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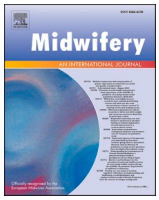

Research Article

'Hands on', 'hands off' or 'hands poised'? Exploring intrapartum midwifery decision making through ethnographic research

Lindsay J Gillman [a,*], Vari M Drennan [b], Jayne E Marshall [c], Annette Boaz [d]

[a] Department of Midwifery, Kingston University, London, UK
[b] Centre for Applied Health & Social Care Research, Kingston University, London, UK
[c] School of Healthcare, University of Leicester, UK
[d] NIHR Health and Social Care Workforce Research Unit, King's College London, UK

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Where the term 'woman' is used, the intention in this paper is to include reference to all childbearing and birthing people.

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ABSTRACT

Issue: Injury to the perineal tissues during childbirth is a frequent occurrence with most women likely to experience perineal injury during a first birth which, in some cases, can lead to significant long-term morbidity. The techniques used to minimise perineal injury are frequently termed 'hands on' and 'hands poised' or 'hands off'. These terms are often undefined and used inconsistently in the literature, making it difficult to identify the best available evidence to inform midwifery practice.
Aim: This study aimed to answer the research questions: What do midwives do to minimise perineal injury during birth and what influences their decision-making?
Methods: An ethnographic study was undertaken during 2016 in a maternity unit in the southeast of England. Data were collected through participant-observation, ethnographic and semi-structured interviews and analysed using thematic analysis, informed by the pedagogic theory of threshold concepts.
Findings: 31 midwives participated in the study. Evidence-based decision-making to minimise perineal injury during birth was identified as a complex concept. Within the context of threshold concept theory, three main themes were identified that contributed to the complexity: troublesome language, troublesome knowledge, and troublesome environments.
Conclusions: Midwifery decision-making in the context of minimising perineal injury during birth is more varied and conceptually complex than has been previously described. Identification of the various aspects of troublesomeness in this context suggests that this element of practice is a midwifery threshold concept. Addressing this within midwifery curricula and practice education to enable evidence-based decision-making is important.

Introduction

In the United Kingdom (UK) midwifery and obstetric care is provided free at the point of delivery as part of the National Health Service (NHS) provision, with practice directed by evidence-based clinical guidelines developed by the National Institute for Health and Care Excellence (NICE). At the time of the study design, the guidance to reduce perineal injury during spontaneous vaginal birth was that either the 'hands on' or 'hands off' techniques could be used (NICE, 2014).

In response to a reported increase in the rate of severe perineal injury (3rd and 4th degree tears), the UK Royal Colleges of Midwives (RCM) and Obstetricians and Gynaecologists (RCOG) developed the Obstetric Anal Sphincter Injury (OASI) care bundle, which included the use of manual perineal protection ('hands on') for all vaginal births (Bidwell *et al.*, 2018). The OASI1 project was subsequently implemented as a stepped-wedged cluster trial at the start of 2016, followed by OASI2, an effectiveness-implementation study (Gurol-Urganci *et al.*, 2021, Jurczuk *et al.*, 2021).

The UK guidance has been recently reviewed, and based on the lack of new evidence, the statement referring to the 'hands on' or 'hands poised' techniques has been removed (NICE, 2023a). The evidence review supporting the revised guideline reports that 'hands on' practices may be harmful regarding the outcomes of episiotomy, first degree, second-degree and third- degree perineal tears for some groups of women (NICE, 2023b). This evidence review, and the most recent Cochrane systematic review both identified wide variations in practice,

* Corresponding author: Faculty of Health, Science, Social Care and Education, Kingston University, Kingston upon Thames, Surrey KT2 7LB, UK
E-mail address: l.gillman@kingston.ac.uk (L.J. Gillman).
Twitter@varidrennan@jayneemarshall (L.J. Gillman)

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with a recommendation for further research to explore the effectiveness of the different techniques (Aasheim *et al.*, 2017).

Literature was reviewed at regular intervals between 2014 and 2021 to identify what was known about the methods used by midwives to minimise perineal injury, and the factors affecting decision-making (Gillman, 2021). The findings from previously published reviews were confirmed, with the terms 'hands on', 'hands off' and 'hands poised' being frequently undefined and used inconsistently locally, nationally, and globally. The factors affecting midwifery decision-making are complex and influenced by many variables. This ethnographic study was designed to investigate the research questions: What do midwives do to minimise perineal injury during birth, and what influences their decision-making?

