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The challenges and opportunities for implementing group antenatal care ('Pregnancy Circles') as part of standard NHS maternity care: A co-designed qualitative study

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ABSTRACT

Objective: To identify the challenges and opportunities for rolling out a bespoke model of group antenatal care called Pregnancy Circles (PC) within the National Health Service: what kind of support and training is needed and what adaptations are appropriate, including during a pandemic when face-to-face interaction is limited.

Design: Exploratory qualitative study (online focus group). Study co-designed with midwives. Data analysed thematically using an ecological model to synthesise.

Setting: Five maternity services within the National Health Service.

Participants: Seven midwives who facilitated PCs. Three senior midwives with implementation experience participated in the co-design process.

Findings: Three themes operating across the ecological model were identified: 'Implementing innovation', 'Philosophy of care' and 'Resource management'. Tensions were identified between group care's focus on relationships and professional autonomy, and concepts of efficiency within the NHS's market model of care. Midwives found protected time, training and ongoing support essential for developing the skills and confidence needed to deliver this innovative model of care. Integrating Pregnancy Circles with continuity of carer models was seen as the most promising opportunity for long-term implementation. Midwives perceived continuity and peer support as the most effective elements of the model and there was some evidence that the model may be robust enough to withstand adaptation to online delivery.

Key conclusions: Midwives facilitating group care enjoyed the relationships, autonomy and professional development the model offered. Harnessing this personal (micro-level) satisfaction is key to wider implementation. Group care is well aligned with current maternity policy but the challenges midwives face (temporal, practical and cultural) must be anticipated and addressed at macro and meso level for wider implementation to be sustainable. The PC model may be flexible enough to adapt to online delivery and extend continuity of care but further research is needed in these areas.

Implications for practice: Implementation of group care in the NHS requires senior leadership and expertise in change management, protected time for training and delivery of the model, and funding for equipment. Training and ongoing support, are vital for sustainability and quality control. There is potential for online delivery and integrating group care with continuity models.

Introduction

Group Antenatal Care (gANC) originated as CenteringPregnancy® in America in the 1990s (Rising et al., 2004). The model brings together 6-12 pregnant women with the same expected due date,

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following the traditional antenatal schedule but providing antenatal care in 2-hour group sessions instead of short one-to-one appointments. gANC combines information sharing, clinical care and peer support, providing continuity of carer during the antenatal period and one postnatal reunion. A facilitative approach, group activities, woman-led discussions and self-checking are employed to break down traditional 'expert/patient' hierarchies and empower service users.

CenteringPregnancy® and similar models have been implemented internationally (Grenier et al., 2019; Sharma et al., 2018) but are little known in the UK. One successful pilot of CenteringPregnancy® was run in the UK in 2010 (Gaudion et al., 2013). In 2018 the Research for Equitable Antenatal Care and Health (REACH) Pregnancy Programme, funded by the National Institute of Health Research (NIHR), undertook the first randomised controlled trial of gANC in the National Health Service (NHS) in England, implemented across 17 maternity services. A bespoke model called Pregnancy Circles (PC) was developed, following the CenteringPregnancy® model but with the aim of being flexible enough to adapt to the needs of the NHS, and which would be free to implement locally if successful. NHS midwives attended a one-day group facilitation training workshop (Wiseman et al., 2017) and were invited to monthly half-day reflection sessions to discuss issues arising in practice. Each site was provided with a 'Pregnancy Circles Box', including materials for women to check their own blood pressure and analyse their urine and for group activities. A manual was designed with suggested topics and activities including a page for reflection after each session. Full details of the model are outlined in Wiggins et al. (2020). gANC has been shown to improve attendance and women's experience of antenatal care without any adverse outcomes (Hunter et al., 2018a; Catling et al., 2015). Cohort studies and some trials suggest that gANC may improve maternal and neonatal outcomes such as pre-term birth, attendance and breastfeeding rates, especially for vulnerable groups (Grenier et al., 2019; Byerley & Haas 2017; Carter et al., 2016; Ikovics et al., 2016). Health professionals facilitating gANC perceive it as a safe and satisfying way to deliver antenatal care (Lazar et al., 2021; Hunter et al., 2018b).

Recruitment into the REACH trial was paused in March 2020 after the COVID-19 lockdown stopped face-to-face groups. Although most sites stopped their PCs, many tried to maintain elements of the model, for example retaining continuity in 1-1 appointments or asking women to self-check their blood pressure or urine at home. Some sites succeeded in implementing interactive online PCs. A nested implementation study was designed with the aim of identifying the challenges and opportunities for rolling out gANC within the NHS and capturing the impact of the pandemic. This paper describes the REACH nested implementation study.

