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Abstract

Conceptual framework on barriers and facilitators to implementing perinatal mental health care and treatment for women: the MATRIx evidence synthesis

Rebecca Webb,[1*] Elizabeth Ford,[2] Judy Shakespeare,[3] Abigail Easter,[4,5] Fiona Alderdice,[6] Jennifer Holly,[7] Rose Coates,[1] Sally Hogg,[8] Helen Cheyne,[9] Sarah McMullen,[7] Simon Gilbody,[10] Debra Salmon[1] and Susan Ayers[1]

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Background: Perinatal mental health difficulties can occur during pregnancy or after birth and mental illness is a leading cause of maternal death. It is therefore important to identify the barriers and facilitators to implementing and accessing perinatal mental health care.

Objectives: Our research objective was to develop a conceptual framework of barriers and facilitators to perinatal mental health care (defined as identification, assessment, care and treatment) to inform perinatal mental health services.

Methods: Two systematic reviews were conducted to synthesise the evidence on: Review 1 barriers and facilitators to implementing perinatal mental health care; and Review 2 barriers to women accessing perinatal mental health care. Results were used to develop a conceptual framework which was then refined through consultations with stakeholders.

Data sources: Pre-planned searches were conducted on MEDLINE, EMBASE, PsychInfo and CINAHL. Review 2 also included Scopus and the Cochrane Database of Systematic Reviews.

Review methods: In Review 1, studies were included if they examined barriers or facilitators to implementing perinatal mental health care. In Review 2, systematic reviews were included if they examined barriers and facilitators to women seeking help, accessing help and engaging in perinatal mental health care; and they used systematic search strategies. Only qualitative papers were identified from the searches. Results were analysed using thematic synthesis and themes were mapped on to a theoretically informed multi-level model then grouped to reflect different stages of the care pathway.

Results: Review 1 included 46 studies. Most were carried out in higher income countries and evaluated as good quality with low risk of bias. Review 2 included 32 systematic reviews. Most were carried out in higher income countries and evaluated as having low confidence in the results.

Barriers and facilitators to perinatal mental health care were identified at seven levels: *Individual* (e.g. beliefs about mental illness); *Health professional* (e.g. confidence addressing perinatal mental illness); *Interpersonal* (e.g. relationship between women and health professionals); *Organisational* (e.g. continuity of carer); *Commissioner* (e.g. referral pathways); *Political* (e.g. women's economic status); and *Societal* (e.g. stigma). These factors impacted on perinatal mental health care at different stages of the care pathway.

Results from reviews were synthesised to develop two MATRIx conceptual frameworks of the (1) barriers and (2) facilitators to perinatal mental health care. These provide pictorial representations of 66 barriers and 39 facilitators that intersect across the care pathway and at different levels.

Limitations: In Review 1 only 10% of abstracts were double screened and 10% of included papers methodologically appraised by two reviewers. The majority of reviews included in Review 2 were evaluated as having low (n = 14) or critically low (n = 5) confidence in their results. Both reviews only included papers published in academic journals and written in English.

Conclusions: The MATRIx frameworks highlight the complex interplay of individual and system level factors across different stages of the care pathway that influence women accessing perinatal mental health care and effective implementation of perinatal mental health services.

Recommendations for health policy and practice: These include using the conceptual frameworks to inform comprehensive, strategic and evidence-based approaches to perinatal mental health care; ensuring care is easy to access and flexible; providing culturally sensitive care; adequate funding of services; and quality training for health professionals with protected time to do it.

Future work: Further research is needed to examine access to perinatal mental health care for specific groups, such as fathers, immigrants or those in lower income countries.

Trial registration: This trial is registered as PROSPERO: (R1) CRD42019142854; (R2) CRD42020193107.

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Supplementary material can be found on the NIHR Journals Library report page (https://doi.org/10.3310/KQFE0107).

Supplementary material has been provided by the authors to support the report and any files provided at submission will have been seen by peer reviewers, but not extensively reviewed. Any supplementary material provided at a later stage in the process may not have been peer reviewed.

List of abbreviations

AMSTAR	A MeaSurement Tool to Assess systematic Reviews
CCGS	Clinical Commissioning Groups
EPDS	Edinburgh Postnatal Depression Scale
GP	general practitioner
HIC	higher income country
HP	health professional
IQR	interquartile range
LGBTQ	lesbian, gay, bisexual, transgender or queer
LMIC	lower middle income countries
MATRIx	Perinatal Mental Health Assessment and TReatment: an evidence synthesis and conceptual framework of barriers and facilitators to implementation
NHS	National Health Service
PMH	perinatal mental health
PMI	perinatal mental illness
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-analyses
PTSD	post-traumatic stress disorder
R1	Review 1
R2	Review 2

Plain language summary

Mental health problems affect one in five women during pregnancy and the first year after birth (the perinatal period). These include anxiety, depression and stress-related conditions. Mental health problems can have a negative effect on women, their partners and their children. They are also a leading cause of maternal death. It is therefore important that women who experience mental health problems get the care and treatment they need. However, only about half of women with perinatal mental health problems are identified by health services and even fewer receive treatment.

This research aimed to understand what factors help or prevent women getting care or treatment for perinatal mental health problems. We did this by pulling together the findings from existing research in three phases. In phase 1 we reviewed the evidence from research studies to understand why it has been difficult for health services to assess, care for and treat women with perinatal mental health problems. In phase 2 we reviewed evidence from women's perspectives on all of the factors that prevent women from being able to get the care and treatment they need. In phase 3 we worked with a panel of women, health professionals (such as general practitioners and midwives) and health service managers to look at the findings from phases 1 and 2. We then developed frameworks that give a clear overview of factors that help or prevent women getting care and treatment. These frameworks show 39 factors that help women access services, and 66 factors that prevent access.

Based on these results we have developed guidance for government, NHS service managers and health professionals, such as general practitioners, midwives, health visitors, nurses and wider teams such as receptionists. This will be shared widely with health services and professionals who support women during pregnancy and after birth to improve perinatal mental health services so that care meets women's needs.

Scientific summary

Background and objectives

Perinatal mental health (PMH) difficulties can occur during pregnancy or after birth. They commonly consist of anxiety disorders, depression, post-traumatic stress disorder (PTSD) and stress-related conditions such as adjustment disorder. PMH difficulties are particularly important because of the potential negative impact on women, their partners and children. For example, they are associated with an increased risk of maternal suicide, a decline in relationship satisfaction and long-term impacts on children's development. It is therefore important that women with PMH difficulties can access care and treatment. However, research suggests only half of women with PMH problems are identified by health services and even fewer receive treatment.

This research therefore aimed to identify potential barriers and facilitators to PMH care across the care pathway, both in terms of women accessing care, and in terms of health services implementing new PMH assessment and treatment initiatives.

Our primary research objective was to develop a conceptual framework of barriers and facilitators to PMH care (defined as identification, assessment, care and treatment) to inform PMH services, and highlight where further research is needed. This was done through two systematic reviews which synthesised the evidence on: Review 1 (R1) barriers and facilitators to implementing PMH care; and Review 2 (R2) barriers to women accessing PMH care. Results were used to develop a conceptual framework which was then refined through consultations with stakeholders (e.g. women, general practitioners, midwives, health visitors, psychiatrists, commissioners, third-sector organisations, etc.). Results were used to inform recommendations for policy, practice and future research in PMH care.

Secondary research objectives were to: (1) determine the barriers and facilitators to implementing PMH care in health and social care services; (2) identify differences in barriers and facilitators across different health and social care settings; (3) evaluate the quality of this evidence; (4) extract recommendations for implementation, practice and research based on the barriers and facilitators identified; (5) determine the barriers and facilitators to women accessing PMH care; (6) evaluate the quality of these reviews; and (7) map the geographical distribution of the research to establish generalisability and gaps in the evidence.

Review methods

For both reviews pre-planned searches were carried out in MEDLINE (1946–present), EMBASE (1974–present), PsychInfo (1806–present) and CINAHL (1982–present). R2 also used Scopus and Cochrane Database of Systematic Reviews (Issue 8 of 12, August 2021). MeSH terms (i.e. prenatal care/anxiety/diagnosis) and Boolean operators 'OR' and 'AND' were used.

Eligibility criteria for R1 were empirical studies that examined factors that either facilitated or impeded implementation of PMH care in health or social care services. These could be qualitative interviews with health professionals (HPs) or women about services; or studies describing the implementation of PMH care services. Eligibility criteria for R2 were reviews of literature on barriers and facilitators for women in the perinatal period (defined as conception to one year postpartum) to access assessment, care or treatment. Information on barriers and facilitators had to be directly drawn from perinatal women's experiences. Only systematic reviews with a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) search strategy were included.

Search results were imported into Endnote and duplicates were removed. Remaining studies were then imported into Eppi-Reviewer. In R1 10% of the results were double screened. In R2 all studies were double screened. For both reviews, 10% of included studies had their data extracted in duplicate.

Methodological quality appraisal was conducted using the Joanna Briggs Critical Appraisal Tools for R1, and dual appraisal was conducted for 35% of included papers. Most studies (*n* = 44) had a quality rating above 70% suggesting that studies were well-conducted with low risk of bias. For R2, methodological quality of reviews was appraised using A measurement tool to assess systematic reviews-2 (AMSTAR) tool, and dual appraisal was carried out for all included reviews. The majority of reviews were evaluated as having low (*n* = 14) or critically low (*n* = 5) confidence in their results. Therefore, a qualitative sensitivity analysis was carried out to assess whether themes remained consistent across all reviews regardless of their quality rating.

Only qualitative papers were identified. Results were analysed using a thematic synthesis and mapping themes on to a systems level model adapted from Ferlie and Shortell's Levels of Change framework (e.g. individual level factors, HP factors, organisational factors and larger system factors) (Ferlie EB, Shortell SM. Improving the quality of health care in the United Kingdom and the United States: a framework for change. *Milbank Q* 2001;**79**(2):281–315. https://doi.org/10.1111/1468-0009.00206) and then grouped to reflect different stages of the care pathway adapted from Goldberg and Huxley's Pathways to Care model (e.g. deciding to disclose, assessment, access to care, treatment) (Goldberg D, Huxley P. *Common Mental Disorders: A Bio-Social Model*. New York, NY: Tavistock/Routledge; 1992.).

Review results

Review 1 searches identified a total of 21,535 citations. After screening by title and abstract 10,130 records were excluded, leaving 931 papers to be screened by full text. Screening of full texts identified 43 studies to be included in the review. Forward and backward searches identified a further three papers. Therefore, 46 qualitative studies were included in the qualitative synthesis. Studies were mainly carried out in higher income countries (HICs). Implementation occurred in a wide range of settings including hospitals (*n* = 14); primary care (*n* = 12); and community-based care (*n* = 12). Most studies (*n* = 22) looked at the implementation of comprehensive care services (including screening, referral and treatment).

Review 2 searches identified a total of 4086 citations. After removing duplicates and studies not meeting inclusion criteria, 2028 articles were left to be screened. Screening by title and abstract led to 1962 records being excluded, leaving 66 papers to be screened by full text. Screening of full texts identified 32 reviews of qualitative studies to be included in the meta-review. Reviews were conducted between 2006 and 2021. The number of studies included in each review varied from 4 to 40 with a total of 344 studies included across all the reviews. The reviews included studies carried out in 24 different countries. Most reviews focused on perinatal depression. Qualitative sensitivity analysis found that most themes were supported in both the higher quality and lower quality reviews. Including all reviews meant the data was richer and included marginalised women, such as refugees, migrants and women living in sub-Saharan Africa. This suggests results from R2 can be interpreted with reasonable confidence.

Overall, in terms of geographical distribution and type of mental illness most studies were carried out in HICs (R1: *n* = 38; R2: *n* = 28), and the majority focused on perinatal depression (R1: *n* = 32; R2: *n* = 23).

Barriers and facilitators to PMH care were identified from R1 and R2. Results from both reviews were merged together and mapped on to seven levels informed by Ferlie and Shortell's (2001)[40] framework (Ferlie EB, Shortell SM. Improving the quality of health care in the United Kingdom and the United States: a framework for change. *Milbank Q* 2001;**79**(2):281–315. https://doi.org/10.1111/1468-0009.00206). These were: (1) *Individual* factors; (2) *HP* factors; (3) *Interpersonal* factors; (4) *Organisational* factors; (5) *Commissioner* factors; (6) *Political* factors; and (7) *Societal* factors. Factors at these levels impacted on PMH care at different stages of the care pathway.

Individual level factors were the most influential in women's decision to consult. Women not understanding HPs roles (*n* = 12) or not understanding what perinatal mental illness (PMI) was (*n* = 14) were the most cited barriers. The largest individual level facilitator to deciding to consult was recognising something was wrong (*n* = 8).

In terms of first contact with HPs, the most commonly cited reason for women dropping out of the care pathway was if HPs were dismissive about mental illness or normalised women's symptoms (*n* = 8).

Assessment of PMH was influenced by multiple factors. At the individual level, the most cited barrier was the presence of family and friends with negative beliefs about mental illness (*n* = 7). At the HP level, assessment specific behaviours such as carrying it out in a tick box way (*n* = 12) was the most cited barrier. At the interpersonal level, women and HPs being able to speak openly and honestly about assessment was the most cited facilitator (*n* = 5). At the organisational level, the most common facilitator was the acceptability of assessment or screening for both HPs and women (*n* = 17).

Women deciding to disclose their symptoms was also affected by multiple factors. At the individual level, fear of being judged as a bad mother (*n* = 7) was the most cited barrier. HPs appearing too busy was the most cited barrier (*n* = 5) at the HP level. A lack of a trusting relationship between women and HPs (*n* = 10) was the most cited interpersonal barrier. Linked to this, at the organisational level, a lack of continuity of carer (*n* = 8) was the most cited barrier. Stigma (*n* = 18), culture (*n* = 13) and maternal norms (*n* = 15) were all societal level barriers preventing the disclosure of PMH symptoms.

The most commonly cited factors affecting referral were collaborative working across services (*n* = 7) and organisational referral procedures (*n* = 7).

Multiple factors influenced access to treatment. At the individual level, the most cited barriers to accessing care were logistical issues such as not having childcare (*n* = 14), the location of the care and difficulties travelling there (*n* = 13). Language barriers were the biggest interpersonal barrier to women accessing care (*n* = 4) and related to this, a lack of culturally sensitive care was the most cited organisational barrier to access (*n* = 7). At the commissioner level, the most cited barrier to access was a lack of appropriate or timely services for women (*n* = 11). At the political level a lack of financial resources to pay for health care (*n* = 14) was a barrier to access.

In terms of provision of optimal care, at the HP level, HPs possessing valued characteristics (*n* = 9), such as being trustworthy and caring, were facilitators to the provision of optimal care. At the interpersonal level, a lack of trusting relationship was a barrier to optimal care provision (*n* = 5). At the organisational level, the provision of individualised care (*n* = 11) that was appropriate to women's needs (*n* = 12) was a facilitator. A lack of training related to PMI and treatment was the most cited organisational barrier (*n* = 15). At the wider levels, immigration status (*n* = 5), stigma (*n* = 8) and culture (*n* = 6) were barriers to optimal care.

Multiple factors impacted women's experience of treatment or care. At the individual level, social isolation (*n* = 7) was a barrier to women's experience of care as it exacerbated their mental health difficulties further. HPs who provided hope to mothers, were caring, supportive, empathetic and went above and beyond meant women had a positive care experience (*n* = 9). Individualised and person-centred (*n* = 11) care was also associated with a positive care experience.

In terms of barriers and facilitators within different health and social care settings, within hospitals the most cited factors influencing implementation were lack of time or a heavy workload (*n* = 8), and whether HPs were positive about the care being implemented (*n* = 8). In primary care, the most commonly cited factors that influenced implementation were stigma (*n* = 8) and family presence (*n* = 8).

In community settings the most important factors were training (*n* = 8) and the characteristics of the person providing the care (*n* = 6).

Across low-income countries, stigma (*n* = 4) and lack of training (*n* = 4) were the most cited barriers to implementation. Similarly, when health services were located in higher income countries, but women from a refugee or different cultural background accessed them, stigma (*n* = 6) and lack of HP training (*n* = 6), along with HP's heavy workload (*n* = 6) and lack of collaborative working (*n* = 6) were the most cited barriers.

The MATRIx conceptual frameworks

Results from both reviews were synthesised to develop two conceptual frameworks. Eight stages outlined by Jabareen were followed to develop the frameworks: (1) mapping the selected data sources; (2) extensive reading and categorising of the selected data; (3) identifying and naming concepts; (4) deconstructing and categorising the concepts; (5) integrating concepts; (6) synthesis, resynthesis and making it all make sense; (7) validating the conceptual framework using stakeholder meetings and the Confidence in the Evidence from the Reviews of Qualitative research (CERQual) approach; and (8) rethinking the conceptual framework.

Two MATRIx conceptual frameworks were developed that highlight the importance of 66 barriers and 39 facilitators to PMH care at multiple levels and that intersect across the care pathway. These conceptual frameworks informed the development of evidence-based recommendations on how to address barriers to ensure that all women are able to access the care and support they need. Recommendations were made for health policy, practice and research.

Conclusions

The MATRIx conceptual frameworks on barriers and facilitators highlight the need for women-centred, flexible care, delivered by well-trained, knowledgeable, and empathetic HPs working within an organisational and political structure that enables them to deliver quality care. Results also suggest a need for international efforts to reduce stigma associated with mental health difficulties. Recommendations for practice and policy were made. While recommendations are based on the evidence, they may be more or less achievable, depending on the local and national context and pressures on services.

Based on the evidence, it is suggested that policy makers: (1) review the conceptual frameworks and take comprehensive, strategic and evidence-based steps to ensure there is an effective system of PMH care; (2) ensure services are adequately funded and there are enough trained staff in order to ensure every woman with PMH difficulties is able to access appropriate treatment in a timely fashion; and (3) improve access to health care for all through free health care and a fair and easy-to-access welfare system.

The evidence suggests that recommendations for healthcare practice include: (1) designing care with women to ensure it meets their needs; (2) providing culturally sensitive care and increasing the accessibility of care through pictorial aids and translators; (3) ensuring chosen technology is fit for purpose, and co-designed with HPs; (4) services working together; (5) employment of enough staff from a variety of health disciplines; and (6) HPs receiving high-quality training, with protected time to complete it.

Limitations

In R1 only 10% of abstracts were double screened and, given the large number of citations to screen, some papers may have been missed. Similarly, in R1 only 10% of included papers were methodologically appraised by two reviewers. Both reviews only included papers published in academic journals and written in English. Relevant reviews from health services, charities, third-sector organisations and other grey literature may have been missed. Furthermore, the majority of reviews in R2 were evaluated as having low (n = 14) or critically low (n = 5) confidence in their results. However, this was mitigated through the use of a qualitative sensitivity analysis.

Future work

Further research is needed to examine access to PMH care for specific groups, such as fathers, immigrants or those in lower income countries. More research is needed on facilitators to implementing and accessing PMH care, as well as appropriate measures to help service managers assess whether a service is working effectively.

Trial registration

This trial is registered as PROSPERO: (R1) CRD42019142854; (R2) CRD42020193107.

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Chapter 1 Background

Background research

Perinatal mental health (PMH) difficulties can occur during pregnancy or after birth. They affect up to one in five women and the cost to the UK is estimated to be £8.1 billion for every annual cohort of women, with 72% of this cost attributable to the long-term impact on the child.[1] PMH difficulties commonly consist of anxiety disorders, depression, post-traumatic stress disorder (PTSD) and stress-related conditions such as adjustment disorder. Many disorders are comorbid[2,3] and severe postnatal mental illness is one of the leading causes of maternal death.[2]

Perinatal mental health difficulties are particularly important because of the potential negative impact on women, their partners, children and families. This impact varies according to the type of mental illness, severity and timing (e.g. whether pre- or postnatal; acute or chronic; pre-existing or new onset) but, overall, the evidence shows a severe and enduring impact. For example, perinatal mental illness (PMI) is associated with a range of adverse outcomes for women, such as an increased risk of stillbirth[4–6] as well as an increased risk of maternal suicide.[2,7–9] PMH difficulties are also associated with a decline in relationship satisfaction and an increased risk of relationship breakdown.[10–12] In terms of infant and childhood outcomes, PMH difficulties are associated with an increased risk of pre-term birth,[13,14] and longer-term impacts on children's cognitive[15–18] and behavioural development,[17,19,20] as well as being associated with an increased risk of children developing mental health difficulties themselves.[21–23]

It is therefore important to identify and assess PMH difficulties quickly so that women who need treatment are able to access it. However, a survey of 200 women living in the UK found that 23% had not sought professional help for their symptoms.[24] It is also estimated that only 30–50% of women with PMH difficulties are identified and less than 10% are referred to specialist care.[25,26] This is likely due to a range of factors at individual, health professional (HP), interpersonal, organisational political and societal levels. For example, HPs not asking about mental health, lack of effective assessment, barriers to women seeking help or attending treatment, clinician barriers to diagnosis and treatment, lack of services to refer on to or limited understanding of effective treatments.

Recognising the barriers and facilitators to identification, assessment, referral and treatment for PMH difficulties is therefore important for health and social care services working with perinatal women. The need for this is evident in calls for research,[27] UK strategy and policy,[28,29] and clinical guidelines.[30,31] For example, in 2014, the National Health Service (NHS) set out plans for £365 million to be spent on PMH services from 2016–21[28] as part of the Five Year Forward View. These services were to ensure 30,000 more women each year would access evidence-based specialist mental health care during the perinatal period. Similarly, the Scottish Mental Health Strategy aimed to improve the recognition and treatment of PMH difficulties.[31] The full implementation of these plans would mean women being asked about their mental health and well-being during antenatal booking visits, being screened for mental health difficulties, assessment within two weeks of referral and being provided with evidence-based psychological interventions within one month of initial assessment.[30–32] Furthermore, in 2019 NHS England set out a Long Term Plan for PMH, pledging an additional £2.3 billion a year and stating that by 2023/24, 66,000 women with moderate to severe mental health difficulties should have access to specialist care from pre-conception to 24 months postnatal.[33] Identifying barriers to women accessing treatment, as well as barriers to implementing PMH assessment and treatment in NHS services, is therefore important to inform these initiatives.

This evidence synthesis therefore aims to identify potential barriers and facilitators to identification, assessment, referral and treatment of PMH difficulties across the care pathway, both in terms of women accessing care or treatment, as well as in terms of NHS services implementing new assessment and treatment initiatives. This will be used to inform a conceptual framework of barriers and facilitators to PMH care that will inform health care services and practice, care pathways, and highlight where further research is needed.

Evidence explaining why this research is needed now

Perinatal mental health is a priority for UK strategy and policy,[28,29] clinical guidelines,[30,31] HP organisations[26,34,35] and third-sector organisations.[36,37] While there have been large improvements in PMH service provision since the publication of the Five Year Forward View,[28] in a progress review carried out in 2017 by the All-Party Parliamentary Group on Mental Health, The Royal College of Psychiatrists stated that teenage pregnancies, care beyond the baby's first year and comorbid substance abuse remained areas lacking in focus and investment. The King's Fund also reported that in some local areas, recommendations for expanding PMH services were being achieved by retraining existing staff without employing more, an approach that is not sustainable in the long term.[38] Furthermore, in 2020 the Maternal Mental Health Alliance identified that 20% of clinical commissioning groups (CCGs) in England still did not have specialist PMH services. These gaps in specialist PMH service provision are even higher in Wales (71.4%) and Scotland (85.7%).[39] These treatment gaps may mean women are not accessing the care that they need.[26] Given the recent provision of £2.3 billion a year to PMH services,[33] this is a crucial time to understand what barriers exist and how they can be overcome.

Reasons why women are not identified and treated for PMH difficulties are complex and multifaceted and likely due to two broad factors: (1) lack of availability of services, which in the current context is possibly due to difficulties implementing services; and (2) difficulties accessing services from women's perspectives. These difficulties are likely to occur at multiple levels (e.g. individual level factors, HP factors, organisational and wider political-social factors[40]) and across the care pathway.[41] The care pathway has been defined by Goldberg and Huxley (1992)[41] who provided a framework for understanding how a person reaches mental health services. Their Pathways to Care Model shows how, as a person moves through the care pathway, certain factors act as filters that prevent people from accessing mental health care. The first filter is 'illness behaviour', where a person needs to pay attention to their symptoms and then make the decision to seek help. If this is not done, this is the first 'filter' out of the care pathway. The second filter is the HP's ability to recognise mental illness, the third is referral on to mental health services and the last filter is admission to hospital beds.

Difficulties in implementing services and accessing services from women's perspectives are also likely to be impacted by an environment where health care services are highly heterogenous, with variation both within and between services. In some cases, care pathways and treatments are based on organisational factors or assumptions that are not evidence-based. For example, prior to 2016 some CCGs had never commissioned a PMH service and women in these areas were referred to mainstream adult psychiatry services.[42]

Guidelines for implementing PMH services have been developed by both NHS England in 2016[43] and the National Collaborating Centre for Mental Health in 2018.[44] These state the need for multi-agency working across all levels of care and services, expansion of workforce capacity, working with providers and those with a lived experience, and evidence-based service plans. Despite this guidance, large treatment gaps are still reported.[45] The lack of consistent implementation and the development of future implementation plans suggests it is both timely and important to understand what factors may affect implementation of PMH care and at present there are no reviews on barriers and facilitators to implementing PMH care in the NHS or other health care services.

Several systematic reviews of qualitative literature have identified potential barriers to women seeking help for PMH difficulties. Barriers include a reluctance to acknowledge symptoms and lack of support from partners and family members; a lack of ability for women to talk about their feelings openly due to perceived social pressures and stigma; fear of losing custody of their child; and a lack of knowledge of

PMH difficulties among mothers.[46–48] Women also cite practical factors influencing their decision to seek help, such as the cost of treatment, finding childcare, lack of health insurance and transport issues.[49]

Other factors that may influence whether women access care or treatment include HP factors. For example, in a survey of general practitioners (GPs) and midwives, just under a third reported having had no training in PMH.[34,50] This lack of training may be particularly critical given the importance of interpersonal factors in whether women seek help and access treatment. For example, qualitative studies of women's experiences of PMH care suggest having a trusting relationship with a HP and being helped to discuss feelings in an unrushed, conversational manner are associated with increased acceptability and disclosure.[51–53]

In terms of organisational factors, research suggests that lack of referral pathways, lack of specialised services and inadequate assessment influence whether women receive treatment or not.[46,49]

Social and cultural factors are also important. Different cultural norms and health care systems will influence women and HPs understanding of PMH as well as the availability of assessment and treatment. Attitudes towards mental health, such as stigma, may affect women's willingness to disclose their symptoms and seek help.[46–48]

Over 20 published systematic reviews have explored women's barriers and facilitators to accessing PMH care. However, each systematic review varies slightly in relation to its aim, inclusion criteria and analysis and no evidence synthesis has been carried out to combine the results into a single body of evidence. This would make it easier for health care providers and policy makers to access the information and use it to inform their decisions.[54,55]

Conceptual framework

The above evidence highlights that many factors may influence whether or not women are identified, assessed, referred, and receive treatment for PMH difficulties. These are likely to operate at different levels, and across the care pathway. They may be due to barriers in implementing services, or barriers from women's perspectives in accessing services.

Critically, there are no reviews on barriers and facilitators to implementing PMH care in NHS or other health care services. In addition, no evidence synthesis has been carried out to combine the evidence of multiple reviews about barriers from women's perspectives in accessing services into a single body of evidence. Lastly, no reviews have combined information from both implementation literature and barriers and facilitators to accessing PMH care from women's perspectives. Synthesising this literature coherently would make it easier for health care providers and policy makers to access the information and use it to inform their decisions about PMH services and care. One way to do this is through the use of a conceptual framework. A conceptual framework can be defined as a 'network, or a plane, of interlinked concepts that together provide a comprehensive understanding of a phenomenon or a phenomena'.[56] The development of a conceptual framework can highlight areas for improvement and provide an empirical basis for recommendations for future practice and research.

Definitions and scope

The literature on PMH, identification, assessment and treatment is complex so it is important to define the key terms and scope of this synthesis.

Perinatal mental health difficulties include common affective disorders experienced during pregnancy or the first year after birth, such as depression and anxiety (e.g. generalised anxiety disorder, phobias, panic, obsessive compulsive disorder), stress-related disorders (e.g. acute stress disorder, PTSD), adjustment disorders, and other psychiatric disorders (e.g. psychosis, personality disorders). Symptoms can be mild, moderate or severe. All PMH difficulties were included. We excluded substance misuse disorders because they raise unique challenges in terms of assessment and treatment that may not be generalisable to other disorders.

We define PMH care as identification, assessment, referral and treatment for PMH difficulties.

How assessment of PMH is conceptualised is important. In particular, the distinction between assessment and case identification is important because they have different implications in terms of barriers and facilitators to accessing treatment. PMH assessment refers to identifying women who may be at risk for PMH difficulties, or who have PMH difficulties. Case identification uses psychiatric definitions of disorders, such as the American Psychiatric Association's Diagnostic and Statistical Manual[57] to identify women who fulfil diagnostic criteria for a disorder. Women who meet criteria (i.e. cases) are more likely to reach the threshold for onward referral and treatment. In this project we include both assessment and case identification to examine their implications in terms of barriers and facilitators to accessing care or treatment.

Perinatal mental health treatment refers to any treatment or prevention strategy to reduce PMH symptoms. Services offering treatment vary widely. In primary care or maternity care GPs, midwives and health visitors may offer supportive care for women with mild or moderate PMH difficulties. Evidence suggests primary care is the main provider, with 90% of common mental disorders being managed in primary care.[41] Specialist mental health services vary. For example, the NHS England specialist PMH services target the top 5% of women, that is, those with the most severe difficulties. These are likely to be women with severe postpartum depression, psychosis or other complex disorders, many of whom may require inpatient psychiatric treatment. In contrast, NHS Talking Therapies (formerly known as Improving Access to Psychological Therapies, IAPT) is a community-based outpatient service that predominantly treats moderate affective disorders such as anxiety, depression, PTSD and adjustment disorders. Increasing numbers of NHS Talking Therapies services now have a PMH specialist. In addition, there are increasing community services provided by third-sector organisations, such as peer support services for women with moderate PMH difficulties. These different settings (primary care, maternity care, psychiatric and specialist PMH services) will have different barriers in terms of implementing services and women accessing treatment. In this project we aimed to consider different health and social care settings throughout.

