotomies so that you have babies in*
20 373 *good condition. Better that than that you are too scared to do it and therefore get into difficulties. (Obstetric registrar 7)*
21 374
22 375 *I mean, I think ... the ... eh .. when you compare the studies with each other you might think: Yikes, it (episiotomy) happens*
23 376 *way too much there (in the hospital) and you definitely shouldn't be in the hospital because there everyone is performing*
24 377 *episiotomies all over the place. But I think, well, since I started working in the hospital, it's like comparing apples with*
25 378 *oranges... I really find that so annoying! (Midwife 5)*
26 379

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

381 The EBP-component '*Client's/population's characteristics, state, needs, values, and preferences*'
382 was not viewed as an important factor in decision-making for most care providers. Although most
383 care providers consider a woman's autonomy and bodily integrity as important, during second-stage
384 labour, the decision for episiotomy is made by the care provider. Care providers consider that the
385 'trustful relationship' formed between a woman and her maternity care provider provides them with
386 the basis of informed consent. For many care providers, consent was based on opting out, with some
387 care providers mentioning that the state of the mother during the second stage of labour, makes it
388 difficult or impossible to obtain informed consent and that women sometimes do not realize that
389 episiotomy has been performed. Some placed value on informing women well about episiotomy
390 during prenatal care. However, some of the care providers were dismissive of birth plans. They
391 substantiated this with examples such as women having unrealistic expectations of childbirth,
392 women's emotional and physical state during labour, and that women should relinquish control.
393

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2
3 394 *You can imagine the setting, right? To counsel someone at the very end of second stage labor, and to think that there is still,*
4 395 *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*
5 396 *realistic [...] In short, she (the woman) will hear it as an announcement and not as counselling. Then she can still say no if*
6 397 *she wants, and I would listen to that. But yeah. Interviewer: And is there a kind of informed consent? Participant: Eh... eh...*
7 398 *No... No... No [laughing]. No... (Obstetrician 11)*

9 399

10 399
11 400 Where conflicts arose between a care providers' vision and woman's preferences, some care
12 401 providers valued a woman's personal autonomy above their own vision. Most care providers would
13 402 try to convince a woman by giving information. Others used strong convincing reasoning to change
14 402 try to convince a woman by giving information. Others used strong convincing reasoning to change
15 402 try to convince a woman by giving information. Others used strong convincing reasoning to change
16 403 women's minds, and some disregarded a woman's autonomy. Such preferences expressed by
17 403 women were often seen as a limitation to optimal care. Significantly, many care providers played
18 404 down the severity of episiotomy. This was evident in the use of belittling language, such as 'just a
19 405 little cut', suggesting that episiotomy was viewed by care providers as a minor intervention.
20 406

21 407

22 407
23 408 *So, if you have to do an instrumental delivery (and a woman does not want episiotomy), [...] then I can roughly calculate for*
24 409 *that lady what her chance of a sphincter injury is. [...] Using my laptop I have, within 5 minutes, what, approximately her*
25 410 *chance is, based on the data we have. And then I say: "Well if you know that, [...] if you have a sphincter laceration, within*
26 411 *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*
27 412 *have a reasonable method, eh, to reduce that risk. Would you want me to deprive you of this?*

28 413 *(Obstetrician/urogynaecologist 6)*

29 414

30 415 *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.*
31 416 *Otherwise, you'll have to push a bit longer...and then, eh yes, then you have... you have some kind of informed consent*
32 417 *about whether or not she wants it (episiotomy). And usually she wants it [laughs]. (Midwife 15)*

33 418

419 DISCUSSION

420 In this qualitative study, twenty care providers were interviewed about their perspectives and
421 values towards episiotomy. The results were analysed using the framework of Satterfield et al. (2009)
422 on Evidence-Based Practice²⁸. This qualitative study illustrated that the expertise of the care provider
423 themselves was the most important component in decision-making with regard to episiotomy. Care
424 providers' perspectives, values, and practices are strongly influenced by individual underlying visions
425 of childbirth. Although care providers often emphasized the importance of a restrictive episiotomy
426 policy, a discrepancy was expressed between vision and practice, and a large number of varying
427 indications (see Table 3) mentioned as justification for performing episiotomy. All care providers
428 considered it important to justify their actions. While the literature was used to underpin the
429 justification of their policies, the importance of clinical expertise was used to support deviations from
430 recommended practice. Women's autonomy was important, yet, at the moment of decision-making,