Methods

The nested implementation study was undertaken during 2020 to capture midwives' recent facilitation experience, to understand how the COVID-19 pandemic had affected PCs and to draw out more general lessons about what kind of support would be needed for wider and longer-term implementation. Specifically, we wanted to know:

- What support do midwives need to implement and sustain gANC within existing maternity services?
- What training and materials are needed for successful implementation of gANC as part of normal NHS care?
- What adaptations to the model are appropriate and accessible, including in the context of a pandemic which limits face to face interactions?

Ethical approval was obtained from the London-Surrey Borders Research Ethics Committee (ref. 17/LO/1596)

This was an exploratory study using qualitative methods. Data were collected using an online focus group. Focus groups are appropriate for understanding shared experiences and the interaction between participants can shed light on participants' own concepts and meaning (Kitzinger 1994; Morgan 1996; Wilkinson 1998a). The decision to carry out the focus group online was pragmatic given the COVID-19 pandemic and pressure on NHS staff. Emerging evidence suggests that synchronous online focus groups, if well facilitated, can offer good opportunities for interaction between participants, offering both opportunities and challenges (Daniels et al., 2019; Halliday et al., 2021). A co-production approach was employed, adapted from Henshall et al. (2018). Three senior midwives with experience of PCs were invited to collaborate with three REACH researchers. The midwifery collaborators helped design the focus group topic guide (Appendix 1), supported recruitment at a time when services were short staffed and busy, facilitated data collection and took part in data analysis.

All midwives who had facilitated PCs during the REACH trial (n=104) were sent an email with a participant information sheet in October 2020, inviting them to take part in an online focus group on Zoom. Midwifery collaborators were chosen to lead the focus group as it was felt that participants would feel more at ease speaking to peers familiar with the group care model than to researchers. Using peer moderators for focus groups with young people has been shown to enable more open dialogue (Djohari & Higham 2020). Feminist theory suggests that the role of a focus group moderator is very different from that of an interviewer because group interactions, including interactions between participants and the moderator, are key to producing insights. Democratizing this process can empower participants, increasing self-disclosure and the confidence to challenge other views (Webb & Doman 2008; Wilkinson 1998b). This approach can be challenging as peer moderators may be less skilled and objective than researchers but Morgan & Krueger (1993) postulate that the benefits of a familiar moderator may outweigh these considerations. In this study, flattening the hierarchy of the focus group by using peer moderators was congruous with the group care model being investigated, which seeks to flatten hierarchies in order to empower and amplify the voices of participants. The midwives were experienced group facilitators, and this also fed into the design of the 90-minute focus group, for example through the inclusion of an online group activity to help participants relax and get to know each other, and using breakout rooms to enable deeper discussion on particular topics.. Verbal consent was obtained and video-recorded. The focus group was recorded using the integral recording and transcription facility in Zoom.

Focus group data were analysed thematically (Thomas & Harden, 2008). Each collaborator (an anthropologist, two midwifery researchers and three clinical midwives) independently coded the data and undertook an initial analysis, mindful of their own positionality and interests, ensuring a rigorous interrogation of the data from differing perspectives. The whole team then discussed the findings and insights together, exploring areas of overlap and differing views, in order to generate a richer understanding and agree on meta-codes and emerging themes. Finally, the academic researchers drew on the ecological model of human development (Bronfenbrenner 1994) to identify overarching themes at work within the macro, meso and microsystems at play in the implementation of group care. These were then checked for accuracy and sense with the midwifery collaborators to ensure they reflected experience in practice. Macrosystems represent the broader patterns that shape meso and microsystems within a specific soci-

