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The RESILIENT Study of Post-Pandemic Maternity Care Planning: A Qualitative Research Protocol for In-Depth Interviews With Women, Partners, Healthcare Professionals, and Policy Makers

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Abstract

Maternity care is a core service provision of any healthcare system, delivering care for women and birthing people, and their wider family units. During the SARS-CoV-2 pandemic, much of maternity care service provision was reconfigured with the aim of continuing care provision which could not otherwise be re-scheduled or delayed, but in-line with infection control measures instituted through social and physical distancing. The RESILIENT Study was designed to investigate the impact of the COVID-19 pandemic and pandemic-related reconfigurations to maternity care service delivery. It is particularly concerned with the experiences of minority ethnic groups and those with social or medical complexity. One of our specific objectives was to investigate the experiences of maternity care during the pandemic from the perspective of women and birthing people; fathers, partners, and non-gestational parents; healthcare professionals; and policy makers through the use of in-depth interviews. We will analyse data on virtual care, self-monitoring, and vaccination (each using thematic framework analysis); care-seeking and care experience (using template analysis); and on building an ethical future of maternity care (using grounded theory analysis). This is the focus of this protocol. Our findings about the experiences of care receipt, provision, and planning during the pandemic will complement existing literature and our impact will be broad, on: individual patients, NHS maternity providers, NHS policies, and wider society.

Keywords

maternity care, women, partners, healthcare professionals, policymakers, qualitative research, COVID-19, pandemic, health services research

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Introduction

Background to The RESILIENT Study

Maternity care is a core service of any healthcare system, including the United Kingdom's (UK's) National Health Service (NHS). Substantial reconfiguration of maternity care service delivery was undertaken during the health system shock of the COVID-19 pandemic, in response to local infection rates, 'lockdown' measures, and staff shortages (Jardine et al., 2021; Silverio, De Backer, et al., 2021). These service reconfigurations were implemented with the intention of reducing the risk of SARS-CoV-2 infection for pregnant and postpartum women (and their babies) who were initially deemed particularly vulnerable to the infection (Peterson et al., 2024; Silverio et al., 2023). Reconfiguration was rapid, changeable, and prolonged, rendering a fatigued workforce (De Backer et al., 2022) and a patient population which had to process a lot of new and often conflicting information (Magee et al., 2024).

To understand the effects of the pandemic on the experiences of maternity care, how maternity services were delivered, and how we can build back a better maternity care system coming out of the pandemic, across the UK's four nations, the UK's National Institute for Health and Care Research [NIHR] funded The RESILIENT Study (Magee et al., 2021; The Resilient Study Group, 2021; see Figure 1).

Figure 1. The RESILIENT Study logo.

The Pandemic and Maternity Care

Initially, there was uncertainty about the severity and impact of COVID-19 for pregnant women and their unborn babies, as well as for newborns. Data from the start of the pandemic suggested the potential for more severe outcomes for pregnant women with COVID-19 (Gurol-Urganci et al., 2021; Homer et al., 2021; Khalil et al., 2020; Yang et al., 2020). Although this was debated over the course of the pandemic, subsequent evidence suggested whilst pregnant women (vs. those not pregnant) were not more vulnerable to becoming infected with COVID-19, those with (vs. without) co-morbidities were at increased risks of complications from COVID-19, and those in their third trimester of pregnancy were more likely to have a more severe symptom profile, justifying being prioritised for vaccination and future research (Gurol-Urganci et al., 2021; Loughnan et al., 2022; Royal College of Obstetricians and Gynaecologists & Royal College of Midwives, 2022; Salem et al., 2021; Vousden et al., 2021).

When vaccination for COVID-19 became available, uptake by pregnant women was slow. This may have suggested a population-level reluctance, with women citing exclusion from vaccine trials, and being risk-averse, even when those risks are unlikely, but unknown (Galanis et al., 2022; Magee et al., 2024). Moreover, acceptance of vaccination in the general community was not uniform, and was particularly low among Black, Asian, and Minority Ethnic populations who are at heightened risk of severe infection (Skirrow et al., 2022). When investigating demographic characteristics among women of reproductive age, it was found that older age, White ethnicity, and being in the least-deprived index of multiple deprivation [IMD] were each independently associated with higher acceptance of the COVID-19 vaccine (for first and second doses), with ethnicity exerting the strongest influence and IMD the weakest (Magee et al., 2023). Guidance has changed rapidly, and the precautionary principle of needing evidence of no harm before recommending COVID-19 vaccination in pregnancy has weighed heavily in some recommendations.