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3 431 women's involvement in decision-making is minimal. Informed consent is not obtained, neither
4 432 during labour, nor during pregnancy. The language often used by care providers about episiotomy
5 433 illustrates an underlying attitude that views episiotomy as a minor intervention.
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10 435 Understanding the perspective and values of care providers towards episiotomy is essential for
11 436 obtaining deeper understanding of variations in episiotomy practices. Previous studies showed large
12 437 variations in episiotomy rates. The Netherlands has historically been seen as a country with a
13 438 physiological approach to childbirth and a corresponding high rate of home births²⁹. Studies showed
14 439 that giving birth at home is a protective factor for episiotomy³⁰. However, although giving birth at
15 440 home is more common in the Netherlands compared to all other high-income countries, the rate of
16 441 episiotomy is much higher than in countries like Sweden (6% among nulliparous women), Denmark
17 442 (7% among nulliparous women)⁶, and the USA (9%)³¹. This study gives insight in the underlying
18 443 perspectives and values of care providers, leading to these varying episiotomy rates.
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25 444

26 445 ***Childbirth vision, evidence, and practice***

27
28 446 The most important contributor to episiotomy practice found in our study was the vision of care
29 447 providers on childbirth and episiotomy. This was rather more decisive than recommendations from
30 448 the literature. Although liberal use of episiotomy has no evidence-base², there are still countries, and
31 449 regions within countries, with high episiotomy rates^{4 5}. On one hand, literature suggests that
32 450 episiotomy may be beneficial to prevent OASI in some women⁹, particularly in case of instrumental
33 451 vaginal birth. On the other hand, routine use of episiotomy may paradoxically result in increased
34 452 rates of OASI⁹ and overuse of episiotomy results in unnecessary complaints and morbidity among
35 453 many women¹⁰⁻¹⁷. The awareness of these insights is reflected in the literature during the last four
36 454 decades³² and has led to a decline in the episiotomy rates in many countries, with a sharper decline
37 455 in some countries versus others³³. Our study showed that most care providers were aware of the
38 456 importance of a restrictive episiotomy policy, but practices often diverged from this restrictive
39 457 perspective, leading to a liberal rather than restrictive episiotomy practice among some care
40 458 providers. In a study of Seijmonsbergen et al. on regional variation of episiotomy in the Netherlands,
41 459 a higher rate of episiotomy was found in regions with lower rates of home births. In regions with
42 460 lower rates of home births, episiotomy rates in obstetrician-led care were also higher⁷. This suggests
43 461 that vision may be an important contributor to the tendency to intervene. The current study
44 462 confirms this by showing widely diverging visions on episiotomy, which may be one of the most
45 463 important factors leading to variation in episiotomy rates.
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3 464 Moreover, previous studies confirm our finding that care providers' clinical expertise and own
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5 465 perspectives often override recommendations based on the literature^{18 19 21 34 35}. In our study, care
6
7 466 providers mentioned the importance that practices can be justified, although those practices and
8
9 467 perspectives varied largely among these care providers, and were not always evidence-based.
10
11 468 Hussein et al. (2012) emphasized this by describing that care providers' preferred their familiar way
12
13 469 of working, and that change may evoke feelings of uncertainty and risk^{34 35}. Henriksen et al. (1994)
14
15 470 found that improving awareness of personal episiotomy rates, led to a decrease in the episiotomy
16
17 471 rate³⁶. Workload has been mentioned as barrier for reducing episiotomy rates in previous studies in
18
19 472 settings with routine episiotomy practices, but did not emerge as a theme in our study^{21 34 37},
20
21 473 probably because of the vision of restrictive use of episiotomy in our study. Other qualitative studies
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23 474 into the perspectives of care providers found various perspectives towards episiotomy. They confirm
24
25 475 a limited role of evidence in episiotomy practice, and care providers' vision, beliefs, and values being
26
27 476 an important contributor to practice^{18 19 21}.