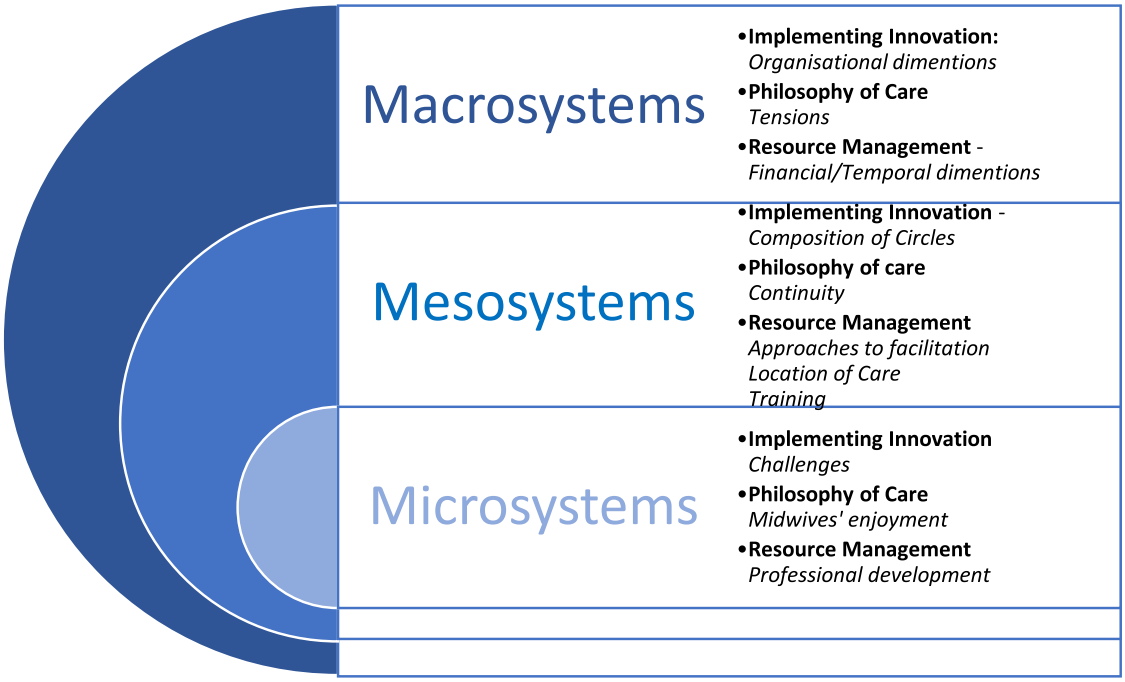

Fig. 1. Descriptive and analytical themes operating across the three levels of Bronfenbrenner's ecological model (1994) relating to the implementation of group antenatal care in the NHS.

ety or culture. They are effectively the 'social blueprint' of the culture, in this case the NHS, where different bodies of knowledges and beliefs systems are located. It is also where macro-structural factors such as social, political and economic hierarchies and disparities take shape, as "*opportunities, structures, hazards and life course options*" sit within this layer (Bronfenbrenner 1994, p40). Mesosystems are the 'linkages and processes' which impact on the development of individuals and microsystems and address the impact of personal and interpersonal roles and experiences within a socio-ecological environment. The Ecological model has been recognized as a useful tool for understanding the impact of context in healthcare and maternity research (Bryans et al., 2009; Kaiser et al., 2019).

Findings

Nine midwives agreed to take part in the focus group but only seven, representing five maternity services, were able to attend due to the pressure of clinical work. Codes were refined into eleven descriptive themes. Three overarching analytical themes were identified, operating across the three levels of the ecological model: 'Implementing innovation', 'Philosophy of care' and 'Resource management' (Fig. 1).

Macrosystems

Three main themes were identified at the macrosystem level: organisational dimensions, tensions and temporal and financial dimensions:

Implementing innovation

Organisational dimensions

The deeply entrenched structural apparatus of the NHS posed barriers and was challenged by the innovation and change of implementing gANC. Midwives described what it would take to truly implement and integrate PCs into the maternity services:

> *If you're going to implement this, it's a big, big change... We need really good managers. You need that kind of overhaul. And you need people, like their expertise is change management.* [MW1]

> *…I imagine it would require the complete change of how we work.* [MW2]

Often the system in which midwives are operating does not facilitate innovation, prioritising well-worn patterns of moving service users through the system.

> *They didn't believe that it was a good model, they'd never seen it happen, so they were reluctant.* [MW4]

Furthermore, the NHS organisational culture is marked by a lack of institutional memory, in that these 'new' models of care may not be new at all and may have been historically employed by midwives and maternity services, such as group- and community-based care, yet are experienced as novel. There was a sense for some midwives that PCs reclaimed older traditions of domiciliary midwifery, rooted in social connections.

> *I felt like I was transported back in the East End of London and Call the Midwife in the 1950s. It was just lovely. We had a chat. We went to a place where you could have tea and biscuits. It was just lovely* [many nod and smile]. [MW3]

Philosophy of care

Tensions

We noted tensions in the focus group discussion between the institutionalised market model of care which midwives had internalised, with its focus on efficiency, and the midwifery model of care, focused on spending time and building relationships. One midwife reflected this as she spoke about the potential of PCs to provide more personalised care, especially for those on higher-risk pathways:

> *I would really like to see this attempted in our diabetic clinics* [others nodding in agreement]*… It would also make, hopefully,*

their care a little bit more midwifery-led, rather than just the diabetic nurse and the doctors. I feel that, unfortunately, our care for diabetic women is great but I don't think it's very holistic, in the sense of the midwifery. [MW4]

Within the overarching market model of care, there are limited opportunities for connectivity or collaboration between HCPs, or between midwives and women. Connection and collaboration are fundamental to the theory of how PCs function. One participant elaborated on the connections she formed through PCs:

It was a really nice two hours out of my day… It was absolutely wonderful. And to get to see three of them here and be present at three of the births was just phenomenal. [MW3]

PCs are strongly relational and supporting this strengthens their implementation; however, this may be at odds with the overarching factory model of contemporary NHS care, which shapes the organisational culture and the many dimensions of caregiving.

