Embodiment and the technologies of induction of labour

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Abstract

Objective: To critically engage with the body project of induction of labour.

Design: A nested, qualitative study that formed part of a feasibility Random Controlled Trial investigating different methods of outpatient induction of labour. The data reported in this article were gathered via interview with women and midwives involved in the trial. All the participants who took part in the trial presented as cisgender women.

Findings: Analysis of 27 interview transcripts suggested that the expansion in choice of when, how and where to start labour can change the way decisions about labour onset is understood. The space needed for a new body project is emerging where distinctions between medicalised labour and spontaneous labour are less clear.

Conclusion: The embodiment of the new technologies of induction for those involved in this study was both a facet of increased freedom and autonomy and a gendered discourse where the normative function of routine intervention appeared more complete.

Keywords: Induction of labour; embodiment theory; Women; midwives; spontaneous physiology

Introduction

Personal autonomy, over the reproductive body, has been a welcomed tenet of maternal health policy in England for nearly three decades (NHS England, 2016; Dept. of Health, 2007; 1993). Furthermore, midwives have been positioned as agents of this autonomy, entrusted with protecting women's rights to choose what happens to their body during pregnancy, labour and birth (Borrelli, 2014; Nursing and Midwifery Council, 2019). Like other elements of the journey to parenthood, the onset of labour now involves a series of choices (Coates et al., 2020a; Faircloth, 2023). In recent years the options around induction of labour have proliferated to include: when - from 38 weeks gestation through to 42 weeks (Grobman et al., 2018); where - inpatients or outpatients (Kelly et al., 2013); where to go following the initial induction intervention – obstetric-led unit, home, or increasingly alongside midwifery-led units (Reid et al., 2011; Grobman et al., 2018); as well as how - mechanical or pharmaceutical (Vogel et al., 2017). Furthermore, the expanding menu of choice is underpinned by an array of what can often be contradictory evidence about what is best for the unborn baby (Dahlen et al., 2016; de Vries and Gordon, 2019), putting labour onset at the centre of an array of competing opinions. Put simply, the pregnant body is increasingly unconstrained by the limitations that once defined its corporeality, and with this emancipation has come uncertainty about how pregnancy length, labour and birth *should* be performed. Or as Meloncon (2017) states: 'By destabilising categories of the body, technological embodiment erases differences by focussing on the dispersal of embodiment through technologies' p. 68.

This article explores the choices driving the embodiment of labour induction technology, in particular the different technologies used to prepare the cervix for labour, and where these are embodied. The data presented comes from 27 semi-structured interviews with mothers and midwives who took part in a qualitative arm of a feasibility trial. **PROBIT-F**: **PRO**stagladin Insertion versus trans-cervical **B**alloon catheter for outpatient **I**nduction: a randomised controlled **T**rial of **F**easibility - ClinicalTrials.gov Identifier: NCT03199820 was set up to investigate the feasibility of a clinical trial on outpatient induction of labour using two different technologies: one, pharmaceutical (vaginal prostaglandin), the other mechanical (cervical balloon) for those with low risk pregnancies.

Background and theoretical orientation

The embodiment of technology for labour onset, is an emotive and contested area of maternity care (Cheyne et al., 2012; Coates, R., Cupples, G., Scamell, A. and McCourt, 2019; Davies-Tuck et al., 2018; Dominiek et al., 2021; Rath, 2008). Some women and pregnant people seek out obstetric technologies to help manage a body that is conceptualised as being unpredictable (or unreliable) and therefore posing risk to the baby. Others (a smaller minority) by contrast, take what Haraway (2000) has described as the natural goddess approach, where the integrity of the natural pregnant/birthing body requires preservation from the threat posed by the encroachment of labour and birth technology, conceptualised as instruments of disempowerment and risk (Kornelsen, 2005; Sjöblom et al., 2006; Viisainen, 2000; Wendland, 2007).

Notwithstanding the limitations of dichotomous reasoning, where the medicalised labour onset is juxtaposed against the spontaneous physiological onset (Bryers and van Teijlingen, 2010; Lupton, 1999; Walsh, 2009), in this article we explore women's and midwives' understandings of the beginning of labour, to explore how the new technologies of induction can operate to blur the distinctions between physiology and pathology in ways that favour medicalised embodiment (Johnson and Fledderjohann, 2012). This blurring, we suggest, is neither neutral nor benign as it renders the commensurate pregnant body less certain.