Aside from the direct health implications, there were early indications of the indirect effects the pandemic was having on service utilisation within maternity care (Hinton et al., 2022; Jardine et al., 2021; Silverio et al., 2021); neonatal and perinatal bereavement care (Bradford et al., 2024; deMontigny et al., 2023; George-Carey et al., 2024; Silverio, Easter, et al., 2021; Silverio, George-Carey et al., 2024); family health practices (Landoni et al., 2022; Mamrath et al., 2024; Mashayekh-Amiri et al., 2023; Silverio et al., 2024); perinatal mental health care (Bridle et al., 2022; Jackson, Greenfield et al., 2024); and the trajectory across all these joined-up services (von Dadelszen et al., 2020). As the pandemic has continued, evidence has mounted that despite best intentions, reconfiguration of maternity services has been detrimental to the maternity experience (Coxon et al., 2020; Dasgupta et al., 2024; Flaherty et al., 2022). Negative consequences have included: reduced access to maternity care services

(Greenfield et al., 2021; Jackson et al., 2022; 2024; Silverio et al., 2024); separation of women from chosen birthing partners (Keely et al., 2023; Thomson et al., 2022); precarity amongst healthcare staff working in maternity services (De Backer et al., 2022); care perceived as unsafe or sub-optimal (Neal et al., 2023) by women (George-Carey et al., 2024; Montgomery et al., 2023) and staff (Silverio et al., 2023); and increasingly prevalent perinatal mental health problems (Dickerson et al., 2022; Fallon et al., 2021; Silverio et al., 2021), marring pregnancy and the puerperium by poor psychological health and support (Jackson et al., 2021, 2023; Peterson et al., 2024; Riley et al., 2021; Sanders & Blaylock, 2021). Importantly, these issues have highlighted specific problems and concerns facing these minoritised groups, including minority ethnic women (Pilav et al., 2022) and sexual minorities (Greenfield & Darwin, 2024; Mamrath et al., 2024), as well as non-White healthcare professionals (Silverio, De Backer, et al., 2022). Evidence has been synthesised and new collaborative networks formed (e.g., The PIVOT-AL National Collaborative for Maternal and Child Health Research during the Pandemic (The PIVOT-AL National Collaborative, 2023).

Research Design, Aims, and Objectives

The RESILIENT Study was designed to investigate the impact of the COVID-19 pandemic and pandemic-related reconfigurations to maternity care service delivery (i.e., virtual care, self-monitoring, and vaccination) on women and babies. Of particular interest has been those from minority ethnic groups and those with social or medical complexity (i.e. with a focus on care-seeking, care experience, and building an ethical future for maternity care in the UK; see also Fernandez Turienzo et al., 2021). Our specific objectives will be addressed by three work packages (WPs). First, in our quantitative WP, we will study maternal and offspring outcomes, including costs, using the Born in South London eLIXIR (BiSL-eLIXIR) data linkage platform in South London, UK. Second, in our social science WP, we will survey women of reproductive age regarding their COVID-19 vaccination choices, through the COVID Symptom Study ZOE app, as well as undertake in-depth interviews (the focus of this protocol, as below). Third, in our policy WP across the four nations, we will engage with relevant stakeholders to develop policy interventions for local, regional, and national health systems.

Research Approach, Theoretical Perspective, and Research Paradigm

The qualitative interview arm of The RESILIENT Study adopts a lifecourse analysis approach (Wainrib, 1992), whereby within the UK's Western society, a woman's normative lifecourse will usually include pregnancy and childbirth, and these transitional experiences offer sites of empirical inquiry as women transition into parenthood or from expectant parent to bereaved parent in the case of a perinatal bereavement (Silverio, 2022). Given the participant-orientated nature of our research, we situated the study within a research paradigm of pragmatism (Allemang et al., 2022) and adopted pragmatic ontological and epistemological perspectives accordingly.