Methods

Study design

An ethnographic study was undertaken with the first author in the role of participant-observer. The ethnographic approach has previously been used successfully to explore the behaviour and interactions of midwives within their cultural context (Liberati *et al.*, 2019). As a method, ethnography allows investigation of complex events and interactions in addition to the exploration of the meaning and rationale for the participants (Hunt and Symonds, 1995).

Prior to the designing the study, a focus group of maternity service users, recruited from a local mother and baby group, was facilitated by the researcher. This discussion explored potential methods of data collection and the feasibility of recruitment; it also confirmed the importance of the study.

Research setting

The research settings were a midwife-led birth centre and a delivery suite within a teaching hospital in the southeast of England, UK. The choice of site was selected as it had not implemented the RCM and RCOG OASI care bundle (Bidwell *et al.*, 2018), enabling midwives to have greater autonomy for shared decision-making and clinical judgement without the influence of policy.

Participants and recruitment

Posters describing the research were displayed throughout the unit prior to, and for the duration of the study. Purposive sampling was used to recruit both midwives and women to the study. Written consent from both the woman and midwife was required prior to clinical observation taking place. Conversations with midwives outside of a clinical observation were recorded in the field notes as ethnographic interviews, with verbal consent.

Women were recruited to the study first, through the triage midwife on the delivery suite or the coordinator of the birth centre following assessment of suitability (no additional care needs identified, singleton term pregnancy, over 18 years old and ability to give valid informed consent). The researcher then discussed participation with the woman, allowing time for consideration of participation and discussion with the birthing partner or family, prior to obtaining consent.

Midwives were reminded of the researcher's presence and the purpose of the study at the beginning of each shift. For direct clinical observation episodes, midwives caring for women who had already consented to participate were subsequently invited to be included in the study. If the observation continued over a shift hand-over, the midwife taking over care was invited at the beginning of their shift. Following the clinical observation, midwives were invited to take part in a semi-structured interview.

A total of 31 midwives with a range of experience participated in the study. Minimal characteristic and demographic data were recorded; however, midwives were asked whether they had been qualified less than two years, between two and five years or over five years. Midwives were then arbitrarily assigned to the category of 'novice', 'proficient' or 'expert' based solely on length of experience, using the skill acquisition model presented by Benner (1982). Characteristics of the interviewed participants is presented in Table 2.

Data collection

The data were collected through three methods: fieldnotes written during non-clinical activity, clinical observations, and interviews (semi-structured and ethnographic).

Fieldnotes: Participant-observation included providing support for non-clinical activities and enabled engagement with, and observation of midwives working within the unit. The fieldnotes captured these observed activities and behaviours in addition to the researcher's own thoughts and feelings.

Fieldnotes were handwritten and transcribed as soon as possible, creating an electronic version of the text to facilitate search and retrieval of data. Reflections and memos were also added to the transcribed text.

Clinical observations: Observations were variable in length and began when consent was obtained from both the woman and the midwife and lasted until the episode of care provided by the midwife ended following the birth. Data from the observations were handwritten and included sketches of the room layout, maternal position, and the midwives hand position during birth. Data was used to inform the semi-structured interviews.

Interviews: Informal ethnographic interviews occurred as midwives became curious about the research and wanted to share their knowledge and experience during the study. Interviews were recorded within the fieldnotes as they occurred or as soon as possible afterwards to maintain accuracy and detail. Semi-structured interviews with midwives occurred following clinical observation or with those midwives considered to be key informants. Interviews took place at a time and place agreed with the midwife, were audio recorded and transcribed verbatim. Initially an interview guide was used, however, as the research progressed, the interviews became more conversational and less structured. Semi-structured interviews lasted between 60 and 90 minutes.

Data analysis

Data collection and analysis occurred concurrently and iteratively during the study. Preliminary analysis occurred in the field and was captured in reflexive accounts and memos during transcription. A theoretical approach to thematic analysis (Braun and Clarke, 2006), was used to explore the data, with NVivo© (2015) used to assist with data storage, retrieval, and coding.

Ethical considerations

The conduct of the study was guided by the ethical principles defined by the Health Research Authority (HRA, 2020) and Nursing and Midwifery Council (NMC, 2018). As a midwife and female researcher, the principles of feminist ethnography, specifically reciprocity and equality (Skeggs, 2007) were integral to the study design to ensure the avoidance of harm and exploitation of birthing women.

Favourable ethical opinion was received from NHS REC4 (15/WA/0275).

Reflexivity and positionality

During the study, reflexivity and exploration of positionality enabled reflection on pre-conceived beliefs and understandings. Explicit recognition of this process required the researcher to take personal responsibility for the impact of their presence in the research setting, and on the interpretation and presentation of the data. This was regularly

explored with the supervisory team.