Four interrelated, and in many respects interdependent, social theories have been threaded together to provide a critical analysis of the expansion of choice of labour onset. The first, is the notion of performance where reproductive choices are conceptualised as reflecting the social and cultural context in which they are embedded, while at the same time, through creative performance, a gender normative context or cultural script, is actively constituted. According to Butler our understandings about gender are,

> *'a construction that conceals its genesis, the tacit collective agreement to perform, produce and sustain discrete and polar genders as cultural fictions is obscured by the credibility of those productions.'* (Butler, 1990, p. 140)

Drawing from this influential strand in feminist theory, a strand that gained prominence in the 1980s with the works of Beauvoir (2015) to be taken up and developed by social theorists such as Bulter, how labour and birth are achieved need not be understood as an inevitability arising out of physical attributes such as pelvic shape, uterine muscle activity or the position of the baby. Rather the labour onset decision making can be critically analysed as a gendered performance.

The second and third theoretical threads, intertwined here in this section, are the theory of embodiment and the body project. According to Bordo (2004, 1990) amongst others, embodiment captures the way we navigate our social world through, and upon our bodies and where physiological processes such as labour onset, can be 'written into' thereby shaping the actual doing or performance of labour and birth. The body project as described by Shilling (2005) is a form of embodiment where agency and choice are paramount: the physicality of the body is conceptualised as malleable, a stage upon which an individual can creatively perform (in this case) pregnancy, labour and birth. Through the different technologies of labour onset, an unprecedented degree of control over the birthing body has emerged, providing new opportunities for the body project as described by Shilling. Although this work does not include an analysis of the performance of labour and birth, using data taken from interviews with women and midwives involved in PROBIT – F we demonstrate its utility in this context for unpacking some of the normative functions of the choices available around the technological options for cervical ripening.

The final theoretical thread to inform this article is Haraway's cyborg manifesto. This work examines the physical integrity of our bodies in the context of our embodiment of technology. Haraway, described as being to be one of the most influential cultural commentors of her time (Gandy, 2010), uses the concept of the cyborg metaphorically to describe the relationship between humanity and technology. Haraway's work has much in common with Butler in that she argues,

> *'There is nothing about being "female" that naturally binds women'*,

indeed, according to her thesis,

> *'There is not even such a state as "being" female, itself a highly complex category constructed in contested sexual scientific discourses and other practice.'*
> (Haraway, 2000, p. 155)

Taking issue with what she (ironically) labels as the goddess, namely the essentialist, anti-technological strands of feminist thought of the 1980s (strands that have proven resilient in the critique of medicalised birth (Annandale and Clark, 1996; Brubaker and Dillaway, 2009; Henley-Einion, 2003), science and technology are placed centre stage by Haraway as a potentially liberating set of possibilities.

Drawing from Haraway's cyborg, we suggest this theory has both utility and limitation for understanding the decisions some women and pregnant people make to bring about labour and birth. We show how expansions in choice in the management of pregnancy length, have rendered the artificial onset of labour as desirable to both women and midwives regardless of, or even because of, their personal commitment to the idea of spontaneous labour, what Haraway described

as the goddess who is revered for her ability which here would include the realisation of an undisturbed, physiological birth. We suggest that Haraway's theoretical proposition that the embodiment of the technologies of labour onset operate exclusively as a domain for liberation deserves reconsideration because it fails to capture the complexities of labour and birth as a gendered performance. The word women in this article, is used to reflect the participants involved in this study who all presented as cisgendered women and is not intended to exclude trans men, non-binary or gender fluid pregnant people.

By focussing on the recurring theme of embodiment that ran through the interview data collected as part of the feasibility study, this article sets out the argument that labour onset technology embodiment is both a facet of increased freedom and autonomy and, at the same time, actively constitutes a corporeal pregnant body that is cast as requiring rescue (Martin, 2001). We propose that the developments in, and increasing application of, labour induction technologies can be usefully considered as a perpetuation and intensification of a regulative and gendered discourse (Arney, 1982; Campbell and Porter, 1997; Downe and McCourt, 2008; Jacobus et al., 1990; Nicholls and Webb, 2006; Oakley, 1984; Walsh, 2007). We present the findings as a plea for a theory-practice alignment, where understandings of routine maternity care can be invigorated as a space for 'active theoretical engagement' (Einstein and Shildrick, 2009:294). Through this invigoration, we invite clinicians and service-users to critically engage with the operations of choice in relation to the expansion of the technologies of birth.