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29 477 Varying perspectives on episiotomy and on dealing with evidence suggest that perspectives may
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31 478 not be evidence-based and that evidence may be insufficiently applicable and explicit for
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33 479 implementation into practice. Although the literature is not clear on which indications are valid for
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35 480 episiotomy, it is recommended to perform episiotomies restrictively. The meaning of 'restrictive'
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37 481 varies largely among care providers, and recommendations in literature and guidelines are not
38
39 482 uniform. However, in some countries national uniform recommendations on episiotomy practice are
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41 483 available, such as the clinical guideline "Intrapartum care for healthy women and babies" from the
42
43 484 National Institute for Health and Care Excellence Guidance³⁸. On the other hand, this guideline leaves
44
45 485 room for different understandings of the clinical need for an episiotomy. In the Netherlands, national
46
47 486 guidelines or recommendations on episiotomy practice are lacking. Recurrent evaluations of
48
49 487 episiotomy indications with colleagues and educating care providers on the best available evidence
50
51 488 on episiotomy will enable care providers to revise their vision and practices, and will motivate them
52
53 489 to apply the evidence from the literature^{39 40}. However, educating care providers is difficult as long as
54
55 490 there is a lack of consensus on the meaning of 'restrictive' in the literature. Future research should
56
57 491 focus on which indications are valid for episiotomy and should be well-applicable for practice,
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59 492 considering the complexity of situations during the second stage of labour.
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493 494 ***Woman-centered care***

55 495 The involvement of women in the decision to perform episiotomy was limited. Episiotomy is
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57 496 performed in a situation that is comparable to other medical emergency situations. In specific
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59 497 emergency situations, exceptions may apply to informed consent, because there is a lack of time to
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3 498 obtain informed consent⁴¹ and the woman is incapable of giving it⁴². However, it is questionable
4 499 whether this applies to the situation of childbirth. In accordance to Wear (1993), the exception for
5 500 informed consent during emergency situations involves (1) an immediate threat to life; (2) the
6 501 treatment is a general recommended treatment and can appeal to the standard of practice; and (3)
7 502 the time to achieve informed consent would significantly increase the risk of severe adverse
8 503 outcomes⁴¹. Considering the large variation in incidences and perspectives towards episiotomy,
9 504 episiotomy cannot be considered a general recommended treatment or as standard practice. Stohl
10 505 (2018) argued that, except from the most extreme and rare cases, childbirth is not a medical
11 506 emergency and women do not typically lose the ability to make decisions during childbirth.
12 507 Therefore, the exception for informed consent does not usually apply to childbirth⁴³. Other studies
13 508 confirmed that informed consent for episiotomy is not asked for in the second stage of labour^{44 45}.
14 509 Although care providers minimally involve women in the decision-making during the second stage of
15 510 labour, previous studies reported that women highly value their involvement in decision-making
16 511 during childbirth⁴⁶. Van der Pijl et al. examined 438 quotes of women on negative and traumatic
17 512 childbirth experiences, expressed in the Dutch *#breakthesilence* campaign and found that lack of
18 513 informed consent was one of the most frequently expressed types of mistreatment experienced by
19 514 women during childbirth⁴⁷. Besides, episiotomy was the most frequently mentioned intervention,
20 515 where women experienced a lack of communication by the care provider, which led to feelings of
21 516 disrespect. Accordingly, Hollander et al. (2017) found that lack of control, communication, and
22 517 involvement in decision-making were important attributions of traumatic birth experiences⁴⁸. Not
23 518 being informed or not being involved in the decision to perform episiotomy can result in negative
24 519 and even traumatic experiences. Although the studies of Van der Pijl et al. and Hollander et al. (2017)
25 520 do not represent the feelings and preferences of all women, other studies confirm that women may
26 521 feel less satisfied after having had an episiotomy^{47 49}. Besides, studies show that information
27 522 regarding episiotomies is important to increase understanding and feelings of comfort⁵⁰, and that
28 523 being involved in decision-making is one of the most important contributors to a positive childbirth
29 524 experience⁵¹. Downe et al. (2018) showed that women place high value on giving birth without non-
30 525 indicated interventions, but if an intervention is needed, that they wish to be involved in decision-
31 526 making to retain a sense of control⁴⁶. The difficulties concerning obtaining informed consent can be
32 527 solved by shared decision-making during pregnancy about indications for episiotomy during labour if
33 528 need arises. This is more feasible than during the second stage of labour, and there is enough time
34 529 for the woman to form her opinion. When discussing episiotomy, care providers should be aware
35 530 that women may see episiotomy as an invasive medical intervention, and that belittling words and
36 531 considering episiotomy a negligible intervention may not correspond with women's feelings about

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2
3 532 undergoing it. The varying perspectives of care providers on episiotomy make it more important to
4 533 involve women in decision-making and the appropriateness of care providers' practice should be
5 534 placed in perspective, considering the varying existing perspectives and values.
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8 535