Findings and discussion

This paper reports the findings from the qualitative data analysis of the study.

The initial themes identified early on in the study were those of 'difficult definitions', 'belief', 'learning and experience', 'environment and context' and 'guilt, failure, and shame'. A sense of troublesomeness was a recurring feature in the data, which resonated with the pedagogic theory of threshold concepts (Meyer and Land, 2003). Threshold concepts are considered to be ways of knowing that are central to the mastery of a subject, have certain features in common and once understood, can be profoundly transformative (Cousin, 2015). In the context of this study, the issue of providing effective perineal care during birth was frequently considered to be complex, difficult to resolve and often the cause of conflict and therefore identified by the authors as 'troublesome', a key feature of a threshold concept.

Threshold concept theory informed the remainder of the data analysis with the identified themes subsequently framed within the overarching theme of 'Troublesomeness'. The final themes identified were: Troublesome language, Troublesome knowledge, and Troublesome environments. Subthemes were identified within these overarching themes and presented in the thematic map shown in Fig. 1. Verbatim quotations have been used to illustrate the findings, using the pseudonyms indicated in Table 1.

Troublesome language

The terms 'hands on', 'hands off' and 'hands poised' were ambiguous and used inconsistently, making reporting of and discussion about the differing approaches problematic. The approaches that midwives adopted to reduce perineal injury did not fit neatly into the categories used to discuss and document perineal care. The issue of inconsistent use of terms to describe perineal care practices during birth has been reported by other authors (Begley *et al.*, 2019), and has been noted as a factor affecting evaluation and meta-analysis of studies (Aasheim *et al.*, 2017). These findings identified that the language used to define this aspect of care is troublesome.