Study design

Proof of concept, through feasibility testing has become an increasingly important preliminary step in the design of randomised control trials in all areas of health research (Blatch-Jones et al., 2018; Eldridge et al., 2016). This paper draws from one such study, set up to test the feasibility of conducting a full RCT to investigate outpatient induction of labour using two different technologies – one pharmaceutical (vaginal prostaglandin), the other mechanical (cervical balloon) for women and birthing people with low risk pregnancies: PROBIT-F. The aim of the feasibility study was to evaluate how many women and birthing people with healthy pregnancies would be willing to enrol in an RCT comparing these two technologies of induction in an outpatient setting.

While debates on how feasibility studies should be designed continue (Williams, 2016), with some arguing that qualitative research methods are preferable (Eldridge et al., 2016), PROBIT-F adopted a mixed methods approach with the aim of testing the feasibility of the randomisation required for a full RCT, as well as exploring the acceptability of both the interventions being tested and randomisation process, using qualitative research methods. This article reports on the findings from

the qualitative arm of this study set up to explore the acceptability of the recruitment and randomisation processes carried out and the interventions included in the trial. The data reported here relates to the exploration of the second aim, acceptability of the interventions, which aimed to answer the following research questions: How acceptable is induction of labour? How acceptable is outpatient induction of labour? How acceptable are the methods of induction (Propess / balloon catheter)?

Since staff co-operation and support are imperative for the success of any health research - from their enthusiasm and availability for participant recruitment, to their active endorsement (or not) of the intervention being tested expressed through the care they give to participants (Lawton et al., 2012; Ziebland et al., 2007) - the qualitative acceptability study included midwives involved in the randomisation process and delivery of the care following this randomisation as well as interviews with the study participants recruited to be randomised.

Challenges with recruitment particularly in relation to consent for randomisation, challenges known to undermine the financial and scientific viability of clinically based research across the world (El Feky et al., 2018; Gardner et al., 2016), unfortunately impacted negatively on PROBIT-F (Bhide et al., 2020; Coates et al., 2021). Of the 274 eligible participants identified, 230 were approached to take part. One hundred and forty-six declined, of those randomised 55 were later excluded, leaving just 29 participants. This challenge meant that our original plan to follow a stratified purposeful sampling approach based on demographic details that characterised the participants volunteering, and midwives caring for those who volunteered to take part in the trial, was not possible. In the end, we approached all the PROBIT-F participants (n29). These participants were predominantly white (76%); their average age was 33; the majority had a partner they co-habited with (78%); and 90% were in employment. The gender of the participants was not asked, however all of those who took part presented a cisgender women. Forty midwives were identified as being directly involved in the PROBIT-F trial – either in the ramdomisation or care following ramonisation and all 40 were approached. All 40 the midwives identified were contacted, via email, by the trial's lead research midwife and posters about the study were displayed in the maternity staff areas. The proportion of women who took part in the interviews was high – 73%. The proportion of the midwives involved in the study who agree to speak to us was low – under 2% - which is a significant limitation of the study.

Following the clinical decision to induce labour, eligible women were informed about the study verbally by their midwives and information leaflets were given out. Recruitment was carried out either by community midwives during their 41-week antenatal appointment, or by the research

midwives during postdates hospital appointments or pre-induction ultrasound scan appointments undertaken between 39 + 0 and 41 + 2 weeks.

The interviews were carried out by two of the authors of this paper. The guides used to facilitate the semi-structured interviews were designed collaboratively by the qualitative research team and are available on request from the authors. Interviews took place over a period of a year ending in 2019 and were digitally recorded. The majority of the interviews took place face-to-face at a location that was convenient to the participants – either at their homes or on site at the participating hospitals. The remainder were carried out via the telephone. Interview duration was up to 52 minutes. Reporting of the embodiment findings was postponed until this point due to the challenges posed by the pandemic.

Analysis

Within an overarching interest in lived experience of the phenomena, the acceptability study sat within what might be called an interpretivist paradigm. That is to say, we wanted to use qualitative semi-structure interviews to gain insight into meanings and experiences of individuals within their social context. The nature of the investigatory team and the positionalities we each brought to the project meant we were able to draw from a range of different expertise depending upon best fit. The analysis might be described as post structuralist as it was informed by a pastiche of health psychological, medical anthropological and midwifery theoretical orientations. Given Haraway's interest in cultural and biological anthropology, the analysis reported in this paper aligns best with a post structuralist, critical medical anthropological epistemology but the midwifery lens remains ever-present in the background.

