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The PRAMS (Perinatal Redesign for Accessing Mental Health Services) Study: a research protocol

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Title: The PRAMS Study (Perinatal Redesign for Accessing Mental Health Services): A research protocol

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Abstract (<250 words)

Background: Perinatal mental health (PMH) problems affect 10–20% of women during pregnancy and the postnatal year, costing the UK an estimated £8.1 billion annually. Underserved groups—including women from ethnic minorities, deprived areas, and those facing multiple disadvantages—experience the greatest inequalities in access and outcomes. Despite national investment, many fall between primary care (general practice, NHS Talking Therapies) and specialist PMH services, with limited guidance on bridging this gap.

Aim: To co-design an experience-based intervention to address unmet PMH needs among underserved women, and to explore barriers to accessing care and gaps across PMH pathways.

Design & setting: A mixed-methods study using the MRC framework and an adapted Accelerated Experience-Based Co-Design (AEBCD) approach.

Method: Work Package 1 will survey and interview professionals nationally across diverse roles and organisational contexts. Work Package 2 will involve focus groups and interviews with underserved women in Sheffield and Doncaster (South Yorkshire, UK), supported by bilingual community link workers. Findings will be synthesised and used in co-design workshops (Work Package 3) to develop an accessible, evidence-informed intervention tailored to the needs of an underserved group.

Conclusion: The PRAMS study will generate clinically relevant insights into improving access to and management of PMH care for underserved women and birthing people. By working collaboratively with practitioners, women with lived experience, and community partners, PRAMS will deliver a co-designed intervention with potential to reduce inequalities.

Findings will inform local service delivery and contribute national learning on user-led redesign of PMH services across primary and secondary care.

Key Words: Perinatal Care; Mental Health; Health Inequities; co-design; underserved groups; mixed-methods research.

How this fits in

Perinatal mental health (PMH) problems are common, but underserved women often face the greatest barriers to accessing care, with many falling between primary and secondary services. Current guidelines acknowledge these inequalities but provide little direction for addressing gaps in care pathways. The PRAMS study will directly involve women with lived experience, community partners, clinicians and professionals in co-designing a tailored intervention to address unmet PMH needs for underserved women. Findings will be highly relevant for primary care, where most women first present, offering practical insights to manage PMH problems for underserved women and reduce inequalities in access and outcomes.

Main text

Introduction

Perinatal mental health (PMH) disorders are the most common complication of childbearing, affecting 10–20% of women during pregnancy and the first postnatal year(1). The economic impact is substantial, estimated at £8.1 billion annually in the UK, with £1.2 billion borne by the NHS(2). Beyond financial costs, PMH problems contribute to maternal and infant morbidity and mortality and increase risks for adverse child development(3).

The latest MBRRACE-UK report (2025) (4) highlights these concerns: of 643 women who died during or up to one year after pregnancy, 91% faced multiple interrelated challenges

and nearly half had known mental health issues. This demonstrates how mental health, social adversity, and inequality intersect to drive poor outcomes in the perinatal period.

Underserved groups, including women from ethnic minority backgrounds, those in deprived areas, and those with multiple disadvantages, experience the greatest inequalities(5,6). Despite routine healthcare contact, access to effective PMH care remains inconsistent(7). Only 10% with PMH problems are referred to specialist services, and around half the UK lacks access to secondary PMH care(8). Many with complex needs fall between primary care (general practice, NHS Talking Therapies) and specialist provision, where mental health needs are deemed too complex for the former, but not severe enough for the latter.

Current guidelines(9,10) call for equal access to individualised, evidence-informed treatment but provide little direction on addressing barriers or gaps for underserved women.

Aims and Objectives

The PRAMS study will work collaboratively with underserved women, clinicians, and community organisations to co-design an experience-based intervention addressing unmet PMH needs. The specific objectives are to:

1. gather professional experiences about capacity to deliver perinatal services within local systems and the barriers and facilitators to service delivery;
2. explore barriers and facilitators to accessing support among underserved women with lived experience of PMH problems;
3. deliver a series of co-design events to develop a bespoke intervention for underserved women with unmet PMH needs.