Some services provide interventions focused on outcomes associated with poor PMH. These include parent-infant, couple or family interventions. In this project we focus on interventions for maternal mental health and exclude literature that focuses on mother-infant, couple or family interventions because these are aimed at associated outcomes rather than PMH per se and raise different issues in terms of accessing services.

The scope of this project is also on PMH of women and those who identify as women, rather than partners or those who identify as men. Partner's and men's PMH is important but is an area that requires research and evidence synthesis in its own right. Current research into partner's and men's PMH is sparse compared to research on women, and there are likely to be differences in barriers and facilitators to PMH care for men compared to women.

Chapter 2 Research questions and overview

Based on the literature summarised above, our research question was: what are the barriers and facilitators to PMH assessment, care and treatment at individual, interpersonal, organisational, political and societal levels? How can these be used to inform and improve PMH care in different health and social care settings?

Primary research objective

Our primary research objective was to develop a conceptual framework of barriers and facilitators to PMH care (defined as identification, assessment, care and treatment) to inform PMH services, and highlight where further research is needed.

Secondary objectives

Our secondary research objectives were to:

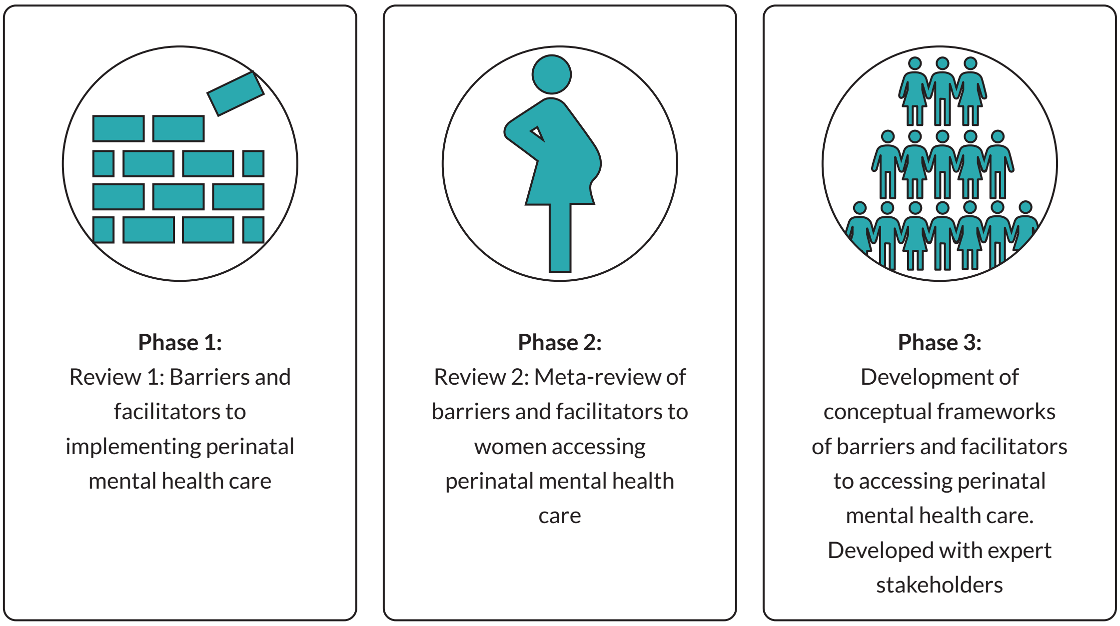
1. determine the barriers and facilitators to implementing PMH assessment, care and treatment in health and social care services;
2. identify differences in barriers and facilitators across different health and social care settings;
3. evaluate the quality of this evidence;
4. extract recommendations for implementation, practice and research based on the barriers and facilitators identified;
5. determine the barriers and facilitators to women accessing PMH care or treatment;
6. evaluate the quality of these reviews;
7. map the geographical distribution of the evidence to establish generalisability and gaps in the evidence;
8. map the findings on to a conceptual framework;
9. conduct a consultation of the conceptual framework and recommendations with a panel of expert stakeholders (e.g. women, GPs, commissioners, third-sector organisations, etc.);
10. make recommendations for practice and future research for PMH assessment, care and treatment.

Research overview

This research used a focused systematic review [Review 1 (R1)], a meta-review of reviews [Review 2 (R2)], conceptual framework and expert stakeholder panel to answer the research questions. It was carried out in three phases: Phase 1 was a focused systematic review of research into implementing PMH care into health and social care services (R1). Phase 2 was a meta-review of reviews into the range of barriers and facilitators to women accessing PMH care (R2). Phase 3 mapped the findings from phases 1 and 2 on to a conceptual framework and refined it through consultations with three expert panels of stakeholders (see *Figure 1*).

Patient public involvement

This project was developed with patient public involvement (PPI) representatives from the National Childbirth Trust (NCT) in England (Jennifer Holly and Sarah McMullen) and the Maternal Mental Health Change Agents (MMHCA), a group of women with lived experience of PMH difficulties in Scotland (collaborators). These organisations ensured that we had PPI input from perinatal women generally as



Phase 1:
Review 1: Barriers and facilitators to implementing perinatal mental health care

Phase 2:
Review 2: Meta-review of barriers and facilitators to women accessing perinatal mental health care

Phase 3:
Development of conceptual frameworks of barriers and facilitators to accessing perinatal mental health care. Developed with expert stakeholders

FIGURE 1 MATRIx study overview.

well as those affected by PMH problems. Representatives from the NCT and MMHCA co-ordinated PPI input throughout the research and were involved in the dissemination of the project.

Chapter 3 Review methods

This chapter outlines the methods for the two systematic reviews: R1 barriers to implementing assessment, care and treatment for PMH difficulties into health and social care settings, at individual, HP, organisational and wider levels; and R2 barriers and facilitators to women deciding to seek help, accessing help and engaging in PMH care using a systematic review of reviews.

Protocol and registration

Both reviews were registered on PROSPERO: R1 PROSPERO (CRD42019142854); R2 PROSPERO (CRD42020193107).

Ethical review

Ethical permission is not required for systematic reviews of available literature.

Search strategy

Literature searches and study selection are reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.[58]

Search terms were identified through hand searches of PMH literature, scoping searches and in consultation with a specialised librarian at the University of Oxford Bodleian Health Care Libraries, Nia Roberts.

To identify papers for R1 we used a mixture of the PICO (Population, Intervention, Comparison, Outcome)[59] and SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type)[60] research question format to identify four clusters of search terms (see *Table 1*) relating to:

- Population: NHS and other health or social care services for women in the perinatal period treating women with mental health difficulties.
- Phenomenon of interest: implementing assessment, supportive care or treatment interventions, programmes or protocols for PMH into health or social care services.
- Outcome: qualitative implementation outcomes (e.g. acceptability, feasibility).
- Evaluation: barriers/facilitators.

Pre-planned searches were carried out by a specialist librarian, Nia Roberts, on MEDLINE (1946–present), EMBASE (1974–present), PsychInfo (1806–present) and CINAHL (1982–present). Full search syntax and databases searched can be found in the supporting information of the published review[61] and *Supplementary material S1*.

To identify papers for R2 we used the SPIDER research question[60] to identify four clusters of search terms relating to:

- Sample: women in the perinatal period (conception to one year postpartum).
- Phenomenon of interest: assessment, care or treatment for PMH.
- Design: systematic review papers.
- Evaluation: women's barriers and facilitators.

TABLE 1 Search terms for R1 and R2

Search terms for R1 (barriers and facilitators to implementation)				
Population				
Perinatal period	**Mental health difficulties**	**Screening/intervention**	**Implementation**	**Barriers/facilitators**
Prenatal care/; perinatal care/; postnatal care/; pregnancy/; pregnant women/ pregnancy; pregnant; pre-nat*; prenat*; prepart*; prepart*; ante-nat*; antenat*; ante-part*; antepart*; peri-nat*; perinat*; peri-part*; peripart*; puerper*; post-nat*; postnat*; post-part*; postpart*; parent?; mother*; maternal; father*; paternal; infan*; newb;n?; neonat*; baby; babies	mental disorders/; exp anxiety disorders/; exp mood disorders/; exp 'trauma and stressor related disorders'/; Adaptation/; Psychological/ mental*; psych*; anxiety; anxious; depress*; mood?; affect*; distress*; stress; trauma*; posttrauma*; post-trauma*; adjustment disorder*; phobia*; phobic; obsessive compulsive; wellbeing; well-being	Mass screening/; diagnosis/; early diagnosis/; psychotherapy/; behavior therapy/; exp cognitive behavioral therapy/; counseling/exp directive counseling/; antidepressive agents/ exp anti-anxiety agents/ screen*; detect*; diagnos*; assess*; identifi*; prevent*; prophyla*; intervention?; counsel*; therap*; healing; listen*; supp;t*; care; healthcare; service; medication*; drug?; antidepress*; anti-depress*; antianxiety; anti-anxiety; improving access to psychological therap*; iapt	Implementation Science/; Health Plan Implementation/; Program Evaluation/; Implement*; impact*; feasibl*; acceptab*; process; project*; system*; evaluat*	barrier?; challenge?; obstacle?; facilitat*; enabl*; opportunit*
Search terms for R2 (barriers and facilitators from women's perspective)				
Population				
Perinatal period	**Mental health difficulties**	**Screening/intervention**	**Barriers/facilitators**	**Study design**
Prenatal care/; perinatal care/; postnatal care/; pregnancy/; pregnant women/ prenancy; pregnant; pre-nat*; prenat*; prepart*; prepart*; ante-nat*; antenat*; ante-part*; antepart*; peri-nat*; perinat*; peri-part*; peripart*; puerper*; post-nat*; postnat*; post-part*; postpart*; parent?; mother*; maternal; father*; paternal; infan*; newb;n?; neonat*; baby; babies	mental disorders/; exp anxiety disorders/; exp mood disorders/; exp 'trauma and stressor related disorders'/; Adaptation/; Psychological/ mental*; psych*; anxiety; anxious; depress*; mood?; affect*; distress*; stress; trauma*; posttrauma*; post-trauma*; adjustment disorder*; phobia*; phobic; obsessive compulsive; wellbeing; well-being	Mass screening/; diagnosis/; early diagnosis/; psychotherapy/; behavior therapy/; exp cognitive behavioral therapy/; counseling/exp directive counseling/; antidepressive agents/ exp anti-anxiety agents/ screen*; detect*; diagnos*; assess*; identifi*; prevent*; prophyla*; intervention?; counsel*; therap*; healing; listen*; supp;t*; care; healthcare; service; medication*; drug?; antidepress*; anti-depress*; antianxiety; anti-anxiety; improving access to psychological therap*; iapt	barrier?; challenge?; obstacle?; hurdle?; obstruct*; drawback?; issue?; difficult?; promot*; supp;t; encourag*; fact;?; facilitat*; enabl*; opp;tunit*; engage*; assist*	Systematic review; meta-analysis; evidence synthesis; realist synthesis; realist review; qualitative synthesis; meta-synthesis*; meta synthesis*; metasynthesis; meta-ethnograph*; metaethnograph*; meta ethnograph*; meta-study; metastudy; meta study

Pre-planned searches were carried out by a specialist librarian, Nia Roberts, on MEDLINE (1946–present); EMBASE (1974–present); PsychInfo (1806–present); CINAHL (1982–present), Scopus; and Cochrane Database of Systematic Reviews (Issue 8 of 12, August 2021). Full search syntax and databases searched can be found in *Supplementary material S2*.

Search process

Medical subject heading (MeSH) terms and search terms described above were used to query the databases for literature published from inception to 11 December 2019 for R1 and to 4 August 2021 for R2. Forward and backward searches of included studies were carried out by Rebecca Webb and were completed by 31 March 2020 for R1 and 8 September 2021 for R2.

Eligibility criteria

For R1, the following parameters were used for inclusion in the review:

- Population: NHS and other international health or social care services for women in the perinatal period.
- Intervention: implementing assessment, care, referral pathways or treatment interventions, programmes or protocols for PMH into health or social care services.
- Outcome: implementation outcomes (i.e. barriers, facilitators).

Studies were included if they made statements about factors that either facilitated or impeded implementation of PMH assessment, care, referral or treatment. These statements could be from qualitative interviews with HPs or women; or from studies describing the implementation of PMH care.

For R2, studies with the following characteristics were eligible for inclusion in the review:

- Population: women in the perinatal period (conception to 12 months after birth) experiencing mental health difficulties, who may or may not have decided to seek help, accessed help or engaged in PMH care (defined as assessment, referrals and/or treatment/intervention programmes) from health or social care services.
- Outcome: barriers and facilitators (defined as any individual, HP, interpersonal, organisational, political or societal factors that women believed impeded (barriers) or aided (facilitators) them to seeking, accessing or engaging in help for PMH difficulties).
- Design: systematic reviews that used a PRISMA search strategy.

Studies were included if they made descriptive statements about barriers and facilitators to women deciding to seek help, accessing help and engaging in PMH care. These descriptions had to be drawn from perinatal women's experiences. Only systematic reviews were included. Reviews that did not use a clearly reported PRISMA[58] search strategy were excluded. Reviews were also excluded if they were not conducted on the target population (e.g. focused on men/partners, HPs); focused on substance misuse (which has unique challenges in terms of assessment and treatment); did not focus on the mental health of perinatal women; did not examine any barriers/facilitators regarding seeking help, accessing help and engaging in PMH care; and were non-English publications.

Study selection

For both reviews, search results were initially imported into Endnote and duplicates were removed by a specialist librarian, Nia Roberts.

For R1 animal studies, case reports and book reviews were also removed. Remaining studies were imported into Eppi-Reviewer 4, where results were screened by title and abstract by Nazihah Uddin, the research assistant on the project. A proportion (10%) of the results were double screened by Rebecca Webb, the research fellow on the project. Decisions to include or exclude were concordant between reviewers in 88.11% of cases. Following abstract and title screening, full text screening was carried out by Rebecca Webb. A proportion of full texts (10%) were double screened by Nazihah Uddin and decisions to include or exclude were concordant between reviewers in 90.90% of cases. Disagreements for both title and abstract and full text screening were discussed and resolved by both researchers.

For R2, once duplicates were removed, the specialist librarian also removed papers relating to fetal distress, oxidative distress and those not published in English. Remaining studies were imported into Eppi-Reviewer 4, where results were double screened by title and abstract by Rebecca Webb and Georgina Constantinou, a research assistant in maternal and child health research. An additional proportion (*n* = 166, approximately 7%) of titles and abstracts were triple screened by Nazihah Uddin. Decisions to include or exclude were concordant between Rebecca Webb and Georgina Constantinou in 94.2% of cases and between Rebecca Webb and Nazihah Uddin in 99.4% of cases. Disagreements were discussed and resolved by all reviewers by applying the relevant inclusion criteria. Once title and abstract screening was complete, full text screening was carried out by Rebecca Webb and Georgina Constantinou. An additional proportion (*n* = 9, approximately 10%) were triple screened by Nazihah Uddin. Decisions to include or exclude were concordant between Rebecca Webb and Georgina Constantinou in 91.4% of cases and between Rebecca Webb and Nazihah Uddin in 100% of cases.

Data extraction

For R1, data extraction was carried out by Rebecca Webb using Eppi-Reviewer 4 which allows for line-by-line coding. A new 'codeset' labelled 'data extraction' was created and contained every item to be extracted from the data (e.g. year of publication, country of study). Each paper was read in full, and relevant parts of the text highlighted (e.g. the country of the study) and applied to the relevant code.

For R2, data extraction was carried out using Microsoft Excel (Microsoft Corporation, Redmond, WA, USA) by Rebecca Webb. Each paper was read in full, and relevant parts of the text inputted into the relevant part of the spreadsheet. Methodology of included reviews was copied on to one sheet, and results on to another to aid analysis. Double coding of extracted data was carried out for a proportion of included reviews (*n* = 3, 10%) by Georgina Constantinou. Data extraction matched in 85% of cases.

The data that were extracted was guided by the Cochrane Systematic Review for Intervention Data Collection form[62] for both reviews, and the AMSTAR 2[63] critical appraisal tool for R2 (see *Table 2* for extracted data).

Assessing the robustness of results

For R1, the methodology sections of included studies were assessed for quality with the Joanna Briggs Critical Appraisal Tools for qualitative research,[64] cross-sectional studies[65] and text and opinion.[66] Each point on the checklists can be coded as either yes, no, unclear or not applicable. Each tool was separated into domains that reflected the question of interest (see *Box 1*). Where most questions within a domain were answered with yes, this domain was rated as having high quality; where the majority were answered with no, this domain was rated as having low quality. Medium quality was when there was a mixture of yes and no answers.

TABLE 2 Data extracted for R1 and R2

R1			
Study characteristics	**Sample**	**Assessment/care/ treatment characteristics**	**Implementation outcomes**
Year	Size	Type (intervention, assessment, support)	Barriers
Country	Age	Name	Facilitators
Setting	Ethnicity	Year started	
Design	Employment	Year ended	
Aim	Education	Description	
	Children	Who care is aimed at	
	Socio-economic status	Theoretical model of care	
	Mental health difficulties	Medium of care (e.g. face to face)	
	Measurement of mental health difficulties	Person providing care	
	Obstetric details	Training of people providing care	
	Gender/sex		
	Other demographic details		
	Recruitment		

R2			
Review characteristics	**Characteristics of included studies**	**Characteristics of included participants**	**Outcomes**
Year	Number of studies included	Mental health difficulty examined	Barriers
Aim	Year of each study's publication	Number of participants	Facilitators
Design	Country of each of the studies	Age of participants	
Search strategy		Perinatal period	
Inclusion/exclusion criteria		Ethnicity of participants	
Screening/study selection		Socio-economic status of participants	
Data extraction		Other demographic details of participants	
Quality assessment			
Data analysis			

BOX 1 Joanna Briggs critical appraisal tool domains

Qualitative

Domain 1: design and methodology

Q1. Is there congruity between the stated philosophical perspective and the research methodology?
Q2. Is there congruity between the research methodology and the research question or objectives?
Q3. Is there congruity between the research methodology and the methods used to collect data?
Q4. Is there congruity between the research methodology and the representation and analysis of data?
Q5. Is there congruity between the research methodology and the interpretation of results?

Domain 2: researcher influence

Q6. Is there a statement locating the researcher culturally or theoretically?
Q7. Is the influence of the researcher on the research, and vice versa, addressed?

Domain 3: participants

Q8. Are participants, and their voices, adequately represented?
Q9. Is the research ethical according to current criteria or, for recent studies, is there evidence of ethical approval by an appropriate body?

Domain 4: Interpretation of results

Q10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?

Text and opinion

Domain 1: author credentials

Q1. Is the source of the opinion clearly identified?
Q2. Does the source of opinion have standing in the field of expertise?

Domain 2: opinion development

Q3. Are the interests of the relevant population the central focus of the opinion?
Q4. Is the stated position the result of an analytical process, and is there logic in the opinion expressed?

Domain 3: literature support

Q5. Is there reference to the extant literature?
Q6. Is any incongruence with the literature/sources logically defended?

Cross-sectional

Domain 1: participants

Q1. Were the criteria for inclusion in the sample clearly defined?
Q2. Were the study subjects and the setting described in detail?

Domain 2: methodology

Q3. Was the exposure measured in a valid and reliable way?
Q4. Were objective, standard criteria used for measurement of the condition?
Q5. Were confounding factors identified?
Q6 Were strategies to deal with confounding factors stated?
Q7. Were the outcomes measured in a valid and reliable way?

Domain 3: analysis

Q8. Was appropriate statistical analysis used?

Adapted with permission from the Joanna Briggs Institute (JBI), the JBI Critical Appraisal tools for use in JBI Systematic Reviews 2017.[64–66] Permission granted 28 November 2021.

Rebecca Webb completed the methodological quality assessments for the included papers, and dual critical appraisal of 16 (35%) papers was done by Nazihah Uddin. Nazihah Uddin initially screened nine papers, which were discussed, and conflicts were resolved. Following this screening, the final seven papers were screened by Nazihah Uddin. Coders assigned the same score to 13 (81%) of the 16 papers. All disagreements were discussed and resolved by both researchers, and the final appraisal for these 16 papers is based on agreed answers.

For R2, methodology sections of included reviews were appraised using the AMSTAR 2[63] criteria (see *Box 2*). Critical domains in the appraisal of systematic reviews according to AMSTAR 2 include protocol registration, adequacy of literature search, justification of study exclusion, risk of bias, appropriateness of meta-analytic methods, consideration of risk of bias when interpreting results and assessment of publication bias. If more than one critical domain is not met (critical flaw), a systematic review should be evaluated as having critically low confidence in the results of the review. One critical flaw means reviews should be evaluated as low confidence. More than one non-critical flaw means reviews should be evaluated as moderate confidence and no or one non-critical flaw means reviews should be evaluated as high confidence.[63]

BOX 2 AMSTAR critical appraisal tool

1. Did the research questions and inclusion criteria for the review include the components of PICO?
2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?a
3. Did the review authors explain their selection of the study designs for inclusion in the review?
4. Did the review authors use a comprehensive literature search strategy?a
5. Did the review authors perform study selection in duplicate?
6. Did the review authors perform data extraction in duplicate?
7. Did the review authors provide a list of excluded studies and justify the exclusions?a
8. Did the review authors describe the included studies in adequate detail?
9. Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?
10. Did the review authors report on the sources of funding for the studies included in the review?
11. If meta-analysis was performed, did the review authors use appropriate methods for statistical combination of results? (Not applicable.)
12. If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis? (Not applicable.)
13. Did the review authors account for RoB in primary studies when interpreting/discussing the results of the review?
14. Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?
15. If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review? (Not applicable.)
16. Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?*

a Critical domain for this review.
Shea BJ, Reeves BC, Wells GA, Thuku M, Hamel C, Moran J, *et al.*[63] AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ* 2017;**21**:358.

Given that all studies in this review were qualitative, the AMSTAR 2[63] items related to meta-analysis were not relevant and were removed. Further, given the debate in the literature regarding the appropriateness of conducting risk of bias assessments on qualitative research, we downgraded the items relating to risk of bias from being a critical flaw, to just a flaw. Quality appraisal of all studies was carried out by Nazihah Uddin and Rebecca Webb. Ratings were concordant in 90% of cases.

A large proportion of the reviews were rated as having low and critically low confidence in the evidence (see *Chapter 4*). A decision was made to include reviews where confidence in results was evaluated as low and critically low because some of these reviews focused more on marginalised women, such as refugees, migrant women, women with a low income and women living in lower middle income countries (LMIC). Including these reviews ensured that the experiences of these seldom heard women were captured. To improve validity of results, a qualitative sensitivity analysis was carried out to assess whether themes remained consistent across all reviews, regardless of their quality rating. The methods proposed by Harden (2007)[67] and Carroll *et al.* (2012)[68] were followed, so sensitivity analysis was carried out in two ways: (1) synthesis contribution; and (2) evidence of adequate description of themes.

To examine whether higher quality reviews contributed more to the themes, a measure of 'synthesis contribution' was calculated for each review (as outlined by Harden, 2007[67]). This involved dividing the number of barriers and facilitators identified by the specific review in question (see '*Number of themes*' column in *Table 3*) by the total number of barriers and facilitators identified in R2 (*n* = 62 themes).

TABLE 3 Sensitivity analysis for R2

Study	Number of themes	Overall synthesis contribution % (all themes)
Bina, 2020[69]	31	50.00
Brealey *et al.*, 2010[74]	13	20.97
Button *et al.*, 2017[46]	26	41.94
Dennis and Chung-Lee, 2006[47]	28	45.16
Evans *et al.*, 2020[75]	8	12.90
Giscombe *et al.*, 2020[76]	6	9.68
Hadfield and Wittkowski, 2017[72]	25	40.32
Hansotte *et al.*, 2017[70]	19	30.65
Hewitt *et al.*, 2009[77]	13	20.97
Holopainen and Hakulinen, 2019[78]	6	9.68
Jones *et al.*, 2014[79]	10	16.13
Jones, 2019[80]	19	30.65
Kassam, 2019[81]	8	12.90
Lucas *et al.*, 2019[82]	9	14.52
Megnin-Viggars *et al.*, 2015[48]	26	41.93
Mollard *et al.*, 2016[83]	5	8.06
Morrell *et al.*, 2016[84]	16	25.81
Newman *et al.*, 2019[85]	13	20.97
Nilaweera *et al.*, 2014[86]	6	9.68
Praetorius *et al.*, 2020[87]	3	4.84
Randall and Briscoe, 2018[88]	2	3.23
Sambrook Smith *et al.*, 2019[89]	19	30.65
Schmied *et al.*, 2017[90]	27	43.55
Scope *et al.*, 2017[91]	13	20.97
Slade *et al.*, 2020[92]	15	24.19
Sorsa *et al.*, 2021[93]	19	30.65
Staneva *et al.*, 2015[94]	11	17.74
Tobin *et al.*, 2018[95]	19	30.65
Viveiros and Darling, 2018[49]	16	25.81
Watson *et al.*, 2019[96]	28	45.16
Wittkowski *et al.*, 2014[97]	2	3.23

Note
Total number of themes across R2: *n* = 62.

For example, the findings from Bina (2020)[69] contributed to 31 out of 62 themes, giving this review a synthesis contribution score of 50% (see *Table 3*).

Each study's synthesis contribution scores were plotted against the number of quality criteria the study met (see *Figure 4*). Statistical analysis (Pearson's correlation) was used to help interpret the plots. To examine whether removing lower quality reviews influenced the number of themes, themes that were only supported by lower quality reviews were identified.

To examine whether removing lower quality reviews influenced the description of themes, data were assessed for 'thickness' or 'thinness' (as done by Carroll *et al*., 2012[68]). A 'thin' description refers to a set of statements, such as this quote about HPs dismissing women's symptoms:

> *[The study authors] found that women also felt that providers were downplaying the symptoms they were experiencing.*[70(p12)]

A 'thick' description provides the context of experience and circumstances[71] such as this description of HPs minimising symptoms:

> *Having symptoms dismissed or attributed to factors other than [postpartum depression] PPD by HPs led to women 'remaining silent'. Some women perceived that their difficulties would only be taken seriously when there were concerns about risk of harm to themselves or the infant. One woman said, 'I kept going to this doctor and he used to give me a pep talk and send me home …'.*[72(p738)]

It is argued that the extent to which a text provides a thick description shows evidence of the authenticity of the results.[73]

Data analysis

Review 1 results were analysed by Rebecca Webb using thematic synthesis;[98] line-by-line data extraction of statements referring to facilitators or barriers to implementing PMH assessment, care and treatment was carried out in Eppi-Reviewer. Next, codes were re-read and assigned a descriptive theme based on their meaning and content. Themes were developed and revised as each study was re-read. Once all codes had been assigned into themes, these themes were mapped on to a systems level model adapted from Ferlie and Shortell's (2001) Levels of Change framework[40] (e.g. individual level factors, HP factors, organisational factors and larger system factors) and then grouped to reflect different stages of the care pathway adapted from Goldberg and Huxley's (1992) Pathways to Care model[41] (e.g. deciding to disclose, assessment of PMH and access to care and treatment). Mapping of descriptive themes was developed deductively from the initial theoretical framework and then inductively revised as new themes emerged. The mapping of descriptive themes aided the development of the analytical themes. Here, inferred barriers and facilitators were generated. Following this, recommendations for implementing PMH care were drawn from a dictionary of implementation strategy terms and definitions.[99,100]

Review 2 results were also analysed by Rebecca Webb using a thematic synthesis[98] in NVivo (QSR International, Warrington, UK) and Microsoft Excel. First, line-by-line data coding of statements referring to facilitators or barriers to accessing PMH care from the results section of each paper was carried out. Next, codes were revisited and assigned a descriptive theme based on their meaning and content. Themes were developed and revised as each review was re-read. Once all codes had been assigned into themes, these themes were mapped on to a multi-level framework adapted from Ferlie and Shortell's (2001) Levels of Change framework[40] and the findings from R1.[61] Mapping of descriptive themes was developed deductively from the initial theoretical framework and then inductively revised as new themes emerged. The mapping of descriptive themes was discussed by the project research team before being finalised.

Chapter 4 Studies included in the reviews

Study selection

Both reviews were reported in accordance with PRISMA guidelines.[58] Enhancing Transparency in Reporting the Synthesis of Qualitative (ENTREQ) research guidelines[101] were also followed.

Results of searches are shown in *Figures 2* and *3*. For R1, database searching identified a total of 21,535 citations. After screening by title and abstract, 10,130 records were excluded, leaving 931 papers to be screened by full text. Screening of full texts left 43 studies to be included in the review. Forward and backward searches identified a further three papers. Therefore, 46 qualitative studies were included in the qualitative synthesis (see *Figure 2*). Excluded texts are given in *Supplementary material S3*.

For R2, database searching identified a total of 4086 citations. After duplicates, and studies not meeting inclusion criteria were removed, 2028 articles were left to be screened. Screening by title and abstract led to 1962 records being excluded, leaving 66 papers to be screened by full text. Screening of full texts identified 32 reviews, all of which were qualitative, to be included in the meta-review (see *Figure 3*). Excluded texts are given in *Supplementary material S4*.

Characteristics of included studies

For R1, studies were mainly (n = 39) carried out in higher income countries (HICs)[102] with well-established highly ranked health care systems.[103] The majority were carried out in the USA (n = 16). Implementation occurred in a wide range of settings including hospitals (n = 14); primary care (n = 12); community-based care, such as community clinics or home visiting (n = 12); online or remote (n = 3); maternity care (n = 3) and specialist PMH care (n = 2). No studies examined implementation in social care settings. Most of the studies (n = 22) looked at the implementation of care services (including screening, referral and treatment); 18 studies were about the implementation of interventions and 6 were about screening only. For the intervention studies most were implementing cognitive behavioural therapy (n = 7) or another type of talking therapy (n = 8). For the screening studies, most were implementing the Edinburgh Postnatal Depression Scale (EPDS)[104] (n = 5).

