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Cross-Sudworth, Fiona; Taylor, Beck; Kenyon, Sara

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Community postnatal care delivery in England since Covid-19: A qualitative study of midwifery leaders' perspectives and strategies

Fiona Cross-Sudworth [a,*], Beck Taylor [b], Sara Kenyon [a]

[a] Institute of Applied Health Research, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK
[b] Warwick Medical School, University of Warwick, University Road, Coventry CV4 7AL, UK

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ABSTRACT

Problem: COVID-19 impacted negatively on maternity care experiences of women and staff. Understanding the emergency response is key to inform future plans.
Background: Before the COVID-19 pandemic, experts highlighted concerns about UK community postnatal care, and its impact on long-term health, wellbeing, and inequalities. These appear to have been exacerbated by the pandemic.
Aim: To explore community postnatal care provision during and since the pandemic across a large diverse UK region.
Methods: A descriptive qualitative approach. Virtual semi-structured interviews conducted November 2022-February 2023. All regional midwifery community postnatal care leaders were invited to participate.
Findings: 11/13 midwifery leaders participated. Three main themes were identified: Changes to postnatal care (strategic response, care on the ground); Impact of postnatal care changes (staff and women's experiences); and Drivers of postnatal care changes (COVID-19, workforce issues).
Discussion: Changes to postnatal care during the pandemic included introduction of virtual care, increased role of Maternity Support Workers, and moving away from home visits to clinic appointments. This has largely continued without evaluation. The number of care episodes provided for low and high-risk families appears to have changed little. Those requiring additional support but not deemed highest risk appear to have been most impacted. Staffing levels influenced amount and type of care provided. There was little inter-organisation collaboration in the postnatal pandemic response.
Conclusion: Changes to postnatal care provision introduced more efficient working practices. However, evaluation is needed to ensure ongoing safe, equitable and individualised care provision post pandemic within limited resources.

Statement of Significance

Problem or Issue

During COVID-19, concerns were raised regarding UK community postnatal care. The nature and impact of pandemic-driven changes are not known.

What is Already Known

Studies have reported how infection control measures introduced during the pandemic impacted negatively on women, babies and staff.

What this Paper Adds

Changes included increased clinics, virtual care, Maternity Support Worker care, and reduced home visiting. Many changes continue. High-risk care changed minimally and the impact on low-risk families was perceived as low. There were concerns regarding the impact on at-risk families who do not meet highest-risk thresholds, and of using virtual care.

Abbreviations: PN, Postnatal; CMW, Community midwives; MSW, Maternity Support Workers; NHS, National Health Service; NICE, National Institute of Clinical Care Excellence.

* Corresponding author.
E-mail address: f.cross-sudworth@bham.ac.uk (F. Cross-Sudworth).

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Introduction

Prior to the COVID-19 pandemic, concerns had been highlighted regarding UK postnatal (PN) care provision, and its impact on long-term health and wellbeing, and health inequalities [1,2]. The recent MBRRACE report highlighted that 86% of UK and Irish maternal deaths occurred in the PN period and an increase in the number of women dying who came from deprived areas [3].

National Institute of Clinical Care Excellence (NICE) recommends that PN care is individualised according to need [4]. In the UK National Health Service (NHS) community midwives (CMWs) are responsible for initial PN care. NICE guidelines [4] do not recommend a specific number or duration of CMW contacts but do state that first face-to-face postnatal visits should occur within 36 h of birth or transfer from birthplace, usually at home.

Key components of PN care include assessment of maternal physical and mental health, neonatal feeding, screening and weight. In practice, three contacts usually occur on day one, five (coinciding with newborn screening [5]), and between 10 and 12 days prior to transfer to Health Visitor care. In a 2013 Royal College of Midwives survey, the majority of midwives and Maternity Support Workers (MSWs) reported that women receive an 'average' of three visits mostly at home [2]. Additional visits were recommended for reasons such as feeding support, or clinical concerns [2]. Many organisations employ MSWs, [6] paraprofessionals who are unregistered and work under supervision of a registered midwife. They can provide some elements of PN care, which varies depending on the employing hospital and pay grade.