Both interviewers kept research diaries to enable reflection on the research process, researcher influence on the data collection and emerging analytical themes. Regular research team meetings were held to explore these reflections and to develop analytical lines of enquiry. To assesses the trustworthiness of data impressions captured in the research diaries, reflexive codes were agreed and tested against data and subsequently adjusted. In this way analysis was developed and refined through ongoing reflexivity shared across the team. The embodiment theme reported here, represents one analytical concept to emerge out of the reflexive analysis and subsequent team discussions, a concept which eventually became an explanatory theme. All of the codes and final explanatory themes inductively were derived through the data.

Recordings of all 27 interviews were transcribed verbatim and de-identified simultaneously. Data were coded by three of the authors separately. This coding was done using NVivo version 12

qualitative data management software. Initial coding was carried out independently by two of the authors who conducted the interviews, one a health psychologist, research fellow the other a research post graduate student and practicing midwife. All codes, that emerged out of the data and reflexive journaling, were discussed by the qualitative research team and then, mutually agreed upon. A sample of the transcripts of the interviews with the women (10%) and all of the midwifery interview transcripts were independently coded by the third author – medical anthropologist, clinical academic midwife and co-investigator on the PROBIT-F investigatory team - to check and confirm the credibility of the analysis. Final explanatory thematic framework was generated from both sets of data – the women's and the midwives' – and was discussed until consensus was reached across the qualitative research team. The data presented in this paper focuses on the embodiment of birth technology, a recurring thematic thread that ran across both data sets.

Ethical approval was obtained from the NHS Health Research Authority East of England - Cambridgeshire and Hertfordshire Research Ethics Committee 17/EE/0295. The National Institute of Health Research Grant number was 34839. Details of the trial are registered and publicly available here: https://clinicaltrials.gov/ct2/show/NCT03199820 . Permission was gained to use direct quotes from the interviews and all identifying features have been removed – participant's direct quotes are labelled numerically with the adjunct of P for the women and M/W for the midwifery participants.

Findings

In this section of the article, we report on three interconnected, explanatory embodiment themes and three subthemes that emerged through the interview transcript reflexive analysis process. We present all three by locating them within theoretical orientation introduced in the background section.

The three interconnected embodiment themes identified were:

1. The body project
    a. The malleable body and imagined goddess
2. Informed choice
    a. Risk and the body project
    b. Preservation of the goddess within the cyborg
3. Preservation of the goddess through place ownership.

The body project:

The way both the women and midwives talked about induction of labour in this study, echoed what Shilling (2005) referred to as the body project – in other words, induction was described as a way of working on a malleable pregnant body. Being encouraged to take a decision about bringing on labour artificially, positioned the body as a pliable project which can be worked upon through the application of different birthing technologies. -

> *'I was like "wow, this is unexpected", and I got really excited, I was like "it's* [the embodiment of induction technology] *happening, it's happening, ooh, finally", you know… And I just wanted to have that experience' (P 16)*

> *'they said "everything is fine, you can be induced, but maybe in a few days", and I pushed for it to be that same day, because I just didn't want to have the week…it was a Friday…and I didn't want to have the weekend just, really, waiting around, and being uncomfortable.' (P 1)*

For the midwives, the decision-making that women faced when choosing whether to embody the technologies of induction was troubled -

> *'the women were coming in on the day of the induction and it's difficult, they are obviously very confused about whether to have the induction or not… They need a lot of support, they can be very nervous, very anxious, they are not sure what to expect. Normally induction of labour was not in anyone's birth plan, so automatically they have reservations about it, they might feel quite negative ' (P5 M/W)*

> *'I think that it is [talking about and gaining consent] always a bit sensitive later in pregnancy and especially around induction anyway… it's quite a big point in people's pregnancy, to decide whether to have induction or not' (P1 M/W)*

The malleable body and imagined goddess

The malleable pregnant body project included the embodiment of different techniques to find the body Haraway (2013, 2000) described as the goddess.