Philosophical Underpinning. The qualitative interview arm of The RESILIENT Study was designed to be philosophically pragmatic (Morgan, 2014). This meant our ontological approach to our acquired knowledge accepted the existence of differing and, on occasion, competing interpretations of the world and experiences, and that there is not a single viewpoint which is sufficiently able to provide a complete picture of the phenomenon of interest; rather, each viewpoint provides the researcher with actionable knowledge from which they can draw consensus and therefore empirical conclusion (Kelly & Cordeiro, 2020). Further, our epistemological approach was defined pragmatically in terms of our acceptance of the principle that the knowledge held, and realities lived, by people is measurable in the real world and discernible from falsehoods, but that the acquisition of this knowledge must account for time and cultural shift (Ruwhiu & Cone, 2010).

Positionality. We are a large cross-disciplinary group of researchers with backgrounds in psychology [SAS, AE], public health [TD, GH, JRK, ADVC, ECN], social policy [HB], medicine [PvD, LAM], and biomedical science [HDM]. Therefore, we engaged an ordered reflexive judgement to the data we collected (i.e., our judgment of the data was framed within the social norms of our society (Whitaker & Akinson, 2021), and aimed to adopt an absent position within the data with regard to our acquisition of knowledge. Nevertheless, we recognised that as individuals who have provided care within maternity settings [PvD, LAM] or had children themselves [LAM, ADVC, ECN, HB, PvD], our experiences may introduce inherent biases (Pillow, 2003). As such, we engaged with bracketing of preconceived ideas whilst collecting and analysing data (Gearing, 2004), and then drew upon them in the interpretive and writing phases (Tufford & Newman, 2012). We did so in collaboration with The RESILIENT Study Patient and Public Involvement and Engagement Advisory Group (PPIE-AG) and Technical Advisory Group (TAG), to see whether acquired knowledge matched the lived experiences of the research team and those with recent experiences of maternity care in the UK. All work was overseen by an independent Study Steering Committee (SSC).

The RESILIENT Study: Work Package 2 – Social Science (Qualitative: In-Depth Interviews)

Inclusion, Exclusion, and Sampling Criteria

Inclusion criteria restricted recruitment to just those more than 18 years of age across all four groups of participants: Women, Partners, Healthcare Professionals (HCPs), and Policymakers; and their experiences of the SARS-CoV-2

pandemic (30 January 2020 – 5 May 2023). Women could be recruited if they were currently pregnant at the time of the interview or had given birth during the pandemic. Partners of pregnant or postnatal women did not have to take part in the birth to make the partner eligible for participation. HCPs were recruited if they had provided any aspect of maternity care during the pandemic. Policymakers who were responsible for any aspect of maternity care policy development or implementation (local, regional, national, or international) during the pandemic, were the final group to be recruited.

Sampling criteria were used to achieve diversity in ethnicity, geographic area, social and medical complexity, following a maximum variation sampling frame approach (Higginbotton, 2004; Palinkas et al., 2015). For HCPs and policymakers, sampling criteria comprised: ethnicity, geographic region, profession, current role, and years in role. For women and partners, sampling criteria comprised: ethnicity, geographic region, IMD, and social complexity, and for women only, self-monitoring for medical complexity during pregnancy. Social complexity was self-identified by participants and included: lack of social support, mental health problems, or belonging to a minority group relating to sexual orientation or gender identity. Medical complexity was defined as having had to perform self-monitoring of symptoms during pregnancy for any complication, including: hypertension, gestational diabetes, additional scans for predisposition to genetic complications, or previous pregnancy loss.

Materials, Procedure, and Recruitment Strategy

The example recruitment materials (Appendixes 1-6) and interview schedules (Appendixes 7-10) were developed by The RESILIENT Study Group (who included those experienced in qualitative research [SAS, AE] – before and during the COVID-19 pandemic), in consultation with our PPIE-AG and TAG. The materials were approved by The RESILIENT Study SSC.

