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Risk assessment as routine: A conversation analysis of midwives' risk surveillance practices in midwife-led care during labour

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ABSTRACT

Objective: This study examines how risk surveillance and management are interactionally accomplished in midwife-led intrapartum care. Using conversation analysis, the paper explores how midwives initiate risk assessment activities, announce outcomes, and navigate cases where potential risks are detected.
Method: The data were 37 audio/video-recorded interactions between midwives and labouring women in two UK midwife-led units. Conversation analytic methods were used to identify recurrent interactional practices. All data are British English.
Results: Midwives routinely construct risk surveillance as a taken-for-granted aspect of care through practices including presumptive scheduling and pronouncing initiation of activities. When no issues are detected, midwives might either treat outcomes as unremarkable by not announcing them or employ closing-implicative positive assessments. Announcements of deviations from the norm are typically delayed, delicately delivered and lead to recommendations for further investigations or interventions.
Conclusion: Midwives treat risk surveillance as a routine institutional requirement while working to minimise its disruption to labouring people. Risk surveillance comprises a significant portion of midwife-led care and midwives navigate potentially conflicting demands between enacting their duty to conduct risk assessments while upholding midwifery philosophy of care.
Practice Implications: Consideration should be given to women's limited optionality in engaging in risk assessments and conversation analytic insights can inform relevant training.

1. Introduction

Risk surveillance and management characterise contemporary UK maternity care [1–4], with pregnancy and birth viewed as potentially risky conditions requiring clinical monitoring and treatment [5]. This is reflected in regulatory efforts to standardise practice and control risk in maternity care [6], intensifying the medicalisation of pregnancy and birth [7]. While overall maternal and fetal morbidity and mortality rates have reduced, social and environmental factors (e.g., better public health, fewer pregnancies) play an important role [8,9]. Perinatal morbidity and mortality remain associated with deprivation and structural racism [10–12]. Nonetheless, recent UK investigations of poor intrapartum care [13,14] have amplified the focus on risk surveillance [3].

In the UK, policy supports an option for midwife-led care for low-risk pregnancies [15] with midwives recognised as experts in salutogenic practice [16]. Research has demonstrated midwife-led care is as safe as obstetric-led care for appropriate populations, with lower intervention rates [17–20] and cost-savings [20,21]. However, recognition of the value of autonomous midwifery practice sits 'rather awkwardly' [9] (p. 990) alongside pervasive risk surveillance. Midwife-led care balances supporting physiological labour while adhering to guidelines that require continuous risk surveillance even when risks are low. For example, the National Institute for Health and Care Excellence (NICE) guidelines [22] recommend measuring and recording the fetal heartrate (FHR) every fifteen- or five-minutes (depending on stage of labour), hourly maternal pulse, and four-hourly maternal blood pressure and temperature to detect potential signs of developing morbidities. Although not absolutely required [23], guideline adherence is expected, given potential litigation [24].

Debates about the complexities and conflicting demands of current UK midwifery practice are ongoing [25,26], but few studies have examined how risk surveillance is managed in situated interactions between labouring persons and midwives. This paper addresses this gap by applying conversation analysis (CA) to recordings collected from two UK midwife-led birth units [27]. This study contributes to the growing CA

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literature on how risk is contextually produced and managed in healthcare [28–31]. In relation to pregnancy, previous CA studies have examined 'risk talk' in antenatal care, particularly genetic screening [32–34], but to my knowledge, this is the first CA study of how risk figures in interactions during labour. While risk-implicative talk appears recurrently in the intrapartum period (e.g., when discussing pain relief options), this paper focuses on the routine risk assessment activities NICE recommended (i.e., FHR and maternal observations), asking how these activities are broached, and outcomes announced. Although situated in midwifery, the findings may inform understanding of risk assessment practices of low-risk populations generally.

2. Method

2.1. Data and case selection

The data comprises 37 consented recordings (24 video and 13 audio) from two UK midwife-led units, collected 2018–2019 as part of an NIHR-funded study of intrapartum decision-making [27]. Each unit had a portable Smots™ camera, and women could position the camera, turn it on/off, and choose the recording format (audio/video) according to preferences. The recordings involved 37 labouring women, 43 birth partners and 74 healthcare professionals. The median recording duration was three-and-a-half hours, and the total was 167 h. Ethical approval was granted by the National Research Ethics Service Committee for Yorkshire and the Humber (no. 17/YH/0102).

For this study, risk surveillance activities were defined as clinical observations and assessments conducted to monitor potential risks during labour as specified in NICE Guidelines [22]. These primarily comprised two categories: 1) intermittent fetal heartrate monitoring recommended every 15-minutes in first stage and every 5-minutes in second stage of labour, and 2) maternal observations including blood pressure, pulse, and temperature readings, recommended hourly to four-hourly. The initial analysis identified all (visible/hearable) instances of these activities, resulting in a collection of 403 instances of fetal monitoring and 78 instances of maternal observations.