Method

Study design

The PRAMS study uses a mixed-methods design across three work packages (WPs) (Figure 1). Guided by the MRC framework for complex intervention development(11) and an adapted six-stage Accelerated Experience-Based Co-Design (AEBCD) approach(12), it integrates professional, community, and lived experience perspectives to co-design a tailored intervention.

Findings from WPs 1 and 2 will be synthesised to inform WP 3 workshops, where a trauma-informed and culturally sensitive intervention will be developed. The AEBCD approach has been adapted to focus on improving existing pathways and addressing stigma and mistrust in underserved communities.

[INSERT FIGURE 1]

Figure 1. Workstream flow, outputs and dissemination

WP1: Professional survey and interviews

WP1 will explore professional perspectives on barriers and facilitators to PMH care. A cross-sectional online survey will be disseminated nationally to professionals in paid or voluntary roles supporting perinatal across primary care, secondary care, and third sector services (e.g. GPs, health visitors, midwives, obstetricians, neonatal nurses, psychologists, social workers, peer support workers).

The survey will include demographic and screening questions alongside the Pragmatic Context Assessment Tool (pCAT) (13), based on the Consolidated Framework for Implementation Research (CFIR) (14). Data will be collected via Qualtrics over three months, analysed descriptively and in line with CFIR guidance.

Respondents may opt in for follow-up interviews; a purposive sample of up to 20 professionals will be selected to capture diversity in role, experience, and setting, with emphasis on those supporting underserved women. Semi-structured interviews will explore unmet needs, access barriers, and examples of good practice, using topic guides informed by the CFIR and the Candidacy Framework(15).

Interviews will be transcribed and analysed using Framework analysis (five-stage approach with NVivo). WP1 findings will be triangulated to inform WP3 co-design priorities.

WP2: Lived experience focus groups and interviews

WP2 will explore experiences of underserved women with self-reported PMH problems.

Participants will be recruited via the Start for Life programme in South Yorkshire, including Emotional Wellbeing Clinics, LIGHT Peer Support, and Family Hubs. Eligible participants are women/birthing people aged ≥ 16 years from underserved groups (e.g. ethnic minority backgrounds, socioeconomically deprived areas, limited English proficiency, young parents, single parents, neurodiverse, LGBTQIA+, or those with histories of trauma, abuse, or substance misuse).

Data will be collected via focus groups (6–8 participants per group) and one-to-one interviews, facilitated by researchers, clinicians, and the community engagement lead. Delivery will be in community venues, home visits, or online (Google Meet). Recruitment will use the Community Research Link Worker model, a novel and innovative approach to to build research engagement and participation with and by underserved groups(16,17). Four community research link workers (CRLWs) who have lived experience and represent different underserved

groups will be trained to support with identifying participants, informed consent, group facilitation, and cultural and language support.

Discussions will elicit women's perinatal care journeys, perceived causes of PMH problems, experiences of accessing and receiving support, and views on desired services. Interviews and focus groups will be audio-recorded, transcribed, and analysed using Framework analysis informed by the Candidacy Framework, enabling exploration of barriers and facilitators to care across individual, organisational, and system levels. A researcher from the project team will observe interactions and take field notes during the focus groups and interviews. The CRLWs will receive training in analysis of qualitative data and will support the process by double coding a selection of transcripts. This is a vital part of the analysis process, providing cultural insights and experience-based interpretations which would not be open to the research team.

Safeguarding will be integral to all WP2 activities. CRLWs will receive training in recognising risk factors, safeguarding procedures, and referral pathways. Eligibility screening will ensure it is clinically safe for women to participate, and individuals with acute risk (e.g. active suicidality or psychosis) will not be recruited. Facilitators will monitor participant wellbeing, with clinical staff available to provide immediate support and signposting if needed.