Following the first COVID-19 UK lockdown in March 2020, new joint PN care guidance was published by the Royal College of Obstetricians and Gynaecologists, and the Royal College of Midwives to reduce the risk of COVID-19 transmission [7]. It recommended a continued minimum of three contacts around days one, five and ten. A key change was that contacts could be remote/virtual (by video or telephone), except for those with known medical and psychosocial needs. In June 2020 updated guidance stated that the first visit should be face-to-face [8]. A month later further clarification was made that services should return to normal as soon as possible [9].

A survey of UK maternity units (n = 81) conducted in 2020, identified that 56% had reduced the number of PN care episodes for low-risk women, which was often delivered by MSWs or student midwives, and half provided some care remotely [10]. An online survey of Australian midwives in 2020 also reported reduced contacts, and more virtual PN care [11].

These changes to care to reduce COVID-19 transmission did not always fully account for women's needs [12]. Studies have identified challenges in women's adaptation to changes in maternity care including that virtual care did not compensate for the adverse effects of limited support [13] and an increase in mental health concerns [14]. Research involving maternity staff has provided accounts of reduced staffing levels, service pressures and stressed staff trying to provide quality care within an ever-evolving situation [15,16]. As the pandemic has receded, workforce shortages continue, impacting on staff morale and the quality of care for women and families [17].

While there is evidence of the impact of the pandemic on PN care experiences for women and staff, we do not understand the specific service-level response in community-based postnatal care, or whether any changes have been retained. Understanding the response can inform planning for future events [12,18]. This study aimed to explore how community PN care changed since the COVID-19 pandemic in a large diverse region of the UK, from the perspective of senior midwives responsible for services. The study does not explore hospital PN care.

Participants, Ethics and Methods

In our study 'pandemic' includes dates from 23rd March 2020 when English lockdown began, [19] to 1st April 2022, when COVID-19 free universal testing ceased [20]. Any time after this was considered 'post-pandemic' although we recognise that COVID-19 infections and deaths were still occurring.

Study design

A descriptive qualitative approach which describes the studied phenomenon including experiences, perspectives and context as well as giving a direct voice to participants [21,22] was utilised to meet the study aim of understanding and describing the subjective phenomenon of community PN care during and after the COVID-19 pandemic. Virtual semi-structured interviews elicited rich data while offering flexibility and convenience [23] for busy clinical leaders.

Participants and setting

NHS Trusts in England provide free healthcare services to people within a local area. The study was conducted in an English region with 13 NHS Trusts providing maternity care, with one to three hospitals in each Trust. There are over 70,000 births per annum in the region, and Trusts provide care for 2000–9000 births each, incorporating both urban and rural areas, and substantial population diversity. Participants were senior midwife leaders responsible for teams of CMWs and MSWs providing maternity care outside hospital settings in women's homes and clinics (antenatal, PN and intrapartum homebirth care). These leaders were involved in strategic and operational functions, and frontline community care. A few participants were not in their current leadership role during the pandemic, but all were midwifery leaders in similar positions within the region and so had relevant insight into PN community care.

Sampling and recruitment

All senior regional midwives responsible for community care were invited to participate by email each being contacted directly by researchers following agreement from Trust Heads of Midwifery. Up to three reminders were sent.

Data collection

Virtual interviews were conducted by FCS using Microsoft Teams at times convenient to participants between November 2022 to February 2023 following completion of consent. Interviews lasted an average of 43 min (range 25–67 min). Interviews were audio-recorded and transcribed verbatim. Participants were asked about their views and experience of postnatal care before, during and after the pandemic. Transcripts were anonymised and checked alongside audio recordings.

Analysis

All qualitative data were managed using the QSR NVivo 12 plus software programme [24].

Using a descriptive approach, the framework method was selected to analyse the data thematically which enabled the systematic management of the data and comparison between cases and codes across the dataset [25]. An inductive approach to analysis was undertaken.