While this paper examines these activities as 'risk surveillance', participants themselves used more practical terminology (e.g., 'listening to baby'), reflecting how risk monitoring is accomplished without being explicitly named.

2.2. Analytic approach: conversation analysis

Relevant episodes were transcribed according to CA conventions [35], capturing the content and details of delivery. In the extracts, labouring women are indicated by the first three letters of their pseudonym, birth partners by the initials BP, qualified midwives by M followed by a number indexing order of appearance in the recording (M1, M2…), and student midwives using SM.

The resulting dataset was subject to CA, a fine-grained inductive empirical approach to describing and understanding naturally occurring (healthcare) interaction [36]. The analysis focussed on how risk surveillance activities were broached in the interactions and if and how outcomes were announced. Overwhelmingly, midwives initiated these activities and while women did not request assessments, they readily acquiesced and cooperated.

3. Results

The findings underscore that risk surveillance is interactionally constructed as taken-for-granted and routine part of midwife-led care. This is demonstrated through midwives' presumptive scheduling of activities (3.1) and the ways they initiate them in the moment (3.2). When no problems are detected, midwives might not announce the outcome, but when they do, they tend to use closing-implicative high-grade assessments and move on to the next activity (3.3). Risk detection is decision-implicative and recurrently leads to recommendations for further investigation or remedy (3.4).

3.1. Presumptive scheduling of risk assessment activities

One way midwives introduce risk surveillance activities is by informing women about their timing, thereby setting them up with deontic authority (i.e., the power to establish what should be done) [37] as routine and expected aspects of care. Table 1 contains illustrative instances.

Across Extracts 1–4, the attending midwives inform labouring women about the timing of particular risk assessment activities: FHR monitoring during the first stage (Ex.1) and second stage (Ex.2), maternal pulse (Ex.3) and a full set of observations (Ex.4). While all the midwives index the focal activity either verbally (Exs.1–3) or via the coordination of talk with an embodied tap indicating the relevant technology (Ex.4), none foreground the relevance of risk [29]. However, the midwife in Extract 4 does convey that the presumed timing will be warranted by a no problem reading ("If it's all alright"; Ex.4, l.1). Only the student midwife in Extract 3 provides an account for the activity ("just to like differentiate between yours and the baby's [heartrate] really"; Ex.3, l.3). The midwife in Extract 1 announces fetal monitoring as an imperative ("I've got to …"; Ex.1, ll.1–2), while those in Extracts 2–4 index their institutional identities via their uses of "we" (Ex.2, l.1; Ex.3, l.1; Ex.4, ll.1&2). All four extracts implicitly echo NICE's recommendations and demonstrate one way that guidelines show up in situated interaction.

3.2. Initiation of risk surveillance activities

This section presents how midwives initiate risk assessment activities in the moment. While these include non-verbal initiations (3.2.1), pronouncements (3.2.2) are the most used format, but midwives might also explicitly seek permission (3.2.3).

3.2.1. Non-verbal initiations

It is reasonably common for midwives to initiate intermittent FHR monitoring non-verbally (25 % of monitoring decisions) [27]. However, the necessary preparation and the Doppler machine's characteristic 'crackle' are potentially noticeable to labouring women and they routinely cooperate by moving to provide access. Maternal observations rarely begin without verbal initiators, but when they do, they're typically pulse readings during FHR monitoring. Figs. 1–3 show an instance of simultaneous assessment of fetal and maternal heartrates (VIP11). Philippa is lying on her left side when the midwife begins monitoring the FHR using her right hand to hold the sensor to Philippa's belly (Fig. 1) before silently reaching for Philippa's wrist with her left hand (Fig. 2) to palpate Phillipa's pulse (Fig. 3).

3.2.2. Pronouncements

More typically, midwives use pronouncements to initiate risk assessment activities, positioning them with deontic authority [37] as already decided [38]. Examples include: "I'm going to have a listen to your baby" (VIP10); "Have a quick check of your blood pressure" (VIP21); and "I'm just going to do some obs on you" (VIP02) (see also Ex.10). The syntactic design of pronouncements recurrently includes minimisers (e.g., "just", "quick"), that position the proposed activities as minimally disruptive [39].

Extract 5 illustrates multiple uses of pronouncements across a full set of maternal observations, including blood pressure (ll.10–30), pulse (ll.31–35), temperature, (ll.55–68) and oxygen saturation (l.70). Here, Madeleine had started experiencing expulsive contractions, about which M1 enquires (l.1) as she prepares a blood pressure cuff. Following this initial sequence, M1 pronounces her intention to conduct a blood pressure reading ("I'm gonna pop this blood pressure cuff on"; l.5), broadened in her next turn to doing "all of [Madeleine's] observations"

Table 1
Presumptive scheduling.