Participants were made aware of the study by advertisement of the study poster (May 2022 – January 2023) through: social media (i.e., posts of study recruitment poster), relevant charities, the National Institute for Health and Care Research [NIHR] sponsored Clinical Research Network [CRN] in London, and existing networks of the wider RESILIENT study members (e.g., NIHR Applied Research Collaboration – South London [NIHR ARC-SL], and participants of other research studies at King's College London who have consented to be recontacted).

Participants were directed to contact the study team directly by e-mail, upon which they were sent an on-line screening questionnaire, participant information sheet, and consent form. The screening questionnaire collected baseline demographic (e.g., sex, gender, sexual orientation), health (e.g., COVID-19 vaccination status), and pregnancy information (e.g., date of delivery and care model), and included the criteria required for the sampling framework (as discussed above). We aimed to recruit 40 women, 15 partners, 25 HCPs, and 25 policymakers. Participants were selected based on the sampling frame criteria and invited to interview accordingly. Women and partners received £25 as reimbursement for their time, in-line with UK Standards for Public Involvement (formerly 'NIHR INVOLVE' guidance; National Institute for Health and Care Research, 2024).

Participant Characteristics

A total of 96 participants were recruited to the study between May 2022 and February 2023, representing women (n = 40), partners (n = 15), HCPs (n = 21), and policymakers (n = 20). Ages ranged from 23-70 years (*Median Age* = 39 years). Demographics are narratively described below (omitting any 'Prefer not to say') and full demographics tables will be produced in each of the constituent qualitative manuscripts based on these in-depth interview data.

Overall, most participants identified as White or White British (n = 65, 68%); with fewer identifying as Asian or Asian British (n = 7, 7%); Black or Black British (n = 12, 13%); Mixed or Multiple Ethnicities (n = 7, 7%); or Any Other Ethnicity (n = 4, 4%).

For women, partners, and HCPs (n = 76), half of interview participants utilised or delivered maternity services in London (n = 38, 50%); with fewer in the rest of England (n = 27, 36%); Wales (n = 4, 5%); Scotland (n = 4, 5%); and Northern Ireland (n = 3, 4%). For policymakers (n = 20), rather than their physical location in the country, we collected whether they exercised national (n = 14, 70%), regional (n = 5, 25%), or local (n = 1, 5%) influence and reach in establishing maternity care policy.

Amongst women and their partners (n = 55), approximately a quarter self-reported on one or more social complexity (n = 14, 25%) or a medical complexity which required self-monitoring of symptoms (n = 24, 44%). Additionally, we collected information on deprivation level (lowest quintile: n = 7, 7%; highest quintile: n = 15, 16%), vaccination status (vaccinated with full dose and boosters: n = 84, 88%; vaccinated with full dose, but no boosters: n = 3, 3%; no vaccinations: n = 7, 7%), gender (women: n = 84, 88%; male: n = 11, 11%; non-binary: n = 1; 1%) and sexual orientation (heterosexual: n = 80, 83%; bisexual n = 9, 9%; lesbian n = 2, 2%; gay n = 1, 1%); personal or household COVID-19 high risk status (Yes: n = 23, 24%; No: n = 71, 74%); care team for women and partners (midwifery-led: n = 32, 33%; consultant-led: n = 23, 27%); and profession and current role of HCPs and policymakers (medical: n = 18, 19%; midwifery and/or nursing: n = 18, 19%; non-clinical: n = 5, 5%), and years in role (≤5 years: n = 25, 26%; ≥6 years: n = 16, 17%).

Data Collection

We conducted in-depth, semi-structured interviews, discussing the lived experiences of utilising, delivering, or developing policy for maternity care (as applicable per participant group) during the COVID-19 pandemic. Interviews were planned to be conducted virtually (in-line with Government physical and social distancing restrictions) for between 30 and 60 minutes.