Ten of the studies were descriptive papers, describing the implementation of PMH care. The remaining were qualitative papers, interviewing key stakeholders about their views and experiences on the implementation of the care. Twenty studies interviewed only HPs, nine interviewed only perinatal women and seven interviewed both. Sample sizes ranged from 6 to 809 with a mean of 46.81; median = 24; interquartile range (IQR) = 16.25–33.35 (see *Appendix 1* for more details).

For R2, reviews were published between 2006 and 2021 (M = 2017, Mdn = 2018; IQR = 2016–2019). The number of studies included in each review varied from 4 to 40 (M = 16, Mdn = 13, IQR = 9–19) with a total of 344 papers included across all systematic reviews. The number of women included in each review varied from 95–85,190 (M = 5080; Mdn = 463; IQR = 226–1715). The reviews included studies carried out in 24 different countries, the majority of which were HICs, mostly the USA and UK. One review included studies that were carried out only in sub-Saharan Africa.[97] Most reviews (n = 23) focused on perinatal depression, followed by a mixture of perinatal mood disorders (e.g. depression, anxiety, distress; n = 5). Only one study focused on postnatal psychosis[105] and one on birth trauma.[92] Included studies were carried out across the perinatal period. Twenty-four of the reviews included studies that reported recruiting ethnic minority women. Six reviews included studies on the experiences of migrant women and/or ethnic minority women (see *Appendix 2* for more details).

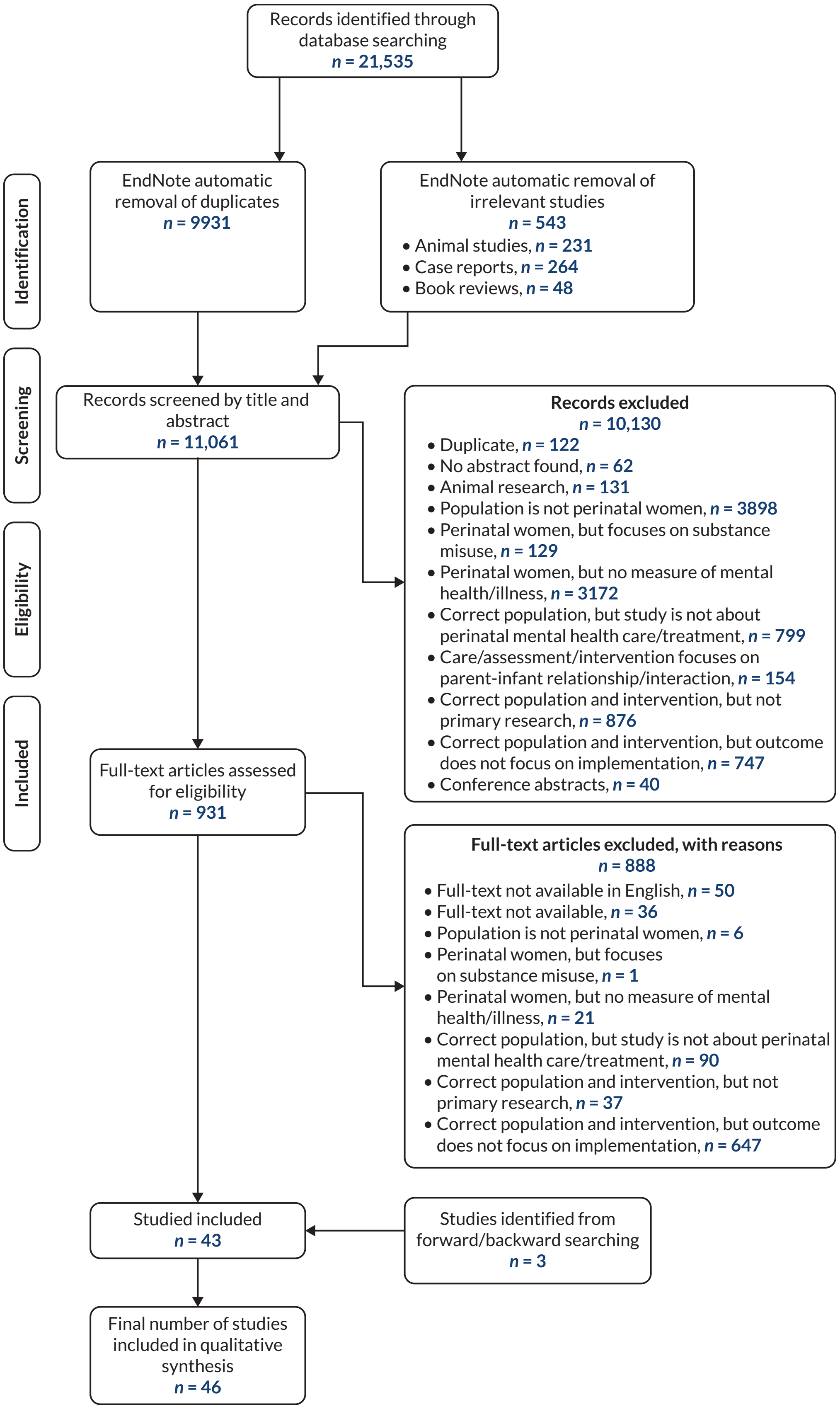


FIGURE 2 PRISMA flow diagram for R1.
This diagram shows 21,535 results imported into Endnote. Then the removal of 543 irrelevant citations and 9931 duplicates. This left 11,061 to screen; 10,130 records were excluded after title and abstract screening; 931 full texts were assessed for eligibility; 888 were removed leaving 43 studies included in the review. Forward and backward searching of these studies identified three further relevant studies. Therefore, a total of 46 studies were included in the review.

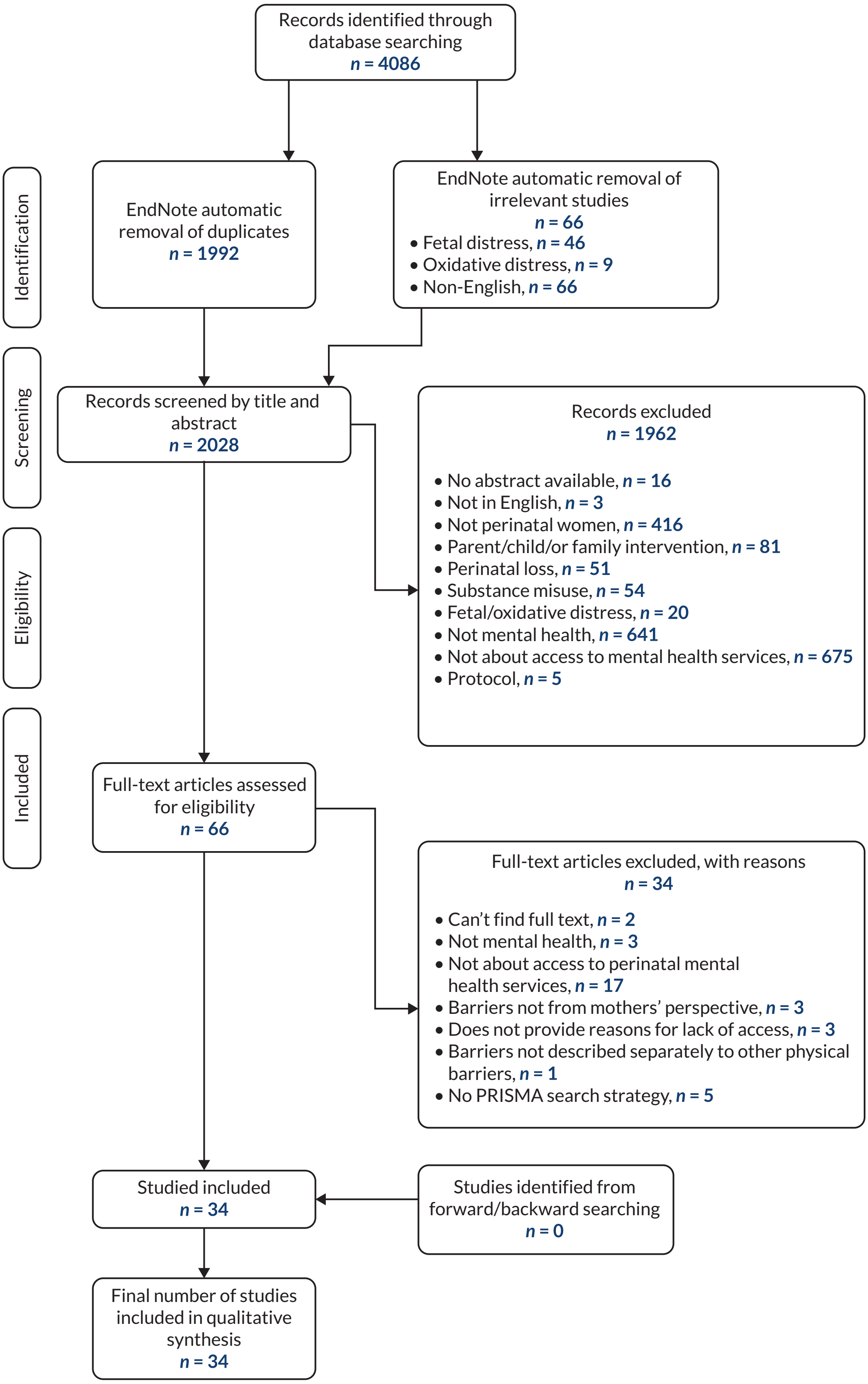


FIGURE 3 PRISMA flow diagram for R2.

Analysis of the robustness of the results (sensitivity analyses)

For R1, most studies (*n* = 44) had a quality rating above 70% suggesting that studies were well-conducted with a low risk of bias. Seven studies were assigned a 100% quality rating (see *Appendix 3*).

For R2, the majority of reviews were evaluated as having low (*n* = 14) or critically low (*n* = 5) confidence with their results. The remainder had moderate (*n* = 8) or high (*n* = 5) confidence (see *Appendix 4*).

As described above, a sensitivity analysis was carried out for R2. In terms of synthesis contribution, there was no correlation between synthesis contribution and the number of criteria each review met (*r* = 0.142, *p* = 0.437) (see *Figure 4*). Furthermore, only four themes (*cultural/spiritual causes of mental illness*, *age*, *previous diagnoses and appropriateness of care*) were only identified by lower quality studies showing that the majority of themes (58 out of 62; 93.55%) were supported by both higher quality and lower quality papers.

In terms of richness of data, removing lower quality papers meant that the identified theme *Language barriers* lost some of its richness. For example, it led to the removal of quotes expressing frustration from women whose first language was not English:

> *… you don't know where to go, what to do, who to trust, especially when you are coming by yourself … you believe that you speak English, but when you get here you realize that you don't …* [90(p18)]
>
> *Sometimes when you have a baby, a woman comes from the hospital. Bengali girls don't come with the midwife, we don't understand what they say, we just sit there staring at their faces.*[46(p695)]

The removal of lower quality papers from the sub-theme *Fear of being seen as a bad mum* also led to the loss of richness of data, such as the removal of quotes from women who had migrated from their country of birth:

> *Back home, if someone has this problem, everyone gossips, you get this feeling that people are not dealing with you normally or as if you are abnormal almost …*[90(p12)]

Lastly, the removal of lower quality studies meant important information was removed from the *Characteristics of service* sub-theme, such as women feeling services prioritised physical needs (*n* = 2), lack information about screening guidelines (*n* = 2) and the logistics of care (e.g. location, time of appointments) (*n* = 3).

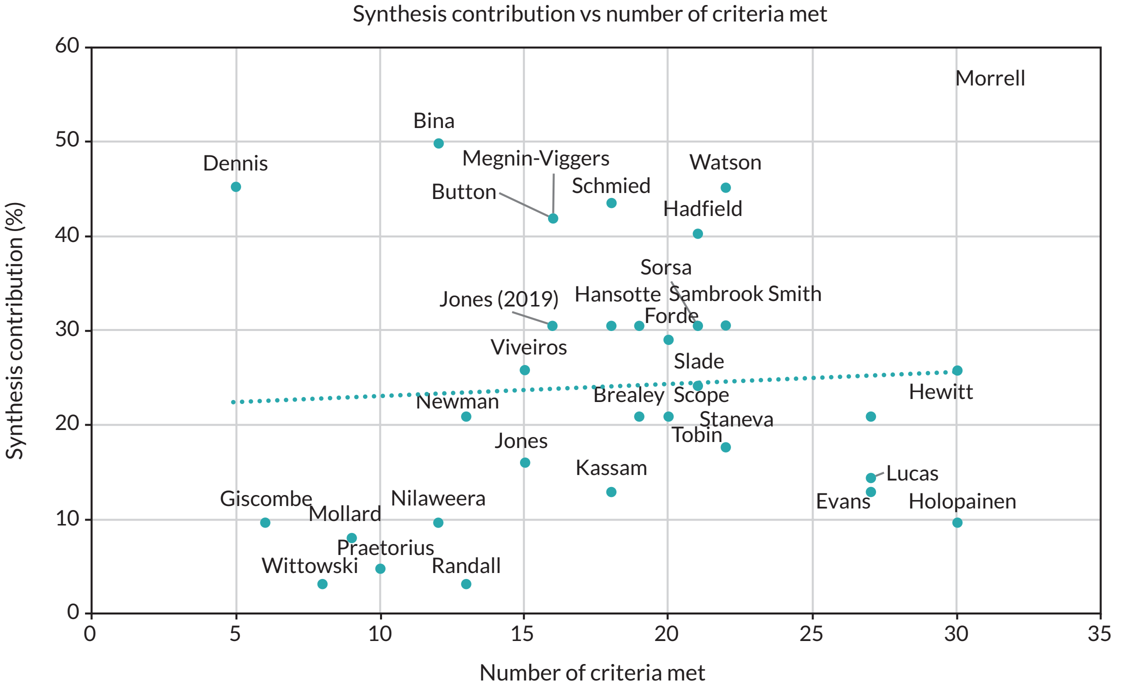


FIGURE 4 Synthesis contribution vs. quality appraisal criteria met for papers in R2.

Overall, the qualitative sensitivity analysis found that the majority of themes were supported by both the higher quality and lower quality reviews. Including all reviews meant there was more richness in the data and greater inclusion of marginalised women, such as refugees, migrants and women living in sub-Saharan Africa. This sensitivity analysis suggests that the results from R2 can be interpreted with reasonable confidence.

Chapter 5 Results of the reviews

This chapter outlines the theoretically informed care pathway structure and multi-level framework used to summarise areas in which barriers to PMH care may arise. The most commonly cited barriers and facilitators are then described at each stage of the care pathway, and for each level of the multi-level framework. This section includes results from both reviews combined.

Frameworks for presenting the results

Care pathway

We used a care pathway based on Goldberg and Huxley's (1992)[41] Pathways to Care model to understand how a woman may access mental health services. In Goldberg and Huxley's model, as a person moves through the care pathway, there are certain factors that act as filters, which prevent people from accessing mental health care. The first filter is illness behaviour, where a person needs to pay attention to their symptoms and then make the decision to seek help. If this is not done, this is the first filter out of the care pathway. The second is the HP's ability to recognise mental illness; the third is referral on to mental health services and the last filter is admission to hospital beds.

Our care pathway is more detailed and includes the following eight stages: (1) deciding to consult for PMH difficulties; (2) first contact with HPs; (3) assessment/screening for PMH; (4) deciding to disclose PMH difficulties; (5) referral on to appropriate services; (6) access to treatment; (7) provision of optimal care and treatment; and (8) a woman's experience of treatment (see *Figure 5*). It is possible that at each stage in the care pathway, a woman may fall through the gaps and ultimately not receive the care that she needs. The decision to disclose has been included after assessment because women have a choice about whether they complete an assessment honestly and thus disclose their symptoms. However, women may also decide whether to disclose their symptoms on first contact with a HP, especially if they are seeking help from their GP. Therefore, it is important to note that a woman may enter the care pathway either stages 1 or 3, and that some parts of the pathway are redundant in health care systems where the woman can contact mental health services directly (e.g. via NHS Talking Therapies services in the UK). Further, the process is not always linear, and some women might jump over certain stages or repeat certain stages.

Multi-level framework

Ferlie and Shortell's Levels of Change framework[40] was adapted to describe the seven different levels at which barriers and facilitators to PMH care may occur: (1) individual level factors (e.g. beliefs about mental illness, inability to attend care); (2) HP level factors (e.g. knowledge about PMI, confidence in addressing PMI); (3) interpersonal factors (e.g. the relationship between women and HPs); (4) organisational level factors (e.g. service integration, continuity of carer, choice of assessment tools); (5) commissioner level factors (e.g. referral pathways); (6) political factors (e.g. women's immigration status); and (7) societal factors (e.g. stigma).

Determining the barriers and facilitators to perinatal mental health care

System level barriers and facilitators will be described at each step of the care pathway and include results from both reviews (R1 and R2). Please note that in the process of merging results from both reviews a new multi-level factor was added (commissioner level) therefore the levels and themes described may differ slightly to the published papers.

The most commonly cited barriers and facilitators will now be described at each stage of the care pathway, and for each level of the multi-level framework. The stage of the care pathway will be blue, bold and italicised; the level of the multi-level framework being described will be in italic font. For information on all of the multi-level factors at each stage of the care pathway (see *Appendix 5*).

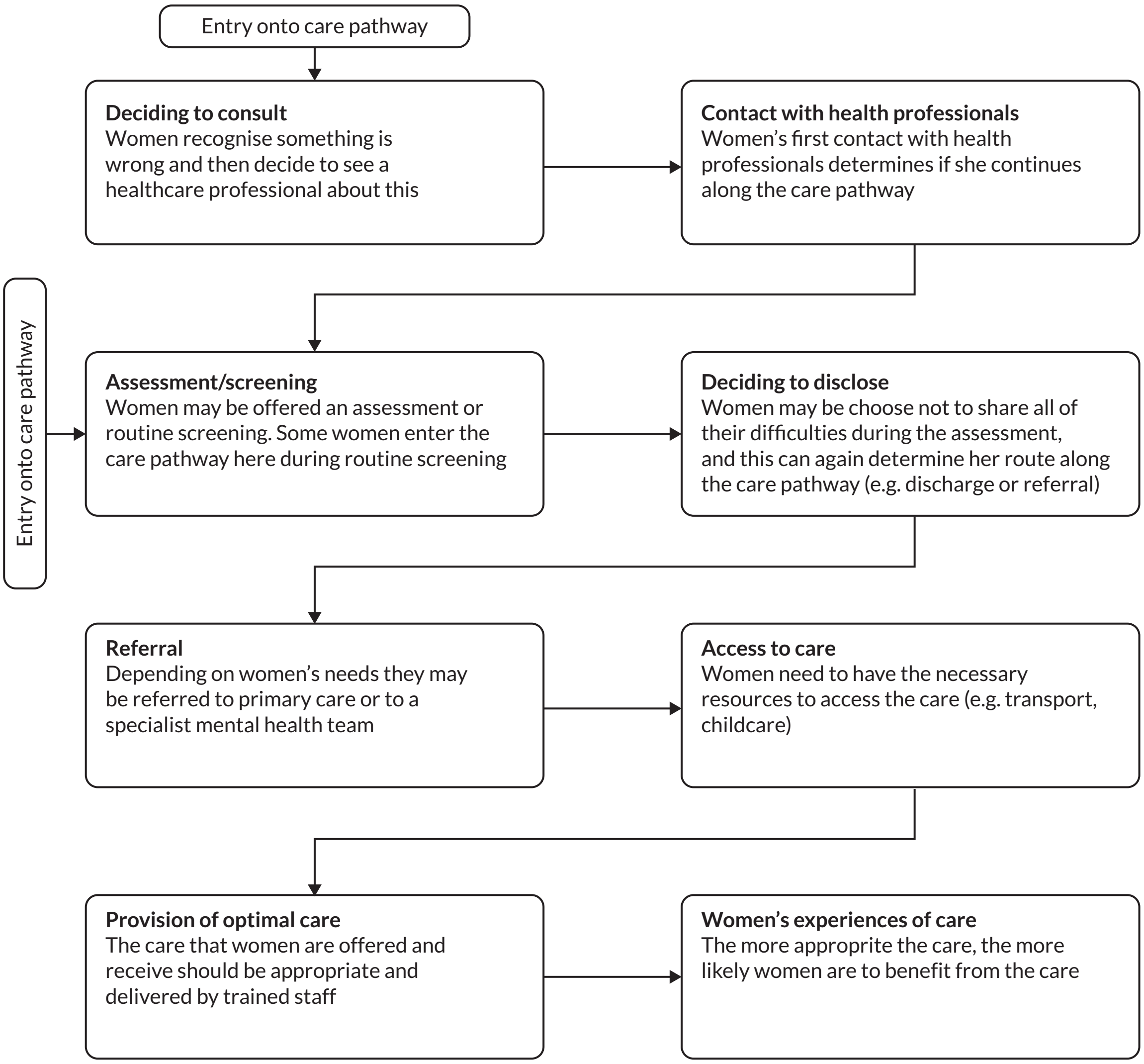


FIGURE 5 The MATRIx care pathway.

Deciding to consult

At the *individual level* some women believed there was no point in seeing a HP because they would only be offered medication:[46,48,69,80,83,84,86,90]

> *I knew she would just write a prescription and send me away … that wasn't what I wanted.*[46(p695)]

Other factors that acted as barriers to women's decision to consult were not understanding HPs roles,[46,48,83,84,86,90] or not understanding what PMI is:[46,47,69,70,72,80,82,84,85,89–91,95,96]

> *I don't really know what their job is. Nobody gave me, like, the parameters of this role of the health visitor and, so, I think if that happened then you'd … be able to use them better.*[46(p695)]

> *Nobody has ever told me what it is really [postpartum depression]…I just sit here sometimes and I am crying for no reason, but I could have detected it earlier if someone had explained to me what your first symptoms were, but nobody told me.*[82(p11)]

Linked to this, if women believed their symptoms were caused by spiritual factors,[46,90,97,106–108] external causes such as life stressors,[46,47,69,82,90,94–96] physical causes such as hormones[46,69,79,85,89,90,94,96,105] or were a normal part of motherhood,[47,49,76,79,89,90,92,93] deciding to consult could be hindered by women seeking out spiritual guidance before seeking professional help,[70,81,90,96] or ignoring symptoms:[69,72,80,85,90,92]

> *They say that she (mother) is being possessed, so instead of medicines they go for talisman (spiritual treatment).*[106(p6)]

> *I thought it was just lack of sleep and this heavy cold. I thought that after a good night's sleep it would get better, and I would be able to manage.*[46(p696)]

Not knowing where to go to seek help,[47,48,69,70,90,93,95,109] fear of social services involvement[47,80,96,105,110] and a lack of support from friends and family[46,47,69,78,80,82,86,89,90,93,105] were also barriers to women consulting.

The largest individual level facilitators to women deciding to seek help were recognising that something was wrong:[46,49,69,72,92,93,94,105]

> *That's when I thought, you know: 'Something is really wrong here, I need to go to the doctors if I'm thinking about killing myself'.*[46(p694)]

At the *organisational*, *commissioner* and *political levels*, a lack of culturally sensitive care,[47,69,80,90,96] no appropriate or timely services[48,49,80,85] and a woman's economic status[69,70,80,82,95] prevented help-seeking:

> *That is probably why a lot of Black women don't bother going to the system ... the majority have had nightmares. So you're thinking, 'What's the point in going back?'*[96(p9)]

> *... if she has no money, how is she going to find help [with PPD]?*[70(p12)]

At the *societal level*, stigma,[46,47,49,69,70,72,80,81,83,86,93,95,96,108] culture[46,47,76,80,81,87,89,90,94–97,106–108] and maternal norms of being a strong woman and a good mother[46,69,70,72,78,81–83,86,90,93,94,111] all prevented women from deciding to consult:

> *There's a huge stigma about feeling depressed, particularly postnatal.*[46(p696)]

> *The pressure to cope alone was also part of the social imperative to be 'a strong Black woman'.*
> *(author quote)*[95(p97)]

Contact with health professionals

Women's first contact with HPs was important and mostly impacted by factors at the *HP level*. The most frequent reasons for women dropping out of the care pathway at first contact with HPs was due to them being dismissive about mental illness, or normalising women's symptoms,[46,47,70,72,85,93,96,105] not recognising women's attempts at help-seeking[48,49,95,96] or appearing too busy and not making enough time to address PMH concerns:[77,96,112]

> *I did ask for support, but I didn't really get any. And the health visitor's response – 'Well you seem like you're doing all right' – which kind of closes it off, doesn't it.*[46(p696)]

> *I kept going to this doctor and he used to give me a pep talk and send me home [...] those years were horrible because virtually he said to me ... that I would just have to put up and shut up!*[72(p732)]

Assessment/screening

Multiple factors affected assessment of PMI. At the *individual level*, the most cited barrier was the presence in the consultation of family and friends with negative beliefs about mental illness:[113–119]

> *I think they were actually stifled in being able to speak and talk and get it out because their partner was always sitting beside her.*[116(p5)]

At the *HP level*, a lack of knowledge about PMI[47–49,69,92,107,115,120] and assessment-specific behaviours such as carrying it out in a tick box way[49,74,89,90,92,96,114,118,119,121–123] were barriers to assessment. On the other hand, carrying out an assessment in an individualised way, taking women's individual differences into account was a facilitator:

> *I try and tie it in with pain. We have certain protocols that we ask for pain levels and things like that. So, you know, when I ask them, 'How's your pain? Have you had a chance to take care of your postpartum depression screening? No, okay that's fine. I'll just stop back later'. I incorporate it into other things, so it doesn't seem to be such a nagging thing.*[123(p451)]

At the *interpersonal level*, women and HPs being able to speak open and honestly about assessment was the most cited facilitator:[74,77,114,124,125]

> *And I was so grateful, and then I just talked to her, and it was so nice to be able to talk freely with her [about the EPDS] at the time.*[124(p617)]

At the *organisational level*, facilitators were having enough staff in order for assessment to take place,[49,107–109,115,116,118,122,125,128] HPs who had received training in assessment,[69,74,107,109,113,116,119,122,125,127–131] and a clear assessment and referral process within the organisation.[109,119,122,123,128] Where this was not the case, these factors acted as barriers to assessment:

> *How much extra time do you need to allocate when you get a high positive? You need to have the capacity within your system to manage it if you've got someone who's suicidal.*[122(p6)]

> *I've never received any formal training in this area. I do not feel adequately trained to detect postpartum depression.*[128(p170)]

Other *organisational level* factors impacting assessment were the wording of the assessment tools,[46,74,77,114,119,123] for example whether the questions made sense, and the acceptability of assessment or screening for both HPs and women:[48,49,74,75,77,83,89,109,113,114,118,122–125,127,128]

> *I have some moms [who] ask questions about it, like, 'What does it mean where things are getting on top of me? What do you mean?' You know, so they, they don't always understand the questions*[114(p532)]

> *No. I didn't mind doing that. I mean it was quick, and simple and ... it was nice.*[124(p616)]

Deciding to disclose

Women deciding to disclose their PMH symptoms was also affected by multiple factors. At the *individual level*, fear of being judged as a bad mother[46,49,74,79,82,92,93] and fear of social services involvement[69,74,75,85,124,127] were the most cited barriers:

> *I even went in at 3 months and I talked to a health nurse, and I just lied through my teeth because I thought, what are they going to do if they find out I can't be a good mom?*[72(p732)]

> *Because of the fear of postnatal depression and the taboo of social services and having your children taking [sic] away from you, I wasn't going to admit anything to anyone ...*[46(p696)]

At the *HP level*, appearing too busy was the most cited barrier to disclosure:[46–48,92,127]

> *The health visitor said something like: 'You know, in this community we have to look after a thousand and something babies'. And that instilled in me the feeling, like: 'Oh, they are very busy these people, and I don't have to be bothering them all the time'.*[46(p696)]

The most cited facilitator was HPs appearing genuinely interested in women's well-being:[46,85,92,96,119,127]

> *Women were more likely to discuss their concerns with professionals who appeared caring and genuinely interested in their well-being: 'She asked how I was. As soon as she said it, you know, "How are you feeling?", I just cried'.*[46(p696)]

At the *interpersonal level*, a lack of a trusting relationship between women and HPs[74,77,95,109,116,119,124,125,127,130] was the most cited barrier to disclosure:

> *I didn't trust them I suppose so I didn't tell the health visitors how I was feeling.*[124(p618)]

> *I: What are your views about the midwife asking these type of screening questions about mental health at the booking visit? P: If I didn't know the midwives and they hadn't known my history I think I probably wouldn't have been honest with them.*[119(p44)]

At the *organisational level*, a lack of continuity of carer[48,72,74,89,96,122,125,132] was the most cited barrier:

> *All CRs [community representatives] and some HPs [health professionals] regarded continuity of carers as critical to build trust, improve symptom monitoring and encourage disclosure: 'everyday my doctor was changed I couldn't make a relationship with … my doctor'.*[122(p7)]

At the *societal level*, stigma,[46,48,76–78,84,93,96,116,119,122,124,127,130,134] culture[47,48,74,76–78,87,89,90,95,96,116,127] and maternal norms[46,47,72,74,77,79,89,92,119,124] were all barriers preventing the disclosure of PMH symptoms:

> *Oh well, I think there's plenty, I mean I think there's a huge stigma about feeling depressed particularly postnatal depression and people want to be, not to be thought of as a, you know, not being good mothers.*[124(p618)]

> *… in a context where suicide is still seen as a sign of weakness, a character flaw, it is difficult for individuals to 'confess' suicidal states and suicidal feelings.*[87(p440)]

> *I didn't just … open up totally … to them. I wouldn't want to … You know, it's like an African community, and I felt, you know … If one person knows about it, 2 people know about … 3 people know about it … so I just cut off, um … I know it's just the stigma … It's just, you know, oh … look at the girl … I think it's just, it's just that I don't want the stigma to just keep following me around.*[78(p1742)]

Referral

The most commonly cited factors affecting referral were HP and organisational level barriers. At the *HP level*, their knowledge about services and referral pathways[49,70,109,120] was the most cited barrier. At the *organisational level*, lack of collaborative working across services[69,112,113,116,120,127,129] and confusing organisational referral procedures[116,120,122,127,129,130,134] were barriers.