I think we had six women in our Circle and then that would be a whole morning taken up for six women, so I know that some of the staff were a bit like, oh, is this, you know, really worth it or whatever. I know that we really enjoyed doing it and the women really enjoyed doing it, and it's just working out if it is, kind of, efficient. [MW1]

Resource management

Financial and temporal dimensions

The resource implications of implementing a new model of care such as PC's informed many of the discussions in the focus group. One discussion focused on the temporality of caregiving and the conceptualisation of health economics: saving time equals saving money. Institutional demands mean that time is a precious commodity, something midwives are 'protective' with, and care-giving is conceived of through a lens of efficiency, particularly efficiency in time:

You can get through 10 to 12 women in two hours, and that's actually really time-efficient. Not that we would want to through-put our women without giving them lots of time, but I think it's an efficient way of using time. [MW4]

The financial and temporal pressures placed on midwifery are indicative of an institutional care structure that is modelled on that of a market. This market model is pervasive and internalised by HCPs, creating a lens through which 'new' models of care are judged and justified.\

And the second challenge was the protection of your time for the Pregnancy Circles because it seemed to be put, not like bottom of everything that needs to be done that day, [but]... you aren't protected with that time. [MW4]

The discussion around resources for PCs evolved into how implementing PCs could be protective for wider community services:

…a Children's Centre is perfectly placed for [having your Circles]*… I know they're closing lots of Children's Centres, but if this movement was to get bigger then the government wouldn't be able to close them because there is such a huge value.* [MW3]

This quote is indicative of the way financial or temporal resources are conceived and allocated could pose barriers *and* opportunities for implementation, as closure of such community facilities had posed a key barrier for initial implementation in the trial.

Mesosystems

On a mesosystem level, participants talked about the importance of practical and procedural issues to support implementation. Themes included composition of circles, continuity, approaches to facilitation, location of care and training.

Implementing Innovation

Composition of Circles

One innovative element of PCs was the composition of the Circles, which included women who were mixed in terms of obstetric risk, parity and social/ethnic backgrounds. This came with benefits and challenges:

[there was a mix of] cultural issues and beliefs. Whether the women wanted to have their partner there or not, that could be an issue. [MW1]

Midwives reported that those with complex pregnancies sometimes struggled to balance PCs with additional appointments. Nevertheless, PCs were seen as having the potential to improve overstretched or over-medicalised specialist services by reducing isolation, improving 'holistic' midwifery care and reducing emotional work for midwives through the provision of peer support. Mixed PCs both normalised pregnancy for those with obstetric complications and enhanced learning for the wider group:

Having the mixed circles & having people who had gestational diabetes really opened up the discussion about diet for everybody…. I think that having the mixed groups is quite useful. [MW5]

Midwives were positive about the manual the REACH team had developed and the activities box but felt that more equipment and resources were needed. Access to appropriate IT such as iPads/laptops saved time. Online PCs were enhanced by access to and training on appropriate platforms, good internet connectivity and the availability of blood pressure machines for home testing.

The manual was helpful but I think it would have been useful to have a little more equipment because we had two bases and the difficulty of actually preparing and using and storing the equipment was a challenge… Things like the mats and pillows, we just had to provide them ourselves [MW6]

We couldn't buy them all blood pressure machines – they are £20 each! [MW1]

It wasn't until we had laptops that we were facilitated to do our records online, within the Circles, instead of having to go back to the unit, into the Trust, so laptops really made a difference. [MW6]

Philosophy of care

Continuity

Antenatal continuity of midwifery care is a key feature of PCs, making it easier to get to know the women and personalise their care:

…just to sit and chat to ladies and get to know them and their families and their stories [MW3]

A few women became high risk and therefore they've had to monitor their blood pressure weekly or fortnightly and we've been able to give out [urine sticks and blood pressure machines]*… they communicate to us so we're not increasing the amount of time we're having to meet them or to come into the hospital* [MW6]

One team in the study integrated PCs into a caseloading model, providing continuity of care (CoC) across the whole maternity pathway including intrapartum and postnatal care. This came with

challenges (i.e. balancing on-calls with fixed PC sessions was '*a juggle*') but one midwife reported that integrating the two models provided flexibility, allowing women to pick and choose which elements of the two models they wanted.