Following familiarisation with the data, two researchers (FCS and BT) conducted open coding of an exemplar transcript, then reviewed and agreed a working analytical coding framework. This was applied to the remaining data, with the coding framework iteratively refined through regular discussion as new concepts and codes were identified in subsequent transcripts. Coded data was charted in a framework matrix (with one row for each participant, and a column for each code), summarising data in each cell, which was used to explore and compare between participants/Trusts and develop descriptive accounts [25]. The descriptive accounts were reviewed and grouped thematically, and

themes and subthemes were constructed and refined. FCS and BT met regularly throughout the process to discuss and review analysis. As the sample represented most sites across a geographical region, qualitative data was used to construct a table quantitatively summarising the key components of care across the different sites which were described in the interviews. Participants reviewed summaries for their respective sites to ensure accuracy.

Reflexivity

The research team comprised two midwives and a public health doctor who had existing effective working relationships with Trusts participating in the study. FCS is a midwife with experience of working in the community during the pandemic, and it is important to acknowledge that this lived experience will have influenced collection and interpretation of data in this study, bringing valuable insights but also influencing the framing of questions and discussion, with the interviewer viewing phenomena through a similar professional lens to participants [26]. For counterbalance FCS engaged in regular discussions with BT, a public health doctor who has not worked in maternity care, [25] and maintained a reflexive diary, [26] to actively reflect regarding the role of her experience and professional identity in the study. While this was not disclosed to participants, some were aware of the researcher's midwifery background, due to working within the same professional networks. While crucial to acknowledge the risks such as assumed understanding, 'insider' status can facilitate openness and an assumption of insider understanding [27].

Ethics

Ethical approval was sought and obtained from the University of Birmingham Research Ethics Committee and NHS Health Research Authority (306035) for the study (ERN_21–0841). While questions were not deemed sensitive in nature, participants were informed that participation was voluntary and confidential, that they could stop the interview at any time and would be signposted to support where necessary. Informed written or recorded verbal consent was obtained. The study funders had no role in the study design, collections, analysis, interpretation of data, in the writing of the report or in the decision to submit the article for publication.

Findings

Eleven of the 13 eligible leaders in NHS Trusts participated. All were women, with varying levels of experience in senior midwifery roles. Three overarching themes were identified: 1. Changes to PN care; 2. Impact of changes in PN care and 3; Drivers of changes in PN care, with further organisation into subthemes (see Table 1).

Changes to PN care

The strategic response

Participants described how local senior leadership teams met frequently to make decisions, often also involving wider professionals e.g. infection control or governance teams. National guidance was subsequently released, and Trusts responded accordingly, but it was noted that this was more focused on antenatal care than PN care, and that Trusts had followed suit.

> *Management meetings consisted of the matrons, the director of midwifery, the deputy heads of midwifery, and the group manager, and they would meet regularly on a weekly basis, and when the RCOG guidance changed… we adapted our services… The RCOG guidance was very much tailored I thought towards antenatal care as opposed to postnatal. PN10*

Participants described careful decision-making during a time of great uncertainty and rapid change. Changes were often translated into local standard operating procedures or guidelines, with ratification more rapid than pre-pandemic. New information was disseminated to midwives in various ways, including WhatsApp messages, telephone calls, emails and virtual meetings. Most moved staff meetings online including regular team meetings with senior leaders, some of which have continued post-pandemic.

> *Every two weeks we have a drop-in session, so people can just have an updated information from the director of midwifery … that probably wouldn't have existed before the pandemic I suppose, because it's not something we would have thought about doing. But actually it's a really good way of communicating with people… they don't have to be onsite. PN5*

While leaders described working collaboratively with different colleagues within their organisations, there were only two brief accounts of working with other NHS Trusts, one during the COVID-19 response, and another post-pandemic. There was variation in the approaches taken in each organisation, summarised in Table 2, with care described in the next subtheme.