Extract 1 VIP36 Phoebe - Presumptive scheduling of FHR monitoring during 1st stage

```
01 M1:   Right Phoebe, I've just got, I've got to be listening to
02       t' baby about every [15 minutes or] so alri:ght
03 Pho:                      [Yeah, sure   ]  ((sits up))
```

Extract 2 VIP03 Willow - Presumptive scheduling of FHR monitoring during 2nd stage

```
01 M1:   So now that you're in: (.) the second stage of labour we'll
02       listen in (0.2) every five minutes,
03 Wil:  Okay
```

Extract 3 VIP22 Claudia – Presumptive Scheduling of measuring maternal pulse

```
01 SM:   So we do your pulse every hour as well ((as writing))
02 Cla:  Oh okay, right.
03 SM:   Just to like differentiate between yours and the baby's really
04 Cla:  Right
```

Extract 4 VIP12 Fiona - Presumptive scheduling of maternal observations

```
01 M1:   Once we've done [this,       ] if it's all alri:ght, we don't
                          [taps machine]
02       have to do this every hour, we just do it every four
03       hours. ((referring to maternal obs))
04       (0.2)
05 M1:   Just nice to get it
06       (0.8)
07 M1:   On the safe side
08       (18.3) ((M1 waits for reading, Fiona kneels in pool, eyes
09       closed))
```

Fig. 1. Midwife monitoring FHR with right hand.

Fig. 2. Midwife moves left hand to Philippa's right wrist.

(l.7). Following Madeleine's minimal responses (ll.6, 8), M1 constructs the observations as necessary to determine whether Madeleine can use a birth pool (l.9).

With the decision to use a pool positioned as contingent on the outcome of risk assessment, M1 proceeds with the observations, using pronouncements to introduce each new activity (ll.31,58,70, though the latter is not fully articulated). While not specifically inviting Madeleine's input into these decisions (except for the tag question "okay", l.7), M1 keeps Madeleine informed about what she is doing. As with pronouncements more generally, M1 uses minimisers to convey negligible disruption, while also accommodating Madeleine's conduct, such as placing the thermometer probe under her arm (l.58) during a contraction (ll.55,57). We might also note M1's use of whisper-voice during Madeleine's contraction, which arguably contributes to downplaying the significance of the activity relative to the contraction. Moreover, M1 acknowledges "prodding and poking" Madeleine (l.60), justifying it as being in service of conditionally granting an earlier request (l.62).

Extract 5 also demonstrates the intertwining of risk assessment with decision-making and the ways outcomes can shape available options. Note M1's two accounts for conducting the observations differ in levels of epistemic (knowledge) certainty. The first account (l.9), given before any observations, is relatively tentative ("see whether…"). The second (l.62), provided after completion of blood pressure and pulse readings, expresses greater epistemic (and optimistic) certainty about Madeleine's potential for using the pool ("…so we can get you in…") (Table 2).

3.2.3. *Permission-seeking requests*

Midwives might also initiate risk assessment using permission-seeking requests [40]. Table 3 shows four illustrative extracts (see also

Fig. 3. Midwife is monitoring FHR with right hand and palpating Philippa's pulse with left hand.

Ex.13, l.3). These include seeking permission to monitor the FHR (Ex.6), conduct a blood pressure reading (Ex.7), a temperature reading (Ex.8), and a full set of observations (Ex.9).

Extracts 6–8 illustrate the common permission-seeking format: "Can I…" (Ex.6, l.3; 7, l.3; 8, l.1–2). These formats convey lower deontic authority than pronouncements by explicitly inviting a woman's response. Nevertheless, the use of the modal verb 'can' conveys entitlement to ask and low contingency (i.e., few barriers) in granting permission [41]. Moreover, the format is positively valanced [42] and prefers agreement (given in each case). In Extract 9, the lesser-used format "Do you mind…" (l.1) tilts towards lower entitlement and higher contingency. It invites (and receives, l.2) 'no' as the preferred (agreeing) response.

The matter of contingency might partly account for midwives' use of permission-seeking requests in the above examples. In Extracts 6 (l.1) and 8 (l.1), the midwives check whether a contraction has passed before issuing their requests. In Extract 7, Elise is lying down facing away from the door when M4, enters the room. Note that Elise does not return M4's greeting (l.2) and M4 uses touch to summon Elise [43] before seeking

Table 2
Illustrative use of pronouncements across a full set of observations.