536 ***Strengths and limitations***

537 This study investigated the diverse range of perspectives and values of care providers towards
538 episiotomy, representing all professional backgrounds. However, this study had some limitations.
539 The perspectives of the interviewers may have encouraged participants to give socially desirable
540 answers. Nevertheless, many participants expressed comments in favour of liberal use of episiotomy,
541 and mentioned indications that were critically discussed in previous publications of the first authors¹¹
542 ^{52 53}. On the other hand, it may have encouraged participants to express a strong opposite opinion.
543 Conversely, by being an expert on the topic, the interviewer was able to go into the merits of the
544 actual situations during childbirth, and to understand the difficulties care providers have to deal with.
545 The subjectivity of the researchers may also have biased the analyses. To minimise the influence of
546 this bias, we discussed the data and interpretation of the results within the author group that
547 consisted of midwives, researchers, educators, and an obstetrician.

548 Although data saturation was reached, an element of selection bias cannot be eliminated. The
549 participants in our study represented care providers from all professional backgrounds qualified for
550 performing episiotomies, across the whole country, and of different educational backgrounds. This
551 resulted in a broad spectrum of perspectives and values, which will be present in other countries
552 with similar episiotomy rates as well. Further research into the perspective and values of care
553 providers in a variety of countries with different episiotomy rates is warranted to gain insight into
554 perspectives and values of care providers working in different birth cultures. Understanding
555 perspectives and values of care providers in various setting will provide knowledge that is required to
556 stimulate a worldwide evaluation of episiotomy practices.
557

558 **CONCLUSION**

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

1
2
3 565 the large number of indications for episiotomy showed that it is in practice not always performed
4
5 566 restrictively.

6 567 Because other literature shows that women highly value their involvement in decision-making,
7
8 568 and a lack of feeling in-control contributes to traumatic birth experiences, women should be given
9
10 569 the opportunity to participate in shared decision-making about indications for episiotomy, preferably
11 570 during pregnancy. More research is required to achieve consensus on indications for episiotomy, and
12
13 571 to understand perspectives and values of care providers in other settings. Future research should be
14
15 572 well-applicable for practice, considering the complexity of situations during the second stage of
16
17 573 labour.

18 574

575 **FOOTNOTES**

576 ***Competing interests***

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

582

583 ***Author Contributions***

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

588

589 ***Ethics approval***

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

592

593 ***Funding***

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

596

597 ***Access to the data***

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1
2
3 598 All authors, external and internal, can have full access to all of the data in the study and can take
4
5 599 responsibility for the integrity of the data and the accuracy of the data analysis.
6
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8 601 ***Transparency***

9
10 602 The lead author affirms that this manuscript is an honest, accurate, and transparent account of
11 603 the study being reported; that no important aspects of the study have been omitted; and that any
12 604 discrepancies from the study as planned (and, if relevant, registered) have been explained.
13
14 605

15
16 606 ***Data sharing***

17
18 607 Participant level data are available from the corresponding author at
19
20 608 a.seijmonsbergen@amsterdamumc.nl. Participants gave informed consent for use of anonymised
21 609 data for research purposes.
22
23 610

24
25 611 ***Acknowledgements***

26 612 We thank the contribution of all participants in this study. We also thank the contribution of
27
28 613 Davita van de Heuvel, Mandeepika Singh, and Tamar Nelson for transcribing the interviews, and
29
30 614 Tessa Schimmel and Liduine van Hoof for interviewing three participants.
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32 615

33 616 ***Exclusive licence statement***

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47 627 ***Supplemental files***

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50 628 1. Participant’s information sheet
51 629 2. Informed consent sheet
52 630 3. Coding tree
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For peer review only

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3 **634 Table 1. Topic list of the interviews**

4 Grand tour question: Can you tell me about your opinion towards episiotomy?

5
6 **Indications:**

- 7 - Own reasons for performing episiotomy.
8 - Opinion on reasons for others to perform episiotomy.
9

10 **Prevention of spontaneous ruptures**

- 11 - How?
12 - Role of episiotomy.
13 - Technique.
14

15 **Own experiences and feelings**

- 16 - Own feelings when performing episiotomy
17 - Colleagues, working environment, work culture.
18 - Changes in opinion and acting.
19

20 **The childbearing woman**

- 21 - Addressing episiotomy.
22 - Birthing plan.
23 - Informed consent.
24 - Women's preferences; deviating preferences.
25 - Unnecessary use of episiotomy by other care providers
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28 **Context**