Care 'on the ground'

Key descriptive information about PN care is summarised in Table 2 (participants reviewed the summaries for accuracy). 'Low-risk' was mentioned by all participants when describing routine care, though they did not define this term clearly. While there may be different interpretations, participant accounts suggested that 'low-risk' and 'high-risk' status was attributed based on the absence or presence of significant medical or social risk factors e.g. diabetes, social service involvement.

Pre-pandemic, most participants reported three care contacts for low-risk women. Seven Trusts also provided routine day three visits, primarily focussed on infant feeding. During the pandemic, participants described aiming for three visits, but this was not always possible, with contacts prioritised according to need. Care also moved from mostly home visits to clinics. This pattern mostly continued post-pandemic (see Table 2).

> *In COVID you would be offered a telephone consultation the following day for that primary visit, and she would be offered a clinic appointment … the day five would be in a clinic, and the day ten would also be in a clinic. So we continued with the same touchpoints, but the venues changed. PN10*

All Trusts started using virtual care for low-risk women in place of some primary and/or discharge visits during the pandemic to reduce risk of transmission of COVID-19, and this continued in three since. Face-to-face visits or clinic appointments were replaced with telephone or video calls. This was reported to have improved flexibility and efficiency, and enabled staff who were shielding to continue to work from home and cover the workload.

> *It was about on a day-to-day basis looking at the workload and distributing it amongst whoever was there, and if staff were COVID positive then it was whether they were well enough to work. PN6*

Those with 'safeguarding' risks (where there are identified

Table 1
Themes and subthemes.

Themes	Sub-themes
1. Changes to PN care	1a. Strategic response 1b. Care on the ground
2. Impact of postnatal care changes	2a. Staff experiences 2b. Women's experiences
3. Drivers of postnatal care changes	3a. COVID-19 3b. Workforce issues

Table 2
Routine community PN care for low-risk women pre, during and post pandemic.

		Pre pandemic care				Care during pandemic				Post pandemic care			
		Primary n = 11	**Day 3** n = 11	**Day 5** n = 11	**Day 10–14** n = 11	**Primary** n = 11	**Day 3** n = 11	**Day 5** n = 11	**Day 10–14** n = 11	**Primary** n = 11	**Day 3** n = 11	**Day 5** n = 11	**Day 10–14** n = 11
Person giving care	CMW	11	4	4	11	11	3	3	11	10	2	3	10
	MSW	0	3	3	0	0	2	3	0	0	3	3	0
	CMW or MSW	0	0	4	0	0	0	5	0	1	1	5	1
	Not Applicable	-	4	-	-	-	6	-	-	-	5	-	-
Mode of care	Home	11	3	8	3	1	0	4	0	8	2	3	0
	Clinic	0	2	2	4	0	1	6	4	0	2	5	2
	Home or Clinic	0	1	1	4	0	0	1	2	0	0	3	7
	Virtual or Phone	0	1	0	0	6	3	0	2	2	0	0	0
	Home or Phone	0	0	0	0	3	0	0	0	1	2	0	0
	Clinic or Phone	0	0	0	0	1	1	0	3	0	0	0	2
	Not Applicable	-	4	-	-	-	6	-	-	-	5	-	-

vulnerabilities and risk of abuse or neglect) and other high-risk factors, or those with COVID infection, continued to receive visits at home.

> *Our vulnerable women's team carried on as normal… for example the women who are substance misusers, very high-risk domestic abuse, learning disabilities, learning difficulties, they caseload those women. PN10*

Some Trusts reported aiming for all women to receive at least one home visit but most recognised it facilitated more effective risk assessment.

> *It's okay talking about safer sleeping, but you do it so much better when you can see is there a cot, is there a crib, you know if there's smoking going on in the house as well. So some people will lie over the phone won't they? … there were the odd occasions on day five where we'd ask a question about safer sleeping, and then to find out oh I haven't got a cot, I haven't got this, it's the baby is sleeping in a bed with me, yet that wasn't said on the primary. PN9*

Some midwives telephoned women prior to home visits to undertake initial checks, and reduce the time spent in the home and reduce infection risk. Telephone triage was often used to identify need, plan, and prioritise face-to-face visits, which many Trusts had continued post-pandemic particularly when there were insufficient staff.