> *The HPs interviewed in both Trusts were not always aware of the services available in other areas of the health service and recommended the provision and circulation of named links to support more joined up working.*

> *Links with mental health are not the best, it is difficult to refer women unless they need to be admitted. (author quote)*[120(p103)] *If they are stable the mental health team are not so interested. Sometimes there is a lack of information from the key worker and information being shared.*[120(p103)]

At the *commissioner level*, confusing referral pathways was a barrier.[113,116,120,122,125,126] Participants spoke about the complexity of negotiating referrals:

> *We have to send the form; the patient has to ring to say did you get the form and I am now confirming that I am going to go and then they get an appointment, for someone who is very distressed and you are asking them to jump through hoops.*[116](p5)

Access to treatment

Multiple factors influenced access to treatment. At the *individual level*, the most cited barriers to accessing care were logistical issues such as not having childcare,[46,47,69,70,84,85,89,91,95,96,113,114,134,135] the location of the care and difficulties travelling there[69,70,83–85,95,96,108,114,134–137] and the timing of appointments.[47,69,85,91,96,133,135] In some cases, these barriers could be exacerbated by a lack of support from family and friends:[86,96,108–110,122,133,137]

> *... they cannot take their child with them to their session ... (and) a lot of times they cannot afford day care.*[113](p4)

> *Yes, there was the issue of travelling. I cannot drive and my husband was admitted to the hospital ...*[137](p4)

> *I can't share my issues with my family. They don't care about me, they don't help me with the activities or remind me to do them or are willing to accompany me to the hospital.*[133](p9)

Additional personal difficulties such as a lack of employment[70,106,120,130,138] or women's symptoms of their mental illness[49,93,110,135] were also individual barriers to care:

> *My husband's business is not doing well, financially we are struggling, we have children to look after, we have the responsibility to marry them off and give them dowry etc., all these worries are pulling me down. Talking to [the peer volunteer] can't help me.*[106](p6)

> *When I was experiencing mental health issues, it was harder for me to get out, sort of on a schedule and be punctual.*[93](p15)

At the *interpersonal level,* language barriers were the biggest barrier to women accessing care[48,70,89,96] and, related to this, a lack of culturally sensitive care was the most cited *organisational level* barrier to access:[46,49,70,76,89,90,96]

> *Hispanic women reported feeling 'shuttled from service to service' because no one knew how to take care of their culture. (author quote)*[90](p18)

Similarly, women reported that services did not recognise their cultural needs:

> *You need someone who's on the same wavelength as you, who shares the same cultural experiences as you, which sometimes isn't available.*[46](p695)

Where logistical support was provided this was a facilitator to access, but when it was not provided it was a barrier:[46,72,83,85,91,96,108,109,122,137,139]

> *And we were offered a crèche facility; I used to take him there; otherwise it would have been really difficult for me.*[137](p4)

At the *commissioner level*, the most cited barrier to access was a lack of appropriate or timely services for women:[46,48,49,69,85,89,95,109,112,113,130]

> *You shouldn't have to press that danger button of 'I'm gonna self-harm' or 'I'm gonna hurt my children' for someone to help you.*[48](p756)

At the *political level*, refugee or immigrant women fearing deportation[70,81,90,95,109,134] and a lack of financial resources to pay for health care[49,69,70,81,82,95,106,108,109,113,114,134,139,140] were barriers to access. These were often interlinked and exacerbated by each other:

> *… as Hispanics we do not have insurance and money is what really counts.*[70](p12)

> *Because when you're legal you can take the child to the day care and look for a job … if you don't work, it's like you're dead, being alive. We want our papers so we can progress; not so we can leave or be a load to anyone, but just to work – to buy a home and give our kids a good life … I get depressed because I can't live like normal people because I'm always thinking if I leave or if I stay …*[90](p13)

At the *societal level*, stigma,[47,70,72,91,95,96,110,134] culture[49,70,76,89,106] and maternal norms[49,96] were also barriers for women choosing to access care:

> *It was difficult for me to accept that [I should see a psychiatrist] because, in our country, those who go to a psychiatrist are crazy. And I thought, 'I'm not crazy. I don't need it.' And [the social worker] told me, 'Not only crazy people need a psychiatrist, necessarily. In your case, you need it'.*[110](p938)

Provision of optimal care

HP, interpersonal and organisational level factors were most likely to impact provision of optimal care. At the *HP level*, a lack of knowledge about PMH and treatment options,[48,109,116,129,141–143] and low confidence in addressing PMH[133,138,139,143,144] were barriers to the provision of optimal care:

> *[Women report] 'Oh I was seeing so and so but when they found out I was pregnant they discontinued my medication'. That … happens frequently. Very frequently … their provider won't [prescribe] because of their pregnancy.*[142](p171)

> *Look, I feel insecure at the moment, as I have not yet had the chance to try IPT [interpersonal therapy], and I have to practice, and along with that get ready to try this method with a client and feel comfortable with it.*[144](p79)

On the other hand, HPs possessing valued characteristics,[94,105,106,114,130,138,145,146] such as being trustworthy and caring, were facilitators to the provision of optimal care:

> *… She was always there if I have a question or something and she always gets back to me no matter what.*[114](p530)

At the *interpersonal level*, a lack of trusting relationship was a barrier to optimal care provision:[69,72,91,146,147]

> *Sometimes, I don't feel very connected to the person that I call … so, sometimes, it gets awkward during the phone conversation.*[146](p8)

At the *organisational level*, facilitators were collaborative working between[106,109,116,120,122,129,131,142] and within organisations:[122,126,129,130,134,136,138,139,148]

> *[A patient] was discontinued off her lithium … [when she] found out she was pregnant … she wanted to hang herself … the OB [obstetrician] attending was saying, 'She's this far along in her pregnancy; the lithium isn't going to hurt … and what's worse for this woman? To expose her baby to lithium or to hang herself?' … we were able to facilitate a conversation between the OB doctor and the patient's psychiatrist and she did a great job … (and) put the woman back on lithium …*[142](p172)

A lack of training related to PMI and interventions was the most cited organisational level barrier[74,106,109,114,120,126,132,138,141,143,146–149] to the provision of optimal care:

> *Midwives are not well equipped with mental health knowledge and skills. If midwives were trained on mental health they could do a better job …*[108(p6)]

Organisational level facilitators to the provision of optimal care included providing culturally sensitive care[47,81,95,96,109,116,146] that is individualised,[48,49,114,116,123,132,137,145,146,148,150] appropriate to the women's needs,[116,132,133,138,139,143–149] flexible,[93,109,129,133,138,144,146] delivered at home[72,126,138,141,147] and provides information about PMI:[47,48,72,80,84]

> *… the online course, it was tailored to my needs at the time and I think that's how it helped so much.*[151(p26)]

> *Flexibility in length of appointments was identified as a facilitator of effective assessment and support of immigrant women.*
>
> *(author quote)*[109(p194)]

> *Finally, another commonly valued aspect of support was receiving information from the HP. While the women found it helpful to learn about mental health and PPD [postpartum depression], they also valued the inclusion of information or feedback about parenting.*
>
> *(author quote)*[72(p731)]

At the *commissioner level*, a lack of appropriate and timely services[79,108,113,116,120,138,147] and complexities around funding services were the most cited barriers to providing optimal care:[109,120,128,134,135,139,140]

> *Someone with PMH issues really does not belong in the general psychiatric outpatient clinic.*[116(p6)]

> *We are unable to serve every woman in need of ongoing care. We are therefore working on additional funds, both internally and externally, to secure long-term physical and behavioral health care for our patients.*[140(p7)]

At the *political level*, immigration status, such as being dependent on one's partner,[76,81,90,95,96] was a barrier to care:

> *Because we make argument, sometimes he hit me. I was alone and nobody to help me. Sometimes I was very nervous. I felt I'm his slave not his wife. He wanted everything to his hand and make control for everything in my life. I don't think this is life.*[90(p14)]

At the *societal level*, stigma[47,48,82,106,130,132,138,150] and culture[81,95,109,113,135,144] were also barriers to optimal care:

> *She got upset when I told her that the assessment indicated that she has depression. She said that she is not mad and stopped me from coming in when I went for my next visit.*[106(p6)]

> *We deal with a lot of undocumented immigrants (and) a lot of people with different cultural diversities … (allowing) … strangers … into their home or even discussing certain things over the telephone is difficult and sometimes just taboo for some cultures … So that is a roadblock that we constantly come upon.*[113(p4)]

Women's experience of treatment/care

Multiple factors impacted women's experience of treatment or care. At the *individual level*, social isolation[70,76,79,81,82,95,96] was a barrier to women's experience of care as it exacerbated their mental health difficulties further:

> *My husband just don't understand how I feel, everybody just keep saying Dimaak kharaab hai [mind is not working properly].*[96(p9)]

> *It's really awful being with other women that look as if they are coping, that's just as bad as being with nobody.*[79](p494)

At the *HP level*, those who provided hope to mothers, were caring, supportive, empathetic and went above and beyond meant women had a positive care experience:[47,48,72,74,77,84,90,94,138]

> *So she was like supportive and kept in contact quite a lot, ringing me to see I was ok and if I needed to talk, she was there sort of thing.*[72](p733)

> *They (staff at a francophone settlement support centre) helped me by trying to find places (to live) where it would be least expensive for me, which I appreciated a lot*[90](p16)

Related to this, development of a trusting relationship and rapport at the *interpersonal level*[47,48,72,84,106,110] and continuity of carer[46–48,72,92] at the *organisational level* were also associated with a positive care experience:

> *It was the not having to start explaining again to someone new which was so great.*[46](p695)

Other facilitators at the *organisational level* were culturally sensitive care[47,72,81,90,95,96] that was individualised and person-centred,[48,49,72,75,84,90,91,92,96,137,148] and that provided women with an opportunity to talk:[47,72,75,81,84,87]

> *I appreciated the visit from the nurse who came to see me. She was the only person who talked to me about my feelings at that time, and my depression. I found it interesting because she came and talked to me … it was nice to be able to talk to someone about it.*[87](p444)

> *Where support was facilitated by someone from the same ethnic background, women felt that the sessions were culturally specific and sensitive. 'Because she (the group support facilitator) understood what we go through, how our culture is, and how our belief systems are. She could understand us better than anyone else.'*
>
> *(Pakistani mother)*[96](p10)

Lastly, most women valued group support[48,72,75,78,79,84,90,92,95,96,108,137,152] despite hesitance at first:

> *I was a bit intimidated – intimidated's [sic] the wrong word I was a bit hesitant at first because I thought oh my God I've gotta sit in front of a bunch of other people and talk about the problems I was having, you know what are they gonna think of me, but it actually ended up being better for me being in a group.*[152](p3523)

> *[when you start going to the group] you know that you are not alone. So many mothers are going through what you are going through. And some are even MORE than yourself …*[78](p1751)

Barriers and facilitators to perinatal mental health care in different health and social care settings

The most commonly cited barriers and facilitators in different health and social care settings will now be described.

Hospitals

Within hospitals the most cited barriers influencing implementation were *HP level* barriers, such as HP's negative perception of the care being provided[122,123,128,133,139,143,146,148] and *organisational level* barriers, such as lack of time or a heavy workload,[107,121,122,128,130,146,148] lack of training for HPs[107,122,128,130,133,143,146] and unclear workflow procedures:[121–123,128,139,148]

> *The one thing I can think of within our system is [that we need] more consistent [reporting of EPDS scores]. We are doing it, but not consistently. In our nursing [shift-change] reports [we could] say where we are with it … they sometimes say, 'Oh the postpartum was a 4 and 0 [on item 10 which assesses suicidal thought]' and then they move on. Or they could say, 'I gave them the EPDS, or I've asked them to do it.' You know, it's nice to know where they are at with it.*
>
> *(Nurse)*[123(p449)]

At the *societal level*, stigma was the most cited barrier.[107,121,122,130,133,134,148]

Primary care

In primary care, the most cited *individual level* barrier was family presence in the consultation.[106,108,110,115–117,124,137] *Organisational level* barriers such as heavy workload or lack of time[108,115,116,118,144,149] were frequently cited.

> *Can I be honest with you sometimes I wonder if you really want to open this can of worms and it's so much easier just to jolly along and check the BP, check the urine, check this and that and have them out the door and see the next patient.*
>
> *(GP)*[117(p4)]

At the *societal level*, stigma[106,108,110,115,116,118,124,144] and culture[106,108,115,116,137,144] negatively affected implementation.

Community settings

In community settings or community-based delivery, *HP level* factors such as the characteristics of the person providing the care[109,114,132,138,141,147] was an important factor in implementation:

> *My experience … she liked to hear, she wanted to hear about that, and what stuff was normal.*
>
> *(Mother about a peer mentor)*[147(p31)]

Training was the most cited *organisational level* factor.[109,114,126,127,131,132,136,138]

Maternity services

Within maternity services, *organisational level* factors were important for implementation, including training[119,120,125] and continuity of carer:[119,120,125]

> *… If I didn't know the midwives and they hadn't known my history I think I probably wouldn't have been honest with them.*
>
> *(Mother about a midwife)*[119(p44)]

Remote or online care

Organisational level factors were the most important, in terms of the design and delivery of the care. Most cited facilitators were flexibility,[145,151] techniques used,[145,151] privacy and confidentiality,[145,153] ability to fit in with the women's schedule[145,151] and relevance to women:[145,151]

> *I loved that I could access the program anytime. It fit into my schedule in a way that traditional therapy could not have, as my baby is demanding and my husband works out of town.*
>
> *(Mother)*[145(p213)]

Low- and high-income countries

Across LMICs the most cited *organisational level* barrier was lack of training[106–108,133] and the most cited *societal level* barrier was stigma.[106–108,133]

Similarly, where health services were carried out in higher income countries, but with women from a refugee or different cultural backgrounds, the most cited *organisational level* barriers were lack of HP training,[109,122,125,127,130] along with HPs' heavy workloads.[109,122,125,127,130] The most cited *societal level* barrier was stigma:[110,122,125,127,130,141]

> *It was difficult for me to accept that [I should see a psychiatrist] because, in our country, those who go to a psychiatrist are crazy. And I thought, 'I'm not crazy. I don't need it'.*
>
> *(Mother who had moved to the USA)*[110(p938)]

Geographical distribution of evidence and mental health condition examined

Studies in R1 were mainly carried out in Western HICs. Geographical distribution of evidence is shown in *Figure 6* and studies listed in *Appendix 7*. The majority of studies were carried out in the USA (n = 18), followed by the UK (n = 7); Australia (n = 6); Canada (n = 3), Norway (n = 2); and Ireland (n = 2). Remaining studies were carried out in LMICs, including Pakistan (n = 2); Israel (n = 1); Peru (n = 1); Ghana (n = 1); South Africa (n = 1); Uganda (n = 1) and Singapore (n = 1).

In R2 the country that individual studies in each review were carried out in was noted. Where over 50% of the studies in a review were from the same country or area, reviews were assigned the status of mainly: carried out in the UK (n = 9); Western HICs (n = 19); or LMICs (n = 1). Four of the reviews did not provide enough details of individual studies to be able to determine their geographical distribution.

Evidence in both reviews predominantly focused on perinatal depression. In R1 most of the studies (n = 32) focused on perinatal depression. The rest focused on unspecified PMH difficulties (n = 7), followed by anxiety (n = 1) and birth trauma (n = 1). Three studies did not specify which mental health difficulty they were targeting (n = 3). In R2 most reviews (n = 23) focused on perinatal depression, followed by a mixture of perinatal mood disorders (e.g. depression, anxiety, distress; n = 5). Only one review focused on postnatal psychosis[105] and one on birth trauma.[92]

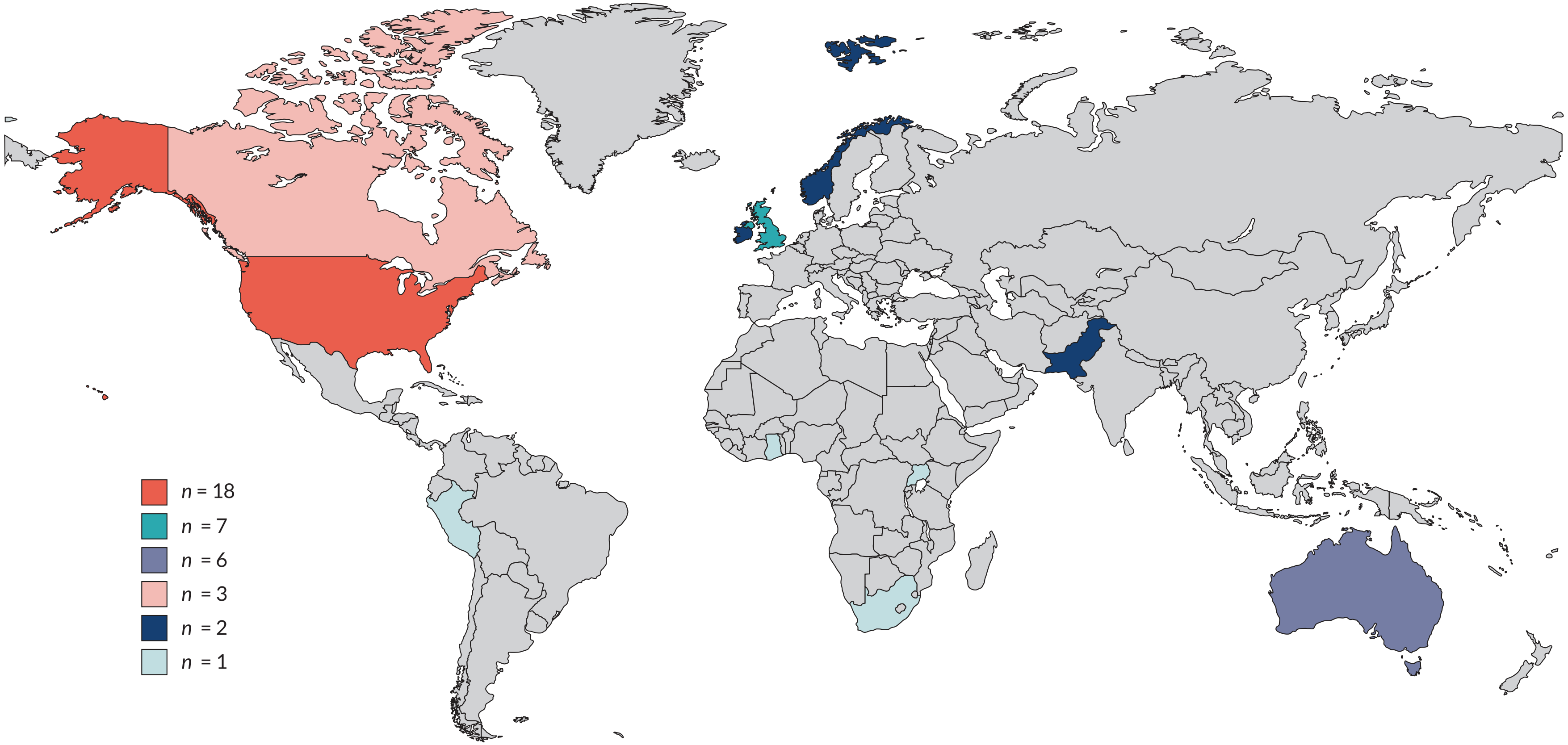


FIGURE 6 Geographical distribution of studies from R1.

Chapter 6 Development of the MATRIx conceptual framework

This chapter details the development of the MATRIx conceptual framework. Eight stages, outlined by Jabareen (2009),[56] were carried out to develop the conceptual framework. These will be described in more detail below and in *Figure 7*.

What is a conceptual framework?

A concept relates to knowledge or an idea about a certain topic.[154] We will use the themes identified in the systematic reviews described above to refer to our concepts.

A conceptual framework can be defined as a 'network, or a plane, of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena'. A conceptual framework can highlight areas for improvement and provide an empirical basis for recommendations for future practice and research.[56]

Why is a conceptual framework needed?

Our primary research objective was to develop a conceptual framework of barriers and facilitators to PMH care to inform PMH services and practice, care pathways, and highlight where further research is needed.

The results from both reviews presented above provide an understanding of barriers and facilitators to implementing PMH care and to women deciding to seek help, accessing help and engaging in PMH care. However, in order to provide evidence-based recommendations for policy and practice related to PMH service provision, it is important that the results of both reviews are synthesised. A conceptual framework is one way of doing this.

Development of the conceptual framework

The method described by Jabareen (2009)[56] involves eight stages. We describe how we conducted these stages below.

Mapping the selected data sources

This process includes identifying relevant literature regarding the phenomenon in question. In order to do this, the two systematic reviews described in *Chapter 3* were conducted.

Reading and categorising selected data

The aim of stage 2 is to read the selected data and categorise it by discipline. As described in *Chapter 3* line by line data extraction of statements referring to facilitators or barriers to PMH assessment, care and treatment was carried out for both reviews. Therefore, data was categorised by barriers and facilitators.

Identifying and naming concepts

The third stage is to read and re-read the selected data and 'discover' concepts. This was done by re-reading the extracted data and assigning a descriptive theme/concept based on its meaning and content. Themes/concepts were developed and revised as each study was re-read.

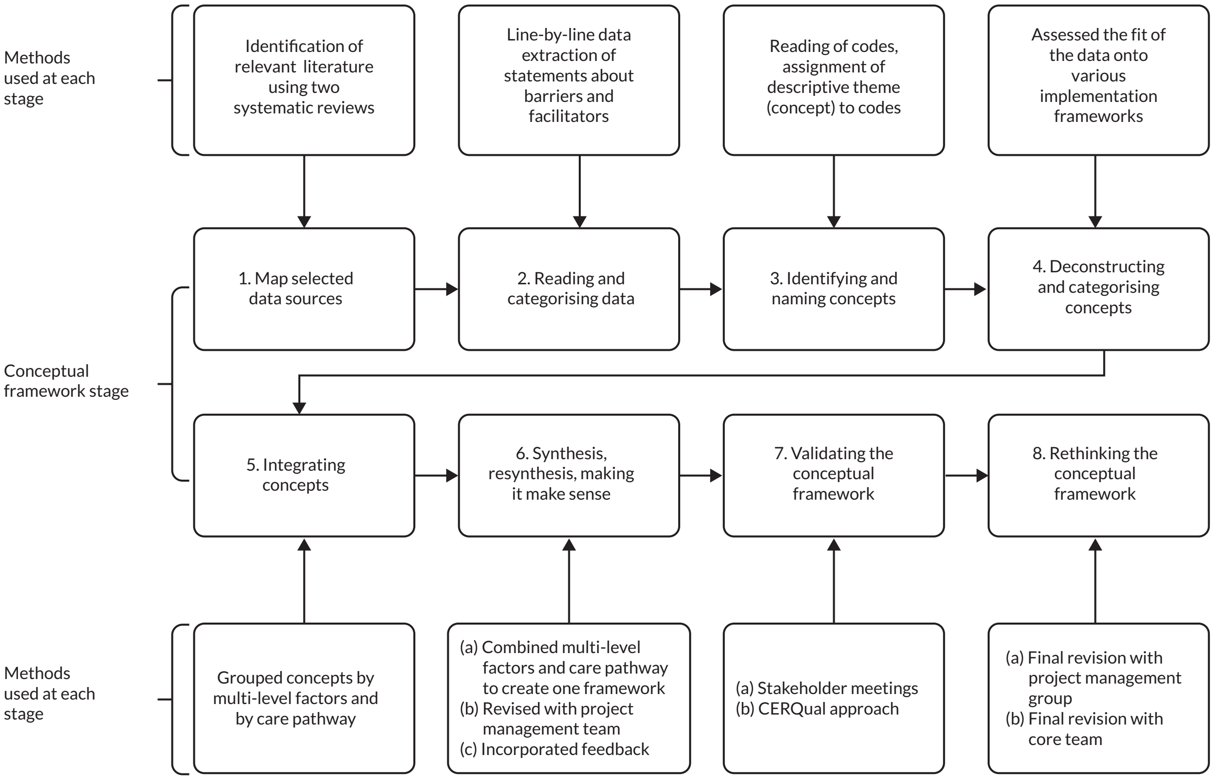


FIGURE 7 Conceptual framework process.

Deconstructing and categorising the concepts

The aim of stage 4 is to deconstruct each concept and to organise and categorise the concepts.[56] This stage was completed by assessing the fit of the data on to various implementation frameworks (Consolidated Framework for Implementation,[155] Reach Effectiveness Adoption Implementation Maintenance[156] and Ferlie and Shortell's Levels of Change framework)[40] for Review 1 and then mapping the concepts for Review 2 on to the same framework (see *above*).

Integrating concepts

The aim of stage 5 is to integrate and group together concepts that have similarities to one new concept.[56] Concepts were grouped by multi-level factors of barriers and facilitators (see *Figures 8* and *9*) and the care pathway (see *Figures 10* and *11*).

Synthesis, resynthesis and making it all make sense

The aim in this phase is to synthesise concepts into a theoretical framework, using an iterative process of repetitive synthesis and resynthesis.[56] This was done in multiple stages:

1. *Combining multi-level factors and care pathway. Figures 8–11* were combined together to create a draft framework (see *Appendix 8*, version 1). At this stage, all factors identified from both reviews were included.
2. *Revision with project management group*. Feedback on the draft framework was obtained from members of the project management group (Rebecca Webb, Abigail Easter, Camilla Rosan, Agnes Hann, Elizabeth Ford, Fiona Alderdice, Judy Shakespeare and Susan Ayers). This included researchers and clinicians with expertise in maternal and child health, perinatal health and well-being, PMH care, strategy and transformation and clinical psychology. Suggestions made by members of the project management group included considering the importance of outcome measurements; integration of different services; logistical issues such as co-location; and inclusion of a step between organisational and political structure, for example, middle management.
3. *Incorporating feedback*. Another version of the draft framework was developed after incorporating the feedback from the previous step (see *Appendix 8*, version 2).

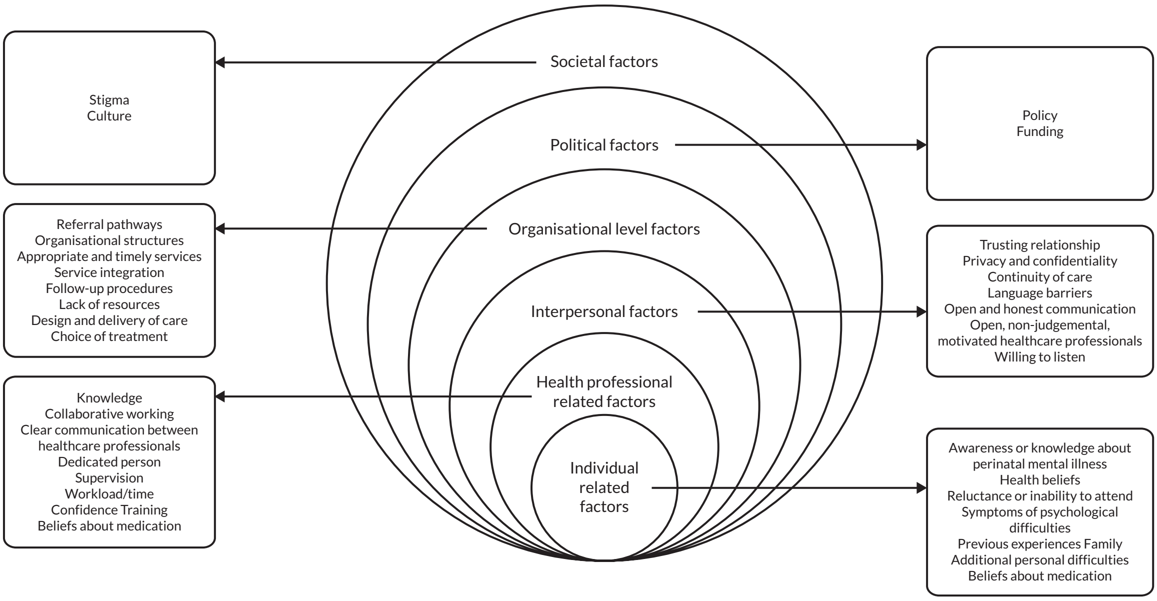


FIGURE 8 Multi-level model of barriers and facilitators to implementing perinatal mental health care (R1).

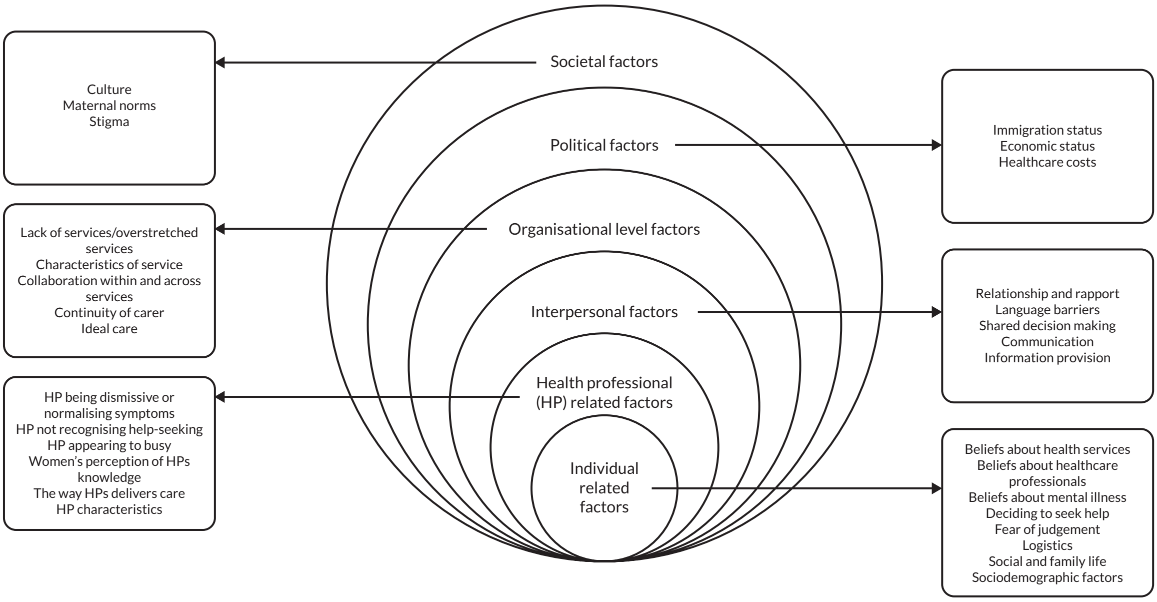


FIGURE 9 Multi-level model of barriers and facilitators to women accessing perinatal mental health care (R2).