Extract 5 VIP29 Madeleine

```
01 M1:   Is it like overtaking you, that feeling to push.
02 Mad:  Ye[ah hhh
03 M1:     [Yeah
04 Mad:  hhh .hhh
05 M1:   I'm gonna pop this blood [pressure cuff] on.
06 Mad:                           [Mmmhh        ]
07 M1:   I'm gonna do all of your observations, [oka:y,]  .hhh
08 Mad:                                         [mmm   ]
09 M1:   See whether: (0.4) you can go in the pool, alri:ght.
10       (4.0) ((M1 attaches cuff))
11 M1:   If you ca:n, just pop this arm straight for me,
12       [(        ) straight as you can
13 BP2:  [Just pop it straight sweetheart just for a minute.
14       That's it

… ((15 lines deleted while blood pressure is completed))

31 M1:   I'm just <going to> (0.2) do your pulse now and then
32       [we can
33 Mad:  [°°Okay°°
34       (26.5) ((M1 palpates Wo's pulse, looking at the watch
35       attached to her uniform, then ends))

… ((20 lines deleted as M1 leaves room and returns with a thermometer))

55 Mad:  Mmm [.hh hhh .hhh oh::: .hhh oh::::
56 M1:       [((prepares thermometer))
57 Mad:  .hhh oh::: .hhh oh:::: .hh oh::: .hhh oh:::
58 M1:   °°I'm just gonna put this under your armpit°°
59 Mad:  .hhh oh::: .hhh oh::::
60 M1:   I know I'm prodding and poking you.
61 Mad:  [oh::  ]
62 M1:   [That's] just so we can get you in the pool
63 Mad:  .hhh oh::::: .hhh oh: .hhh oh: .hhh oh:
64 M1:   If you can bring your ar:m a bit closer to your (.)
65       That's it
66 Mad:  Oh:::
67      (4.7)
68      ((Thermometer beeps))
69      (9.2) ((M1 removes thermometer, picks up Oximeter))
70 M1:  °Okay°, °°I'm just gonna°° ((places oximeter on Wo's finger))
71      (4.2) ((M1 places her hand on Wo's back))
```

Table 3
Examples of midwives' permission requests to conduct risk assessments.

Extract 6 VIP05 Bryony, permission request to monitor FHR

```
01 SM:   Has it all gone. ((referring to a contraction))
02 BP:   Yeah
03 SM:   Okay, can I have a little listen?
04 Bry:  Yeah
```

Extract 7 VIP02 Elise, permission request to check blood pressure

```
01 M4:   Hello::
02       (0.8) ((M4 taps Elise's arm))
03 M4:   Can I just check your blood pressure
04 Eli:  Yeah, sure
```

Extract 8 VIP36 Phoebe, permission request to assess temperature

```
01 M1:   Has that one passed, Phoebe? Can I just sneak in and
02       do your temperature?
03       (0.3)
04 Pho:  Yeah: ((spoken through Entonox mouthpiece))
05 M1:   Right
```

Extract 9 VIP18 Zoe, permission request to do a full set of obs

```
01 M2:   Do you mind if I do a little set of obs?
02 Zoe:  No::
```

permission to take her blood pressure. In Extract 9, Zoe has just moved from a bed to a birth pool, and it is reasonable to assume that she is still settling into her new location.

The syntactic design of permission requests shares features with pronouncements that function to minimise the imposition of the proposed activities. For example, in Extracts 6 (l.3) and 9 (l.1), the midwives use "little" to describe their requested activities, while in Extract 8 (l.1), the midwife characterises herself as "just sneak[ing] in" to conduct a temperature reading.

Having examined how midwives routinise risk assessment through presumptive scheduling and initiating formats, I next consider how outcomes are announced when no problem is detected (3.3) and when readings are obtained that deviate from the expected norm (3.4).

3.3. No problem announcements

When midwives' risk assessments return readings that are within the norm (defined by practice guidelines), they might not announce an outcome and instead carry on with ongoing interaction or move on to a next activity (3.3.1). When standard outcomes are announced, they are delivered as positive assessments (3.3.2).

3.3.1. Standard outcomes not announced

Extracts 10 and 11 (Table 4) illustrate cases where outcomes of risk assessments (respectively, pulse, and temperature) are not verbally announced. In Extract 10, M2 palpates Brenna's pulse (ll.5–7), and without announcing the outcome, walks away recommending closing the curtains to keep the room cool (ll.8–9). The matter of Brenna's pulse does not arise again, contrasting with cases where a problem is detected.

In Extract 11, M3 places a thermometer under Elise's arm (l.2) during an ongoing discussion of appropriate fluids during labour (ll.1&3). This discussion continues across waiting for the thermometer to produce a reading (ll.4–8), past the point where a reading is available. It is clear in the recording that M3 looks at the thermometer and halts her turn in progress to do so (ll.8–9). However, she does not announce the reading and continues with her offer of "toast and jam" (l.10).

In no cases when an outcome is not made salient do women pursue the reading or otherwise treat it as relevantly missing, nor do midwives return to the issue in ongoing care (outside of the usual schedules). This suggests a shared understanding that when risk assessments are concluded without (eventual) comment, the outcomes are treated as unremarkable.

3.3.2. No problem announcements

When midwives announce standard outcomes, they use designedly reassuring positive assessments (Exs.12–16) (Table 5), varying from relatively muted (e.g., "that's fine"; Ex.12, l.3) to more effusive (e.g., "Absolutely perfect"; Ex.13, l.1). When announcing the (normal) outcome of FHR, midwives may take the opportunity to refer to the baby using their (assumed) gender pronouns, thus personalising the outcome. For example, in Extracts 14 (l.1) and 15 (l.5), the midwives say, respectively, "she sounds great" and "she sounds lovely".[2]

In the context of a prior deviant outcome, midwives might celebrate with women when a normal reading is obtained. For example, in Extract 16, following prior elevated blood pressure readings, the midwife conveys pleasure on a return to normal values. M1 attends to the digitally displayed outcome ("let's see"; l.1), raises both arms (l.2) in a recognisable gesture of glee [44], exclaims "Oh my god" (l.3) as a marker of surprise [45], before turning the machine for Diana's inspection (l.4). While M1's conduct clearly signals a good outcome, it is only after her performative celebration that she issues a high-grade assessment "perfect now" (l.6). The extract ends with M1's announcement that the normal reading warrants a reduction in the frequency of blood pressure readings (ll.13–14).