> *We do telephone triaging of our women now…I think they're good things that have come from that… So yesterday I think there was about 12 ladies who were due primary visits, but there was lots of sickness yesterday. So she called them…if they identified a problem…then she would arrange a visit, otherwise they would have gone and had a visit today. But we would never have done that before. PN2*

While telephone was reported most frequently, virtual care incorporated various communication technologies, including Attend Anywhere, Teams Meetings, FaceTime, WhatsApp (messaging, sending photographs and/or video calls). Videocalls were not widely adopted despite the reported benefits of visualisation as women and/or staff did not have the necessary equipment, skills, or confidence.

> *[we arranged] appointments for them to see, speak to their midwife over the phone* via *a laptop, via an iPad… when the women would leave hospital, they would be given a computer link to logon. …I would say it was around 50% successful, a lot of women were tired, they didn't want to fuss about with logging onto a computer link, so a lot of the time things were done over the telephone. The reason we wanted to do it face-to-face virtual is we could see the women and see the baby really, so that we had eyes on mum and baby. PN11*

There was variation between Trusts in the scale and scope of changes put in place during the pandemic (see Table 2). For example, some breastfeeding support services were available nearly as normal. In other Trusts this ceased operating. Once COVID restrictions eased more face-to-face contact was reported, but there was continued variation between sites, and some form of virtual care continued, including telephone triage, for some women in all sites. The increased use of clinics also continued, though some offered women a choice.

The impact of PN care changes

Impact on women and babies

CMMs routinely manage risk and workload, prioritising women and babies with high need, which continued during the pandemic. Accounts suggest however that risk thresholds changed, and in some Trusts only the highest risk women received home visits. Low-risk women's discharge visits were delayed in some Trusts, sometimes for weeks. Participants expressed concern about the impact of pandemic-driven decreased access to care, particularly for vulnerable families who did not meet thresholds for extra input.

> *I do think it had an impact on single parent mothers definitely… it definitely had an impact on families that were struggling, especially Social Services and families that are… under that radar, I think they struggled definitely with having limited access to midwives. PN7*

There were concerns about inequalities in care and disadvantaged families being less empowered to navigate the system to get the care they needed. Some women were more able to advocate for themselves and access care.

> *Women in [affluent area] would have shouted a bit louder if they weren't happy, and… somebody in [deprived area] wouldn't have felt empowered to do that. PN3*

At the start of the pandemic participants reported that women appeared grateful and found clinics acceptable, that they attended appointments and made fewer complaints. However, it was suggested that the clinic-based care model reduced woman-centredness of care, and some women struggled to attend.

> *We very much encourage women to come to those clinic appointments, and set that expectation at the primary visit this is when your*

appointments are. So is that women-centred? I don't think it is anymore, I think it's centred around the staff and the delivery, our deliverables. PN10

A few suggested that virtual care was not always well-received impacting on the relationship between women and midwives. Others reported being uncomfortable with the quality compared to face-to-face care, prioritising face-to-face care wherever possible. It was also suggested that virtual care meant that risks were missed.

Maybe some women felt very detached from it and unable to explain how they were feeling, or going through the feeding it's a bit impersonal isn't it? So they were less likely to give you the information that maybe you need. PN5

Some reported a few women declining neonatal screening or home visits to reduce the infection risk during the pandemic. A few described expecting decreased contact to result in more readmissions to hospital for neonatal jaundice and weight loss and reported surprise that this did not occur. However, others suggested that worsening staffing had resulted in increased readmissions post-pandemic.