Validating the conceptual framework

The aim in this phase was to validate the framework. This was done using two steps: (1) stakeholder meetings to ascertain whether the proposed framework and its concepts made sense to practitioners and other stakeholders;[56] (2) assessing the confidence with the evidence. This step is in line with the development of National Institute for Health and Care Excellence (NICE) guidelines,[157] where evidence is rated using the Grading of Recommendations Assessment, Development and Evaluation (GRADE)[158] to assess the certainty of evidence before recommendations are made.

1. *Stakeholder meetings.* Following the approach of Leamy (2011),[159] three panels of stakeholders were consulted about the draft conceptual framework (see *Appendix 8*, version 2). Panels were held online via Microsoft Teams. The first panel comprised women, their partners and third-sector

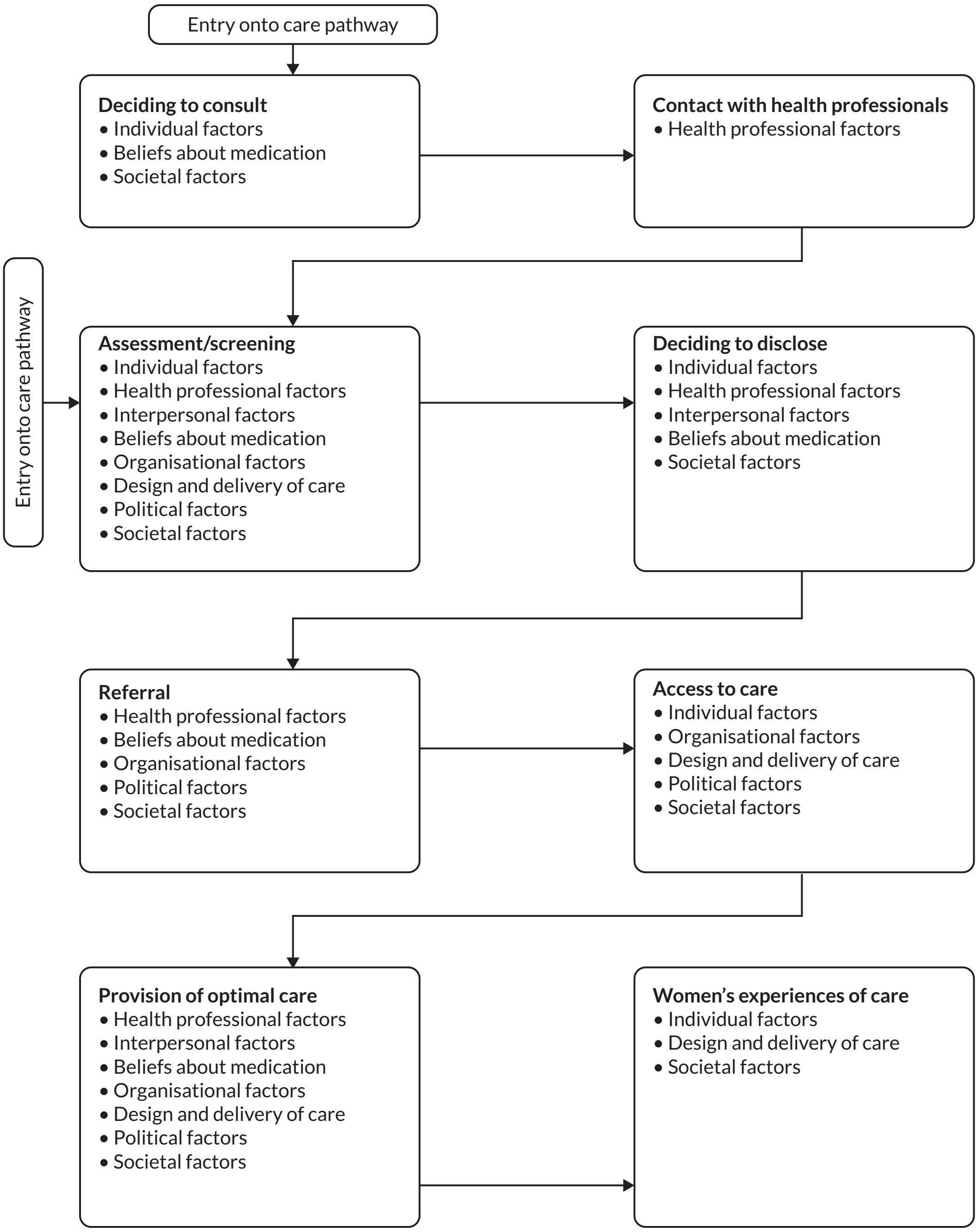


FIGURE 10 Multi-level barriers and facilitators to implementation mapped on to the care pathway (R1).

organisations that represent perinatal women (e.g. NCT, Maternal Mental Health Change Agents). The second panel comprised HPs from different disciplines working for relevant NHS services. The third panel comprised commissioners and policy makers. Characteristics of stakeholders are shown in *Table 4*.

During the stakeholder meetings, attendees were asked to review the conceptual framework and consider questions such as:

- How does the framework fit with your experience of implementing/accessing PMH services?
- Does the framework include everything? Have we missed anything? What?

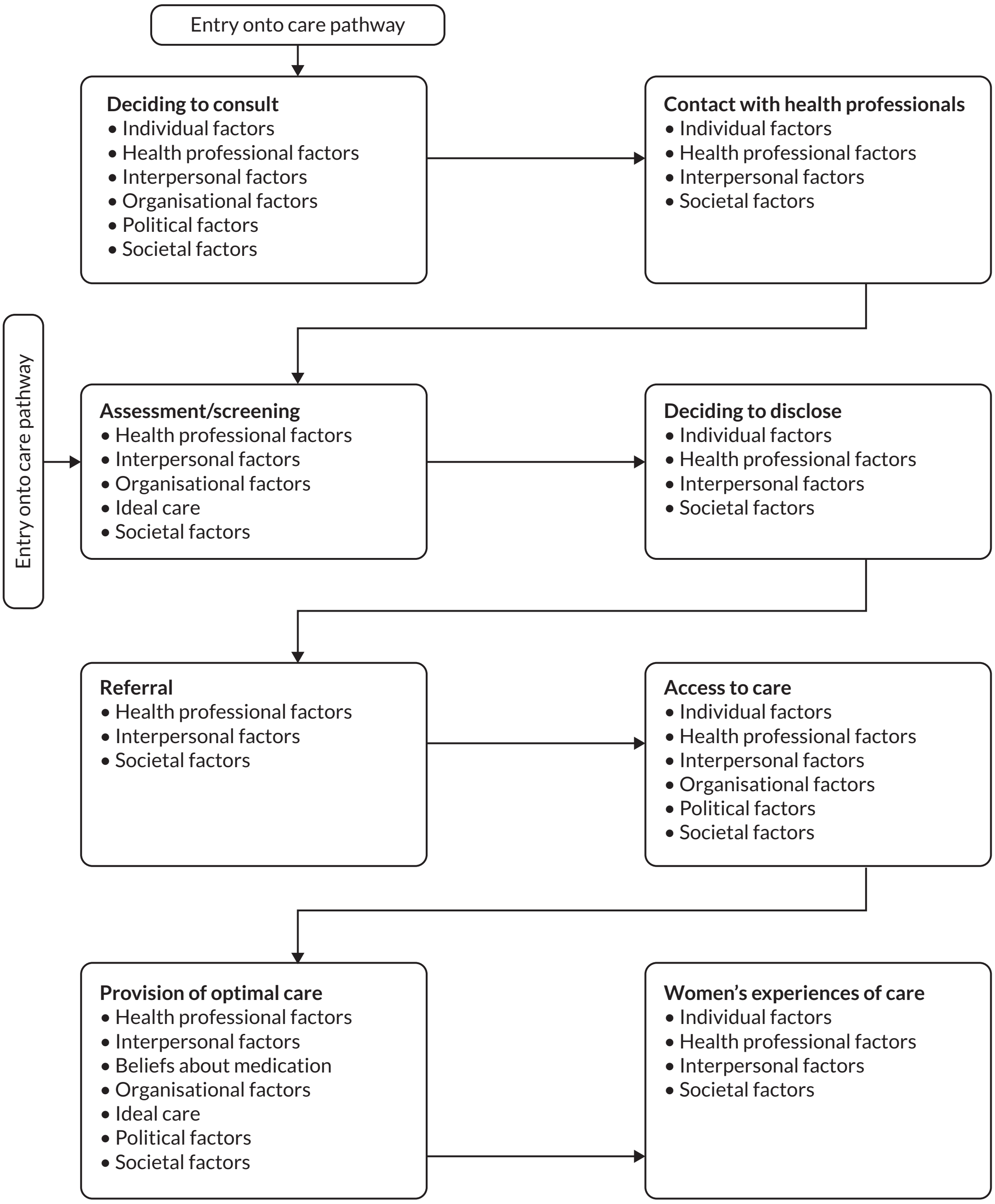


FIGURE 11 Multi-level barriers and facilitators to women accessing perinatal mental health care mapped on to the care pathway (R2).

- In your view, what are the most important facilitators/barriers to implementing/accessing PMH services?
- In your view, what are the top recommendations for clinical practice?
- How can we disseminate this for most impact?

Conversations were recorded, analysed and suggestions and recommendations were noted. These are summarised in *Table 5*

2. *Using the CERQual approach to assess confidence with the evidence.* The CERQUAL approach was used to assess the confidence of the results for each of the concepts in the framework.[160] To do this, each multi-level concept identified from reviews and feedback from stakeholders was assessed on methodological limitations,[161] coherence,[162] adequacy of data[163] and relevance of data[164] pertaining

TABLE 4 Characteristics of stakeholders attending MATRIx stakeholder group meetings

Stakeholder group	*N*	Role
Women and families	10	Lived experience of PMI (*n* = 8) Fathers (*n* = 2) Mothers (*n* = 7) Not reported (*n* = 1)
HPs	11	Specialist PMH midwives (*n* = 4) Specialist midwife in homelessness and substance misuse (*n* = 1) Specialist nurse (*n* = 1) GP (*n* = 2) Team manager PMH (*n* = 1) Health visitor (*n* = 1) Academic in health research (*n* = 1)
Commissioners and policy makers	5	Implementation lead (*n* = 1) Project manager (*n* = 1) Training and workforce lead (*n* = 1) Clinical lead (*n* = 1) Local specialist PMH service lead (*n* = 1)

TABLE 5 Suggestions for conceptual framework from stakeholder group meetings

Women and families	HPs	Policy makers and commissioners
• Use inclusive, parent focused language, for example, parents-to-be • Avoid the use of 'illness' or 'problem' • Make infant-centred, rather than woman-centred, whole-family approach. Means all co-parents will be involved. • Need to think about how to highlight peer support, not just the clinical pathway • Be more specific about funding • Visualisations to be inclusive (e.g. same sex couples, mothers with disabilities)	• Consider the gap in services between adjustment difficulties and severe PMH difficulties • Barriers also include variation between different areas and contexts	• Societal level – PMH is not just depression. Need to change the narrative • Consider the audience – National vs. international vs. England only • Consider crisis and liaison services, maternal mental health hubs, home-based treatment teams, out of hours, paediatrics • Add barriers related to fragmentation of funding pots

to that item. Specific rules were followed to rate the confidence of the evidence for each concept (see *Table 6*).

Methodological limitations were based on the methodological assessments described in *Chapter 3*.

Coherence was assessed by looking at the evidence assigned to that concept and identifying any outliers or ambiguous elements in the data. To do this, a summary from each of the papers that contributed to a concept was written out. Coherence ratings were based on whether the summaries all had similar content.

Adequacy was assessed by looking at both the quantity and richness of the data for each concept. Where over half of the studies had thin data descriptions (see *above*), a concept could not score above low confidence.

Relevance was assessed by identifying the country and health system of each study within a concept. Given that PMH is a priority for UK strategy and policy,[28,29] and research organisations,[27] we defined *direct relevance* as studies carried out in the UK/NHS (or for R2, where more than 50% of studies

TABLE 6 Rules followed for assigning confidence ratings to concepts

	High confidence	Medium confidence	Low confidence	Very low confidence
Methodology	**R1**: all domains were rated as high quality **R2**: high confidence – no or one non-critical flaw	**R1**: most domains were rated as high quality **R2**: moderate confidence – more than one non-critical flaw	**R1**: most domains were rated as low quality **R2**: low confidence – one critical flaw	**R1**: all domains were rated as low quality **R2**: critically low confidence – more than one critical flaw
Coherence	All summaries were consistent in their content	Over half of the summaries were consistent in their content	Summary contents had a mix of two different concepts	No consistency across summary contents
Adequacy	21+ papers and more than half of the papers had thick data descriptions	10–20 papers and more than half of the papers had thick data descriptions	5–9 papers and/or less than half of the papers had thick data descriptions	< 5 papers and/or less than half of the papers had thick data descriptions
Relevance	**R1**: studies carried out in UK/NHS **R2**: reviews where more than 50% of included studies were carried out in the UK/NHS	**R1**: studies carried out in Western countries, or countries with universally government-funded health care (e.g. Canada) **R2**: reviews where more than 50% of included studies met the above stipulation	**R1**: lower middle-income countries, or countries with universal health insurance coverage **R2**: reviews where more than 50% of included studies met the above stipulation	**R1**: countries without universal health insurance coverage (e.g. USA) **R2**: reviews where more than 50% of included studies met the above stipulation
Overall rating	Three or all aspects (methodology, coherence, adequacy, relevance) of a concept rated as high confidence	Three or all aspects of a concept was rated as moderate confidence	Three or all aspects of a concept was rated as low confidence	Three or all aspects of a concept was rated as very low confidence

included in a review were carried out in the UK/NHS, see *Appendix 7*). *Partial relevance* was studies carried out in Western Countries, or in countries with universally government-funded health care (e.g. Canada). *Indirect relevance* was studies carried out in LMIC, or countries with non-universal insurance or health care coverage (e.g. USA).

The confidence of each of these four aspects can be rated as: high confidence, moderate confidence, low confidence and very low confidence. This meant that each concept was left with four confidence ratings. All four confidence ratings were then taken to give an overall confidence rating for each concept. Where a concept had an even split of ratings and the ratings were next to each other in quality (e.g. high, medium, low, very low; or high, high, medium, medium) the rating assigned to the 'relevance' of a concept was given a higher weighting. This was on the basis of the importance of recommendations being relevant to the NHS context. Where a concept had an even split of ratings, but the ratings were apart from each other in terms of quality (e.g. high, high, low low), the rating in the middle of these was given (e.g. medium). A decision was made to not assign any higher than 'low confidence' to concepts where adequacy was given a 'very low' rating. This was to avoid putting too much emphasis on concepts where more research is needed.

Rethinking the conceptual framework

This step involved finalising the conceptual framework. This was done in two steps:

1. *Final revision with the project management group*. The most recent draft of the conceptual framework was discussed by members of the project management group (Rebecca Webb, Abigail Easter, Elizabeth Ford, Fiona Alderdice, Helen Cheyne, Jennifer Holly, Judy Shakespeare, Rose Coates, Sally Hogg and Susan Ayers). Feedback consisted of two main points. The first related to whether concepts with very low/low confidence ratings should be removed. As the majority of these concepts related to under-researched populations, removing them from the framework would continue the cycle of under-representation of these groups. It was therefore decided to include all concepts in the framework but provide an indication of the confidence rating scale. Recommendations for practice should be based on concepts with high/moderate confidence ratings, and recommendations for research based on concepts with low/very low confidence ratings. The second point was related to the language used. The framework presented was a framework of barriers, and it was decided that the negative language may act as a barrier itself. It was suggested that a framework of facilitators might also be appropriate and useful.
2. *Final revision with the core team.* For final revisions members of the core team met for a one-day workshop to consider all the feedback given (Rebecca Webb, Judy Shakespeare and Susan Ayers). It was agreed that the following changes should be made:

    1. The decision to use two conceptual frameworks was made. One specifically related to barriers to PMH care, and the second related to facilitators to PMH care. The data were reassessed, and barriers and facilitators were separated.
    2. The language of both frameworks was scrutinised to remove or reduce any blaming or negative language.
    3. Some of the HP level barriers and facilitators (e.g. training and heavy workloads) were moved to the service manager level. This is because it is the service's responsibility to provide this rather than the HPs.
    4. Based on the funding structures in the UK, funding complexities was moved to commissioner level, rather than government level. Although the government provides a set amount of money for PMH services, the complexities of sourcing funding appeared to be more at the commissioner level.
    5. The framework was reviewed to ensure graphics and icons were representative and inclusive.

Chapter 7 The MATRIx conceptual frameworks

Description of the conceptual frameworks

The MATRIx conceptual frameworks aim to understand key barriers and facilitators to PMH identification, assessment, care and treatment in order to improve PMH services. Syntheses of the reviews identified 78 key factors that can impact on PMH care. These are summarised in two conceptual frameworks which provide pictorial representations of 66 barriers (see *Figure 12*) and 39 facilitators (see *Figure 13*) across the care pathway and at multiple levels (note: there is overlap with 27 of the barriers and facilitators; see *Appendix 9*).

These conceptual frameworks were used to inform the development of evidence-based recommendations which aim to address these barriers and ensure that all women are able to access the support they need. Recommendations were made for policy, practice and researchers.

Confidence in results

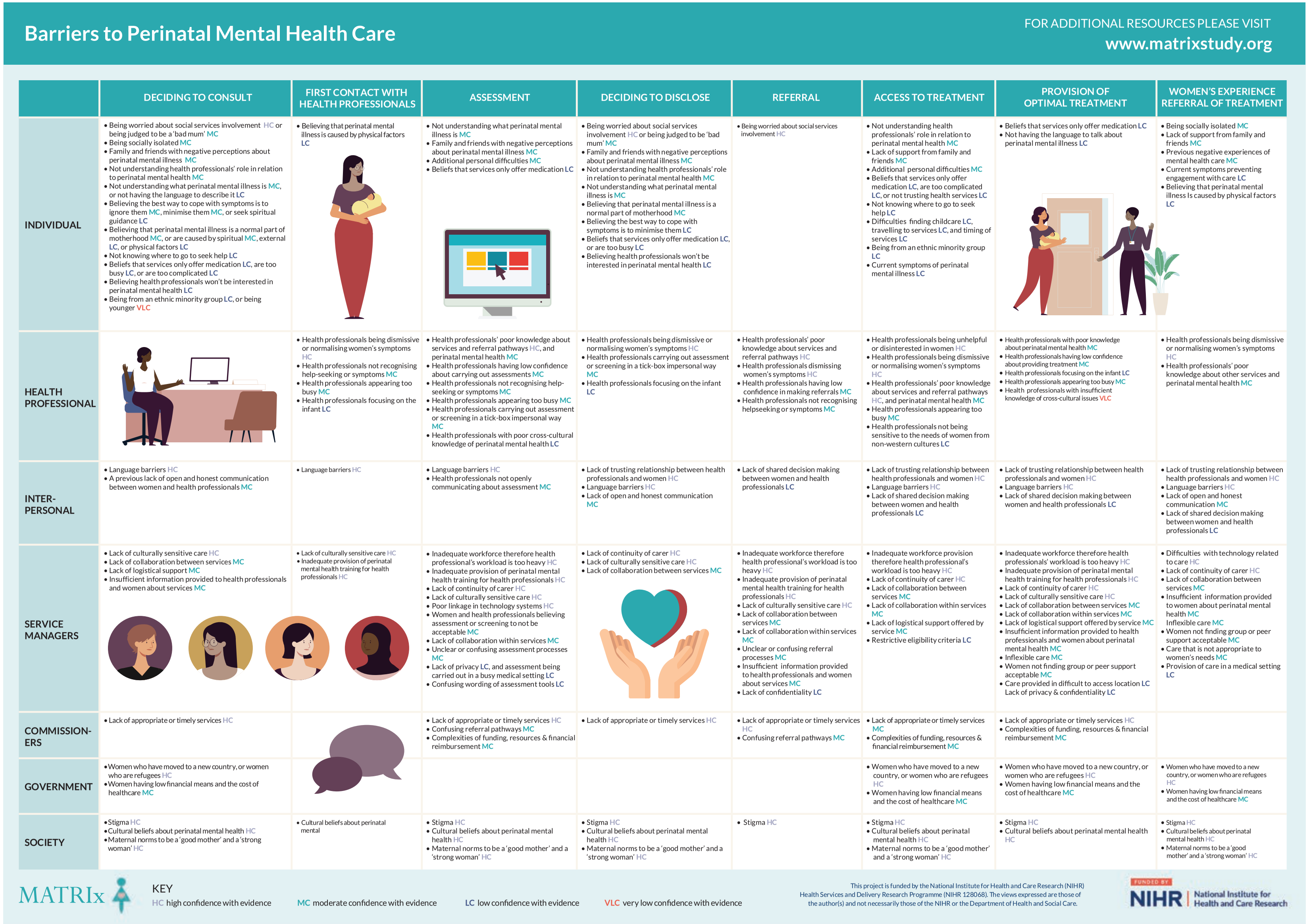
The confidence in the results will now be discussed, based on the results from the CERQual ratings (see *Appendix 6*). It should be noted that all papers were included in the CERQual ratings and were not split by stage of the care pathway.

Of the 78 concepts identified, 14 were assigned a rating of high confidence with the evidence. These included women's fear of social services involvement or their child/children being removed from their care; HPs knowledge about PMH services and referral pathways; HPs being dismissive or normalising women's symptoms; HPs valued characteristics (e.g. warm, genuinely interested, kind, empathetic); trusting relationship between women and HPs; language barriers; adequate workforce provision; high-quality training for all HPs; continuity of carer; culturally sensitive care; lack of appropriate or timely services to refer women on to; and stigma, culture and maternal norms.

Just under half of concepts (n = 33) received a rating of moderate confidence. These concepts included being judged as a bad mum, support (or lack of support) from family and friends; HPs confidence in addressing PMH; HPs not recognising help-seeking or PMI; HPs carrying out assessment in a person-centred way with open and honest communication between women and HPs; collaboration within and between services; clear assessment and referral procedures; services that offer logistical support for women; individualised and appropriate care provision; a lack of clear referral pathways; and the economic status of women.

Slightly fewer (n = 25) concepts received a rating of low confidence, suggesting more research is needed. These concepts included women's knowledge and understanding of the causes of mental illness, and where to go to seek help; demographic factors such as the woman's ethnicity or current symptoms/diagnoses; HPs focusing too much on the infant; shared decision-making between women and HPs; co-location of buildings; care with a dedicated mental health champion; and care that offers an opportunity to talk.

Only four concepts received a very low confidence rating, suggesting more research is needed into women's age or previous diagnoses/symptoms impacting help-seeking and access; the provision of supervision within organisations; and organisational guidelines.



Barriers to Perinatal Mental Health Care

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	DECIDING TO CONSULT	FIRST CONTACT WITH HEALTH PROFESSIONALS	ASSESSMENT	DECIDING TO DISCLOSE	REFERRAL	ACCESS TO TREATMENT	PROVISION OF OPTIMAL TREATMENT	WOMEN'S EXPERIENCE REFERRAL OF TREATMENT
INDIVIDUAL	• Being worried about social services involvement HC or being judged to be a 'bad mum' MC • Being socially isolated MC • Family and friends with negative perceptions about perinatal mental illness MC • Not understanding health professionals' role in relation to perinatal mental health MC • Not understanding what perinatal mental illness is MC, or not having the language to describe it LC • Believing the best way to cope with symptoms is to ignore them MC, minimise them MC, or seek spiritual guidance LC • Believing that perinatal mental illness is a normal part of motherhood MC, or are caused by spiritual MC, external LC, or physical factors LC • Not knowing where to go to seek help LC • Beliefs that services only offer medication LC, are too busy LC, or are too complicated LC • Believing health professionals won't be interested in perinatal mental health LC • Being from an ethnic minority group LC, or being younger VLC	• Believing that perinatal mental illness is caused by physical factors LC	• Not understanding what perinatal mental illness is MC • Family and friends with negative perceptions about perinatal mental illness MC • Additional personal difficulties MC • Beliefs that services only offer medication LC	• Being worried about social services involvement HC or being judged to be 'bad mum' MC • Family and friends with negative perceptions about perinatal mental illness MC • Not understanding health professionals' role in relation to perinatal mental health MC • Not understanding what perinatal mental illness is MC • Believing that perinatal mental illness is a normal part of motherhood MC • Believing the best way to cope with symptoms is to minimise them LC • Beliefs that services only offer medication LC, or are too busy LC • Believing health professionals won't be interested in perinatal mental health LC	• Being worried about social services involvement HC	• Not understanding health professionals' role in relation to perinatal mental health MC • Lack of support from family and friends MC • Additional personal difficulties MC • Beliefs that services only offer medication LC, are too complicated LC, or not trusting health services LC • Not knowing where to go to seek help LC • Difficulties finding childcare LC, travelling to services LC, and timing of services LC • Being from an ethnic minority group LC • Current symptoms of perinatal mental illness LC	• Beliefs that services only offer medication LC • Not having the language to talk about perinatal mental illness LC	• Being socially isolated MC • Lack of support from family and friends MC • Previous negative experiences of mental health care MC • Current symptoms preventing engagement with care LC • Believing that perinatal mental illness Is caused by physical factors LC
HEALTH PROFESSIONAL		• Health professionals being dismissive or normalising women's symptoms HC • Health professionals not recognising help-seeking or symptoms MC • Health professionals appearing too busy MC • Health professionals focusing on the infant LC	• Health professionals' poor knowledge about services and referral pathways HC, and perinatal mental health MC • Health professionals having low confidence about carrying out assessments MC • Health professionals not recognising help-seeking or symptoms MC • Health professionals appearing too busy MC • Health professionals carrying out assessment or screening in a tick-box impersonal way MC • Health professionals with poor cross-cultural knowledge of perinatal mental health LC	• Health professionals being dismissive or normalising women's symptoms HC • Health professionals carrying out assessment or screening in a tick-box impersonal way MC • Health professionals focusing on the infant LC	• Health professionals' poor knowledge about services and referral pathways HC • Health professionals dismissing women's symptoms HC • Health professionals having low confidence in making referrals MC • Health professionals not recognising helpseeking or symptoms MC	• Health professionals being unhelpful or disinterested in women HC • Health professionals being dismissive or normalising women's symptoms HC • Health professionals' poor knowledge about services and referral pathways HC, and perinatal mental health MC • Health professionals appearing too busy MC • Health professionals not being sensitive to the needs of women from non-western cultures LC	• Health professionals with poor knowledge about perinatal mental health MC • Health professionals having low confidence about providing treatment MC • Health professionals focusing on the infant LC • Health professionals appearing too busy MC • Health professionals with insufficient knowledge of cross-cultural issues VLC	• Health professionals being dismissive or normalising women's symptoms HC • Health professionals' poor knowledge about other services and perinatal mental health MC
INTER-PERSONAL	• Language barriers HC • A previous lack of open and honest communication between women and health professionals MC	• Language barriers HC	• Language barriers HC • Health professionals not openly communicating about assessment MC	• Lack of trusting relationship between health professionals and women HC • Language barriers HC • Lack of open and honest communication MC	• Lack of shared decision making between women and health professionals LC	• Lack of trusting relationship between health professionals and women HC • Language barriers HC • Lack of shared decision making between women and health professionals LC	• Lack of trusting relationship between health professionals and women HC • Language barriers HC • Lack of shared decision making between women and health professionals LC	• Lack of trusting relationship between health professionals and women HC • Language barriers HC • Lack of open and honest communication MC • Lack of shared decision making between women and health professionals LC
SERVICE MANAGERS	• Lack of culturally sensitive care HC • Lack of collaboration between services MC • Lack of logistical support MC • Insufficient information provided to health professionals and women about services MC	• Lack of culturally sensitive care HC • Inadequate provision of perinatal mental health training for health professionals HC	• Inadequate workforce therefore health professional's workload is too heavy HC • Inadequate provision of perinatal mental health training for health professionals HC • Lack of continuity of carer HC • Lack of culturally sensitive care HC • Poor linkage in technology systems HC • Women and health professionals believing assessment or screening to not be acceptable MC • Lack of collaboration within services MC • Unclear or confusing assessment processes MC • Lack of privacy LC, and assessment being carried out in a busy medical setting LC • Confusing wording of assessment tools LC	• Lack of continuity of carer HC • Lack of culturally sensitive care HC • Lack of collaboration between services MC	• Inadequate workforce therefore health professional's workload is too heavy HC • Inadequate provision of perinatal mental health training for health professionals HC • Lack of culturally sensitive care HC • Lack of collaboration between services MC • Lack of collaboration within services MC • Unclear or confusing referral processes MC • Insufficient information provided to health professionals and women about services MC • Lack of confidentiality LC	• Inadequate workforce provision therefore health professional's workload is too heavy HC • Lack of continuity of carer HC • Lack of collaboration between services MC • Lack of collaboration within services MC • Lack of logistical support offered by service MC • Restrictive eligibility criteria LC	• Inadequate workforce therefore health professionals' workload is too heavy HC • Inadequate provision of perinatal mental health training for health professionals HC • Lack of continuity of carer HC • Lack of culturally sensitive care HC • Lack of collaboration between services MC • Lack of collaboration within services MC • Lack of logistical support offered by service MC • Insufficient information provided to health professionals and women about perinatal mental health MC • Inflexible care MC • Women not finding group or peer support acceptable MC • Care provided in difficult to access location LC Lack of privacy & confidentiality LC	• Difficulties with technology related to care HC • Lack of continuity of carer HC • Lack of collaboration between services MC • Insufficient information provided to women about perinatal mental health MC Inflexible care MC • Women not finding group or peer support acceptable MC • Care that is not appropriate to women's needs MC • Provision of care in a medical setting LC
COMMISSION-ERS	• Lack of appropriate or timely services HC		• Lack of appropriate or timely services HC • Confusing referral pathways MC • Complexities of funding, resources & financial reimbursement MC	• Lack of appropriate or timely services HC	• Lack of appropriate or timely services HC • Confusing referral pathways MC	• Lack of appropriate or timely services MC • Complexities of funding, resources & financial reimbursement MC	• Lack of appropriate or timely services HC • Complexities of funding, resources & financial reimbursement MC	
GOVERNMENT	• Women who have moved to a new country, or women who are refugees HC • Women having low financial means and the cost of healthcare MC					• Women who have moved to a new country, or women who are refugees HC • Women having low financial means and the cost of healthcare MC	• Women who have moved to a new country, or women who are refugees HC • Women having low financial means and the cost of healthcare MC	• Women who have moved to a new country, or women who are refugees HC • Women having low financial means and the cost of healthcare MC
SOCIETY	• Stigma HC • Cultural beliefs about perinatal mental health HC • Maternal norms to be a 'good mother' and a 'strong woman' HC	• Cultural beliefs about perinatal mental	• Stigma HC • Cultural beliefs about perinatal mental health HC • Maternal norms to be a 'good mother' and a 'strong woman' HC	• Stigma HC • Cultural beliefs about perinatal mental health HC • Maternal norms to be a 'good mother' and a 'strong woman' HC	• Stigma HC	• Stigma HC • Cultural beliefs about perinatal mental health HC • Maternal norms to be a 'good mother' and a 'strong woman' HC	• Stigma HC • Cultural beliefs about perinatal mental health HC	• Stigma HC • Cultural beliefs about perinatal mental health HC • Maternal norms to be a 'good mother' and a 'strong woman' HC