Findings from WP2 will be synthesised with professional perspectives from WP1 to provide a comprehensive understanding of gaps in access and service provision. These insights will directly inform the co-design phase (WP3).

WP3: Co-design events

WP3 will bring together professionals, underserved women with lived experience, and community partners to co-design a bespoke intervention addressing unmet perinatal mental health (PMH) needs. Participants will be recruited from WP1 and WP2, with selection guided by the focus of the intervention emerging from findings.

Four co-design workshops will be delivered in community venues. At the first event, synthesised findings from WP1 and WP2, alongside relevant evidence and guidelines, will be shared to inform discussion. Facilitated small-group discussions will identify priorities, refine service needs, and generate potential intervention components. Subsequent workshops will iteratively refine these ideas into a feasible, evidence-informed intervention.

The process will be guided by a modified AEBCD framework and informed by the MRC guidance on developing complex interventions. Researchers will capture stakeholder interactions, consensus-building, and the evolution of the intervention across workshops through field notes.

The final output will be a co-produced, trauma-informed, and culturally sensitive intervention, tailored to the needs of underserved women and feasible for delivery within PMH pathways.

Patient and Public Involvement (PPI)

Public involvement will be integral to the PRAMS study. Women with lived experience, practitioners, public health professionals, and local charities such as LIGHT Peer Support have acted as partners in setting priorities, designing the research methods, and co-developing research materials. A novel feature is our recruitment model using bilingual Community Research Link Workers (CRLWs), embedded in local Start for Life and LIGHT groups, to build trust, bridge cultural and language barriers, and support inclusive engagement. CRLWs will lead participant recruitment for WP2 and will support facilitation of focus groups and co-analysis of transcripts, ensuring the study remains grounded in community perspectives. Work packages 1 and 2 will involve consultation with professional and lived experience as research participants who will be invited to return as stakeholders in work package 3 to co-design our intervention.

We have assembled a PPI panel of four bilingual women with lived experience, drawn from local underserved community groups, to meet every six months throughout the project.

Their role has included reviewing study materials, advising on recruitment and outcome measures, and shaping the design of co-design workshops. We will continually engage with steering groups, including the South Yorkshire Local Maternity and Neonatal System (LMNS), Maternal Mental Health, Best Start for Life and Start for Life groups, to ensure representation from maternity providers, local authorities, clinical leads, and voluntary sector partners. This multi-level approach will promote cultural relevance, accessibility, and sustainability, while strengthening capacity for research with underserved communities and local healthcare systems.

The project will be overseen by a Project Steering Committee that meets every six months to provide overall supervision and governance of the research. The committee will ensure that the research delivers the study protocol, with a focus on patient safety, identifying risks, advising on project outputs and publications, and ensuring that the research benefits underserved women and communities.

Synthesis, evaluation and implementation

At the end of WP2 and WP3, we will co-produce plain language summaries tailored to research participants, including translated versions, to share findings and summarise next steps. These will be electronically disseminated via the CRLWs, partner organisation mailing lists, and the project website: <https://www.prams-study.co.uk/home>.

We will deliver a series of online workshops with relevant stakeholders from WP3 to exchange ideas and develop a plan for the evaluation and implementation of the co-designed intervention under a refined service model. Community partners and professional stakeholders will be engaged to ensure the implementation plan's feasibility, accessibility, and sustainability as part of local service delivery. A final review event will be held to thank professionals and community members who have contributed to the project.

Discussion

Inequalities in PMH care remain a major concern in the UK. Despite increased national investment, many women with complex or multiple disadvantages continue to fall between primary and secondary care, with limited guidance on how services should respond. The PRAMS study aims to address this gap by directly involving underserved women with lived experience, practitioners, and community organisations in co-designing a bespoke intervention. This user-led approach is novel in the context of PMH service development and offers the potential to reduce inequalities in access and outcomes.