All interviews were conducted by video-conference (Zoom) or telephone, by female qualitative researchers [TD, n = 95; HB, n =

1] with experience of conducting in-depth interviews about sensitive health-related issues (Silverio et al., 2022). Following the interview schedule, interviewers asked participants about their general experience of using (including care-seeking) or delivering maternity care during the pandemic (as applicable), access to and quality of information about the impact of the SARS-CoV-2 virus on pregnancy, the transition to virtual maternity care visits and self-monitoring of symptoms, the COVID-19 vaccination programme for pregnant women, and their ideas for building an ethical future in maternity care which could withstand a future health system shock. By asking participants to reflect back, speak about current circumstances, and look to the future whilst offering advice for the pandemic recovery period, we leant into the notion of lifecourse analysis whereby past events will and do effect present and future experiences.

Interviews lasted 19–76 minutes (*Median Time* = 42 minutes), with all audio digitally recorded and transcribed by an approved third-party service (Devon Transcription, 2024). Field notes were taken throughout and were required to supplement a partial transcript for one interview during which recording failed midway through. All interviews were uploaded to QSR NVivo 14 for data management and analysis. Initial high-level codes were created in-line with the interview schedule (i.e., any data related to The RESILIENT Study's concepts (Virtual Care; Self-Monitoring; Vaccination; Care-Seeking and Care Experience; and Ethical Future of Maternity Care Services) were identified and extracted from all interview transcripts. Granular coding – in-line with specific analytic methodologies – then followed.

The RESILIENT Study Core Concepts

Care-Seeking and Care Experience

The concept of care-seeking and experience encapsulates the general experience of utilising routine maternity care during the COVID-19 pandemic for women and partners, along with the experience of delivering care and developing policy for HCPs and policymakers respectively. For service-users, we sought information on overall quality of care received, support from partners and/or staff members, availability of information, adapting to rapidly changing guidelines and restrictions, and handling increased risk of developing severe symptoms of COVID-19 during pregnancy, among others. Staff and policymakers were interrogated about changes to their role during the pandemic, experiences of facilitating or developing service reconfiguration guidelines, perceived advantages or drawbacks, information seeking and sharing, both from a personal and professional perspective, and their overall reflections of what could have been done better.

Virtual Care

The shift to provision of routine maternity care virtually, by video-conference or telephone, affected all women who were planning pregnancy, pregnant, or postpartum during the pandemic. The concept of virtual care dealt with, in particular, the perceived benefits, impact on day-to-day life and other responsibilities, concerns about quality or effectiveness of virtual care delivery, problems with implementation such as lack of digital technology and infrastructure, and potential for exacerbating health inequalities attributed to digital poverty.

Self-Monitoring

Another key service configuration was the accelerated use of digital applications and approved measurement devices for remote, at-home management of pregnancy complications such as hypertension or gestational diabetes. The concept of self-monitoring captures women and partner's experiences of having to undertake self-monitoring as part of their usual maternity care, as well as associated out-of-pocket expenses. For HCPs, this concept included their perception of managing self-monitoring, barriers and facilitators, handling patients who had limited use of English or others who could not understand instructions fully, and the impact of self-monitoring on quality of care provided.

Vaccination

We explored how women, partners, HCPs, and policymakers perceived the offer of the COVID-19 vaccine for pregnant women. It included questions on information and safety evidence, risk assessment, vaccine hesitancy, trust in healthcare providers and the government, as well as financial costs associated with vaccination. We also asked participants to reflect on a proposed mandatory COVID-19 vaccination program for maternity healthcare staff, and whether it should be implemented in the future.

Ethical Future of Maternity Care

All participants were asked to reflect on what could have been done better and to imagine a brighter future. This concept summarised suggestions for improvement of services, guidelines and restrictions which were deemed unethical, lessons to be learnt, and how maternity services should be rebuilt for a more equitable health system.