- 29 - Opinion towards episiotomy rates and usage in the Netherlands.
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638 **Table 2. Summary of characteristics of participants in in-depth interviews**

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

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3 640 **Table 3. Indications mentioned by participants**

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- 6 - fetal distress
- 7 - prematurity
- 8 - prolonged second stage
- 9 - maternal exhaustion
- 10 - instrumental birth
- 11 - history of obstetric anal sphincter injury (OASI)
- 12 - history of episiotomy
- 13 - tight perineum
- 14 - short perineum
- 15 - prevention of long-term harm
- 16 - prevention of spontaneous ruptures/OASI (without history of OASI)
- 17 - prevention of instrumental birth
- 18 - shoulder dystocia
- 19 - breech presentation
- 20 - multiple gestation
- 21 - macrosomia
- 22 - care provider's interest
- 23 - specific maternal history

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26 643 **Caption of figure enclosed:**

27 644 Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)²⁷

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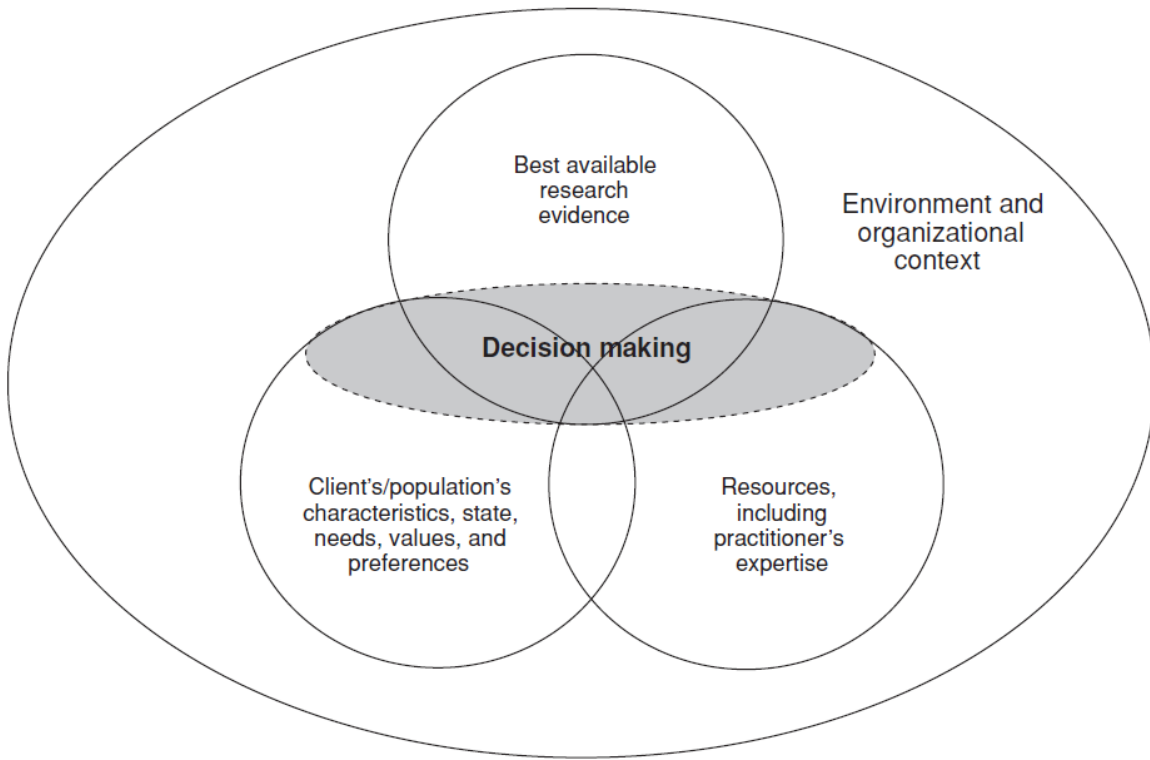
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Figure 1. The revised model on Evidence Based Practice of Satterfield et al. (2009)²⁷



review only

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 opgaaft van redenen de deelname aan het onderzoek te beëindigen of een klacht over dit onderzoek in te dienen.

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 opgave 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:

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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)

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- 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			
<i>Personal characteristics</i>			
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?	
<i>Relationship with participants</i>			
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 interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
<i>Participant selection</i>			
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?	
<i>Setting</i>			
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	
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat interviews 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 interview or focus group?	
Duration	21	What was the duration of the interviews 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			
<i>Data analysis</i>			
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?	
<i>Reporting</i>			
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.