> *'I really didn't think I would need to be induced. I mean, I had acupuncture, I did everything I could to try and get her out but I still…it still wouldn't have made me want to be induced, if that makes sense' (P11)*

Tension could arise if and when the cyborg appeared in spite of efforts to find the goddess.

'Yeah, to make a point of how much…how much you'd be connected up to and how restricted you'd be… So I was like "I don't want that, I want a water birth, I want to be able to walk around the ward, I want to do that…" (P12)

'I was a bit worried, because… I kinda…you kinda wanna just do everything naturally, but everything, you know, just happened the way it's supposed to happen.' (P10)

Informed choice:

Central to Shilling's (2005) work, is the proposition that the body is a project upon which personal choice is enacted in ways that reveal the wider social and cultural context. The midwives we spoke to, talked about the embodiment of the technologies of induction being easier when more information was offered, when the sense of personal choice was more complete -

'I know from my experience anyway women coming to be induced and they have absolutely no idea what that involves at all, and I'm sure people do tell them a bit but I don't think they are fully informed really… improving women's information will improve their perceived experiences,' (P3 M/W)

The body project revealed in these data entailed an acceptance of the pregnant body as being open to reconstruction in line with the woman's, the midwife's or both, designs. Furthermore, engagement with this project was not always driven by a range of interests in the unborn child.

'They were very relaxed about it, but I was really really ready to have the baby, so I was… So I thought "okay, I'll just…I'll go for it with induction" (P1)

Risk and the body project

Although tensions arising out of the embodiment of the technologies of induction were frequently described, involving often painful processes of adjustment and realignment, risk communication helped to facilitate choices to embody the technologies of induction rendering the cyborg (Haraway, 2000) more acceptable or desirable.

'I was going to allow myself to be induced, because I just didn't wanna take the risk that…the incremental risk of stillbirth was too great a risk to me, versus a potential difficult labour' (P19)

'No, no, they said "you can't", umm, and I knew, having gone to my NCT course, that I…I could do that, and I absolutely could say "no", but I…like, they would've made me feel that I was being difficult and that I was being…that I was putting

me and my baby at risk… they said "your placenta stops working after 42 weeks, basically", is what they said' (P13)

Preservation of the goddess within the cyborg

The two technologies on offer to induce labour for those involved in PROBIT-F were not equally placed in the minds of the participants involved. The acceptability of the emerging cyborg manifested through the embodiment of labour onset technology was strongest where the cyborg was understood as resembling Haraway's goddess (Haraway, 2013). This preference rendered pharmaceuticals cervical ripening techniques as troubling for both the women and the midwives, as chemicals were seen as unsettling notions of a good, capable birthing body.

'I always felt a bit resentful when I was having the pessary put in. When I was just lying there thinking, … "it's kind of pointless thinking so much about your dream situation, because that's just not how it works out"' (P 17)

' I found it…I was quite depressed, actually, when I thought "I'm gonna have to have this drug-induced labour and have possibly my waters broken, and then possibly an epidural"…' (P 2)

'you wanna have the baby but then you don't wanna force the baby out, at the same time. So I was just kind of like…yeah, I'm at that stage where I want the baby to be here now, but at the same time, I don't want to force the baby out' (P10)

The option of a non-pharmaceutical method to induce labour by contrast, was welcomed by the women and midwives alike. The embodiment of this technology was seen as a way of circumnavigating the unwelcome prospect of medicalisation of the birthing experience. The cervical balloon catheter was conceptualised as a way of not only finding the goddess' 'natural' labouring body but preserving that body.

'the fact that it seemed to be a, kind of, softer…if we had drawn the balloon, we were hoping for a kind of softer approach than, perhaps, the pessary, 'cause it was…'cause there wasn't any hormones…' (P13)

"oh, if I could have this balloon and then go into labour naturally, then that means there would be no chemicals used for an induction, and if I can go home…", which was amazing, but you know…so that was really…that was it (P6)

Many of the midwives interviewed shared similar views. The expansion of choice to include a mechanical technology was seen as a kind of hybrid where women could actively embody the technology of induction while not losing sight of the 'natural' birthing body project.

'I think the benefits of the balloon for me is the fact that it put the pressure on the cervix to release the natural prostaglandins rather than using chemical prostaglandins and you don't have that risk of hyperstimulation and I think they are the two big benefits.. over the pessary.' (P2 M/W)

'most ladies I spoke to, had the preference for the balloon because it doesn't have any hormones, so they thought that is a more natural way to be induced.' (P5 M/W)

Preservation of the goddess through place ownership:

Control over the physical space where pregnancy would end, enabled the women to align their induction experience with their aspiration for a relaxed and personal labour and birth.