The idea of integrating PCs with midwifery continuity of care across the whole maternity pathway was considered by most participants as the way forward for maternity services:

> *It should be mandatory. Because you're ticking every box: you're getting continuity, you're meeting women. You could have your team, and every week introduce one member of the team… then in labour, she'll meet someone that she's met already in her team... I think it would brilliant I would love this model to run and be part of everyone's care.* [MW1]

Resource management

Approaches to facilitation

PCs were facilitated by two midwives which was seen as an opportunity for on-the-job training for less experienced or confident midwives.

> *Some people are going to need more training than others… if you're going to roll it out you would get somebody who's already done the Circle with somebody who hasn't… just so they've got the support.* [MW1]

Sharing facilitation with a Maternity Support Worker, which was seen as potentially cost-saving, had been successful in one case "*She's very good at talking... it did work very well*" [MW4]. However, there was concern that if there was only one midwife to do the one-to-one checks they might miss out on the "*bonding*" in the group space:

> *Personally I would like there to be another midwife. To have to do all the palpations and everything yourself, you might miss out on a whole chunk of the conversation.* [MW1]

PCs provided an opportunity for inviting guests to speak to the group. Midwives reported that group members were keen to access 'experts' during their sessions and felt that these sessions had been very successful and were seen as a tool to improve attendance:

> *…more is always better* [many nod], *with regards to staff… Getting other professionals involved really made a difference. We had a woman who had a home birth come in and breastfeed her baby and people hadn't seen that before. A mental health specialist midwife came. Just being able to introduce them to health visitors. All of those things really made a difference to the women.* [MW6]

Location of care

Participants felt strongly that geographical proximity was important to support attendance and the establishment of friendships. Participants cited instances where service users had had to leave the PC because they lived too far away or because they moved house.

> *It's lovely to try to get the women in the same area so they can go out, make new friends, have coffee…. So I think geography is very important… we lost three women who could not come because of school pickup, which was a shame.* [MW3]

> *The majority of our women, none of them lived in the same area… that was really difficult with trying to facilitate them meeting or having contact outside the Pregnancy Circle* [MW7]

It was suggested that the challenge of finding suitable venues could be addressed by accessing spaces in the evenings or during weekends. Childcare was also a significant barrier to participation, so the provision of a creche or integrating toddlers into PCs, which worked in one PC, could be considered.

Online provision of care became an issue during the pandemic. Three sites reported implementing fully interactive online PCs, including activities, women-led discussion and one-to-one checks using breakout rooms. Although it was felt that face-to-face PCs were ideal, midwives reported that group members were grateful for the opportunity to meet up virtually at a time of increased isolation: "*the peer support is really helpful*" [MW6]. Online PCs opened new possibilities: one team recorded their sessions (with consent) so that they could be shared with those who could not attend. Online PCs also made geographical location less of an issue, supporting attendance for those who lived further away or lacked childcare.

> *These Zoom and Teams have taught us a lot about how we can do things. We can still meet and still work and reach out to people.* [MW3]

Training

Participants felt that the PC training had been essential, especially role-play and skills training for group facilitation:

> [they] *told us about the group and the dynamics… and, um, yeah, it was just spot on, our group was exactly as we'd been told… It was really excellent and I didn't appreciate until we were doing it how, how good that day was.* [MW3]

Nevertheless, midwives reported that once they were facilitating PCs in practice it was possible to fall back into didactic teaching ("*turn into Parent Education*" [MW1]). The post-implementation reflection sessions elicited enthusiasm from those who had been able to attend:

> *The reflective sessions enabled us to understand what each Trust are doing, see if they're doing anything different or, or give pointers to do with, we've tried this and it didn't work or what we're doing next, and it works really well… definitely very highly recommended.* [MW4]

Participants noted that such sessions would be important for embedding and scaling up the model, while maintaining the core values:

> *It's like ongoing training really, isn't it. It's like you're not just given this one day… it grows… everyone needs a good update now and then.* [MW4]

The findings of this study suggest that continuity and peer support are seen by midwives as the two core benefits of the group care model, transcending variations in the composition, size, types of facilitators and even the location (or platform) chosen to deliver this model of care. The impact of these relational element on midwives' motivation is explored in more detail in Microsystems, below.

Microsystems

On a micro level, the findings highlighted both personal and professional opportunities and challenges presented by the implementation of PC, as well as the professional motivations and satisfaction which may contribute to sustainability. The three themes identified were 'challenges', 'midwives' enjoyment' and 'professional development'.