Generally, midwives issue positive assessments upon completion of an activity (Exs.12–14, 16), signalling closure and transition to a next activity [46]. For instance, in Extract 13, after positively assessing the FHR (l.1), M2 proposes the next task in a series using an 'and'-prefaced permission request (l.3) [47]. Occasionally, however, midwives make an assessment prior to concluding the activity as seen in Extract 15. Here,

[2] Recipients did not treat as problematic the use of gender pronouns to refer to their babies.

Table 4
Outcomes not announced.

Extract 10 VIP14 Brenna, outcome of pulse not announced

```
01 M2:   Just do your pulse again? Huh
02       (0.6)
03 M2:   We do your pulse a lot. [huh huh huh
04 Bre:                           [Huh huh huh
05       (0.7)
06 Bre:  ((coughs))
07       (18.7)
08 M2:   If I were you I might close that curtain, because it
09       might get very hot in here.
10 Bre:  Yeah
11       (0.4)
12 M2:   Is that alright.
13 Bre:  [Yeah (        )
14 BP2:  [Yeah, I can do it if you want
15 Bre:  You're alright, I'm here
```

Extract 11 VIP02 Elise, outcome of temperature not announced

```
01 M3:   [You do- (.) it's just (0.4) sometimes if it's fizzy
02       [((M1 places thermometer probe under Elise's L arm))
03       it goes down and comes back up again
04 Eli:   Mmhm
05 M3:   .hh so water. I'll get you some more Lucozade.
06 Eli:   Mmhm
07 M3:   .hh If you feel like something
08       [to eat (0.4)
09       [((thermometer beeps and M3 looks at it))
10       later I can get you some toast and some jam. Which
11       is probably a little bit more digestible than
12       the butter,
13 Eli:  Yeah
14 M3:   [Because the butter's a bit fatty it it's a bit
15       [((M3 removes thermometer and places probe back in machine
16       harder to digest
17 Eli:   Okay. [Right
18 M3:          [You can still have a scraping, but hhh
19 BP:   huh huh huh
```

M1 comments positively on how Gina's baby sounds several seconds before ending the monitoring. In this case, although the activity is not yet complete, when M1 speaks, she has gained sufficient information to be able to provide reassuring information to Gina. Speculatively, this reassurance is relevant in context of the midwife having recently informed Gina that her pulse rate is high (data not shown), evidenced by M1's next comment, "she's more chilled than you" (l.7).

The apparent optionality of a post-completion announcement regarding the normal outcome of risk surveillance bears further research. There may be good reasons for either option. For example, in Extract 11, the midwife opts to prioritise the ongoing discussion relating to food and drink during labour, while in Extract 16, the midwife's announcement is good news in the context of prior problems. However, the interactional contingencies leading to one pattern over another remain unclear.

3.4. What happens when problems are detected?

When readings deviate from the norm, midwives inform labouring women, contrasting with cases where no announcement is made. However, midwives tend to delay telling difficult news and may remove technology before announcing the outcome. Where possible (e.g., because they have multiple readings), midwives prioritise good news (see [48]). The risk-implicative finding is recurrently delivered using mitigating language.

Extracts 17 and 18 (Table 6) illustrate these practices. In both cases, following completion of maternal observations, the midwives remove equipment and share good news ("So your pulse, temperature and everything are alright", Ex.17, ll.1–2; "Blood pressure is absolutely perfect", Ex.18, l.1), before announcing a difficulty. Both midwives use the modifier "little" to soften the finding. In Extract 17 (ll.2–3), M1 describes Elise's blood pressure as "just a little bit raised", while in Extract 18 (l.3), M3 refers to Jasmine's pulse "a little bit fast" (though she revises this to "too fast"; l.5).

Extract 19 (Table 7) shows a rare instance of a midwife indicating a no-problem outcome despite detecting an issue. In this case, M2, completes monitoring FHR with "fine" (l.1) and follows up with "she's okay" (l.3). Interestingly, Kyla expresses some doubt via her yes/no query ("is she"; l.4), but M2 confirms (l.6) and leaves the room. However, the fact that M2 had detected an issue is made clear when M3 enters the room around three minutes later, telling Kyla that M2 had requested her to "count these heartbeats" (ll.20–21), which is too soon for routine monitoring during the first stage.

M3's stated reason for attending Kyla (to redo the FHR) is implicative of a potential issue without specifying the problem. However, M3 offers a plausible (non-alarming) account (ll.25–26) based on the new but

Table 5
Positive assessments to announce standard outcomes.