We have had lots more postnatal readmissions post-COVID, because … they're probably having less postnatal care than they did actually in COVID, because of our vacancy rate…So some ladies have not even had a primary visit until maybe day two or day three at home. PN2

Impact on staff

In the early stages of the pandemic, there was anxiety and uncertainty about how to deliver care, and fear of catching or bringing COVID-19 home. This was related to a 'them and us' divide within some teams: some CMWs wanted to provide face-to-face care while others tried to avoid it. A few participants reported needing to remind staff of their duty to provide care to women.

You've either got some midwives who have become really compassionate, "There's a woman at the end of this," which is brilliant, then you've got some women, some of our staff who have been, "Well actually this is about me, this is about me protecting myself, I'm not doing this, I'm not doing that," because they're scared and they're worried. PN9

Morale and camaraderie were often reported as strong during the pandemic with teams working to a common purpose. Afterwards many participants reported that this changed and raised concerns about staff wellbeing and retention.

… the recovery phase is going on too long… the work hasn't changed. It should be getting better but instead it's getting worse, because a lot of them are off with stress related work-related issues. PN7

Participants described some new ways of working that brought benefits for staff. Midwives were reported to have gained skills and confidence in triaging women virtually as well as in using different technologies such as telephone interpreters and social media. Some reflected that services were now more flexible and efficient with increased use of clinics or virtual care resulting in reduced time travelling and fuel costs, particularly in rural areas.

[Change from home visits to clinics] It's been massive in terms of efficiency because you're seeing a lot more women. Our mileage has halved in the last 18 months in terms of cost, so it's been a massive efficiency drive from our perspective. PN11

Drivers of postnatal care changes

COVID-19

Initially, COVID-19 preventive measures had a substantial impact, including closure of community venues, social distancing, cleaning and personal protective equipment, protecting and shielding staff, and protecting women and families.

So we were protecting patients by not having a steady stream of midwives going into the homes, and we protected staff by … well trying to cut down on as many face-to-face appointments as possible, to do them remotely, and if we did need to see them face-to-face we would invite them into clinics. PN8

The fear of COVID-19 among staff described earlier also impacted on the ability to deliver care, particularly in the early stages of the pandemic. A few participants also described a reluctance to return to face-to-face care.

There is a very very small number of midwives who are quite resistant to perhaps going back to doing more visits, and sometimes that's appropriate… But I do think there are some people who have got quite comfortable saying we can't do that because of COVID, and actually we've been doing this for such a long time now it's hard to remember what life was like beforehand. PN3

New ways of working during the pandemic were described, which improved care, such as using virtual interpreting services to communicate with women who did not speak English. Some accounts also suggested that the different approach to care had changed their perspective regarding what care women and babies required, resulting in 'smarter' ways of working, but that needs-based care is key.

I think the positive is the virtual consultations for some women is far better for those with transport issues etc. *For other women it's not as good. So I would say in one way yes we need to carry on that, but it needs to be tailored to a woman's, a family's individual needs. So yes that has cut down on an awful lot of potentially not-necessary visits. PN6*

Workforce issues

Workforce pressures were described frequently: this had been a challenge pre-pandemic in some Trusts and continued reduced face-to-face contact and increased clinics were often attributed to staff shortages. Some Trusts, particularly those serving more disadvantaged populations, appeared to be more severely affected. Escalation policies during and post-pandemic where CMWs were redeployed to the hospital were used in some Trusts, reducing available midwives to deliver PN community care, though in a few Trusts CMW numbers were too low to do so. Some described using virtual care only at times of particular pressure e.g. high staff sickness, while a few appeared to have moved to routine use of virtual methods.

There's a reduction in face-to-face contact postnatally [now]…it's always going to be a lower standard of care. But with staffing levels how they are… until that improves then we are utilising systems that were put in place in the pandemic. PN8

Some participants described placing newly qualified midwives into community teams for a few months as part of their 'rotation experience' to fill gaps. However, the newly qualified midwives lacked the experience of colleagues who had left.