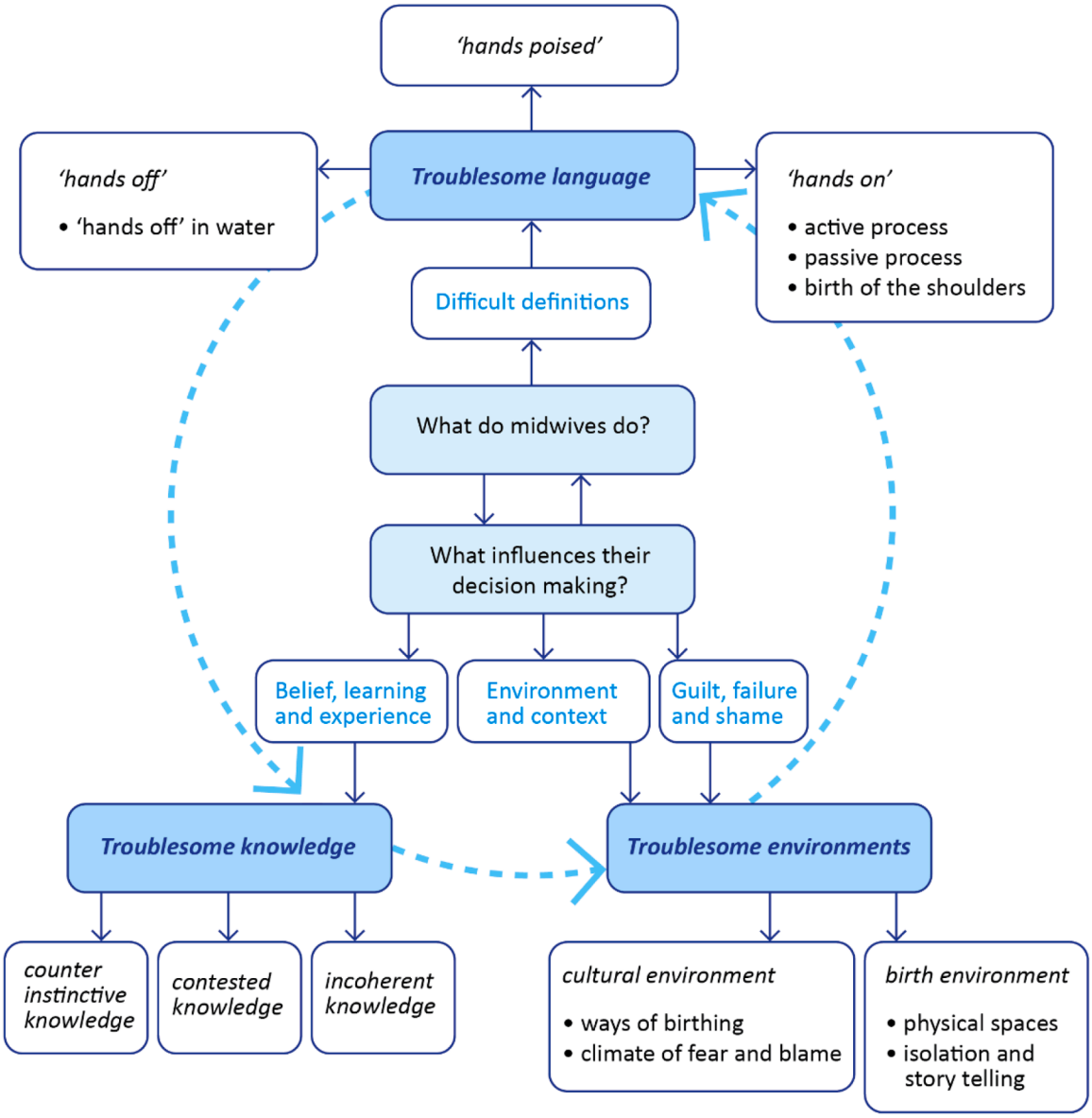

Fig. 1. Thematic map

Table 1
Statement of significance

Issue	What is already known	What this paper adds
Most women giving birth vaginally for the first time are likely to experience some degree of perineal injury. This can have significant consequences for women, therefore consideration of how injury can be prevented or minimised is vital.	The terms 'hands on', 'hands off' and 'hands poised', used to describe perineal care during birth are frequently undefined and used inconsistently locally, nationally, and globally, making evaluation of effectiveness problematic.	Midwifery decision-making in the context of minimising perineal injury is more varied and complex than has been previously described. The aspects of troublesomeness identified suggest that this is a midwifery threshold concept. Recognising this within midwifery curricula and practice education is important.

Table 2
Characteristics of midwife participants

Pseudonym	Intrapartum environment	Experience category	Interview type
Emily	Birth Centre and Delivery Suite	Proficient	Semi-structured
Olivia	Birth Centre	Novice	Semi-structured and ethnographic
Ava	Birth Centre	Novice	Semi-structured
Abigail	Birth Centre	Proficient	Semi-structured
Hannah	Birth Centre	Novice	Semi-structured
Ashley	Birth Centre	Proficient	Semi-structured
Alex	Delivery Suite	Proficient	Semi-structured
Mia	Birth Centre and Delivery Suite	Novice	Semi-structured
Sophie	Birth Centre	Novice	Semi-structured
Grace	Birth Centre	Proficient	Semi-structured and ethnographic
Liz	Delivery Suite	Expert	Semi-structured
Erin	Birth Centre	Novice	Semi-structured
Sara	Birth Centre	Expert	Semi-structured
Helen	Birth Centre and Delivery Suite	Expert	Ethnographic
Eira	Birth Centre and Delivery Suite	Expert	Ethnographic
Molly	Delivery Suite	Novice	Ethnographic
Maya	Delivery Suite	Proficient	Ethnographic
Natalie	Delivery Suite	Novice	Ethnographic
Tash	Delivery Suite	Proficient	Ethnographic
Lauren	Birth Centre	Expert	Ethnographic
Amy	Delivery Suite	Novice	Ethnographic
Sam	Delivery Suite	Expert	Ethnographic
Charlie	Delivery Suite	Novice	Ethnographic
Jordan	Delivery Suite	Proficient	Ethnographic
Zoe	Delivery Suite	Novice	Ethnographic
Sally	Birth Centre	Proficient	Ethnographic

Troublesome language: Hands on

Midwives used the term 'hands on' to describe many techniques including a single action or a combination of actions using one or both hands. There was no consensus between midwives when determining what the 'hands on' technique consisted of, and the term was often used inconsistently during conversations with the same midwife. There were discrepancies in how some of the midwives described and recorded their practice and the techniques that were observed during birth, a finding also reported by Akın *et al.* (2020) in their study exploring midwifery practices to reduce perineal injury.

An example of this occurred in the interview following a clinical observation, when Olivia was observed using one hand to support the anterior perineum and the other supporting the posterior perineum:

'With both hands? …did I really? Did I have this hand up here? I thought I just went like that? [demonstrated right hand in position on the posterior perineum] … *well if you saw my hands then* [sounds very surprised] …*I didn't think I had my upper hand anywhere…'* (Olivia)

'Hands on', active and passive processes

As part of the active 'hands on' approach, midwives described manipulating the perineum, either to stretch it with their fingers as the baby's head was advancing or to push it underneath the baby's chin during extension of the head.