'they then said that I could then go home after the first pessary, I looked at them and said "really?!", and I got so excited, and I said "oh my god, that would be brilliant, thank you so much (P3)

'cause I just knew, I just thought "oh I don't wanna be lying in the hospital bed, waiting for contractions to start and stuff, I'd rather come home", … I knew my mum and my husband would be here, so that's why I would much rather be home in that comfort and things, umm… Umm, so yeah, it was much better to be out of that environment, I think, and just at home (P4)

' I was, sort of, worried about having to stay and literally unable to come home, was that one thing I really didn't want to do … the idea of it, [going home after the intervention] *of being slightly more in control of it, I guess, was appealing.' (P2)*

Midwives were equally enthusiastic about the benefits of the introduction of women's choice around where labour should commence following the initial induction procedure. This enthusiasm was embedded within their professional understanding of and commitment to spontaneous physiology of birth and the capable birthing body.

'eah I think it's good, I think it's better for women to be in their own environment, they are more relaxed. We know that helps improve oxytocin levels, eeerm they have all their amenities close to them and I think it's a good, very good for them…'(P5 M/W)

'I think it's a brilliant thing, because when people are in hospital they quite often get agitated, the time goes very slowly, they are waiting for something to happen, and it's quite frustrating and that's obviously inhibiting their natural oxytocin as well. Eeeerm, whereas in their own home they can probably forget about it a bit more' (P1 MW)

'Positive very positive, I think it works, it tends to work better because women are more relaxed, and all things that we associate with being in early labour, very similar to things we associate with successful induction, so you know, oxytocin

and all that kind of thing, they are like I said before they are more distracted and they don't have the perception of being an inpatient.' (P3 M/W)

Discussion

Many of the women interviewed for this study, preferred the option of the balloon induction method in the outpatient setting, and would choose this if they were given a choice. Furthermore, both the women and the midwives supporting them, understood this preference as a way of finding Haraway's goddess. Rather than seeing the cyborg as skipping identification with the spontaneous physiology inherent with Haraway's natural goddess, the data explored in this article shows how the expansion of choice on how, where and when to embody the technologies of labour, constitutes a birthing body where the cyborg and goddess can be one and the same thing. The cyborg created out of the active embodiment of the technologies of induction in this study, operated to devitalise potential sites of resistance to a medical gaze where the pregnant body is thought of as being incomplete, requiring rescue. Through the expansion of choice and autonomy the women in this study, both the childbearing women and the midwives responsible for delivering maternity care to these women, created a cyborg that embraced the goddess and in so doing, engaged with a body project where the need to preserve a fully functional birthing body became irrelevant.

Through a new 'softer' body project, achieved through the embodiment of mechanical induction technologies and the moving of the medicalisation of labour beyond the confines of the hospital and into the home, active embodiment of technology was reframed as a benign option, designed to help realise spontaneous physiology through the enhancement of personal freedoms. Contemplation of how to be induced, where to be induced and when to be induced, gave women an irresistible opportunity to learn the art of self-discipline where medicalised birth practices were actively embodied and thereby normalised. Furthermore, the midwives involved in this study endorsed these acts of self-discipline as expressions of informed choice and optimal birth experience.

The fracturing of essentialist gender identities, which arguably includes notions of a capable birthing body, presented by the cyborg was welcomed by Haraway as part of the post-structural engagement towards gender liberation. This article sadly, is not so optimistic. Despite the recent inroads to a post-gendered world where birthing people include, but are no longer limited to cisgender women, those who do not identify as being female (Obedin-Maliver and Makadon, 2015), and where breastfeeding has been expanded to include chestfeeding (Rosen-Carole and Greenberg, 2022), labour and birth continues to be performed in gender normative ways. Routine induction of labour for pregnancy length is performed within a setting where women continue to prioritise reproduction

(Slauson-Blevins and Johnson, 2016) , childbearing and family life (Bass, 2014); a setting where gender equality is uneven, and men continue to reap the benefits of this inequality (England, 2010). In a context where parenthood remains a critical juncture where gendered identities tend to diverge substantially, the erosion of a capable pregnant/labouring body through a cyborg birthing project presents a gendered problem that we believe deserves the attention of theorist and practitioner alike.