Extract 12 VIP22 Claudia, positive assessment of pulse

```
01        (64.0) ((SM palpates Claudia's pulse, looking at clock over her
02        right shoulder for most of this time))
03 SM:    That's fine
04        (6.2) ((SM stands and walks over to notes, begins to write))
```

Extract 13 VIP15 Brenna, positive assessments of FHR and maternal pulse

```
01 M2:    Absolutely perfect. ((indexing fetal heart rate))
02        (0.3)
03 M2:    And is it okay if I just do your pulse as well?
04        If [that's okay?]
05 Wo:       [Yeah,       ] that's fine
06 M2:    Yeah
07        (21.0)
08 M2:    That's perfect
09 Wo:    Huh huh huh
```

Extract 14 VIP06 Kay, positive assessment of baby's heartrate

```
01 M1:    ((stops monitoring)) She sounds great
02 Kay:   Yeah
03 M1:    ((Places monitor on trolley))
```

Extract 15 VIP23 Gina, positive assessment of baby's heartrate

```
01        ((Fetal monitor for 30.0))
02 M1:    Just got to go back to (     ) (0.8) get a thermometer.
03        (         ). Sorry, I'll have to go out and come back again
04        ((Fetal monitor for 13.0))
05 M1:    She sounds lovely.
06        (0.7) ((monitoring continues))
07 M1:    She's more chilled than you. Or are you chilled at the moment.
08 Gin:   Not too bad at the minute, yeah.
09        ((Foetal monitor for 10.2, then ends))
10 Gin:   .snhhh HHhhhh .snhhh HHhhhh
```

Extract 16 VIP21 Diana, positive assessment of blood pressure

```
01 M1:    ((Blood pressure machine beeps)) Let's see.
02        (.) ((M1 raises both hands))
03 M1:    OH MY GOD
04        (0.4) ((Turns machine so they can see it))
05 Dia:   Hu[h huh
06 M1:      [Perfect now
07 Dia:   Huh huh [the poo::l]
08 M1:            [You needed] to go in the wa[ter.
09 Wo:                                        [Yeah huh huh huh huh
10        I do feel quite mellow huh huh huh huh huh
11 M1:    ((removes cuff)) Ah:, I'm very happy.
12 Dia:   Thank you
13 M1:    Oh, we can ditch it now. We can ditch doing it (.)
14        that frequent now. huh huh huh huh huh
```

substandard technology M2 had earlier used ("cheap and nasty"; l.26). When M3 reassesses the FHR, using a "good one" (l.28), she also detects a problem, evident in her checking if Kyla likewise heard "that" (l.40; Kyla confirms, l.42). M3 describes the sound as an intermittent "double beat" (ll.44&46) and identifies it as an "ectopic beat" (l.49) [49]. Without elaborating further, she asks if Kyla knows "anything much about it" (l.53) and enquires about Kyla's history with fetal CTG (ll.55–56). M3 continues to monitor across these turns and when there is another audible double beat, M3 again retrospectively invites Kyla's confirmation (l.59). As she does this, M3 employs smile-voice and post-completion laughter (laughter that occurs after completing her utterance) to modulate any concern [50].

Regardless of how the issue is described, identifying a problem reliably leads to further decision-making about subsequent actions, often a recommendation for additional investigation. In Extract 17 (l.3), M1 pronounces she will change the method of obtaining Elise's blood pressure, while in Extracts 18 (l.16) and 19 (l.63–64), the midwives pronounce that the labouring women will undergo a period of continuous CTG monitoring; in Extract 19, this involves transfer out of the midwife-led unt.

Table 6
Announcing a problem with maternal observations.

Extract 17 VIP02 Elise, raised blood pressure

```
01 M1:  So your pulse, temperature and everything are
02      alright. Your blood pressure's just a little
03      bit rai::sed, but so we're going to do it manually,
04      oka:y.
05      (.)
06 Wo:  Yeah
```

Extract 18 VIP27 Jasmine, raised pulse

```
01 M3:   Blood pressure is absolutely perfect.
02       (0.8)
03 M3:   Pulse is a little bit (0.7) fast though.
04       (0.2)
05 M3:   Too fast
06       (0.4)
07 Jas:  Mm:::

… 8 lines deleted while M3 conducts a temperature reading (announcing
"that's fine"

16 M3:   So: I'll get the little machine and pop you on the monitor,
17       And then (0.8) half an hour, if it's fine that's fine.
18       Get you up and walking. .hh And then you just let me know
19       when you want to (0.3) go in the pool.
20 Jas:  Yeah
```

Extracts 17–19 present issues arising during the first stage of labour, when there is presumably time for further investigation (outside an emergency). Extract 20 (Table 8) shows a case where a problem with FHR is detected during second (pushing) stage. Initially, M1 monitors FHR for longer than usual (l.1), but withholds mentioning a problem until after instructing Lydia to give a "really good push now" (l.2). The problem is given as the reason for the instruction: "Because baby's starting to get a little tired" (ll.2–3). Over the next four minutes, M1 coaches Lydia through pushing before reassessing the FHR (data not shown). The extract resumes as M1 stops monitoring to coach Lydia through another contraction. (l.20). However, when Lydia expresses an inability to continue (e.g., "I can't"; l.22), M1 recommends an episiotomy to facilitate delivery.