The study has several strengths. It will generate evidence from both professional and lived experience perspectives, using a mixed-methods design to capture barriers across system, organisational, and individual levels. The use of bilingual community research link workers will enhance trust and participation from underserved groups that are often excluded from research. By grounding the intervention in an evidence-based co-design approach (the AEBCD framework), the study maximises the likelihood of acceptability, cultural relevance, and feasibility within existing local pathways, including primary care, where many women first present with mental health concerns.

There are also potential limitations to this study. Recruitment for WP2 and WP3 will focus on two geographical areas (Sheffield and Doncaster), which may limit generalisability to other regions with different pathways to PMH care and service configurations. Although efforts will be made to reach diverse underserved groups, some populations may remain under-represented and may not therefore benefit from the co-designed intervention. Further research will also be needed to evaluate the feasibility, scalability and effectiveness of the co-designed intervention.

The PRAMS study will produce clinically and policy-relevant findings that address current guidelines and recommendations for improving PMH care. It will provide insights into the

barriers experienced by underserved women and professionals across PMH pathways, and deliver a co-designed intervention that can inform local service delivery. Beyond this, it will contribute national learning on user-led redesign of PMH services, offering practical recommendations for improving integration between primary and secondary care. Findings may also inform broader efforts to embed equity, accessibility, and cultural sensitivity in mental health service delivery.

Word count: 1,928

Tables and Figures

Figure 1. Workstream flow, outputs and dissemination.

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Ethical approval

Ethical approval was gained by HRA and Health and Care Research Wales Research Ethics Committee on 27/01/2025. Reference 24/PR/1495.

We will obtain written consent from participants across Work Packages 1 and 2. Participants will be provided with a clear information sheet that details participation within the research is voluntary, and they have the right to withdraw. It will be clearly outlined that any refusal or withdrawal from the study will not interfere with any care that they receive.

For Work Package 3, participants will be provided with an information sheet at the time of invitation to the co-design workshop which will detail what their participation would involve.

Attendees who do not wish to participate in the co-design workshop will complete an opt-out form. Those who have opted out of the research will still be able to participate in the workshop, however their contributions will not be formally observed and recorded.

Data

Data generated from the PRAMS study will be publicly archived with participant consent following the end of the project.

Competing Interests

None to declare.

Acknowledgements

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Supplementary data

Supplementary file 1 - Work Package 1 online survey

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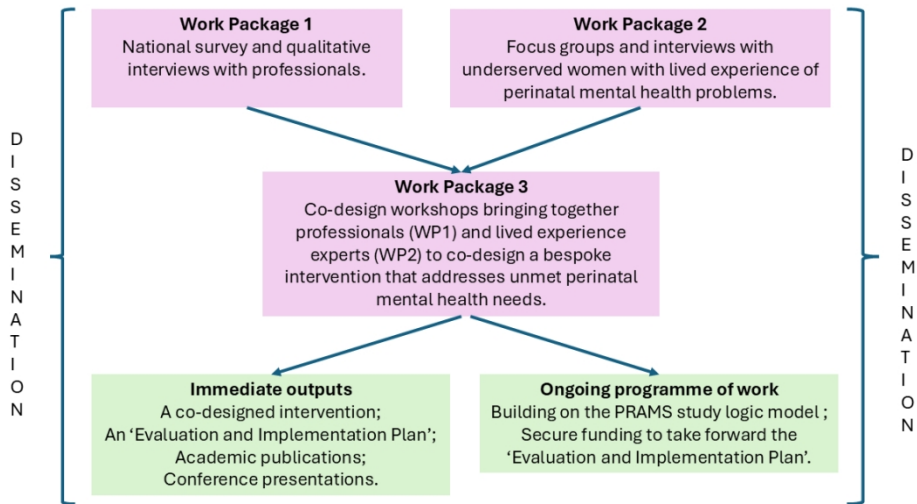


Figure 1. Workstream flow, outputs and dissemination

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