Implementing Innovation

Challenges

The need to integrate PCs into normal NHS care whilst maintaining choice for service users was raised by one midwife:

> *We should consider how to implement circles as normal practice, or a part of normal practice, because like I said that's not going to*

work for everyone so we cannot just use like a blanket approach and give the same type of care to everyone because not everyone wants to be part of a Circle. [MW2]

In addition to the macrosystem challenges to making changes within the NHS, there are microlevel challenges for midwives undertaking new ways of working and participants reported personal resistance to novelty:

The midwives don't know Pregnancy Circles. They've never experienced a Pregnancy Circle, they've never facilitated... I think we did definitely find reluctance to be involved. [MW4]

Midwives appreciated the new skills in group facilitation they acquired during the PC training, "*it's lovely to try something new*" [MW7], and the preparation for the interpersonal challenges of working with groups, such as managing quieter or more outspoken participants. They also saw the model's empowering of service users to teach from their own experience as a means of reducing the emotional labour midwives encounter, especially during a pandemic.

If we were on a Zoom call… and we asked them, 'So how are you all feeling?' and then next thing someone says how they're feeling and then another person says yeah I feel the same way too and it could be great sharing, unburdening themselves and in turn helping the poor midwives who are looking after them, who are, you know, overworked, those midwives work so hard, so you know: share the burden! [MW3]

Midwives further saw PC as "*enhancing our job role*" [MW7], improving their skills and an opportunity to have fruitful interprofessional relationships. Collaborations with other health professionals invited as guests to the group were viewed as strong positive outcomes, as were opportunities to liaise, problem solve, learn from and build confidence with their peers and midwives in other Trusts.

We had the physio attend and everybody really really appreciated the physio session... It was amazing, I mean, I learned from that. [MW4]

There is quite a big difference between like facilitating and just leading sessions … it's quite helpful to practice those techniques and skills. [MW5]

You do need to mix the different Trusts, you know, to get different ideas [MW4]

Participants stressed the importance of continuing education and support for PC facilitation and were open to a variety of training adaptations including online peer support groups.

To have interactions with other people who are maybe further down the line with Pregnancy Circles, just to give us ideas or hints and tips or ways of managing things, and that would have been really, really useful. So, having like a cohort or WhatsApp or these, you know, regular Zoom meetings if you could have half an hour a week, that would be great. [MW7]

Philosophy of care

Midwives' Personal Enjoyment

Several of the midwives spoke in enthusiastic tones about the group model and its possibilities, which resonated with their sense of relational midwifery. Having time and space to get to know the group helped them overcome initial anxiety with a new way of working:

I was really nervous, but I really did enjoy it. [MW1]

It was just a very positive experience for all the team and for all the women, too. And we love it, and we will happily chat about it to anyone. [MW6]

I got a real kick out of it. Meeting with women, doing what I'd learned to do many, many years ago… I'd lost contact with women. [MW3]

The midwives identified continuity as a benefit for themselves as well as the group, allowing them to develop deeper interpersonal relationships. Midwives spoke consistently about wanting to get to know women and their stories. PCs develop these relationships in a unique manner, as this happens primarily in the group setting rather than one-to-one:

In order to really get to know the women, I think the time in the group was the most valuable because how they interacted and spoke to each other. That was where we built relationships really rather than the individual palpation time. [MW6]

These deeper relationships motivated the midwives to keep working in this way. Feeling that they were able to help the group to develop their own relationships and support networks was a satisfying part of their professional role.

Resource Management

Professional Development

The challenges of fragmented and underfunded maternity systems were experienced by midwives as daily job stressors, and for those facilitating PC, the onus of finding space, protected time and materials was an added burden, heightened by a sense that new ways of working pose a drain on human resources. The multiple accommodations midwives make to cover their responsibilities was highlighted during the focus group itself as two participants were unable to attend, one joined from her car, one arrived late coming in from a homebirth and one was a manager fielding competing demands on her attention, a reminder that midwives seldom have time and space to sit and just be with service users, or with one another.

The autonomy granted to caseloading midwives to manage their own diaries appeared to make it easier for them to integrate PCs into their workload compared to midwives working in traditional teams who spoke about the difficulty of negotiating protected time to deliver PCs, which were not seen as 'core' work. Participants in traditional teams reported tension between the personal satisfaction they felt when facilitating PC and their frustration at practical challenges and professional expectations, including lack of recognition or understanding of the work, which were experienced as emotional labour.