MATRIx

KEY
HC high confidence with evidence
MC moderate confidence with evidence
LC low confidence with evidence
VLC very low confidence with evidence

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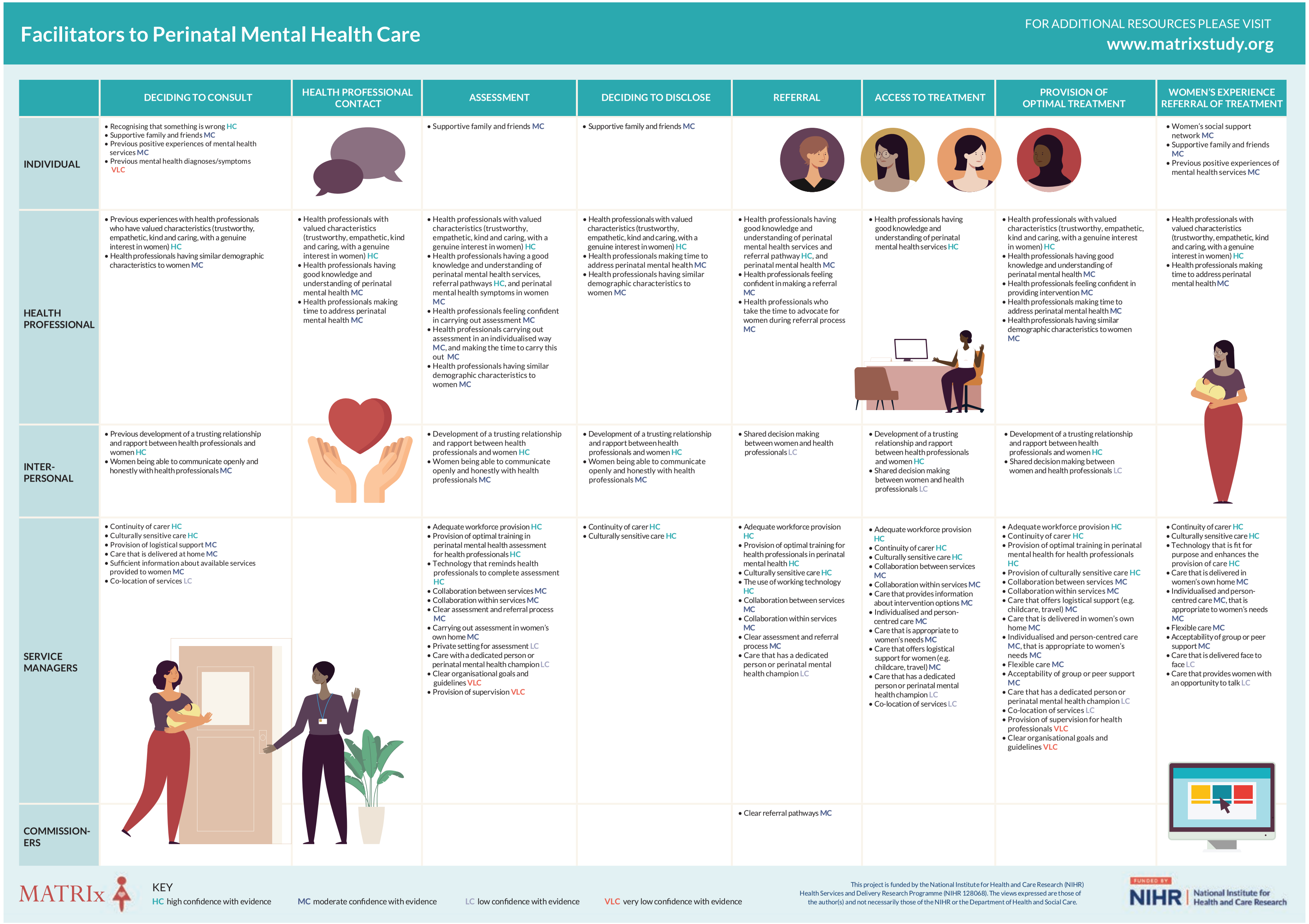
FIGURE 12 The MATRIx barriers to perinatal mental health care conceptual framework.



Facilitators to Perinatal Mental Health Care

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	DECIDING TO CONSULT	HEALTH PROFESSIONAL CONTACT	ASSESSMENT	DECIDING TO DISCLOSE	REFERRAL	ACCESS TO TREATMENT	PROVISION OF OPTIMAL TREATMENT	WOMEN'S EXPERIENCE REFERRAL OF TREATMENT
INDIVIDUAL	• Recognising that something is wrong HC • Supportive family and friends MC • Previous positive experiences of mental health services MC • Previous mental health diagnoses/symptoms VLC		• Supportive family and friends MC	• Supportive family and friends MC				• Women's social support network MC • Supportive family and friends MC • Previous positive experiences of mental health services MC
HEALTH PROFESSIONAL	• Previous experiences with health professionals who have valued characteristics (trustworthy, empathetic, kind and caring, with a genuine interest in women) HC • Health professionals having similar demographic characteristics to women MC	• Health professionals with valued characteristics (trustworthy, empathetic, kind and caring, with a genuine interest in women) HC • Health professionals having good knowledge and understanding of perinatal mental health MC • Health professionals making time to address perinatal mental health MC	• Health professionals with valued characteristics (trustworthy, empathetic, kind and caring, with a genuine interest in women) HC • Health professionals having a good knowledge and understanding of perinatal mental health services, referral pathways HC, and perinatal mental health symptoms in women MC • Health professionals feeling confident in carrying out assessment MC • Health professionals carrying out assessment in an individualised way MC, and making the time to carry this out MC • Health professionals having similar demographic characteristics to women MC	• Health professionals with valued characteristics (trustworthy, empathetic, kind and caring, with a genuine interest in women) HC • Health professionals making time to address perinatal mental health MC • Health professionals having similar demographic characteristics to women MC	• Health professionals having good knowledge and understanding of perinatal mental health services and referral pathway HC, and perinatal mental health MC • Health professionals feeling confident in making a referral MC • Health professionals who take the time to advocate for women during referral process MC	• Health professionals having good knowledge and understanding of perinatal mental health services HC	• Health professionals with valued characteristics (trustworthy, empathetic, kind and caring, with a genuine interest in women) HC • Health professionals having good knowledge and understanding of perinatal mental health MC • Health professionals feeling confident in providing intervention MC • Health professionals making time to address perinatal mental health MC • Health professionals having similar demographic characteristics to women MC	• Health professionals with valued characteristics (trustworthy, empathetic, kind and caring, with a genuine interest in women) HC • Health professionals making time to address perinatal mental health MC
INTER-PERSONAL	• Previous development of a trusting relationship and rapport between health professionals and women HC • Women being able to communicate openly and honestly with health professionals MC		• Development of a trusting relationship and rapport between health professionals and women HC • Women being able to communicate openly and honestly with health professionals MC	• Development of a trusting relationship and rapport between health professionals and women HC • Women being able to communicate openly and honestly with health professionals MC	• Shared decision making between women and health professionals LC	• Development of a trusting relationship and rapport between health professionals and women HC • Shared decision making between women and health professionals LC	• Development of a trusting relationship and rapport between health professionals and women HC • Shared decision making between women and health professionals LC	
SERVICE MANAGERS	• Continuity of carer HC • Culturally sensitive care HC • Provision of logistical support MC • Care that is delivered at home MC • Sufficient information about available services provided to women MC • Co-location of services LC		• Adequate workforce provision HC • Provision of optimal training in perinatal mental health assessment for health professionals HC • Technology that reminds health professionals to complete assessment HC • Collaboration between services MC • Collaboration within services MC • Clear assessment and referral process MC • Carrying out assessment in women's own home MC • Private setting for assessment LC • Care with a dedicated person or perinatal mental health champion LC • Clear organisational goals and guidelines VLC • Provision of supervision VLC	• Continuity of carer HC • Culturally sensitive care HC	• Adequate workforce provision HC • Provision of optimal training for health professionals in perinatal mental health HC • Culturally sensitive care HC • The use of working technology HC • Collaboration between services MC • Collaboration within services MC • Clear assessment and referral process MC • Care that has a dedicated person or perinatal mental health champion LC	• Adequate workforce provision HC • Continuity of carer HC • Culturally sensitive care HC • Collaboration between services MC • Collaboration within services MC • Care that provides information about intervention options MC • Individualised and person-centred care MC • Care that is appropriate to women's needs MC • Care that offers logistical support for women (e.g. childcare, travel) MC • Care that has a dedicated person or perinatal mental health champion LC • Co-location of services LC	• Adequate workforce provision HC • Continuity of carer HC • Provision of optimal training in perinatal mental health for health professionals HC • Provision of culturally sensitive care HC • Collaboration between services MC • Collaboration within services MC • Care that offers logistical support (e.g. childcare, travel) MC • Care that is delivered in women's own home MC • Individualised and person-centred care MC, that is appropriate to women's needs MC • Flexible care MC • Acceptability of group or peer support MC • Care that has a dedicated person or perinatal mental health champion LC • Co-location of services LC • Provision of supervision for health professionals VLC • Clear organisational goals and guidelines VLC	• Continuity of carer HC • Culturally sensitive care HC • Technology that is fit for purpose and enhances the provision of care HC • Care that is delivered in women's own home MC • Individualised and person-centred care MC, that is appropriate to women's needs MC • Flexible care MC • Acceptability of group or peer support MC • Care that is delivered face to face LC • Care that provides women with an opportunity to talk LC
COMMISSION-ERS					• Clear referral pathways MC			

MATRIx

KEY
HC high confidence with evidence
MC moderate confidence with evidence
LC low confidence with evidence
VLC very low confidence with evidence

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FIGURE 13 The MATRIx facilitators to perinatal mental health care conceptual framework.

MATRIx framework of barriers to perinatal mental health care

The MATRIx conceptual framework of barriers to PMH care is made up of factors that prevent the implementation of, or women accessing, PMH care. The MATRIx conceptual framework of barriers is shown in *Figure 12*.

Individual level barriers with moderate and high confidence in the evidence included (in order of evidence confidence): being scared of social services involvement or being judged to be a 'bad' mum; having a lack of support from family and friends or them having negative perceptions about PMI; being socially isolated; not understanding HPs' roles in relation to PMH; not understanding what PMI is, or believing PMI symptoms are due to physical causes, or are a normal part of motherhood; believing the best way to cope with symptoms is to ignore them, or minimise them; and lastly, previous negative experiences of mental health care.

HP level barriers with moderate and high confidence included: HPs being dismissive or normalising women's symptoms or not recognising help-seeking or symptoms; appearing too busy; having poor knowledge about services, referral pathways and PMH in general; HPs having low confidence about addressing PMH; and lastly HPs carrying out assessment or screening in a tick box or impersonal way.

Interpersonal level barriers with moderate and high confidence were: no trusting relationship between HPs and women; language barriers; and a lack of open and honest communication.

At the organisational/service manager level, barriers with moderate and high confidence in the evidence were: inadequate workforce therefore HP's workload is too heavy; inadequate provision of PMH training for HPs; lack of continuity of carer; lack of culturally sensitive care; difficulties with technology related to care; lack of collaboration within and between services; lack of logistical support offered by a service; insufficient information provided about the care; inflexible care; care that is not appropriate to women's needs; confusing wording of assessment tools; assessment of screening viewed as unacceptable; and lastly, unclear or confusing assessment and referral processes within an organisation.

At the commissioner level, all three barriers had high or moderate confidence with evidence, and these were: lack of appropriate or timely services; complexities of funding, resources and financial reimbursement; and lastly, confusing referral pathways.

Political level barriers rated as having moderate confidence with the evidence were: women being a refugee or immigrant, and a woman's economic status tied in with the cost of health care.

At the societal level, stigma, culture and maternal norms were all rated as having high confidence with the evidence.

MATRIx framework of facilitators to perinatal mental health care

The MATRIx conceptual framework of facilitators to PMH care is made up of factors that aid the implementation of, or women accessing, PMH care. The conceptual framework for facilitators to PMH care is shown in *Figure 13*. Fewer facilitators to PMH care were identified which suggests more research is needed.

Individual level facilitators with high or moderate confidence in the evidence were women recognising that something is wrong, having supportive family and friends and a strong support network. Previous positive experiences of mental health services were also a facilitator.

At the HP level, facilitators with high confidence ratings were: HPs possessing valued characteristics, such as being trustworthy, empathetic, kind, caring with a genuine interest; going above and beyond to meet women's needs; and having knowledge of other services and referral pathways. Facilitators with moderate confidence were HPs having similar demographics to women; having good knowledge and understanding of PMH; feeling confident in addressing PMH; making time to address PMH; and carrying out assessment in an individualised way.

Interpersonal level facilitators were the direct opposite to the barriers. Development of a trusting relationship and rapport between HPs and women; and women being able to communicate open and honestly with HPs.

At the organisational/service manager level, facilitators with a high level of confidence were the provision of continuity of carer and culturally sensitive care for women; adequate workforce provision; and provision of optimal training in PMH. Furthermore, technology that worked well and was fit for purpose was a facilitator to PMH care. Facilitators with moderate confidence were individualised, person-centred, flexible care that is appropriate to women's needs and delivered face to face; the provision of logistical support for women; or care that is delivered at home; group or peer support; sufficient information about available services; collaboration within and between services; and clear organisational assessment and referral processes.

At the commissioner level, one facilitator with moderate confidence was clear referral pathways.

Outputs from the MATRIx conceptual frameworks

The MATRIx conceptual frameworks were used as the basis to develop multiple outputs. The aim of these outputs was ensuring recommendations are disseminated and implemented. These outputs include:

- an animation aimed at HPs and service managers to show what 'best practice' services look like;
- an animation aimed at policy makers to show how PMH services should be designed;
- infographics for HPs, service managers, commissioners and policy makers with recommendations on the best ways to design and deliver PMH care;
- an infographic for women and families about ways to navigate an imperfect system;
- a summary report with more detailed information about the MATRIx study, the conceptual framework and recommendations;
- a website with clickable links, quotes and information about each part of the conceptual frameworks;
- dissemination events during Maternal Mental Health Awareness Week (May 2022) where the conceptual frameworks and recommendations were presented to large audiences, and a Question and Answer session was held.

Chapter 8 Recommendations for policy and practice

International recommendations for implementing perinatal mental health care

The barriers to implementation identified in R1 were formulated into recommendations. Where consistent barriers were identified (e.g. lack of training), a recommendation to overcome this barrier was made (e.g. provide health care professionals with training). Where consistent facilitators were identified, a recommendation to utilise this facilitator was made. Finally, implementation strategies that matched the recommendations were drawn from a dictionary of implementation strategy terms and definitions.[99,100] These recommendations were made from an international perspective and are summarised in *Table 7* and are discussed briefly below.

R1 found that for successful implementation and delivery to occur, PMH care had to meet women's needs. Therefore, the evidence suggests that service design may benefit from co-production. One potential way this could be done is illustrated by a UK based co-production service (Croydon Service User Network) where both the design and delivery of care is carried out by professionals and service users. This is a network where members participate in the running of the service, feedback their views and work alongside staff to help run group care programmes.[165] In addition, services could utilise toolkits such as The Co-Production Star which 'enables organisations ... to map how much co-production is already taking place, improve existing co-production approaches, identify the potential for new approaches and scale out co-production across services and communities'.[166]

R1 found that choice of care and personalised care was key to implementation and delivery. Therefore, the evidence suggests that in services where this is not already implemented, multidisciplinary teams should be created to facilitate choice and personalised care and ensure an adequate workforce to meet women's needs. The building of a coalition of health visitors, midwives, GPs, therapists, psychologists and psychiatrists is needed to encourage referral and reduce the risk of women falling out of the care pathway. Collaboration between services is also needed with a focus on the identification and building of working relationships and networks with other services (e.g. Citizens Advice).

Many individual level barriers to implementation and delivery of PMH care identified in R1 related to logistical issues. Women could not always attend appointments because of the inflexibility of services. The evidence suggests that increasing the flexibility and accessibility of services could be done through offering home visits. Where this is not possible, providing out-of-hours appointments in a location with good transport links and an accessible building to allow for pushchairs or provision of virtual consultations using web-based platforms such as NearMe (approved for use by the Scottish Government)[167] or Livi (an accredited NHS supplier)[168] is recommended.

R1 found that technology can be a facilitator to implementation, for example through reminders to assess women's mental health,[116] online referral systems[127] and online interventions.[114,146] However, where technology was not fit for purpose, this was a barrier. This evidence suggests that technology should be co-produced with HPs and women, to ensure ease of usability and integration into the workflow. Evidence outside of the review suggests it is also important that in-person consultations are offered where possible because of the challenges of using virtual consultations in areas of high deprivation and with those for whom English is not their first language,[169] as there is a risk of increasing health inequalities.[170,171]

TABLE 7 Implementation strategies for perinatal mental healthcare worldwide

Consistent barriers or facilitators identified by the review	Recommendation	Implementation strategies (ERIC implementation strategies)
Design of the care		
Appropriateness of care Choice Clear delivery	Women to have choice in the care they receive so that it is relevant, acceptable and fits in with their lifestyle.	Conduct local consensus discussions with providers and stakeholders (including women) so service design is relevant.
Continuity of carer Delivery in healthcare setting Delivery in home setting	Women to be offered care that is appropriate to their individual needs.	If not in place, create new clinical teams by adding new disciplines which allows women choice in the care they receive.
Family Fitting in with women life style Flexibility	Women to be given the choice about their family being involved in care.	Develop strategies with women to problem solve around uptake and adherence.
Language barriers Medication Open inclusion criteria	Care should be woman centred, one to-one with continuity of carer.	Involve women and their family members in design of care and implementation efforts to ensure service delivery is acceptable to women and their families.
Patient centred Practical support Privacy and confidentiality	Care should be delivered clearly and honestly, and each aspect of care should be clearly explained.	Obtain and use women and her families feedback to ensure service design is relevant.
Relevance to women Service integration Symptoms of psychological difficulties Technology	Care needs to be easily accessible (e.g., open inclusion criteria, central location, ways women can access care to be well advertised in healthcare settings or the community).	Form partnerships with other agencies that can provide additional support (e.g., citizens advice, translation services).
Techniques women found useful Timing Trusting relationship Women's additional personal difficulties	Care to be flexible in terms of times of appointments and where they are offered (e.g., offering support during an infant health check, at home).	Where possible, locate main building in a central location with good transport links, use accessible sites with access for pushchairs, co-plan locations of appointments with women or consider home visits to increase access.
Women's perception of the care Women's reluctance or inability to attend Wording of assessment tools	Additional practical support to be offered including childcare, travel expenses, links with citizens advice or social work.	Conduct local needs assessment to identify what is needed within the community.

TABLE 7 Implementation strategies for perinatal mental health care worldwide (*continued*)

Consistent barriers or facilitators identified by the review	Recommendation	Implementation strategies (ERIC implementation strategies)
	A private space for women and HP feelings and care. Provision of interpreters or translations of assessment materials/therapy tools. Technology enabled care for both women and HPs, for example virtual consultations via only platforms (e.g., NearMe, Livi, Skype).	Develop resource sharing agreements to enhance available space for service provision. Promote identification and building of working relationships and networks which will promote collaborative problem solving, pooled resources and shared goals. Conduct local needs assessment to identify what are the most common languages spoken within the community. Recruit and train multilingual staff. Use data experts, through hiring or consultations to inform the management and use of data. Use data warehousing techniques to integrate clinical records across facilities and organisations. Encourage co-production or user experience testing of technology to ensure ease of usability and integration into the workflow.
Characteristics of HPs providing the care		
Communication between HPs Confidence of healthcare providers HPs' perception Knowledge of healthcare providers Open and honest communication Previous experiences Training Trusting relationship	HPs providing the care should be open, non-judgmental, willing to listen, motivated, sensitive to verbal cues and interested in women. Provision of a dedicated person to act as advocate Knowledgeable and confident healthcare providers who have had relevant training, including training in communication skills. HPs should feel positively about the care they are providing.	HPs to receive accreditation for participating in training about, and providing high quality care, team working, and clear communication. Multidisciplinary working, and development of engagement across disciplines. Conduct ongoing training to ensure those providing the care are knowledgeable about PMH and the service provided. Create a learning collaborative to encourage learning of all providers, and therefore aid implementation. Identify and prepare champions to act as women's advocates Make training dynamic to ensure engagement with training.

continued

TABLE 7 Implementation strategies for perinatal mental health care worldwide (*continued*)

Consistent barriers or facilitators identified by the review	Recommendation	Implementation strategies (ERIC implementation strategies)
Organisational factors		
Clear workflow procedures Collaborative working Dedicated person Supervision	A healthcare system that supports HPs through supervision, collaborative working and a clear point of contact. Clear workflow procedures so that each individual involved in the care understands their role.	Conduct local consensus discussions with those providing the care, to ensure they feel the strategy is relevant for addressing women's needs Involve key stakeholders from all levels in pathway mapping exercises to identify and solve blocks and barriers. Involve executive boards in the implementation effort to ensure they provide relevant resources needed. Organise implementation team meetings with HPs to ensure those in charge are given protected time to reflect on the implementation effort. Provide clinical supervision.
Political factors		
Clear referral pathways	**Global recommendations**	**Global implementation strategies**
Funding Lack of appropriate or timely services Lack of resources	Free healthcare or clear and easily accessible insurance policies where free healthcare is unavailable.	Access funding through charities, insurance policy income and other means.
Organisational structure Policy Women's reluctance or inability to attend	Adequate funding to ensure each PMH care has the practical resources it needs to function (e.g., support staff, staff development, online resources, medication).	Alter patient/consumer fees where free healthcare is not available, such as in the USA, create fee structures where women pay less for preferred treatments.
	Ensuring there are clear pathways to refer to timely appropriate services. Ensuring healthcare policy is supportive of PMH services.	Build a coalition of health visitors, midwives, primary care practitioners, psychologists and psychiatrists or international equivalents to encourage referral and reduce risk of women falling through care pathway gaps.
	Recruitment of more staff to ensure adequate resources for service delivery. **UK recommendations** Adequate funding to ensure there are appropriate services that women can be referred to within and across catchment areas (e.g., across NHS trusts).	Promote identification and relationship building with other services such as social care, citizens advice, drug and alcohol services and charities to form partnerships whereby resources (including physical space for treatment) are shared ensuring women are provided with holistic support. Involve executive boards to ensure communication between desired innovation and funders.

TABLE 7 Implementation strategies for perinatal mental health care worldwide (*continued*)

Consistent barriers or facilitators identified by the review	Recommendation	Implementation strategies (ERIC implementation strategies)
		Use other payment schemes to ensure service providers are rewarded for their work. Create or review a workforce development strategy to understand workforce needs and put actions in place to meet these needs. **UK implementation strategies** Access new funding such as through application to the PMH Community Services Development Fund to facilitate service delivery. Utilise commissioning guidance produced by National Collaborating Centre for Mental Health[31] on service development. This includes multi agency working across health services and the care pathway; developing an understanding of local need; building a case for the new service model; creating staff recruitment and training plans and monitoring the impact of the new service.
Wider societal factors		
Culture Family Health beliefs Medication Stigma	Research suggests public mental health campaigns can increase knowledge about mental illness and improve attitudes about people with mental illness[175–179]. Therefore, increasing women's families and public mental health literacy through education within the community, during childbirth classes and at healthcare appointments should be carried out.	Conduct local consensus discussions with providers and stakeholders (including women) to understand what is needed in terms of mental health literacy. Involve women and their family members in design of care and implementation efforts to ensure mental health literacy delivery is relevant, appropriate and delivered in the correct settings.

R1 found that a lack of training was a significant barrier to implementing PMH care. The evidence suggests that HPs should be provided with necessary training in PMH in order to provide a high-quality, evidence-based service. Ensuring HPs provide innovative care can be encouraged through creating accreditation or membership requirements and a learning collaborative. It is also important that HPs work in an organisation that supports their efforts to provide high-quality PMH care. Involving executive boards and ensuring HP implementation team meetings will encourage managerial understanding and should therefore promote effective implementation.

The evidence from R1 suggests that funding complexities and difficulties are a barrier to implementation. Funding is required to ensure high-quality care provision. This suggests that funding needs to be available, easily accessible and ring-fenced at a local level in order to prevent essential PMH funds being diverted to other local services.[172] Funding structures may need to be revised depending on the needs of the community in which the service is delivered (e.g. affordable health insurance where free health care is not available).[173,174]

International recommendations for perinatal mental health care

The barriers identified from women's perspectives in R2 about help-seeking and accessing PMH care were used to develop recommendations about the optimal characteristics of PMH care. These are made from an international perspective and are summarised in *Table 8*.

TABLE 8 Multi-level recommendations for improving women's access and experience of perinatal mental health care internationally

System level factor	Theme	Recommendation
Societal	Stigma Culture Maternal norms	International, culturally sensitive public mental health campaigns to increase knowledge about mental illness and improve attitudes about people with mental illness. The continuation of international policies to promote gender equality.
Political	Immigration and economic status Healthcare costs	Equal rights to healthcare. Free health care. Laws to protect those with immigration status.
Organisational	Lack of services/over-stretched services Characteristics of the service Collaboration across services	Individualised and culturally appropriate care co-designed with women. Improved funding for PMH services. Improved guidance for implementing PMH care.[a]
Interpersonal	Continuity of carer Relationship and rapport Language barriers Shared decision-making Communication Information provision	Training in communication skills. Training in PMH to reduce stigma. Training in cross-cultural presentations of mental health difficulties.
HPs	Characteristics Time Training and knowledge	Training in communication skills. Training in PMH to reduce stigma. Training in cross-cultural presentations of mental health difficulties.
Individual	Beliefs about health services Beliefs about HPs Beliefs about mental illness Fear of judgment Logistics	Improvement of mental health literacy. Free access to health care. Woman-centred care.

[a] Guidelines for implementing PMH services have been developed by both NHS England in 2016[43] and the National Collaborating Centre for Mental Health in 2018 (44).

R2 highlighted a complex interplay of multi-level factors that influence women's help-seeking and access to PMH care. Societal factors such as stigma, maternal norms and culture play a large role in women accessing care and the effects can be seen in all system levels. Research suggests that public mental health campaigns can increase knowledge about mental illness and improve attitudes about people with mental illness.[175–179] This evidence therefore suggests public health efforts need to be made to increase women's, families' and the public's mental health literacy through public health campaigns, education within the community, such as antenatal education, and at health care appointments.

R2 found that maternal norms were associated with women believing that they needed to be strong and show they could cope. Maternal norms were a barrier to women accessing PMH care. Research suggests that there may be some potential to change societal beliefs around maternal norms through increasing societal expectations about fathers' roles in the family through more equal parental leave and rights. For example, in countries where parental leave is more equal (e.g. Finland), the uptake of paid paternity leave is higher.[180] Changing society's maternal norms could also be achieved through increasing women's equality. For example, research suggests that stereotypes of what a mother or a woman should look like are beginning to change in countries where women have gained more participation in the labour force[181–183] and have the right to access contraception and abortion.[184–186] However, research is needed to corroborate these findings.

At the political level, R2 identified that immigration and economic status and health care costs were barriers to women accessing PMH care. The results also show how race and gender interact to influence women's experiences of the health care system (intersectionality).[187] This finding is supported by research in general health care that has found ethnic minority and migrant women are disproportionately affected by existing barriers to accessing health care.[188,189] R2 found that these barriers include language and communication barriers, stigma, the cost of health care[190] and the inability to access culturally appropriate services.[191] The evidence shows the need for equal rights to health care, regardless of immigration or economic status. The evidence also suggests that changes at the legislative level are needed to protect those who have migrated to a different country from being penalised for accessing health care.[190,192]

At the organisational level, R2 identified a range of factors that women viewed as ideal care. Women appreciated the opportunity to discuss screening results with HPs and for it not to be filled out as a tick box exercise.[89] In terms of treatment, women wanted the opportunity to talk to someone (a HP or a peer) about their difficulties.[72,75,81,84,94,193] They found peer support offered them a sense of validation which they appreciated.[79] Further, the evidence suggests that the length of treatment should be flexible and based on women's needs. Women did not want a one-size-fits-all approach but wanted personalised care that was culturally appropriate.[46,48,49,72,75,84,90,91,95,96,193]

At the interpersonal and HP level, the characteristics of the HPs were important, as was their communication with women. Women reported that some HPs normalised their symptoms or were dismissive of their attempts to seek help at first contact, or assessment. This could be a reflection of inadequate training.[194–197] Another key training need is cultural sensitivity and cross-cultural understanding of PMH. Some reviews in R2 identified that women were treated in a culturally insensitive way by HPs, and that ethnic minority women were less likely to be offered treatment or be asked about their mental health.[198–206] The evidence suggests that it is therefore crucial that communication, cultural sensitivity and cross-cultural mental health training are provided to HPs.