There was a high amount of retirees that went, and they were the experienced community midwives… gaps are being plugged by midwives that I would normally never have seen in a community setting, no experience. PN4

There was an increasing deployment of MSWs to manage workforce pressures in most sites since but not always because of the pandemic. Most participants reported the MSW role as critical to covering the workload. Care was predominantly on day three and five, although in three Trusts MSWs sometimes provided primary or discharge visits for low-risk women (see Table 2).

I think it's been a real good learning curve and probably not what we expected for postnatal care with COVID…we were definitely resistant to handing over our day five visits [to MSWs]. PN2

Discussion

This study to our knowledge is the first to focus on the specific organisation and delivery of community PN care since the pandemic. We identified substantial changes in response to COVID-19, with many appearing set to continue. This includes fewer contacts and home visits, more virtual care and use of clinics. Some benefits were described, including improved skill in telephone triage, and use of virtual technologies which helped staff work more efficiently. Online staff meetings improved communication.

Challenges described included prioritisation of antenatal care, reduction in women-centred care, concern about ability to identify risks when using virtual care and reduced contact for women and babies not deemed high-risk but who had extra needs. While most described effective teamwork and good morale during the pandemic, there were concerns about the willingness of a minority of midwives to provide face-to-face care. All participants described workforce challenges during, and for many, post-pandemic; from 'shielding', sickness and loss of experienced staff. Staff wellbeing was reported to be a significant issue in most Trusts still. Increased deployment by Trusts of MSWs since the pandemic was described as essential in mitigating workforce issues with most regularly conducting at least one PN visit (day five) although in one Trust, MSWs were restricted to infant feeding support.

Strategic decision-making during the pandemic was perceived as thorough in our study, in contrast to Stulz et al. [28] who described a 'knee-jerk' response in a qualitative study interviewing Australian midwives. Decisions were reported to be disseminated effectively including via regular online meetings between staff and leaders, which arguably facilitated more direct access to senior leaders than normal. A review of nursing and midwifery pandemic leadership [29] suggested that 'healthful leadership' includes visibility, openness/engagement, self-care and care for others, living out values, preparedness and using available support and information. Participant examples included having an 'open-door' policy, modelling provision of face-to-face PN care and increased staff communication. However, little collaboration with neighbouring Trusts was reported in planning the pandemic response. Increased cross-organisational or regional collaboration and learning in future emergencies has the potential to benefit Trusts, staff and families.

New ways of working and communicating within teams and with women were welcomed and continued to be used, although there is evidence that some telephone PN care was already in use pre-pandemic [30]. Some Trusts appeared to have adopted the changes permanently, while others did so 'as needed', for example, only when staffing levels are low. The variation and impact of these ongoing changes to practice is a threat to quality and equity of PN care and warrants further exploration.

Our participants reported a few midwives' reluctance to return to face-to-face care and described a mixed response to virtual care from women. Silverio et al. [13] found that virtual visits were more acceptable to women in the antenatal than PN period, though considered better than none. Virtual clinical care has been found to be more effective when there is already an established relationship [31] although women may be less willing to share wellbeing concerns [32]. Obstetric telehealth has been welcomed by both providers and women and found to reduce missed appointments, [33] although midwives have identified that it can be a barrier to women-centred care [28]. While there is evidence that some women welcome a degree of virtual care in the postnatal period, concerns remain about the detrimental impact on the assessment and support of women and babies [34].

Virtual care requires consideration of users' resources, knowledge and confidence to use technology and willingness to share digital images e.g. the home environment as part of safer sleeping discussions. People in deprived communities are more likely to experience digital poverty [35] and virtual care may disadvantage those without digital literacy, devices or available data/credit. Many Trusts in our study provided telephone rather than video care as they did not have relevant equipment or training. The lack of visualisation may mean less thorough clinical and social risk assessment. Further evidence is needed regarding who should receive virtual care, the impact and equity of use, plus resource availability and staff training.