Being on call with intrapartum care was a struggle because, with the set days, it reduced the amount of on-calls that were available during that week for those midwives, but it still worked. [MW6, caseloading midwife]

[They'd say] *you need to do this clinic, we need to do that clinic, and I'm like, well, I'm sorry, I'm out this morning doing my Circle, and then people thought that you didn't* [pause], *you weren't protected, you were able to perform your Circle but sometimes it was a bit of a challenge.* [MW4, traditional midwife]

The relational continuity experienced by the midwives facilitating PCs in traditional teams inspired in many of them a wish to extend this connection further and move towards a caseloading model, for example one facilitating midwife in a traditional PC team arranged to attend the births of some of her group.

Understanding the mechanism of the microsystems identified in this study, i.e. the importance of personal relationships, autonomy

and professional development, is central to enable sustainable implementation of this model of care.

It enhanced our own job role with the continuity [MW1]

I got a real kick out of doing the Circles [MW3]

Discussion

This is the first qualitative study focusing on gANC in the UK employing co-design that we are aware of. Our findings suggest that implementing PCs carries both opportunities and challenges situated at the macro-, meso- and micro-levels of care provision. Importantly, our participants found that PCs provided an opportunity through which gANC and CoC can be interwoven, resulting in more personalised, supportive and potentially safer maternity care, and facilitating one of the core national maternity policy ambitions (NHS England, 2016). Combining PCs and CoC, particularly caseloading models, may also have reciprocal benefits. Caseloading integrates autonomous practice for midwives that would be helpful in running PCs, which require more independent, community-based practice than other forms of maternity care. One of the implementation challenges our participants reported was PCs not being seen as 'core work' that should be protected as any other form of midwifery. There has been significant resistance from midwives who have not experienced it to working in CoC models of care (Taylor et al., 2019), yet the enthusiasm for CoC expressed by participants who experienced antenatal continuity in PCs suggests that this experience may make midwives more open to working in full CoC models. This highlights the importance of considering midwives' personal engagement and autonomy in designing a sustainable approach to implementing new models of care, as was the case for CoC (McCourt & Stevens 2008; Stevens 2009).

A significant finding of this study was that midwives perceived that relationship-building in PC happened primarily in the group space, rather than only one-on-one, providing new insights about midwife-woman relationship-building in different models of care. For the midwives in our study, sharing professional responsibilities through PCs facilitated their ability to provide personalised care while maintaining boundaries that support work-life balance. They also highlighted the importance of peer support, interprofessional collaboration and training for successful PC implementation, all of which operate relationally and rely on knowledge-sharing. Quality relational care and empowerment, reflecting a midwifery philosophy of care, is connected to higher satisfaction among service users and midwives and may contribute to workforce resilience and program sustainability (Crowther et al., 2016, Hunter 2006, Leap et al., 2011).

Continuity and peer support were identified as the main therapeutic mechanisms in PCs from the midwives' perspectives. Our findings suggest that, provided these are in place, the model may be robust enough to support variation in the practical composition of PCs. For instance, hybrid models of gANC delivered face-to-face and online may be an acceptable and effective way to address some of the practical barriers of face-to-face PCs. Although face-to-face groups were seen as ideal, online delivery offered opportunities to break down barriers such as geography and childcare, whilst appearing to retain many of the benefits such as peer support and enhanced information-sharing. This reflects the experience of online implementation of CenteringPregnancy® in the Netherlands (Rjinders et al., 2021). Further research is needed to fully understand how group care functions in virtual settings and to explore service users' experiences and the social, cultural, political and ethical implications of online delivery (Lupton 2018).

Our findings suggest that if microsystem challenges can be anticipated and addressed then the personal and professional satisfaction experienced by midwives could support a sustainable roll out of this innovative model of care. Implementation strategies need to attend to the opportunities offered at macro- and mesosystem level to overcome microsystem challenges, with support needed at management and policy level as well as attention paid to practical implementation issues and resource allocation. PCs fulfil a globally identified need for professional development opportunities for midwives, supporting them to flatten hierarchy, which has been identified as a barrier to providing quality care (WHO 2016). This novel model of care requires training in group facilitation theory and skills and participants highlighted the need for ongoing support to trouble-shoot challenges and avoid slipping back into didactic teaching. Reflective sessions were vectors for inter-service connectivity vis-à-vis constituting and sharing the emerging knowledge base; however, these require protected time. Mixed facilitation of PCs between midwives with different levels of experience and integrating specialists into sessions were opportunities to share knowledge in constitutive ways. Consideration should be given to the development of peer trainers and a national online practitioner network in order to embed and sustain group care in the NHS.