Mapped Analytical Methodologies

Template Analysis

Data on care-seeking and care experience will be extracted and analysed using a Template Analysis (King, 2012), which follows a methodical process including: refamiliarization with the data; preliminary coding; and organization of themes into a template, defining the template, application of the final template to the full dataset, and finalisation of template definitions (Brooks et al., 2015). Template analysis relies on critical reflexivity throughout, iterative coding from the organisation of themes onwards, and

accuracy checking when applying the final template, finalizing the template definitions, and selecting quotations (King & Brooks, 2017). For coding, the initial template will be based on the concepts of candidacy theory, as defined by Dixon-Woods et al. (2006; p.7) as *"the ways in which people's eligibility for medical attention and intervention is jointly negotiated between individuals and health services"* and comprising of the following key concepts: Identification of candidacy; navigation; the permeability of services; appearances at health services; adjudications; offers and resistance; and operating conditions and the local production of candidacy.

Thematic Framework Analysis

Data on virtual care, self-monitoring, and vaccination will be extracted and analysed separately using a Thematic Framework Analysis (Spencer et al., 2014) for each concept individually. Thematic Framework Analysis follows a deductive process including: data preparation (achieving a good written record of the recorded audio data); re-familiarisation (checking the transcripts for accuracy and making analytical notes); developing a framework (an initial framework and then checking and testing the framework); coding (pre-defined codes, selective coding, and coding of the dataset); adapting the analytical framework (re-naming themes where required and re-ordering the framework if required); charting the data into the framework matrix (assigning characteristics to participant cases on NVivo and then stratifying participants by desired qualities before summarising the data for each stratification); and interpreting the data (by sorting data and presenting percentage cover and/or spread of themes for different participant groups) as per guidance on the methodology (Gale et al., 2013). Thematic Framework Analysis is designed to cope with large amounts of qualitative data, usually when the aim is to understand different perspectives from multiple participant groups, and to inform healthcare policy and practice (Spencer et al., 2003). In terms of data analysis, we aim to stratify data by the most salient demographic characteristics where appropriate and logical to the research question of each analysis and participant population, including: participant type; ethnicity; region of the country; IMD; vaccination status; whether they had ongoing medical conditions which required self-monitoring; and whether or not they were living with social complexity.

Grounded Theory Analysis

Data on the ethical future of maternity care will be extracted and analysed using a Grounded Theory Analysis (Glaser & Strauss, 1967), which follows a stepped process including: preparing data (data collection and transcription); cleaning data (checking transcripts and re-familiarisation), coding (sentence-by-sentence, then focused); theme development (first into super-categories, then into themes); theory generation (consulting with memo notes, generating a theory); defence of the theory (within the team, interpreting the theory, and then framing it within the literature-base); all before writing the theory up (Silverio et al., 2019). Grounded Theory Analysis relies on inductive and iterative coding, analysis, and interpretation, and especially relies on a constant comparison between transcripts (Glaser, 1992). The aim is to produce a theory of the specific phenomenon (an ethical future), for the specific population (pregnant/postpartum women in the UK), in a specific context (post-pandemic health system shock).

Data Quality

Rigour and Effectiveness

We have focussed on populations who engage with maternity care, encompassing partners, fathers, and non-gestational parents; other professionals working within maternity care; and policy makers who are responsible for decision-making at local, regional, and national levels. We have mimicked this complexity, by drawing upon our varied expertise as a cross-disciplinary team of researchers, to understand the pandemic health system shock crisis from clinical and human-factors perspectives, whilst ensuring both the team and participants were directed to be forward-thinking about the possibilities for UK maternity care services post-pandemic.

Affecting Change

Our robust methods provide evidence to drive these post-pandemic changes; interesting to those who gatekeep and safeguard policy and practice changes; and impactful enough to provide the evidence-base for positive change. We have achieved quality by drawing on experts in our methodologies [SAS, AE], and clinical maternity care [PvD, LAM], and policy [HB, ADVC, ECN], whilst providing relevant training [TD, GH, HDM, ADVC, JRK]. We have worked closely with our PPIE-AG, TAG, and SSC, as well as with the Royal College of Obstetricians & Gynaecologists, Royal College of Midwives, NHS Race & Health Observatory, and other third sector organisations, to ensure research maintains relevance in the changing pandemic, para-pandemic, and then post-pandemic landscape.