'…it [hands on] *would be left-hand on to the advancing head…then to apply pressure on the perineum and then as the head is coming forward… manipulate the perineum down…I put my hands on the baby's head…'* (Sara)

Midwives who used an active 'hands on' technique spoke of the need to apply considerable pressure to the perineal tissues:

'Well, I believe that you need to be 'hands on' to apply pressure and counter- pressure – if you don't control the force, the woman will tear.' (Charlie)

In contrast, 'hands on' for other participants did not include the application of pressure:

'I'm not using any pressure, it's just that the forefinger is feeling the speed and the little finger is between the clitoris, pubic bone and head, which stays there until the head is born.' (Sam)

Midwives also demonstrated and described passive 'hands on' techniques where there was no intention to actively manipulate either the perineal tissues or the baby's head:

'I put my hand on the perineum only, not on the head at all. I use my hand like this [demonstrated using flattened hand with thumb alongside fingers] *either just my hand or with a warm compress…I just support the perineum as the head is crowning.'* (Emily)

In other definitions of 'hands on', the term was used to describe the midwife's hands being 'on anything':

'It's physical contact with the perineum…well and the head I suppose – because it is all to protect isn't it, regardless of whether it's the baby or the perineum…it's hands on anything.' (Ashley)

'Hands on' for birth of the shoulders

Eight midwives said that they tried to continue to support the perineum as the baby's shoulders were born. This practice was not witnessed during observations, however two techniques were described and demonstrated. The hand position for perineal support during the birth of the shoulders described is also documented by Zhang *et al.* (2016). Continuing perineal support for the birth of the shoulders included pressure applied to the posterior shoulder, through the perineum, to release the anterior shoulder whilst applying gentle traction to the baby's head:

'I keep my hand on the perineum for the shoulders, always. I put pressure on the posterior shoulder like this [demonstrated pressure from palm onto posterior shoulder through the perineum]. *With my other hand I apply some pressure for a bit of gentle downward and forward traction. The anterior shoulder always just slips under the pubic arch, then I move my hand to the shoulder and bring the baby though the curve.'* (Jordan)

Troublesome language: Hands poised

For some midwives, the terms 'hands poised' and 'hands off' were interchangeable, but for others, 'hands poised' was more than just not touching. Some participants reflected on this as they spoke, changing their minds or contradicting themselves, illustrating how either the application of language or the explanation of the process was troublesome. Lack of clarity between these terms may have caused them to become ambiguous, with 'hands poised' considered the same as 'hands off', a phenomenon reflected in the literature (Ampt, de Vroome and Ford, 2015, Begley *et al.*, 2019).

'…hands off and hands poised, I still don't really, necessarily, understand what that means myself, I suppose. It's like, having your hands there but not necessarily doing anything with them'. (Grace)

The midwives in the study who used a 'hands poised' approach often referred to being observant, close to the woman and being ready to intervene if necessary:

'…I'm always poised, like this – my hands make a window [demonstrates making a window out of both hands with thumbs together] *to slow the*

head if it came really quickly – I'd just apply counter-pressure to prevent the 'champagne cork effect'…you know – the 'pop' I wouldn't want that to happen…' (Louise)

This is reflected in the study by Begley *et al.,* (2019) whereby 'expert' midwives who preferred a 'hands poised' technique, were closely poised, and almost always used 'hands on' when crowning was imminent, practice also reported by Ampt, de Vroome and Ford (2015), East, Lau and Biro (2015), Trochez *et al.* (2011) and Zhou *et al.* (2019).

Troublesome language: 'Hands off'

When participants were asked to describe the 'hands off' technique, most midwives referred to having their hands close and poised, supporting the concept that 'hands off' is not an approach in which the midwife does nothing at all. There was a lack of consensus and hesitation when defining the difference between 'hands off' and 'hands poised':

'…I guess hands-off would be just like I guess you would in a pool birth, you're not hands-poised because you're not hands in the water waiting to catch the baby. You're poised, are you poised? You're poised above the surface, so that would be hands-poised.' (Sara)

The literature suggests that a change in UK midwifery practice from a 'hands on' to 'hands off' approach was influenced by the results of the HOOP (Hands On Or Poised) trial (McClandish *et al.,* 1998) (Trochez, Waterfield and Freeman, 2011). One participant identified that this was the seminal point in her practice:

'When I was training, which was between 1996 and 1998, it was all very 'hands-on' – you know, really 'guarding' the perineum…but then along came HOOPs, and we were all, right now, its 'hands off' then is it?' (Jan)

Although the term used for the non-touch group in the HOOP trial was 'hands poised', 'hands off' may have been adopted to describe practice prior to intervention, if necessary, at which point the process is then described as 'hands on' (Trochez, Waterfield and Freeman, 2011). This view was supported by Lauren:

'I'm poised from when the vertex is visible to when the head and body have birthed completely…so 'hands off' for me is not touching anything and 'hands on' is touching anything. I'm poised, but usually 'hands off'. If I touch, then its 'hands on.' (Lauren)

Troublesome language: 'Hands off' during birth in water

Although the UK intrapartum care guidelines (NICE, 2014) did not refer to a different approach to perineal care for birth in water, the term 'hands off' was most consistently applied in the context of waterbirth with all midwives in the study agreeing that they would take this approach.