M1's recommendation is tentative, presented as something she is "starting to think about" (l.24), with the mention of an episiotomy coming late in her turn (l.27), following her suggestion of "maybe popping some local anaesthetic in" (l.25). Lydia minimally agrees (l.28) but M1 treats this as insufficient by repeatedly soliciting confirmation of agreement (ll.29,31,33), which Lydia provides each time (ll.30,32,34). M1 thus displays her requirement for a particular kind of engagement from Lydia – more than one moment of acquiescence (see [51]) before proceeding with the episiotomy (l.36). Ultimately, the baby was born before M1 had opportunity to conduct the procedure.

4. Discussion and conclusion

4.1. Discussion

This CA study is the first to examine how midwives in midwife-led units broach risk-assessment activities with labouring women and announce outcomes. The findings are consistent with wider understanding of the centrality of risk surveillance and management in UK maternity care [1–4]. Risk assessment activities considerably constitute midwives' duties and women's experience of labour even when risks remain low, and by operationalising risk surveillance as routine, midwives contribute to its normalisation. However, in the absence of risk detection, midwives generally propose risk assessment by indexing the activity (e.g., listening to the baby or checking maternal pulse) without explicitly foregrounding risk. Together, these observations resonate with Scamell's [9] suggestion that risk operates as a 'virtual… object' (p.995) ever-present but often unnamed in midwifery practice (see also [32]).

Notably, while people in labour have the right to decline risk assessments, midwives never *offer* risk assessments (e.g., 'do you want me to do your blood pressure'). Offers 'highlight the role of patient preference, rather than medical necessity' [38] (p.1340), leading to greater rejection rates than with pronouncements [52]. Certainly, women rarely declined pronounced decisions to engage in risk assessment, but without offers, it's unclear how they may have responded if their preferences were designedly foregrounded. Midwives occasionally used permission-seeking requests, inviting women to grant or refuse (overwhelmingly granted, e.g., Extracts 6–9). Whether seeking permission shares with offers a sense of recipient preference remains an empirical question. However, midwives' use of permission-seeking over offers suggests an effective difference. Speculatively, offers present an activity as optional, while requests attend to the contingencies of conducting proposed activities, foregrounding readiness rather than personal preference.

More broadly, the study raises questions about how women's agency is positioned within risk surveillance practices. While the framing of activities as routine provides limited opportunities for involvement in decision-making about whether to conduct them, the data shows women consistently orienting to these activities as expected aspects of care through their ready agreement and cooperation.

The findings demonstrate the decision-implicative nature of risk surveillance and its potential to narrow women's choices, particularly following deviant outcomes. However, the study also reveals midwives' interactional efforts to minimise the imposition of risk surveillance and soften problematic findings. Space did not permit analysis of how midwives prioritise contractions over risk surveillance, frequently halting

Table 7
Problem with FHR during first stage.

Extract 19 VIP25 Kyla, problem with FHR, 1st stage

01 M2: ((Ends monitoring)) **Fine**
02 (0.4)
03 M2: **She's okay.**
04 Kyl: Is she?
05 (0.4)
06 M2: #Yeah
07 Kyl: Hmh

… just over three minutes deleted during which M2 leaves the room and Kyla converses with her birth partner. We re-join the interaction as a third midwife enters and introduces herself. For ease, I've started numbering at 20.

20 M3: I'm M3. **M2's just asked me to (0.5) count these (0.3)**
21 **heart beats ( ) if that's alright [with you?]**
23 Kyl: [Yeah.]
24 Kyl: That's fine.
25 M3: That machine is not the best. We've got some new ones
26 And they're right cheap and nasty.
27 Kyl: Oh rea(hh)lly huh huh huh
28 M3: And I have the good one [huh huh huh huh so]
29 Kyl: [Huh ( )] you got the
30 original

… just under two minutes deleted while M3 palpates Kyla's tummy and then monitors FHR. Monitoring continues across the following lines. For ease, I've started numbering from 40.

40 M3: Can you hear that.
41 (0.3)
42 Ky1: Yeah
43 (0.5)
44 M3: **Every now and ag[ain I think it] sorta does a (0.3) double**
45 Ky1: [Yeah]
46 M3: (0.5) **beat.**
47 Ky1: Ye(h)ah
48 (1.0)
49 M3: **They call it ectopic beat?**
50 (0.3)
51 Ky1: Oh okay. That [was just-
53 M3: [Do you know anything much about it?
54 (2.3) ((monitor continues))
55 M3: Have you ever had to go on the: s:ee tee gee for anything
56 at all. No.
57 Ky1: No
58 (3.3)
59 M3: $Did you hear it then. Did you hear it [go. huh huh huh huh huh
60 Ky1: [Yeah::
61 (1.4)
62 Ky1: So what does that mean,
63 M3: **It just means that we'll pop you upstairs and onto mat.**
64 **And we'll put you on the monitor for half an hour.**
65 **[And we'll do] a trace.**
66 Ky1: [Oh okay]
67 Ky1: Oh [right
68 M3: [Because obviously this thing only listens in for
69 [like a minute.
70 Ky1: [Yeah
71 M3: Whereas that one will be twenty odd minutes or:
72 [half an hour]
73 Ky1: [Right.] Okay.