In addition to the increased use of virtual care, our study identified that face-to-face PN care had moved from being primarily a home-visit model to clinic-based, in a trend that predates the pandemic [2,30] but appears to have been expedited by COVID-19. The move away from home visits was reported to contribute towards reducing women-centred care. An Australian study using surveys and interviews similarly identified less women-centred care, exacerbated further by staff shortages [11]. Home visits were also considered by our participants to enable more effective risk assessments, consistent with others' work [28,36].

It is reassuring that senior midwives in our study reported that pre-pandemic levels of care were maintained for women with the highest risk, though verification using routine service data would be required to confirm this. However, of concern is that the many women and babies with substantial or multiple vulnerability factors who may not meet this 'highest-risk' threshold were reported to receive less contact than was needed e.g. lone parents and non-English speakers. While some participants suggested that three visits and/or face-to-face care might not be needed for some low-risk multiparous women, there appears to be a need for more support of 'invisible' vulnerable families prior to transfer to hollowed out English Health Visiting services [37]. A further challenge was the uncertainty regarding definitions of low- or high-risk mothers and babies. There is a need for further work to understand how risk is defined and allocated in the postnatal period to ensure safe, equitable provision of care according to need.

Post-pandemic, some practices adopted as emergency measures continued. Workforce pressures, rather than infection control measures, were reported to be driving decisions. This is not a new challenge: a decade ago PN care was reported to be primarily determined by organisational pressures including staff shortages rather than individualised care [2]. However, the scale of midwifery shortages is new, and of major concern in the UK and globally [38,39]. The effects of the pandemic and ongoing recovery on staff wellbeing identified in our study and reported widely in the literature [11,16,18] are likely to impact on care quality, including respectful care [36]. The initial maintenance of morale with deterioration over the course of the pandemic reported by our participants has been noted across health and social care [40]. Factors that help staff well-being include support from managers and colleagues, effective good communication [41] and access to appropriate psychological support [16].

Our study participants reported a prolonged recovery period for staff, with low morale and high sickness rates. NHS recovery was anticipated to take longer than other similar countries due to its stretched state prior to the pandemic and the high COVID-19 death rate [42]. There was a reported increased and ongoing focus on staff well-being and resources to support recovery. All Trusts had also increased staff recruitment since the pandemic including of MSWs with most expanding the role in line with national guidelines, banding and pay scales [6]. While standardisation of the MSW role started pre-pandemic, the staffing crisis appeared to accelerate the process and acceptance of this role within Trusts involved in the study and which appears to have partially ameliorated the staffing crisis.

Strengths and limitations

The high participation rate in this study provides comprehensive insight into the strategy of and practice around community midwifery PN care across a large diverse UK region including urban and rural areas. The accounts of senior midwives in our study may not reflect the views of women or frontline CMWs. While it did not drive sampling, data saturation was determined to have been achieved [43]. While strategies were employed to enhance reflexivity and rigour (see Methods), XX's

lived experience as a midwife who had worked in the community during the pandemic, which was known to some participants, will have shaped the conduct of the study and interpretation of findings, bringing unique insights but also an insider-orientated perspective [27].

Conclusion

This study focuses specifically on community PN midwifery care during and since the pandemic. COVID-19 initiated a huge, unplanned system change in PN care, resulting in disruption, but also providing opportunities for new ways of working. While the frequency of contact changed little for low- or high-risk women, how care was provided was substantially changed with the introduction of virtual care, an increase in the use of clinics, a move away from home care, and an increased role for MSWs, much of which continued at the time of data collection in late 2022/early 2023 albeit with variation across Trusts. Now is the time for review regarding how changes made to work differently during the pandemic can or should be adapted to ensure safe provision of individualised PN care within limited resources. Staffing issues were the predominant influence. As new, more efficient models of care become established which ease workforce pressures, we urgently need evidence to understand whether these approaches, especially of virtual care, are safe, acceptable, and equitable for women, including those with additional support needs or risk factors which do not meet thresholds for high intensity support.

Conflict of interest

The authors declare no competing interests relating to the study (we have uploaded the conflict of interest declaration forms).

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