'…if it's a water birth, then obviously I don't do anything at all…I do know that in the water we should be completely hands-off and that the water acts as counter-pressure…' (Sophie)

Troublesome knowledge

The foundational elements of evidence-based decision-making are the preferences of those receiving care, informed by knowledge based on the best available relevant evidence, and the tacit knowledge created by practitioner expertise (Sackett *et al.* 1996). Troublesome knowledge as identified by Perkins (2006), is a central feature of threshold concept theory, defined as knowledge which appears, alien, incoherent or counter-intuitive (Meyer and Land, 2003). In the context of this study, the term 'contested knowledge' is used to reflect 'alien' knowledge (a perspective that conflicts with one's own). Incoherent knowledge refers to knowledge in which discrete elements may be unproblematic, but adherence to an organising principle is absent. The term 'counter--instinctive' is used as an alternative to the term 'counter-intuitive' in this study, to differentiate between an instinctive, reflex response and one which is based on skilled intuition as expert or tacit knowledge.

Contested knowledge

The term contested knowledge describes knowledge encountered as inconsistent and conflicting, which midwives reported experiencing as students:

'…I remember mentors being so forceful with you, telling you 'hands off', or 'get your hands on'. Grabbing your hands physically or pushing you away with little explanation of why.' (Ella)

'… I would put my hands on and a few of them said 'have you always been taught to do that?' and I was like 'yeah', and they were like 'well you don't have to do that here.' (Ashley)

Participants often referred to themselves or were referred to by others as 'hands on', 'hands poised', or 'hands off' midwives, suggesting that the type of perineal technique used was embodied action:

'…there was no hard and fast rule about it…when you started working with the new mentor you kind of had to figure out…whether they were a 'hands-off', a 'hands-on' or a 'hands poised' midwife…and they sort of taught it as gospel, like it was obvious.' (Mia)

The comment that techniques were taught as *'gospel'* and *'obvious'* suggests that for some midwives this element of midwifery knowledge was incontestable. The word 'obviously' was used multiple times during conversations (twelve midwives used the word forty-three times), indicating that their perspective was based on widely accepted and unchallenged knowledge.

Incoherent knowledge

Incoherent knowledge is troublesome because the discrete elements within the concept, although unproblematic in themselves, do not adhere to an organising principle and therefore as a whole, do not make sense (Meyer and Land, 2003). Some midwives spoke of the difficulty in making sense of elements of knowledge due to the lack of consistency in outcomes, leaving them unable to make a judgement about which technique to use:

'I did everything I normally do…and that baby came out slowly and beautifully…but when we looked at her perineum…it was a third [degree tear*]…I don't think I could have done anything else…it was strange, so can't quite work out what happened…it was so different from a woman I looked after in water the other week where it was a big baby with a compound presentation, but she was intact…I keep thinking about it, but I really don't think I could have done anything differently.'* (Kit)

Midwives also shared their experiences of examining a woman's perineum following birth and being surprised by the outcome, further illustrating the incoherent nature of this concept. Sometimes midwives had been expecting substantial perineal injury to occur and it did not, in other cases they thought the woman's perineum would be intact, but it was not:

'…you think, gosh you must have really torn in half and then when you look, there might be nothing at all or just a slight labial graze…I knew as soon as the baby was born, it was obvious that she had a tear, but I don't remember thinking that I was anticipating it to be like it was…' (Sophie)

Midwives identified that assimilating experiences where there were regular patterns was problematic, subsequently creating a sense of incoherence in relation to using a particular perineal technique. The experience of inconsistency shared by most of the participants illustrates how this aspect of midwifery practice is troublesome.