Suspicion about the utopian potential of Haraway's cyborg encroaches hazardous territory, threatening to prize open the proverbial lid of Pandora's Box to release the spectre of biological determinism. Rather than side-stepping such theoretical discomforts, we would like to insist that interrogation of this area of health care is necessary for the creation of a dissonance useful for unsettling the uncritical celebrations - associated in a hegemonic way - of the clinical and technological efforts in 'Saving Babies Lives' (NHS England, 2019) in England and in other parts of the World (Coates et al., 2020b). It is with a wariness and with appreciation of Haraway's emancipatory aspirations that we challenge the potential of the cyborg, positioning it as a potential object of gendered oppression where the spontaneous onset of labour is assumed to be pathological and where women, and birthing people, are inherently inadequate or even dangerous and certainly not to be relied upon.

Through the combination of the social theory of the body - Shilling's (2005) body project and Haraway's (2000) Cyborg Manifesto – we have shown how women and midwives can contribute to and sustain a discursive practice where intolerance to the risks posed to unborn babies by their mother's pregnant bodies can be intensified. Within this discourse, the adequacy of the pregnant body is unsettled and reconstituted as being fraught with failures: failing to produce an offspring in a timely manner, failing to nourish the unborn child so they are either too big or too small, and ultimately, failing to keep the baby alive. Such discursive amplification of the inadequacy of the pregnant body continues to manifest in a decrease in spontaneous labour onset rates.

The year 2019/20 represents the first year when less than half of labours that took place in England, commenced spontaneously (NHS Digital, 2020). The findings described in this article provides a possible theoretical explanation for this shift in the performance of labour and birth. Our critical analysis shows how the pregnant body project can include an active assemblage of two, what have previously been positioned in the literature as being mutually exclusive, understandings of pregnancy and birth – medicalised birth of the cyborg and normal birth of the natural goddess (Haraway, 2000; Henley-Einion, 2003; Rothwell, 1995; Teijlingen et al., 2004). We suggest that

through this assemblage, a metaphorical birthing cyborg/goddess has been begotten, rendering the medicalisation of childbirth less noticeable and at the same time more complete.

Limitations

There are several limitations in this study we would like to acknowledge. Firstly, as the results described in this article suggest, women who participated in this trial largely did so for the possibility of trying the balloon instead of the prostaglandin pessary and/or to go home for the initial stages of induction, which puts a bias these results in the direction of women reporting positively about the balloon because they preferred this to the prostaglandin pessary, and/or about going home because this was preferred to remaining in hospital. A second limitation is our concern about a lack of ethnic diversity in women recruited to the trial demonstrating that further research is needed to understand the experiences of non-white British women. Although a response rate of 73% was achieved with the women, the midwifery response rate achieved was only 2% of those who were approached to take part. Discrepancy in the sampling was partly due to the timing and resourcing constraints of the different elements of the project. The proportions of data used in this article reflect the discrepancy, and it is noted that data saturation was not achieved in the smaller sample group. These limitations make render the generalisability of the findings presented here problematic, further research is required to establish the gendered normative implications of the expansion of choice of cervical ripening technology.

Finally, we would like to acknowledge that our analysis comes from just 27 interviews, rendering any wider inferences as tentative. Our aim in this article is not to suggest that the blurring between Haraway's cyborg and goddess, discovered in our data, should be understood as an universal phenomenon. Rather we present this analysis as a theoretical and clinical practice based critique where the taken for granted understandings of the expansion of choice surrounding the corporeality of the birthing body can be ontologically unsettled through a process of 'active theoretical engagement' (Einstein and Shildrick, 2009:294).

Conclusion

Through an exploration of 27 interviews with women and midwives involved in a study of feasibility on outpatient's induction of labour, we have described a pregnant body project where two congruent ways of doing labour and birth – the medicalised and the spontaneous – can comfortably co-exist. The outcome of this coexistence, we would like to conclude, is a reproductive body actively constituted, by both women and midwives, as being fundamentally flawed - a site of risk. Through this body project, the regulation of the pregnant body through the application of the technologies of induction takes on a gender normative function.

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- Permission to reproduce material from other sources – all other material referenced in this paper is publicly available and nothing has re-produced requiring permission.
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Conflict of interest disclosure –

- There are no conflicts of interest to declare for this paper.