In terms of individual level factors, many of these barriers can be improved through the recommendations suggested above. For example, improvement of knowledge around mental health is likely to reduce a woman's fear of judgment, self-stigma and increase her awareness of the symptoms she is experiencing which may encourage help-seeking.[207,208]

UK recommendations for policy and practice

Recommendations for UK practice and policy were developed from recommendations provided by the stakeholder consultations and the conceptual framework. During the stakeholder consultations, attendees were asked 'In your view, what are the top recommendations for clinical practice?' Answers to this question can be found in *Table 9*. In terms of the conceptual frameworks, where the confidence with the evidence was low or moderately low, recommendations for future research were made (see *Chapter 9*). Where a concept had high or moderate confidence in the evidence, a recommendation to enact this concept in practice was made. This was firstly done by reframing the barriers into answers to the question 'What would help to improve PMH identification, assessment and treatment?', and by looking at the guidance provided by stakeholder groups in relation to recommendations. Examples of good practice were also taken from the stakeholder consultation events, and from the NHS Future Platform (see *Table 10*). Each recommendation has a number next to it which relates to the audience the recommendation is aimed at. Additional information related to the recommendations can be found in *Box 3*. Recommendations are for third-party organisations, HPs, service managers, government and commissioners and the four devolved NHS oversight organisations (e.g. NHS England).

TABLE 9 Suggestions for UK practice recommendations from stakeholder group meetings

Women and families	HPs	Policy makers and commissioners
Training • Training for all people who come into contact with perinatal women and families (consultants, receptionists) • Uptake for training more likely if face to face • Training to include: ◦ Language used (diagnostic labels not always helpful, every person is different) ◦ Health inequalities ◦ PMH is not just postnatal depression and does not always mean poor bonding ◦ Different family structures ◦ Lived experience stories (but protect those telling the stories)	Training • Ring-fenced times/time-protected • Accreditation, matched to competencies • Mandatory PMH training for all • Dedicated person or network to deliver training • Training should cover ◦ How to talk about PMH, what questions to ask. ◦ Know where to refer to, how to fill out referral forms ◦ Diversity of families (e.g. race, culture, family structure) ◦ Vulnerable groups	Training • Time-protected, funding backfills for time to attend and deliver training • Not e-learning – delivered face to face • Co-produced with families with lived experience • Practical
Service provision • Whole family approach • Continuity of carer throughout entire perinatal period • Face to face as well as leaflets • Make every contact count throughout entire care pathway • Joined up working and integrated services, do not leave out NICU parents and perinatal loss • Clear and proper pathways	Service structure • Continuity of carer • Make every contact count • Trauma informed • More time needed at appointments • Engaging with diverse families • Pictorial assessment, translation tools	Service structure • Integration with adult/acute mental health services • Champions who are really invested
	Stakeholder specific recommendations – silos • Communication within and between teams • Regular team meetings with people from different disciplines • Using a 'contact us anytime' approach • Culture of team working, joint working, sharing knowledge, approachable	Stakeholder specific recommendations – commissioning • Increasing commissioners understanding and views of PMH, sustainability at a commissioning level • Funding – to be pulled from all areas, not just ring-fenced as it is everyone's business. Fragmentation of funding pots needs to be reduced

TABLE 9 Suggestions for UK practice recommendations from stakeholder group meetings (*continued*)

Women and families	HPs	Policy makers and commissioners
	• Developing relationships across disciplines. • Co-location Stakeholder specific recommendations – IT • All use same system or communication across systems • Liaison person who has access to all systems • Referral systems, making sure cover everything	• Space – physical building space, especially to enable integration across teams

TABLE 10 Recommendations for UK policy and practice in perinatal mental health services

	Evidence	Recommendations
Women	• Understanding women may believe that their symptoms are a normal part of motherhood*** which may lead to minimising symptoms*** or ignoring them*** • Understanding women may not fully understand the roles of each HP meaning they may not feel comfortable talking with them about their symptoms*** • Understanding women may not want to disclose symptoms because of fears • Understanding women may not want to disclose symptoms because of fear of social services involvement**** • Understanding the presence of supportive family can be a facilitator to PMH care access*** • Understanding that women recognising something is wrong is a facilitator to PMH care access**** • Understanding previous positive experiences of mental health services is a facilitator to PMH care access***	[1]Development of information aimed at increasing awareness of PMI such as (1) infographics/leaflets disseminated through maternity services, primary care, third sector organisations (e.g. NCT), and antenatal classes (2) short animations and videos disseminated via social media on: • Symptoms of different PMI • How they are common, and when to seek help Causes • How to access professional support services available • Maternity professionals and their role in PMH care • Myth busters on social services and medication
	• Facilitators are services that provide childcare***, flexible timing of appointments***, and easily accessible location/home delivery of care/treatment***	[2-4]Provision of care that meets women's needs is flexible, easy to access and provides childcare
	• Understanding that not being financially stable***, or being a refugee or an immigrant**** can be a barrier to accessing care • Understanding additional personal difficulties, such as unemployment may prevent PMH care access***	[4]A fair welfare and economic system that ensures that no one is living in poverty or in financial hardship
HPs	• Having a reasonable workload to ensure there is time to address women's concern***	[2-4]Provision of an adequate number of workers to meets women's needs (see below)

continued

TABLE 10 Recommendations for UK policy and practice in perinatal mental health services (*continued*)

	Evidence	Recommendations
	• Works collaboratively with other HPs and other services*** • Communicates clearly and openly with other HPs***	[2]Multidisciplinary meetings, co-location, encouragement of a culture of team working, joint working, sharing knowledge, and approachability [a](see *Box 3*)
	• Validating women's symptoms****	[2&4]Implementation of PMH good practice guides[209] which cover:
	• Having the knowledge to understand different PMH difficulties*** • Recognising help-seeking***	• Symptoms of PNMI • Communication skills when discussing PNMI What to do if a woman discloses • PMH difficulties • Training opportunities • Links to further resources • Case studies with examples of good practice
	• Has received adequate training**** and therefore has good knowledge about PMI*** and other services and referral pathways**** • Feels confident in addressing PMH concerns***	[5]Participates in CPD activities related to PMH including participating in high quality training (see below). Consider HPs receiving accreditation for participating in training[100]
	• Caring HPs who show a genuine interest in women and who are trustworthy, non-judgemental, empathetic and warm****	[2&4]Recruitment of staff positive interest and attitude towards providing high quality care to women. Consider HP receiving accreditation for providing high quality care, team working, and clear communication[100]
Interpersonal	• Resources available to break down language barriers such as translators or Language Line****	[2]Recruit translators or form partnerships with other agencies that can provide additional support (e.g., translation services, interpreters[100]) to translate infographics/leaflets into local languages[b] and to act as an interpreter at appointments if women feel comfortable. [2]Investment in live translation tools or telephone interpreting such as Language Line.
	• Opportunities to form trusting relationships between women and HPs**** • Opportunities for open and honest communication***	[2-4]Provision of continuity of carer across the care pathway[c]
Service managers	• Recruitment of a multi-disciplinary team with enough staff to meet service user needs**** • Provision of continuity of carer****	[2-4]Ensure an adequate workshop to meet needs by utilising a workforce planning tool[210] and considering if there are a sufficient number of people in each of the key roles (psychiatrist, pharmacist, nurse, psychologist, occupational therapist, support staff, admin, peer support). Ensure a diverse workforce[211]
	• Clear assessment and referral processes***	[2-4]Clear & easily accessible guidelines on where to refer women to depending on their need. Development of one referral form that can be uploaded and amended, discussed at multidisciplinary team meetings[d]. Encouragement of a workspace that involves co-location, a culture of team working, sharing knowledge, approachability

TABLE 10 Recommendations for UK policy and practice in perinatal mental health services (*continued*)

	Evidence	Recommendations
	• High quality staff training for all people working within a service, that is provided face-to-face, is time-protected, and covers PMH symptoms, treatment, cross-cultural presentations of PMH, referral pathways and available services, and communication skills****	[2&4]Provision of training for all people working in a health service. Consider the use of simulation training[e]. Training should: • Be ring fenced/time protected • Provide accreditation, matched to competencies and appropriate to level of involvement • Be expected for all health services staff who have contact with perinatal women • Be interactive and provided by a knowledgeable person or network • Where relevant be face-to-face Training should cover: • Symptoms of PNMI not just depression • How to talk about PMH, what questions to ask, language use • How and where to refer to • Diverse family structures • Vulnerable groups Health inequalities • Lived experiences • Trauma informed care • Cross cultural presentations of mental illness • How to engage women from diverse backgrounds[f]
	• Easy-to-use technology that is compatible with other technology systems used in other services****	[2]Encourage co-production or user experience testing of technology to ensure ease of usability and integration into the workflow. Employment of a liaison person who has access to all systems to bridge the gap between different services. [6]Using compatible IT systems for easy access to information.
	• Provision of culturally sensitive care**** that is individualised***, flexible***, appropriate to women's needs. Provision of care should ideally be delivered face-to-face***, provides logistical support*** or is carried out in a home setting***. Furthermore, peer support is valued by some women too and should be considered***	[2&4]Encourage co-production of care[f]. Collaborate with organisations such as The Motherhood Group to ensure care is culturally appropriate. Provide peer support to women who feel it would benefit them. Consider provision of home visits for care and deliver care face-to-face. If home delivery is not possible, ensure practical support is available such as childcare.
	• Clearly worded assessment tools*** • Assessment delivered in an individualised manner with discussion and adequate time given***	[2&4]Use easy to understand assessment tools. Collaborate with organisations such as The Motherhood Group to ensure cultural appropriateness. Design or update assessment tools that use pictures alongside words for use with women whose English speaking and understanding is limited[h]. Ensure HPs have enough time to carry out assessment by creating an adequate workforce (see above) [5]Provide assessment in a woman-centred way. Explain questions or wording that women are not clear about. Clearly discuss results with women and explain next steps.

continued

TABLE 10 Recommendations for UK policy and practice in perinatal mental health services (*continued*)

	Evidence	Recommendations
Commissioners	• Provision of adequate financial resources to ensure service managers can: ◦ Recruit a multi-disciplinary team with enough staff to meet service ◦ Provide high-quality, time protected staff training to all staff**** Provide continuity of carer**** ◦ Provide resources that break down language barriers such as translators or Language Line**** ◦ Provide an adequate number of appropriate services that women can be referred to in a timely manner**** ◦ Reduction of the changeover of technology when new commissioners join, and encouragement of technology use that is compatible with other systems**** ◦ Provide individualised, woman-centred care**** • Designing clear referral pathways[n]*** • Designing integrated care Ensure collaboration within and between services***	[4&6]To provide services that meet the needs of the population, commissioners must[212]: • Have a good knowledge of population and the healthcare need in question. Therefore, training on PMH should be mandatory for at least one commissioner in each PCN, ICS or Health Board (see recommended training above) • Have access to high quality evidence e.g., the development of PMH information guide[i]/videos that covers: ◦ Symptoms of PNMI ◦ Impact on women and their families ◦ Barriers to women getting care they need and how to overcome these ◦ Effective care and treatment ◦ Examples of good practice • Engage with people with lived experience services should be co-produced with those who have lived experience[213]; see *Box 3* f)
	• A clear and easy to access funding structure for commissioners and service managers	[4&7]Continued policy support from NHS England, and NHS related to PMH care, such as the publication of the Five Year Forward View[28] and Long Term Plan[33], NHS England, and Delivering Effective Services[214] report for NHS Scotland.
Government and regulatory bodies	• Support for refugee or immigrant women to be able to access care without being penalised (e.g., through deportation, through charging systems)*** Adequate financial support for those who are not eligible for free healthcare***	[4]Free health care for all at the point of access[j] Suspension of NHS charging regulations until a full independent review of their impact on individual and public health, simplification of charging criteria and exemptions and safeguards to protect vulnerable patients and ensure they are not denied the care they are entitled to, is carried out[k] [4]A fair welfare and economic system that ensures that no one is living in poverty or in financial hardship[l]
	• A clear and easy to access funding structure for commissioners and service managers, equality of funding distribution and adequate funding provision to ensure service needs are met***	[4]The provision of a comprehensively researched and adequate budget provided to the Department of Health and Social Care, Health and Social Care Directorates and so all healthcare needs for that financial year can be met [4]Where possible, reduction of in-year funding changes in England so local areas know exactly how much they can spend at the start of the year[215].
Society	• Less societal stigma related to mental health****	[4&7]NHS Mental Health Campaign focused on stigma reduction[m]

Note
**** = high confidence with evidence; *** = moderate confidence with evidence; ** = low confidence with evidence;
* = very low confidence with evidence (based on CERQUAL Ratings)

1 Recommended development by third party organisations in collaboration with NIHR Applied Research Collaboration (ARC) PMH Themes Perinatal Mental Health Network Scotland National Managed Clinical Network, and Royal Colleges
2 Recommended development by service managers
3 Recommended financial support from commissioners
4 Recommended policy for government
5 Recommendation for HP
6 Recommendation for commissioners
7 Recommendation for NHS England

BOX 3 Further information related to recommendations in *Table 10*

a) The Greater Manchester Perinatal Parent Infant Mental Health Model of care works within an integrated system, making sure all services work together, preventing silo style working[216]
b) ACACIA Family support provide pre and postnatal depression support services. They have translated patient information into multiple languages (Arabic, Bengali, Chinese, French, Hindu, Polish, Punjabi, Romanian, Samoan and Urdu).[217]
c) The Tower Team based in the Tower Hamlets, London is a high-risk caseload midwifery team that works closely with the perinatal mental health team and the consultant obstetrician for mental health at St. Thomas hospital. The tower teams offer continuity of care for women with severe mental illness from their maternity booking appointment throughout the pregnancy, intrapartum and for up to 28 days postpartum.[218]
d) Perinatal Mental Health Service at South West London and St Georges Mental Health NHS Trust.
e) Brighton and Sussex University Hospitals NHS Trust provide Perinatal Mental Health Simulation Training on the identification and management of common perinatal mental health problems using actors and real life settings.
f) The Motherhood Group provide training related to engaging with black women.[219]
g) One example of a successful co-produced service is the co-production of perinatal mental health services in Ealing, Hammersmith, Fulham & Hounslow. There was strong engagement with lived experience experts from the start.[218]
h) For example, How are you feeling screening tools by Abi Sobowale (Sheffield South West NHS Trust)
i) A guide for commissioning services is available for London. However, this was published in 2017 and needs updating in line with this conceptual framework.[218]
j) Despite the NHS being free for UK residents, there are NHS charging regulations in place for those who are not residents of the United Kingdom. NHS charging regulations have a large negative impact on pregnant and postnatal women, in terms of their mental health[220] increasing stress and anxiety, their vulnerability to domestic violence[221] and maternal deaths that may have been prevented through access to antenatal care.[222,223] Furthermore, Public Health England has identified NHS charging for maternity care as one of the key issues that exacerbates poorer health outcomes for women and babies of colour.[224]
k) This recommendation is in line with: (a) a joint statement set out by the Royal College of Physicians, the Royal College of Paediatrics and Child Health, the Royal College of Obstetricians and Gynaecologists and the Faculty of Public Health in 2018, calling for a suspension of NHS Charging;[225] (b) a statement from the Academy of Medical Royal Colleges in 2019 released a statement calling for the suspension of the NHS charging regulations until a full independent review on individual and public health is carried out;[226] (c) a statement from the Royal College of Paediatrics and Child Health calling for an end to NHS charging due to its adverse effects on child health and wider public health;[227] (d) a report from Maternity Action calling for the immediate suspension of charging for NHS maternity care given the different effect on women access to maternity care.[228]
l) Everyone has the right to a standard of living adequate for the health and well-being of [them]self and of [their] family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond [their] control and to ensure "motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.
m) Based on research suggests public mental health campaigns can increase knowledge about mental illness and improve attitudes about people with mental illness.[175,177,179]
n) The Future NHS Platform for National Perinatal Mental Health provides examples of pathways and system delivery models: Maternal mental health services-> MMHS Resources-> 3. Pathways and system delivery models

It is important to note that these recommendations were developed during the COVID-19 pandemic, which had a large impact on the delivery of health services. In terms of PMH care, level of demand for PMH services increased, whereas staff capacity decreased due to illness, school closures and staff being redeployed to COVID-19 health care. There was a significant increase in digital service provision and a reduction in face-to-face services. These changes posed challenges for both services and women. The impact of these changes is still being felt now, and the Maternal Mental Health Alliance has called on the UK government to future-proof PMH services against future pandemics and public health crises. They recommend that this is done by the UK government guaranteeing a minimum high standard of mental health care for pregnant women and mothers of young infants. Thus, although the recommendations of the MATRIx conceptual frameworks may be difficult to achieve in the current climate, the recommendations can be used alongside the Maternal Mental Health Alliance's recommendations to design and deliver best practice, and future-proof care.[229] While recovery from COVID-19 and capacity issues may still be being resolved, it is still important to look towards the future in the design and delivery of services.

Recommendations for third-party organisations

The results from both reviews, stakeholder discussions and the development of the conceptual frameworks indicate that women may not always have a clear understanding of PMH and the services available. This suggests that the development of information aimed at increasing awareness of PMH would be beneficial. Therefore, recommendations for third-party organisations, such as the National Institute for Health and Care Research Applied Research Collaboration (NIHR ARC) Maternity, Mental Health and Perinatal Mental Health Themes, and the Royal Colleges include: (1) collaborating to develop infographics, leaflets, short videos and animations to increase women's awareness of PMI; and (2) the recommissioning of public mental health campaigns aimed at reducing stigma related to mental illness. The evidence reviewed, stakeholder discussions and the structure of NHS funding show that commissioners are important in ensuring that PMH is funded appropriately, and referral pathways are developed. This suggests that third-party organisations should also develop guidelines on commissioning PMH care and referral pathways for commissioners.

Recommendations for health professionals

The research identified found that HPs may lack time, confidence and knowledge to address women's PMH concerns. Therefore, it is recommended that HPs participate in continuing professional development (CPD) activities related to PMH, including participating in high-quality training.

Recommendations for service managers

The evidence reviewed and feedback from stakeholders suggest that PMH care needs to be appropriate to women's needs. This could be by offering women choice in the type of care they receive, ensuring care is culturally appropriate and inclusive, and offering continuity of carer when possible. The evidence therefore suggests that service managers should provide care that: (1) meets women's needs. This may include peer or group support, as well as logistical help. It is recommended that, where possible, care is co-designed with women and organisations such as The Motherhood Group to ensure care is culturally appropriate; (2) uses easy to understand assessment tools, including pictorial aids; (3) ensures the recruitment of translators or formation of partnerships with other agencies that can provide additional support (e.g. translation services, interpreters);[100] (4) where possible, provides continuity of carer across the care pathway, for example, relationship-based GP practice care, where the same GP sees the mother each time she consults.[230]

To provide high-quality care, the evidence reviewed and stakeholder meetings suggest that services managers should: (5) ensure an adequate workforce to meet women's needs by utilising a workforce planning tool;[210] (6) recruit staff with a positive interest and attitude towards providing high-quality care to women; (7) provide training for all people working in a health service, including receptionists and administrative staff, and consider the use of simulation training. Training must be time-protected; (8) encourage a culture of multidisciplinary team working, joint working and knowledge sharing; (9) design clear and easily accessible guidelines about referral and assessment pathways within the organisation; and (10) encourage co-production or user experience testing of technology to ensure ease of usability and integration into the workflow. Use the same IT systems across all NHS trusts/health services. Where this is not possible, consider the employment of a liaison person who has access to all systems to bridge the gap between different services.

Recommendations for policy makers

Many elements of the conceptual frameworks can be modified by policy makers and government activity, for example, workforce provision, health care capacity, training, etc. Therefore, we recommend that policy makers review the MATRIx frameworks and use them to inform development of comprehensive, strategic and evidence-based services to ensure effective PMH care.

At a more specific level, the evidence reviewed and feedback from the stakeholder groups suggest that policy makers and commissioners should: (1) provide adequate financial resources to ensure that service managers are able to meet the recommendations given above; and (2) design clear referral pathways and ensure a clear and easy to access funding structure. Furthermore, guidelines for commissioners suggest that commissioners should have a good knowledge[212] about PMH, and that people with lived experience are consulted prior to decisions regarding the commissioning of services being made.[213]

At the governmental level, the research identified suggests that immigration and economic status and health care costs were barriers to women accessing PMH care. The results also show how race and gender interact to influence women's experiences of the health care system (intersectionality).[187] The evidence shows the need for equal rights to health care regardless of immigration or economic status. The evidence also suggests that changes at the legislative level are needed to protect those who have migrated to a different country from being penalised for accessing health care.[190,192] To reduce these health inequalities identified by the reviews further, we recommend free health care for all at the point of access for everyone. A recent report by Maternity Action has highlighted the impact that NHS Charging has had on refugee and immigrant women in deterring help-seeking and access.[228] We thus also recommend suspension of NHS charging regulations until a full independent review of their impact on individual and public health is carried out, a recommendation in line with multiple organisations.[225–228] To further reduce health inequalities in access to PMH care, we recommend the development of a fair welfare and economic system that ensures that no one is living in poverty or in financial hardship.

Furthermore, evidence from the reviews and stakeholder discussions (see *Table 9*) suggest that the current funding structures for health care are complex and adequate funding can be difficult to access. NHS England is also subject to funding changes throughout the financial year,[215] making it difficult for commissioners and service managers to plan services. We therefore recommend the development of a clear and easy to access funding structure for commissioners and service managers, equality of funding distribution and adequate funding provision to ensure service needs are met. This recommendation is reliant on the provision of a comprehensively researched and adequate budget provided to the Department of Health and Social Care and Health and Social Care Directorates, and a reduction of in-year funding changes in England so local areas know exactly how much they can spend at the start of the year.

Chapter 9 Discussion

Summary of results

The research detailed in this report reviewed the evidence on barriers and facilitators to implementing PMH care, and to women seeking help and accessing PMH care and treatment. Results from reviews were then synthesised and two conceptual frameworks of key barriers and facilitators to PMH identification, assessment, care and treatment were developed. The conceptual frameworks (see *Figures 12* and *13*) were developed using an eight-stage approach set out by Jabareen (2009)[56] and are based on evidence from 46 primary research papers on implementing PMH care (R1), and 32 systematic reviews on women's barriers and facilitators to accessing care (R2).

These frameworks were used to provide evidence-based recommendations for international and NHS policy, practice and future research. The MATRIx frameworks led to the identification of 22 evidence-based recommendations for practice and commissioning. Despite being aimed at different stakeholder groups, these recommendations are all highly intertwined and the uptake of one would be likely to have positive effects on others. For example, the continuation of prioritising funding for PMH services by the government[231] and NHS England[33] will impact on the amount commissioners can allocate to PMH services, thus impacting on the workforce, increasing opportunities for continuity of carer models, staff training and other resources such as translators and logistical support.

Relevance to the wider literature on perinatal mental health

At the individual level, barriers identified included no family support for mental health difficulties, lack of awareness or knowledge about PMH, beliefs about medication, reluctance or inability to attend mental health services, previous experiences of mental health services and additional personal difficulties. It is important to note that these individual level factors do not develop in isolation but often compound one another. For example, women's beliefs about health services and HPs are likely to come from their previous experiences of health services. This is supported by research carried out with other populations such as young people,[232] suicidal people[207] and refugees[233] that found previous experiences of health care influences help-seeking behaviour.

Societal factors, such as stigma, maternal norms and culture, are likely to play a role in women's fear of judgment about acknowledging PMH difficulties. The systematic reviews showed a clear overlap between feeling judged as a bad mother, maternal norms to be strong and able to cope, and stigma. Further, some cultural understandings of PMI increase this fear and stigma. R2 found that women from black, Asian and Hispanic backgrounds living in Western countries were more likely to believe symptoms of mental illness were seen as a sign of weakness, or failure, and such symptoms were highly stigmatised in their culture.[46,47,89,90,95] This finding is supported by previous research that has found stigma is one of the leading barriers to help-seeking[234–236] and that certain cultural beliefs may amplify the effects of stigma.[237–239]

Women also faced logistical challenges such as lack of childcare and lack of transport facilities to access care. These factors were linked to political factors such as economic status. For example, where women had low or no income, other factors such as unstable housing took priority.[82] Women who had migrated into a country had additional barriers such as fear of deportation for accessing health care, or an inability to obtain healthcare insurance.[70]

At the HP level, a facilitator to implementation was HPs having a positive perception of the care provided. For example, where HPs internalised the value and importance of assessment, they would be more likely to assess women. This is in line with several implementation theories, such as the internalisation aspect of the Normalization Process Theory,[240,241] the Diffusion of Innovation Theory and the Technology Acceptance Model, all of which suggest that users' perceptions of an innovation are important for their decision to use an innovation.[242–244]

Other facilitators to implementation were HPs who were genuinely interested in women, took time to listen and were kind and caring. This genuine interest in women suggests that intrinsic motivation, which is where individuals perform a certain action or behaviour for personal satisfaction without any external reward (e.g. praise or money),[245] may play an important role in the implementation of PMH care. Health care providers are increasingly utilising payment for performance models,[246,247] such as the payment by results system used within the NHS to improve implementation. These models are based on performance improving with extrinsic motivation and, while there is some evidence that this method works,[247] the results from this evidence synthesis did not reflect this. Furthermore, for HPs to act on intrinsic motivation to be kind and to care for people, they need to be working in a well-resourced setting and not experiencing burnout. Burnout is associated with compassion fatigue,[248] which is a term used to describe HPs becoming disconnected from or desensitised to patients and patients' families.[249] Both burnout and compassion fatigue are associated with negative outcomes for patients, such as HPs being less engaged with patients, as well as negative outcomes for HPs themselves.[250] Therefore, it is important service providers ensure that they have an adequate workforce and have support in place to ensure staff well-being.

Another HP level barrier was normalising women's symptoms or not recognising their attempts to seek help, particularly at first contact. This is probably partly due to a lack of time and training. For example, one of the most cited barriers identified across both reviews was HPs' heavy workloads, meaning they do not have the time to address PMH. For example, research suggests that consultations where mental health problems are discussed take longer, and HPs feel there is not enough time to address concerns fully.[251,252] Research also suggests that inadequate training in mental health is associated with feelings of anxiety and fear around patients with mental illness, a desire to avoid them, and less effective treatment.[194] This may mean HPs close down conversations about PMI prematurely. Women's decision to disclose is related to HPs getting it right the first time. Therefore, it is important there is adequate time and training for HPs to feel confident addressing PMH, so every woman gets the response she needs the first time, whomever she sees.

At the interpersonal level good communication, allowing for clear information provision and shared decision-making between women and HPs facilitated women continuing along the care pathway. The systematic reviews in R2 suggested that women were not always included in decision-making regarding medication[48] or referral[72] and this impacted on their experience of care. Poor communication was further exacerbated by language barriers and women experienced culturally insensitive care from HPs.[89,96] Previous research also supports these findings, showing that communication with HPs influences individuals' experiences of care.[253,254] Good communication between women and HPs is more likely to develop where there is continuity of carer. A real-life example of this is the lack of relationship-based care carried out in general practice. In a survey of 43 GPs, less than a quarter had responsibility for ongoing contact with the same patients, meaning it impacted their ability to see women in the perinatal period on a regular basis.[34] As identified in this work, lack of contact on a regular basis limits opportunities to develop trusting relationships.

At the organisational level, lack of services, the characteristics of the services (i.e. prioritisation of physical health, no language support services, difficult to access location, the need to attend appointments without the baby) and poor collaboration across services were barriers. These barriers have also been identified in other systematic reviews of help-seeking and health care access.[232,255,256] Poor collaboration across and within services is often due to working in 'silos'. Organisations are often made up of multiple teams, divisions or departments. These can act as physical silos which prevent certain groups of individuals from working with one another. However, silos are not always physically present within an organisation, they may also be based on employees' beliefs[257] (e.g. we are the midwives, they are the doctors). It is argued that silos provide a feeling of safety by keeping 'those who are not like us' out.[258] However, this can create an 'us-and-them' mentality which can fragment organisations.[259]

Furthermore, working in silos promotes groups achieving their own goals, rather than everyone working together to meet an overall goal.[260] It is therefore not surprising that research suggests that silo working within the NHS can have a negative impact on care. For example, one study found that silo working led to increased length of hospital stay.[261] The NHS has published multiple documents on breaking down silo working, both within the NHS and in terms of links with outside organisations. For example, in the Five Year Forward View[28] one of the aims was to ensure better integration between health and social care through multidisciplinary working and providing more holistic care.[262] Furthermore, the NHS Long Term Plan[33] sees the future of the NHS as investing in and working with the local community to improve the health of those living within that community.[263] Therefore, it is important that these plans are implemented successfully to improve the care provided to these individuals.

Limitations and recommendations for future research

For both reviews, a decision was made to only synthesise literature carried out with perinatal women. This means that the results from this review may not be generalisable to fathers, partners and families. Fathers' and partners' PMH is important so this is an area that requires research and evidence synthesis in its own right. Given that the NHS Long Term Plan has set aside money for the delivery of mental health checks for fathers/co-parents of women receiving specialist community PMH care,[33] it is important to conduct research to understand the barriers and facilitators of PMH care for fathers, birth partners and co-parents.

These reviews also excluded services for substance misuse because these disorders raise unique challenges in terms of assessment and treatment that may not be generalisable to other disorders. Future research is therefore needed to understand the needs of women who suffer from substance misuse disorders. Furthermore, for both reviews a limitation of the methodology is that only reviews published in academic journals and written in English language were included. Relevant reviews from health services, charities, third-sector organisations and other grey literature may have been missed.

For R1 the large number of citations meant a decision was made to double screen 10% of abstracts so some papers may potentially have been missed. However, the high concordance of the double screening conducted makes this unlikely. Similarly, only 10% of papers included in R1 had dual critical appraisal of methodological quality which may have influenced the results of this appraisal. However, no papers were rejected on the basis of quality making this less problematic. Similarly, in R2 only 10% of studies had duplicate data extraction. However, concordance was high, so it is unlikely that any key themes were missed.

In terms of the development of the conceptual frameworks, the use of CERQual to evaluate confidence in the findings is a strength, but ratings were done by one researcher (Rebecca Webb) which may mean they are slightly less valid. However, the CERQual approach is described thoroughly and specific rules for each of the assessments were discussed and agreed with the research team to ensure ratings were standardised (see *Appendix 6*).