Table 8
Problem with FHR during second stage.

Extract 20 VIP08 Lydia, problem with FHR, 2nd stage

```
01        ((Fetal monitor for 68.6))
02 M1:    Okay. Rea::lly good push now, okay. Because baby's
03        starting to get a little ti:red
04        (0.8)
05 Wo:    ((En[tonox))
06 M1:        [So rea::lly big

… four minutes deleted during which M1 coaches and encourages Lydia through
pushing. Just before we re-join the interaction, M1 has monitored FHR again for
about 30 seconds, but stopped when Lydia has another contraction. For ease, I've
started numbering from 20.

20 M1:    That's good. Hold your breath and really push
21        (2.0)
22 Lyd:   mmooo hhh .HH HHH .hh I can't hhh .hh I can't .hh
23        it hurts so much
24 M1:    So .hh what I'm starting to think about doing, oka::y?
25        .hh Is maybe popping some: (.) local anaesthetic in:
26 Lyd:   Yeah
27 M1:    And doing an episiotomy.
28 Lyd:   Okay
29 M1:    Okay?  Just 'cause baby is just starting to [get a bit tired
30 Lyd:                                               [Yeah
31 M1:    Okay?
32 Lyd:   Yeah
33 M1:    .hh Alright?
34 Lyd:   Yeah
35       (2.3)
36 M1:    So (0.2) I'm going to get those bits out…
```

risk assessments during contractions (see [53]). Together, these practices navigate potentially conflicting demands of enacting duties to conduct risk surveillance while upholding women-centred care.

The findings may be of relevance to other healthcare contexts where risk surveillance of ostensibly low-risk populations is routine (e.g., wellness checks). I acknowledge the study is limited to midwife-led care in the UK, and, while the participants were diverse in terms of socio-economic status, they had overwhelmingly white ethnicity. Future research should examine labour and birth in other geographical regions and address barriers to recruiting people of colour to studies of this kind.

4.2. Conclusion

Midwives treat risk surveillance as a necessary institutional requirement through interactional practices that construct them as routine, while also working to minimise disruption to labouring people.

4.3. Practice implications

CA insights can inform training to enhance midwives' awareness of how interactional choices shape women's involvement in decision-making. It is important to prompt discussion about the (lack of) explicit rationale and limited optionality for women's engagement with risk assessments and subsequent decision-making during labour.

CRediT authorship contribution statement

Clare Jackson: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing.

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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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Appendix A. : Selected glossary of transcription conventions used

Silence, overlaps and turn and unit boundaries

(0.8)	Silence measured in seconds
(.)	Micropause
[	overlap onset
]	overlap offset
=	latching
.	falling or final intonation contour: pyjamas.

? strongly rising intonation: it?
, slightly rising intonation: you
¿ ? stronger rising contour than a comma, weaker than a question mark: Statler? or Statler¿
_ continuation of same intonation throughout word: Me::_

Speed/tempo adjustments

< > *Speeded up talk* - 'greater than' and 'less than' symbols: >We mustn't forget ∘that.< = *Slowed down talk*: <seven thirdy.>
: *Stretched sounds*: colons - of the whole word: 'No::' or a specific sound in the word: 'N::o'
- *Cut-off sounds*: A hyphen after a word or part of a word: bla-

Volume adjustments

Underline *Underlining* – emphasis through all of the word: Oh: or part of the word: Linda
CAPITALS *Capitals* or *upper case* – elevated volume: MAYBE
°° *Degree signs* - reduced volume - preceding the word: °Yeh. Or surrounding a string: °here I've godda gid° double degree signs indicate Whispering or sotto voce: °°I hhave°°

Pitch adjustments ↑↓

Up arrows - sharp rises in pitch across a string of words: ↑we pl'se bring↑

Down arrows - sharp falls in pitch across a string of words: ↓see yah. Yah.↓

Single word pitch increase: ↑speak

Mid word pitch fall: matt:↓ress:.

Sharper pitch reset: ↑↑hhave

Gentler pitch adjustments

Underlining –Slightly elevated pitch (may include volume) on the vowel only: Yes

Up to down contour - an underlined vowel followed by a colon: pa:ssing.

Down to up contour - an underlined colon: ni:ght

Aspiration: in-breaths and out-breaths

Hearable aspiration (out-breath) – h

Hearable inhalation (in-breath) – period (or raised dot) preceding hh's:.h

Stretched aspiration – multiple h's rather than using colons: hhhh or. hhhh

Elevated volume of aspiration – HH.HHH

Decrease volume of aspiration – degree signs °hh

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