Appropriateness and Saliency

As the UK is a diverse nation of diverse geography and ethnicities, we have engaged with the four corners of the UK, ensuring representation on our advisory groups (especially the PPIE-AG and TAG), and recruited from all sections of society. As a mainly South-East London-based team of researchers, we also have an interest in driving positive change in our local population. Therefore, we over-recruited from South London to ensure we do not neglect the local population, which has one of the highest levels in the UK of ethnic diversity and notable social disparity, health inequalities, and multi-morbidities (National Institute for Health and Care Research Applied Research Collaboration – South London, 2019).

Research Governance

Funding

The RESILIENT Study was funded by the National Institute for Health and Care Research Health [NIHR] Health Services & Delivery Research programme (ref:-NIHR134293).

Ethics

The qualitative work for The RESILIENT study was approved by the King's College London Health Faculties Research Ethics Subcommittee (HR/DP-21/22-26740).

Patient and Public Involvement and Engagement – Advisory Group

Our PPIE-AG has 15 members. Membership represents multiple ethnic backgrounds, birth histories, and geographies within the UK. The group has been involved throughout, from conception of the project and research questions, through to checking findings for relevance. Meetings were held three times a year, were well attended (with at least eight of 15 members present), and had good representation of parents, healthcare professionals, and members representing community organisations. Each meeting allowed for in-depth discussion and reflection of the work by the PPIE-AG, with suggested changes incorporated into the study protocol and subsequent manuscripts.

Management Group

The day-to-day running of The RESILIENT Study has been overseen by a Management Group, comprising 20 members and composed of: the Chief Investigator, Project Manager, all WP Leads; plus all co-applicants and collaborators; and when required, the operational research staff. This group has ensured data collection, analysis, and write-up follows the project timelines, for timely research delivery.

Technical Advisory Group

The TAG provides academic and strategic guidance, expertise, advisement, and direction, in accordance with the objectives and work plans laid out in the National Institute for Health and Care Research application. The TAG comprises 19 independent advisors from a range of relevant academic disciplines, to support the project aims. The TAG has an independent Chair to oversee the agenda and discussions, and ensure adherence to recommendations.

Independent Study Steering Committee

The SSC is composed of 5 independent advisors from a range of academic disciplines and institutions of relevance to the study objectives and programme of work. The SSC has an independent Chair to facilitate meetings and discussions, and monitor study progress on behalf of the study Sponsor (King's College London) and Funder (NIHR), and ensure it is conducted to the standards set out in the Department of Health and Social Care's Research Governance Framework for Health and Social Care and the Guidelines for Good Clinical Practice.

Discussion

Strengths and Limitations

The RESILIENT Study as a whole and the qualitative arm of the study have many strengths. To date it is the only nationally-funded study to undertake work on post-pandemic maternity care and represent of all four UK nations. The diversity and breadth of participants recruited for in-depth interviews was achieved using a maximum variation sampling frame; this ensures a more representative set of findings can be derived, and deviates from the usual demographic often recruited to maternity care studies (e.g. White, middle-class, well-educated women; see Lovell et al., 2023; Silverio, Varman, et al., 2023). Furthermore, the range of expertise and experience on the team has ensured we could design and carry out a high-quality study, with rigorous findings, which can feed directly into policy and practice.

Conclusion

Our findings about the experiences of care receipt, provision, and planning during the pandemic will complement existing literature. Manuscripts will be submitted for publication to relevant journals across medicine, public health, and the social sciences relating to health and healthcare services. We will disseminate our results through established networks of local, regional, and national stakeholders, to feed directly into national policy and practice for maternity care services across the UK. Our strategy includes engagement events across the four nations, virtual engagement via webinars and social media, and publication of a bespoke plain-language and scientific website and report. Our impact will be broad, on: individual patients (to improve care quality, effectiveness, safety, and experience), NHS maternity providers (to strengthen evidence to inform service reconfiguration and support vaccination); NHS Long Term Plan (to address maternal and fetal/newborn death and morbidity and support implementation of digitally-enabled care); and wider society (through innovation to commercialise and decrease direct and indirect societal costs).

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Ethical Statement

Ethical Approval

The qualitative work for The RESILIENT study was approved by the King's College London Health Faculties Research Ethics Subcommittee (HR/DP-21/22-26740).

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Supplemental Material

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