The organisational tensions presented here are indicative of the tensions between current maternal health policy in England, as put forward by Better Births (NHS England 2016) and the NHS Long Term Plan (NHS 2019), and actual structuring of NHS care. Despite the policy emphasis of community-based maternity services, personalised care and continuity models, in reality there is limited evidence of value or priority being given to them on any of the levels of the social-ecological model used as a framework for this study. This was reflected in discussion of material resources and their limited availability as barriers to implementation. Spaces such as Children's Centres, which are conducive to PCs, are being closed, and low-tech and relatively low-cost equipment midwives need is not viewed as affordable by the service. Our findings demonstrate how these systems affect one another. A second example is the temporality of care and how this is related to conceptualisations of efficiency within England's NHS market model of care. Time spent differently, such as in PCs rather than clinics, is met with resistance. This has parallels with research into other woman-centred models of care such as CoC and birth Centres (Rayment et al., 2018; McCourt et al., 2011; Stevens 2009). There is a pressing need for those 'upstream', such as policymakers, commissioners and managers, to rectify the tension between this market model of care and policy aspirations, and to reconceptualize time and value for money within care if the roll-out of initiatives like PC and CoC are to be successful and sustainable.

Strengths and limitations

Our design was limited by its small size, narrowing its generalisability. Nonetheless, information power was achieved by drawing on the experiences of midwives across 5 services involved in a multi-centre trial. Our study also took place during the COVID-19 pandemic, during which face-to-face PCs were suspended, potentially influencing our participants views of their implementation. The focus group was undertaken online and, despite our interactive approach, might not have been as effective as an in-person focus group. It was not possible to measure the impact this may have had on the data collected although the overall impression was of a frank discussion including differing views. A recent review of adaptations to qualitative research methods during COVID-19 remarked on the creativity and methodological expertise which had been used to address limitations, but that understanding the efficacy of these methods is still in its infancy (Nind et al., 2021).

The co-design process was a strength of this study. Narrowing the gap between academia and practice was exciting for both

groups, improving the midwives' research skills and empowering them to contribute to the evidence base in an area which affects their daily life, while providing additional insights for the academics. For example, although the academic researchers noted the comments drawing parallels between group care and midwifery practice in the 'old days', the midwife researchers had a strong emotional response to this discussion, feeling personally validated by 'old school' midwives who were generally resistant to change. This fed into findings about the personal impact of this model on professionals. Analysing and writing as a team was an incentive to keep to schedule, although inequalities in protected time to carry out this work were noted.

Conclusion

The ecological model provided a relevant structure through which to analyse the study findings, providing insight into the interaction of macro, meso and micro level influences on the implementation process. Midwives felt that a management-led implementation plan was essential to implement a novel model of care such as PCs into NHS services, including a commitment to funding equipment and protected time for the midwives. Such a plan must take into account the micro-processes involved and the capacities of midwives to contribute to implementation, i.e. harnessing their enthusiasm for this way of working. PCs were perceived as aligning with a relational, midwifery philosophy of care. Nevertheless, midwives require initial training and practical exposure to the model to support implementation within the context of a medicalised system. Ongoing reflection/peer support is important to trouble-shoot issues arising in practice and contribute to quality assurance. Further research on the ways in which PCs might support and be more autonomous practice for midwives is needed. The benefits to the midwives working in this model and the potential of integrating it with CoC models, merit special consideration in light of the importance of relational continuity in sustaining midwifery resilience and improving quality of care throughout the maternity care system.

Recommendations for the implementation of PCs

Group care offers opportunities for enhancing personalised care and peer support compared to traditional care. Senior leadership with expertise in change management is needed to ensure sustainability, including a commitment to protecting midwives' time and autonomy, and funding for equipment. A 'train the trainer' approach, local mentoring and online peer support networks would support quality control. Midwives' enthusiasm and experience should be harnessed to explore the integration of PCs with CoC models. Hybrid versions including online delivery could play a part in sustaining the PC model when face-to-face groups cannot take place, provided they maintain peer support and continuity. These should be implemented within the context of ongoing evaluation.

Ethical approval

NRES approval for the study was obtained from the London - Surrey Borders Research Ethics Committee ref. 17/LO/1596.

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Conflict of 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.

CRediT authorship contribution statement

O. Wiseman: Project administration, Methodology, Investigation, Formal analysis, Writing – original draft. **L. Emmett:** Investigation, Formal analysis, Writing – review & editing. **G. Hickford:** Investigation, Formal analysis, Writing – review & editing. **M. Knight:** Investigation, Formal analysis, Writing – review & editing. **J. Lazar:** Methodology, Investigation, Formal analysis, Writing – original draft. **C. Yuill:** Methodology, Investigation, Formal analysis, Writing – original draft. **C. McCourt:** Conceptualization, Funding acquisition, Supervision, Writing – review & editing.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.midw.2022.103333.

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