Counter-instinctive knowledge

Counter-instinctive knowledge does not make sense to the learner and conflicts with what may be an instinctive, reflex response. Some midwives in the study spoke of an instinctive need to do something with their hands during birth, and that a 'hands poised' approach was counter instinctive. Some of the midwives in the study spoke of how doing something physical during birth (hands on) rather than doing nothing (hands poised) made them feel better, and might mitigate against guilt if the woman sustained perineal injury:

'…if I do nothing and she has a third-degree tear, I'd feel completely it was my fault, because I did nothing. Whereas, doing perineal support makes me feel like I'm doing something that could prevent something… (Grace)

Most midwives spoke of an overwhelming need to do something

physical to hold the woman's perineum together if there were signs perineal injury might be imminent, even though they were not convinced that this made a difference to the outcome:

'I was 'hands on' because I was concerned…I'm not quite sure what I thought I was saving, but it just felt as though I was at least trying to do something…I don't really think that it makes the slightest bit of difference, it was just doing something…' (Abigail)

None of the midwives in the study, considered strategies to minimise the pressure on the perineum if injury appeared imminent, other than the instinctive urge to physically hold the perineal tissues together.

Troublesome environments

The troublesomeness midwives acknowledged in this study was set against the backdrop of the contested spaces of birth, influenced by the dominance of different 'ways of knowing' that shaped the 'ways of being' within them. Subthemes of the birth environment and the cultural environment were identified.

Physical spaces

Midwives considered how the physical environment, and the way that the birth rooms were set up, influenced the way that they practised, ultimately affecting perineal outcomes:

'…women are in so many different positions on the birth centre…when you are on delivery suite…no matter how hard you try, they generally end up in the semi-recumbent position…I have noticed though that women who are in semi recumbent on delivery suite often tear…' (Abigail)

During the study there was an initiative to create a less clinical environment on the delivery suite, with the birth beds formed into the chair position, placed in the corner of the room and birth balls and mats introduced. This, however, led to the rooms becoming contested spaces as they were frequently rearranged with the bed replaced centrally in the room and other items removed, demonstrating some of the power dynamics of the birthplace. Participants recognised this and birth position as a contributory factor to sustaining perineal injury:

'The birth centre is very different from here [delivery suite]. *I think it* [the differences in rates of perineal trauma] *is all about positions…the bed is right in the middle of the room, which encourages women to use it. Then add to that the use of CTG* [cardiotocography] *and epidurals, you have poor birth positions. It's about women's choices, but position is important, and the environment affects that.'* (Maya)

Isolation and storytelling

Physiological birth usually takes place with few people present, often just the woman, her partner and the attending midwife which can contribute to a troublesome environment for novice midwives. Participants spoke of how they experienced multiple approaches to perineal care as students, but once they were qualified, the opportunity to learn from others was limited, but highly valued.

'…such a private world - birth, and unless you're privileged to be called in…we often don't see the work, the clinical work of other practitioners, particularly actually in a midwife-led setting.' (Sara)

During the study midwives were willing to share their experiences, particularly in relation to perineal outcomes, often asking other midwives to join the story or share their experiences. This aspect of storytelling seemed to serve to either validate or seek a response to the event. Storytelling has previously been considered a vital component for creating a culture in which the physiology and art of birth is respected (Gilkison, Giddings and Smythe, 2016, Gould, 2017).

Ways of birthing

Participants spoke of how the physical and cultural environments of birth spaces were closely related and considered that the approach to perineal care was affected by the culture of the environment:

'I think culturally it's like, if you're a birth centre midwife you're meant to be a 'hands off' midwife. If you're on labour ward, you're a 'hands on' midwife. I think that's the unwritten understanding.' (Liz)

Midwives spoke of the differences in the culture between the birth centre and delivery suite, which appeared to be due to the differing philosophies and approaches to birth. A key feature was the recognition of the natural rhythms of labour on the birth centre, moving the focus from restrictive timelines and 'clock watching' experienced on the delivery suite:

'…on the birth centre…however long it takes is however long it takes…that makes a difference to the birth…which maybe, subsequently makes a difference to the kind of perineal trauma they suffer, it's really not unusual to have an intact perineum…' (Abigail)

Midwives suggested that in a less troublesome environment, they were more able to refine their midwifery practice, and have confidence to let birth '*happen*':

'…and what I've learned…giving things time…women who are very calm and relaxed…If you just let it happen, they might not even, they sometimes don't, tear at all.' (Erin)

A climate of fear and blame

In midwifery-led settings, if perineal injury occurred, some participants experienced a culture of blame and sense of fear:

'I think midwives are very scared…it's really difficult…There's an overmagnifying of third-degree tears if it's in a midwifery-led setting.' (Sara)

Midwives also spoke of how cases of severe perineal trauma had affected them. They expressed emotions of sadness recalling how upset they felt when this occurred:

'…I actually went home weeping and felt that the entire responsibility was mine…I can remember clearly thinking, hugely, that it was all my responsibility…' (Abigail)

Midwives recognised that in some cases women sustained perineal trauma regardless of what they did to try to prevent it, but there was still a sense they were at fault. Some participants noticed that the sense of blame was not observed in the same way when severe perineal injury occurred in obstetric settings:

'…no one questions episiotomies and terrible tears after instrumentals…that seems to be generally accepted as something that's totally acceptable…it just gets sutured, quite rapidly, and then that's that.' (Erin)

The concept of birth places being contested spaces is not new, however birthing spaces that are troublesome for the practitioners who work in them have the potential to have a significantly negative impact on the women who use them (House of Commons Health and Social Care Committee, 2021).

Troublesomeness and evidence-based decision-making

The elements of troublesomeness identified from the data, considered in the context of evidence-based decision-making, illustrate the complexity that the concept and practice of minimising perineal injury during birth presents to midwives. The model presented in Fig. 2 illustrates how the three types of troublesomeness; language, knowledge and environments intersect with and the elements of evidence-based clinical decision-making (Haynes *et al.*, 1996). These elements of troublesomeness, experienced by midwives in the study, impacted their ability to make evidence-based clinical decisions using the framework of the best available evidence, their own expertise and consideration of the woman's preferences.

Strengths and limitations

While the study was limited by using a single overarching organisation as a study site, this was mitigated by: two contrasting birthing environments; the commitment to breadth in types of participants; the use of mixed qualitative methods and the generation of explanatory theories for further evaluation.

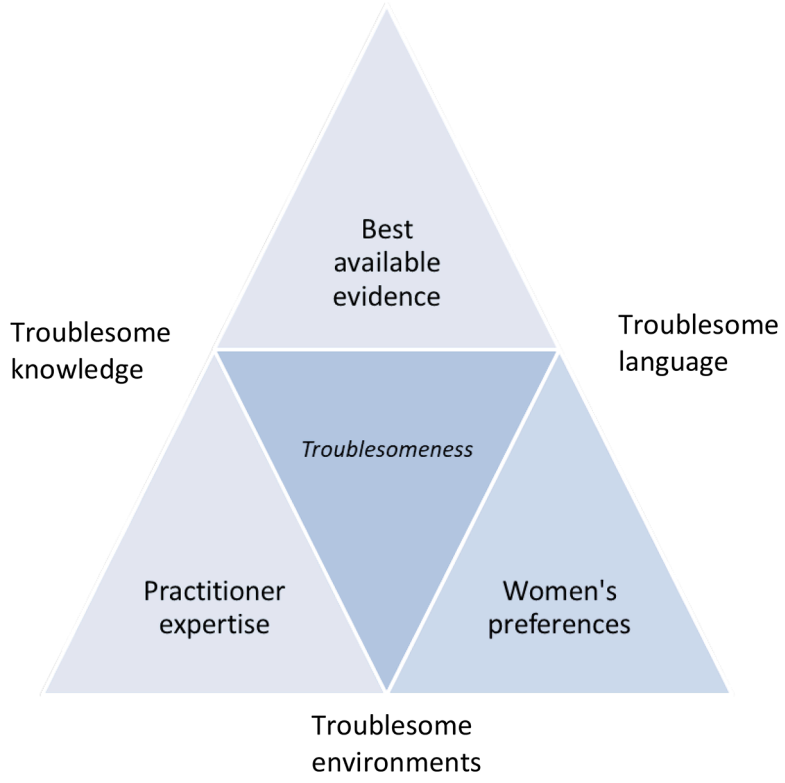

Fig. 2. The intersection of the concepts of troublesomeness and elements of evidence-based clinical decision-making

Conclusion

This study identified that midwifery decision-making in the context of minimising perineal injury is more varied and conceptually complex than previously described. Both the UK Nursing and Midwifery Council (NMC, 2018) and International Confederation of Midwives (ICM, 2022) require midwives to practice in partnership with women in a way that is respectful, personalised and evidence based.

The three elements of troublesomeness identified in this study (language, knowledge and environments); intersect with the three foundational aspects of evidence-based practice and decision-making. This indicates that the practice of minimising perineal injury during birth is conceptually and practically complex. We contend that recognising this element of midwifery practice as a threshold concept in pedagogic terms, should inform the design of pre-registration midwifery curricula and ongoing practice education as a key priority. We suggest that this approach is likely to facilitate the crossing of the metaphorical threshold of understanding for student and qualified midwives, ultimately enhancing practice and improving outcomes for women.

CRediT authorship contribution statement

Lindsay J Gillman: Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Vari M Drennan:** Writing – review & editing, Supervision. **Jayne E Marshall:** Writing – review & editing, Validation, Supervision. **Annette Boaz:** Validation, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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