There are also some limitations in terms of the evidence included in the reviews. For example, there was a lack of research carried out in specialist services or for women with severe PMI. None of the implementation papers in R1 examined these. Only two reviews in R2 included studies of women with postnatal psychosis or postnatal PTSD, and only three included studies directly related to specialist PMH services. There may be different barriers for other PMH difficulties

difficulties therefore future research should focus on researching the barriers and facilitators to women with disorders other than depression (anxiety, PTSD, OCD) as well as more severe PMH difficulties, and issues for neurodivergent women (such as those with autism who are at high risk for anxiety and depression).[264,265] Linked to this, only three studies from one review were directly related to admission to hospital beds, which is the fourth filter of the Goldberg and Huxley (1992)[41] model. Given the large gaps in inpatient PMH service provision across the UK and globally,[266–268] future research is needed that focuses on the implementation of mother-baby psychiatric units, or international equivalents. Furthermore, more research is needed that focuses on the provision of PMH care for women in universal services. UK evidence suggests primary care is the main provider for PMH care, with 90% of common mental disorders being managed in primary care services.[41] Therefore, we need to understand what changes are needed to improve care provision in universal services.

Most research included in R1 and R2 only looked at barriers to PMH care. This can be seen from the conceptual frameworks, where far fewer concepts are included in the framework of facilitators (see *Figure 13*) compared to barriers (see *Figure 12*). Furthermore, most of the research identified was carried out in HICs, meaning we still are not able to have a full cross-cultural picture of barriers and facilitators to PMH care. There was some evidence that beliefs that mental health difficulties being caused by spiritual factors were a barrier to women accessing help, because it was believed the best person to help would be a spiritual leader. However, studies carried out with ethnic minority women and those living in non-western countries or cultures were sparse and we were unable to draw conclusions about this. More research is therefore needed to understand barriers relating to more diverse populations and to include women who migrate from LMICs to HICs. Furthermore, research carried out in a variety of different countries may further our understanding of different barriers and facilitators based on health care systems across the world (e.g. free vs. paid health care).

Lastly, no identified studies or reviews focused on the experiences of the lesbian, gay, bisexual, transgender and queer (LGBTQ) community. Carrying out research with the LGBTQ community is a research priority.[269] Furthermore, this project did not assess the needs of fathers/birth partners and therefore it is unclear if the frameworks are applicable for anyone other than women in the perinatal period.

Other individual level factors that were identified by the conceptual frameworks that need further research are women's beliefs about health services, such as whether they are approaching the correct HP/service, whether the service will have the capacity to help and whether the service offers more than medication. Furthermore, there was some emerging evidence of other individual level barriers such as certain demographics, and women not feeling psychologically ready to receive treatment, or whose symptoms prevented them for engaging with treatment.

At the HP level, one factor that may warrant further research is whether the impact of good supervision is a facilitator to implementing and delivering high-quality PMH care. Furthermore, one barrier to treatment may be HPs not having a good understanding of medication use during the perinatal period, and this should be researched further. At the interpersonal level shared decision-making with women about their future care options may also act as a facilitator, but more research is needed.

The importance of incorporating outcome measures into the conceptual frameworks was based on feedback from members of the research programme management group. This was not identified from the literature and may reflect the nature of service commissioning in the NHS, where services need to show that they are working in order to be recommissioned. Thus, outcome measures to evaluate services need further attention. It is important that outcome measures used are adequately measuring what the services aim to treat (such as a reduction in symptoms and increased quality of life) but that they are also culturally appropriate and sensitive to women's needs so as not to discourage women for accessing further care due to the completion of inappropriately chosen measures. Previous research has examined this but implementation of it has been poor and may need updating given the findings of this research programme (e.g. culturally appropriate measures).[270] Further research at the organisational level should focus on ideal timing and length of care and whether more open inclusion criteria and clear organisational structures are facilitators to care.

Recommendations for further work

It is important that results from this work are disseminated as widely as possible to ensure positive changes can be made to PMH health policy and practice. Ideas for dissemination were identified during the stakeholder group meetings and are summarised in *Table 11*.

Based on these stakeholder recommendations, results from both systematic reviews, the conceptual frameworks and evidence-based recommendations we propose a series of possible dissemination strategies shown in *Table 12*. A knowledge translation framework was applied to these dissemination strategies – the interaction-focused framework.[280] This framework highlights the need to identify the most appropriate mode of interaction and the level of detail that should be provided. Therefore, research was identified about where each stakeholder obtains their information from, and the type of information they find the most helpful.

For example, results suggest that mothers' beliefs about PMH (e.g. the causes and where to seek help) and fear of judgement and social services involvement may prevent women from seeking or accessing help. It is therefore recommended that infographics, reports and animations for women and their families, similar to those reported above, are developed, which aim to inform families about PMH and break down cross-cultural barriers. These should be disseminated through universal health services, such as GP surgeries and maternity services; via social media and online, for example, websites such as Netmums, Tommy's and Mumsnet.

Results from the reviews also identified that HPs' knowledge about PMH can either be a barrier or facilitator to women accessing care and continuing along the care pathway. We therefore recommend the development of good practice guide(s) which cover the different symptoms and appropriate responses, as well as further training opportunities. This could be disseminated via multiple organisations such as the clinical networks for PMH, local maternity system, PMH workstreams, service managers, webinars, social media, unions, professional journals (e.g. Practice Midwife, BMJ, British Journal of General Practice) and training courses (e.g. Readwell and Health Education England Training hubs).

There were many barriers to women accessing and receiving optimal care in the design and the delivery of services. It is therefore recommended that a document for service managers is designed which utilises the results from the reviews to design a good practice guide. This guide could include examples of good practice and ways to overcome barriers such as language barriers, workforce, training and technology issues. Dissemination should be via networks such as the Perinatal Quality Network; Maternity Networks for NHS improvement; NHS Talking Therapies Clinical Networks; PMH Clinical Networks; Academic Health Science Network; Health Education England Training Hubs and the Community Mental Health Transformation work.

The conceptual frameworks (see *Figures 12* and *13*) and reviews identified commissioning and political barriers that also prevent women from seeking help, accessing care and experiencing optimal care. It is therefore recommended that a policy and commissioning guide is developed which covers topics such as 'what is PMH and why is it important?', 'what should PMH care look like?' and 'how can this be commissioned?', as well as how to break down postcode lottery in service provision. This guide could be disseminated to local commissioning groups and disseminated via PMH clinical networks in England, Wales, Scotland and Northern Ireland.

TABLE 11 Recommendations for dissemination from MATRIx stakeholder groups

Stakeholder group	Dissemination suggestions
Women and families	Families • Translation of public facing materials into different languages • Awareness of PMH before the birth, put information in GP surgeries, or in maternity notes, on maternity apps, baby boxes, red book, social media, animations, artistic expressions HPs • Presentations at: ◦ Managed clinical networks for PMH ◦ Maternal Mental Health Scotland ◦ NHS Education Scotland ◦ Local Maternity System PMH workstream (through Maternity Voices Partnerships) • Dissemination for HPs – training sent through service managers and senior nurses which then filters through to relevant teams Third party • Documents sent to generic third-party mental health organisations, for example, MIND, Samaritans
HPs	• Via service managers • Webinars – record, upload to future platforms • Social media • Royal Colleges • PMH Champions • Unions • Royal College of Midwives • Practice Midwife and Royal College of Midwives Journals • Updater courses, for example, Readwell GP updates, NB Medical women's health updates (GPs) • GP Webinar – Webinar series across London, ~160 GPs
Commissioners and policy makers	• Perinatal quality network • Organisations such as Action on PP psychosis • Home start • Maternity networks for NHS improvement • Local maternity systems • Public Health England (health visiting) • NHS Talking Therapies Clinical networks • PMH Clinical networks • Academic Health Science Network – patient safety collaborative with a maternity-neonatal focus • Health Education England Training Hubs • Community Mental Health Transformation Work

Finally, results suggest that stigma is still entrenched within societies and is a barrier across the care pathway. It is therefore recommended that future work focuses on the development of reports, infographics and animations, such as those mentioned above, that aim to break down this stigma. This could be through psychoeducation about mental illness and/or public mental health campaigns. This could be developed in collaboration with charitable and third-sector organisations such as Mind, The Maternal Mental Health Alliance and the 1001 Critical Days All-Party Parliamentary Group.

TABLE 12 Recommendations for dissemination

Who	Information sources	Type of information	What	How?
Women and families and third-party organisations	Internet, health professionals, television, family and friends, magazines[271]	Information about a specific medical condition or new/experimental treatments. Reliable, credible information[271]	1. Infographics/leaflets: • Symptoms • Common, but not 'normal' • Why might I feel this way? • What can I do? • Myth buster ◦ Social services ◦ Medication only	1. GP surgeries, maternity services, maternity notes, maternity apps, red book, baby boxes, MATRIx website, NCT website, digital magazine, Maternal Mental Health Alliance, Netmums, NCT, Mumsnet, Tommy's, Mind, Action on Postpartum Psychosis, mentalhealth.org.uk, Rethink Mental Illness, Home Start, NSPCC, Better Beginnings, Royal Colleges, Twitter Maternal Mental Health week, Instagram reels, TikTok, Facebook, Snapchat, YouTube
			2. Short PDF report, newsletters, blogs 3. Short animations 4. Cultural barriers – mental health education via social media (videos – animation and infographics) • How common • Mums (all ethnicities) talking about their stories • Seeking help • Know your rights	
HPs	Medical reference sources (e.g. medical dictionaries); Health care pamphlets; Supervisors; Colleagues; Managers;[272] PubMed; MEDLINE; Google; Centers for Disease Control and Prevention (or national alternatives)[273]	Summarised information that can be provided to patients if appropriate[274] Short courses, webinars[1]	1. Good practice guide, for example, Royal College of Obstetricians and Gynaecologists • Symptoms of different MI • Responding to women's concerns (e.g. kind, friendly, not dismissive – but worded nicely) • What to do, for example, what NICE says, learn local referral pathways and services	• Managed clinical networks for Public Health England • Maternal Mental Health Scotland • NHS Education Scotland • Local maternity system PMH workstream • Service managers • Webinars • Social media

continued

TABLE 12 Recommendations for dissemination (*continued*)

Who	Information sources	Type of information	What	How?
			• Training opportunities • More info: link to RCGP toolkit/MMHA resources • Case studies 2. Infographics with the same content as above	• Unions • PMH Champions • Practice Midwife and RCM Journals • Updater courses for example, Readwell • Health Education England Training hubs • Royal College of Psychiatrists, Royal College of Obstetricians and Gynecologists, and Royal College of General Practitioners • Institute of Health Visiting online good practice points and Royal College of General Practitioners online PMH tool kit
Service managers	PubMed; MEDLINE; Google; Centers for Disease Control and Prevention (or national alternatives)[273]	Practical knowledge, guidelines and programme planning[273,275] Local information[276]	1. Good practice guide including examples of real-life good practice. Include info about: • Language barriers • Inadequate workforce • Staff training • Continuity of carer • Clarity of job roles • Technology • Face to face, person-centred care provision • Culturally sensitive (The Motherhood group)	• Perinatal quality network • Maternity Networks for NHS improvement • Local maternity systems • Public Health England (health visiting) • NHS Talking Therapies Clinical Networks • PMH Clinical Networks • Academic Health Science Network • Health Education England Training Hubs • Community Mental Health Transformation work • Clinical networks for PMH in England and Scotland, sent to PMH team at NHS England other stakeholders

TABLE 12 Recommendations for dissemination (*continued*)

Who	Information sources	Type of information	What	How?
Policy makers and commissioners	Research suggests policy makers' interests are guided by party priorities and emphasised by 'real-world' stories from constituents[276,277] Policy makers likely rely on staff to help them identify priority information, so colleagues or employees of policy makers should be a key target audience for dissemination efforts[278,279]	Information needs to be understandable, concise and unbiased Brief summary of research, infographics, briefs. Messages should be focused and professional (not academic)[276]	1. Policy and commissioning guide • Why is PMH important • What should PMH care look like? ◦ Culturally inclusive ◦ Continuity of carer ◦ Workforce ◦ Training ◦ Flexible woman-centred care provision with choice of what women receive ◦ Integrated services ◦ Technology compatible across services ◦ Clear referral pathways ◦ Easy funding access ◦ Breaking down postcode lottery 2. Societal barriers – report and animation (see *above*) to 1001 Critical Days about stigma, culture, maternal norms, need for nationwide education on PMH, public mental health campaign	• Perinatal quality network • Maternity Networks for NHS improvement • Local maternity systems • PHE (health visiting) • NHS Talking Therapies Clinical Networks • PMH Clinical Networks • Academic Health Science Network • Health Education England Training Hubs • Community Mental Health Transformation work • Clinical networks for PMH in England and Scotland, sent to PMH team at NHS England and other stakeholders
Societal barriers			Reports, infographics and animations about stigma, psychoeducation about mental illness and a public mental health campaign such as Time to Change Campaign	• Mind • Mental Health Foundation • 1001 Critical Days all-party parliamentary group • Time to change

Future work should be carried out to build on the dissemination strategy in *Table 12*. Research suggests that active, targeted and multifaceted dissemination strategies are more effective in encouraging behaviour change,[281,282] therefore this should be taken into account. Given the range of findings identified by this research programme, to ensure effective and impactful dissemination, a priority setting strategy of what should be disseminated would be useful. Future work could use a similar method to Barber *et al*.[283] to identify important findings to be disseminated. Barber *et al*.[283] propose a three-stage method to identify key priorities: (1) stakeholder meetings to identify key priorities; (2) literature reviews to ensure priorities are in line with best practice and existing measures; (3) modified Delphi panel. Once dissemination priorities are identified, dissemination strategies can be put in place to ensure impactful dissemination. A dissemination planning tool, such as the one proposed by Carpenter *et al*.,[284] can be used to help with this. This tool involves identifying exactly who you want to share your results with, working with dissemination partners, ensuring the message is communicated effectively and lastly, evaluating success.

Chapter 10 Conclusion

Overall, the findings from the reviews point to a complex interplay of individual and system level factors across different stages of the care pathway that can influence effective implementation and women accessing PMH care. The identified barriers and facilitators point to the need for women-centred, flexible care, delivered by well-trained, knowledgeable and empathetic HPs working within an organisational and political structure that enables them to deliver continuity of carer. They also suggest a need for an international effort to reduce stigma for PMH.

The findings from both reviews led to the development of the MATRIx conceptual frameworks. These provide pictorial representations of 39 facilitators and 66 barriers that intersect across the care pathway at different levels. The conceptual frameworks led to the development of evidence-based recommendations which aim to break down these barriers to ensure that all women are able to access the support they need during this critical vulnerable period. Recommendations are made for health care policy and practice and for researchers and third-party organisations.

While recommendations are based on the evidence, they may be more or less achievable, depending on the local and national context and pressures on services. Furthermore, it is recognised that the recommendations of the MATRIx conceptual frameworks may be difficult to achieve given the impact that COVID-19 had on health services.[229] However, it is still important to design and where possible deliver best practice and future-proofed services.

Recommendations for policy

Many elements of the conceptual frameworks can be modified by policy makers and government activity (e.g. workforce provision, health care capacity, training, etc.). Therefore, we recommend that policy makers review the frameworks and take comprehensive, strategic and evidence-based efforts to ensure that there is an effective system of PMH care.

The evidence suggests that funding is required to ensure high-quality care provision. This is particularly important given the impact of the COVID-19 pandemic on PMH services.[229] Therefore, the provision of a comprehensively researched and adequate budget is needed so that all health care needs for that financial year can be met. Funding needs to be adequate for service needs and easily accessible. Funding structures may need to be revised depending on the needs of the community in which the service is delivered (e.g. affordable health insurance where free health care is not available).

The evidence suggests health inequalities are a barrier to PMH care. It is therefore advisable that policy is put in place: (1) to improve equality between the sexes/genders by ensuring equal rights for women and men; (2) in terms of ethnicity, for example, changes at the legislative level are needed to protect those who have migrated to a different country from being penalised for accessing health care; and (3) in terms of income, a fair and easily accessible welfare system is needed to prevent health inequalities based on deprivation.

Recommendations for practice

The evidence suggests that women want choice in the care they receive, and that care is appropriate to their needs. Therefore, it is recommended that care is co-produced with women and is personalised and culturally appropriate. Increasing the flexibility and accessibility of services should be done through offering home visits and, where this is not possible, providing out-of-hours appointments located in an area with good transport links and an accessible building to allow for pushchairs. In addition, service managers could consider the provision of virtual consultations using web-based platforms, but women should be given the choice about whether virtual consultations are the right choice for them.

Culturally sensitive care and increased accessibility of care is required for women who are unable to speak, or have difficulty speaking, the country's official language. This can be done via pictorial aids, the purchase of products such as Language Line or through collaboration with translation agencies.

The evidence suggests that technology can be a facilitator to PMH services in terms of assessment, referral and intervention. However, where technology is not fit for purpose, this is a barrier. It is therefore recommended that technology systems should be co-produced with HPs and women to ensure ease of usability and integration into the workflow.

The evidence shows that a lack of collaborative working within and between services was a barrier to PMH care. It is therefore recommended that multidisciplinary teams should be created which facilitate choice and personalised care and ensure an adequate workforce to meet women's needs. We need to break down silo working and encourage collaborative and joint working within and across services. Collaboration between services is needed with a focus on the identification and building of working relationships and networks with other services (e.g. Citizens Advice). Furthermore, the building of a coalition of health visitors, midwives, GPs NHS Talking Therapies practitioners, psychologists and psychiatrists is needed to encourage referral and reduce the risk of women falling out of the care pathway.

The evidence shows that HPs who lack knowledge and confidence related to PMH can be a barrier to care. Therefore, HPs should be provided with high-quality training that is delivered face to face and incorporates role-play simulators where appropriate. This should include training in cultural sensitivity and cross-cultural mental health needs. Training time for HPs should be built into workloads and time protected.

Recommendations for research and third-party organisations

Future research should focus on addressing the gaps identified by this project such as: father/birth partners, severe PMH disorders, specialist and primary care services, diverse samples, outcome measures and facilitators to implementation of and access to PMH care.

Further work and dissemination based on the results of the MATRIx project include the development of infographics, reports and animations for women and their families, the use of public health campaigns to break down stigma, and the development of guidelines for HPs, service managers and commissioners. Furthermore, future work should look at designing a strategic dissemination plan to ensure that the results from the MATRIx study are disseminated as impactfully as possible.

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Ethics statement

Ethical permission is not required for systematic reviews of available literature.

Data-sharing statement

Access to data extraction forms, data analysis tables and NVivo analysis documents are available on request to the corresponding author.

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Appendix 1

TABLE 13 Characteristics of studies included in R1

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Ammerman *et al.*, 2014,[126] USA, 2. 70%	1. Descriptive 2. Run by Cincinnati Children's Hospital Medical Centre, Ohio, delivered in women's homes	Moving Beyond Depression Programme using In-Home Cognitive Behavioural Therapy (IH-CBT). 15-weekly sessions, 60 minutes each plus booster sessions at 1 month post-treatment.	1. Mothers 16 years and older who had a diagnosis of Major Depressive Disorder 2. Mental HCPs – therapists	2 days to learn IH-CBT, workshops on CBT, learning from pilot cases, audiotapes of treatment sessions.	N/A	N/A
1. Atif *et al.*, 2016,[106] Pakistan 2. 80%	1. Qualitative 2. Basic Health Units delivering primary care in Rawalpindi	CBT based on THP. Adapted in Pakistan to make it deliverable through peers.	1. Mothers experiencing perinatal depression 2. Peer volunteers (PVs)	Trained and supervised by non-specialist THP facilitators. 4-day classroom and 2-day field training. Fortnightly group and field supervisions.	1. Mothers and peer volunteers 2. 29	Mothers: Mean age = 28 100% married Number of children: Mean = 3 Education: Mean = 6.6 years 81% in joint family structure Peer volunteers: Age *M* = 33 75% married Children *M* = 2 Education: *M* = 11 years 75% in a joint family structure
1. Atif *et al.*, 2019,[133] Pakistan 2. 80%	1. Qualitative 2. Obstetric department of public hospital in Rawalpindi	Happy Mother Healthy Baby – based on cognitive behaviour therapy principles. Involved development of an empathetic relationship, challenging thoughts, behaviour activation, difficulties solving and involving family members.	1. Pregnant women with anxiety as measured by score of > 8 on HADS[a] 2. Non-therapist specialists	5-day workshop followed by two practice cases of perinatal anxiety.	1. Pregnant women with anxiety and HCPs 2. 29	Mean age of women = 26 years and 42% were primigravida. Years of schooling mean was 4 years. Majority of HCPs interviewed had over 10 years of experience.

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Beeber, et al., 2009,[141] USA 2. 83%	1. Descriptive 2. Early Head Start Programmes delivered to Latino community	Short-term in-home psychotherapy intervention. Mothers in the intervention group received 16 contacts over a 22-week period.	1. Low-income Latina mothers who showed depressive symptoms as measured by CES-D[b] 2. Psychiatric mental health advanced practice nurses	6-hour course in Spanish/English.	N/A	N/A
1. Bina *et al.*, 2018,[144] Israel 2. 80%	1. Qualitative 2. Primary care setting in Israel	Eight sessions of IPT that aims to reduce depressive symptoms and improve interpersonal functioning.	1. Women with postnatal depression symptoms 2. Social workers	2-day 16-hour IPT training led by an experienced IPT trainer.	1. Social workers 2. 25	All female. Mean age = 47.7 years. 13 had a Master of Social Work degree, 7 a BSW degree plus a master's degree, four had only a BSW degree. Average of 19 years experience including 11 years employment in the Health Maintenance Organizations.
1. Boyd *et al.*, 2011,[113] USA 2. 70%	1. Qualitative 2. Community-based service	Academic-community partnership focusing on screening and barriers to mental health utilisation. Home visits which include screening for postnatal depression and assistance in referral to mental health services.	1. Pregnant or postnatal women with depressive symptoms as measured by EPDS[c] 2. Community health workers	NR	1. Community health workers and managers 2. 16	All female. Mean of 2.3 years of employment at agency. Most only have a college a degree (31.2%) Most of African American ethnicity (50%).
1. Byatt *et al.*, 2013,[142] USA 2. 70%	1. Qualitative 2. Obstetrics and gynaecology department at tertiary care referral centre	Pharmacotherapy for perinatal depression	1. Perinatal women with depression 2. Obstetrics and gynaecology resident and faculty physicians, nurses and support staff in the obstetrics and gynaecology department	NR	1. Obstetrics and gynaecology resident and faculty physicians, nurses and support staff 2. 37	Education levels ranged from postgraduate year 1 to 4. Faculty and staff participants had 1–23 and 4–27 years of clinical experience respectively.

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Chartier *et al.*, 2015,[132] Canada 2. 80%	1. Case study 2. Community-based	Towards Flourishing Mental Health Promotion Strategy – a demonstration project added to an existing home visiting programme aimed at preventing mental health difficulties.	1. Women in home visiting programme with a child less than 1 year of age 2. Paraprofessional home visitors	Training to enhance knowledge of mental health promotion and to implement strategy.	1. Mothers and home visitors 2. 19	NR
1. Cox *et al.*, 2017,[134] USA 2. 83%	1. Descriptive 2. Obstetrics and gynaecology department, North Carolina healthcare system	Universal screening and a perinatal psychiatry programme. All mothers screened at 1, 3 and 6-month well-baby clinic visits and 6-week postnatal visits and referred as needed based on EPDS[c] cut-off scores. The NICU clinic met 1 day/week with 5–8 women. Nurse-practitioners met with mothers and families at the NICU bedside.	1. Perinatal women who scored between 6 and 9 or 10 or greater on the EPDS[c] 2. Specialised psychiatric nurse-practitioners	Education about psychiatric issues, education for obstetric and paediatric providers about signs and symptoms, risk factors and treatment options.	N/A	N/A
1. Doering *et al.*, 2017,[114] USA 2. 90%	1. Qualitative 2. Home visiting/community-based	Home visitation – utilised either the Parents as Teachers or the Healthy Families home-visiting models. Frequency of visits range from weekly to monthly or less frequent dependent on needs. Actual length of programme varies but may serve families with children up to 5 years old.	1. Mothers of infants with depressive symptoms as measured by EPDS[c] 2. Home visitors and home visiting supervisors	Training to learn depression screening process.	1. Home visitors, supervisors and clients 2. 25	Majority spent less than 5 or 10+ years in home visiting. Home-visiting supervisors spent 15 years in home visiting. Majority of clients received home visiting for 5–12 or 25+ months.

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Drozd *et al.*, 2018,[149] Norway 2. 60%	1. Qualitative 2. Well baby clinics	Women screened at 6 time points. Offered a free, universal online preventative intervention called Mamma Mia – 44 online sessions.	1. Pregnant women with or at high risk of depressive symptoms as measured by EPDS[c] 2. Midwives and public health nurses. Secondary – community psychologists and GPs.	2-days pre-service delivery training, written educational materials, information brochure for pregnant women, pamphlets to aid in their programme delivery, coaching sessions, and a 2-day maintenance seminar.	1. HCPs 2. 24	Either completed bachelor's degree and education in public health or psychiatric nursing, a master's degree in midwifery, or a 6-year professional degree in clinical psychology. More than a third had education in the EPDS[c] Mean age was 52.6 years. Majority were female.
1. Eappen *et al.*, 2018,[136] Peru 2. 83%	1. Descriptive 2. Community-based	Thinking Healthy Programme – non-pharmacological cognitive behavioural intervention, 16 one-hour sessions grouped into five modules.	1. Perinatal women with depression measured by PHQ[d] and EPDS[c] 2. Community health workers	Four days training by *Socios En Salud* in maternal-child health, providing accompaniment to mothers invited to participate.	N/A	N/A
1. Feinberg *et al.*, 2006,[127] USA 2. 83%	1. Descriptive 2. Community health centres in Boston	Paediatric-based maternal depression detection and management system – structured, standardised and validated screening tool and guidance to assess and manage depression.	1. Mothers attending well-child visits from a wide range of ethnic backgrounds (Hispanic, Caribbean, Cambodian and Vietnamese) 2. Paediatric providers	NR	N/A	N/A
1. Friedman *et al.*, 2010,[135] USA 2. 80%	1. Descriptive 2. Community health centre, Ohio	The Lullaby 101 Program – hour-long weekly lullaby group	1. Mothers and mothers-to-be diagnosed with mental illnesses 2. Music therapist	NR	N/A	N/A

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Fernandez Y Garcia *et al*. 2011,[121] USA 2. 100%	1. Descriptive 2. General paediatric clinics	Patient Health Questionnaire[4]-2 – screening with verbal administration and a yes or no answer format. Converted to a written format.	1. Mothers of infants aged up to 6 months 2. Paediatricians	NR	N/A	N/A
1. Ganann *et al*., 2019,[109] Canada 2. 70%	1. Qualitative 2. Community service providers	Accessible services for immigrant women with postnatal depression. Services defined as first contact services for women experiencing postnatal depression (e.g. family physicians, public health nurses), other services supportive of women experiencing postnatal depression, and specialty services such as psychiatrists.	1. Perinatal immigrant women 2. Health and social service providers	NR	1. Health and social care service providers 2. 14	Job roles included nurses, social workers, perinatal psychiatrists, community health workers, and administrators. Some were immigrant women themselves.
1. Hadfield *et al*., 2019,[152] UK 2. 90%	1. Qualitative 2. Primary mental health services in the NHS	Group therapy interventions – 6 sessions, 2 hours long each. 12 individuals in each session.	1. Mothers of infants 2. Primary mental health workers	NR	1. Mothers 2. 14	Average age was 32, most married, had 1 or 2 children, all White British ethnicity. Either completed therapy in the last 6 months or 2 years. All had received therapy focusing on postnatal depression. Either received CBT based therapy or Eye Movement Desensitisation and Reprocessing.

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Higgins *et al.*, 2018,[115] Ireland 2. 80%	1. Cross-sectional qualitative survey 2. Primary care settings (GPs, maternity care)	Screening and discussing perinatal mental health difficulties with women in the perinatal period.	1. Perinatal women 2. Midwives and primary care nurses	Perinatal mental health training.	1. Midwives and nurses 2. 809	54.1% midwives and 45.9% nurses. Majority female 99.8%. Aged 50 years and over 34%. Most had a postgraduate diploma/master/PhD as their highest academic qualification 45.5%. Majority were in their role for 11 years or more.
1. Jallo *et al.*, 2015,[153] USA 2. 80%	1. Qualitative 2. Academic obstetric clinics affiliated with 2 large metropolitan health systems; Southeastern Virginia provided a remote guided practice	12 weeks guided imagery intervention – mind creates mental images that connect to emotions leading to changes in feeling and physiologic states. 4 tracks with each track lasting 20 minutes. Participants listened to one track once a day, first in a sequenced order from week 1–4 and then in their own order from week 5–12.	1. Pregnant women with high levels of stress 2. Remote guided practice	N/A	1. Pregnant women 2. 27	Mean 24.75 years. Mean gestational age was 15.53 weeks. 25% participants were primigravida's. 28% – second pregnancy. 22% – third pregnancy. Majority were not married, had a high school degree or higher education, they were not employed, income less than $15,000.
1. Judd *et al.*, 2011,[129] Australia 2. 100%	1. Descriptive 2. Early Motherhood Service (primary care/midwifery care)	The Early Motherhood Service (EMS) – Monday to Friday 9 a.m. to 5 p.m. or referrals directed to the triage service. Assessments occur antenatally on maternity ward or during the postnatal period on site at the hospital, the EMS office or woman's home.	1. Women with a broad range of perinatal distress, disorder and postnatal depression 2. Psychiatric nurses	Specialist training in perinatal mental health, family therapy, cognitive behaviour therapy, and grief counselling.	1. Stakeholders 2. 14	N/A

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Kerker *et al.*, 2018,[130] USA 2. 78%	1. Descriptive 2. Women's health clinic in a New York City public hospital	On-site depression prevention intervention – individual format, sessions offered in either English or Spanish at time of their prenatal appointments.	1. Pregnant lower income women with depressive symptoms measured by PHQ[d]. Women came from different ethnic backgrounds (Hispanic; black; white; Asian; other) 2. Prenatal educators – volunteer students, professional and peer-partners.	10 hours of classroom and didactic sessions.	N/A	N/A
1. Kim *et al.*, 2009,[128] USA, 2. 80%	1. Qualitative 2. Academic medical centre, hospital campus	EPDS[c] in the context of a programme that facilitates screening, provides behavioural health follow up, educates providers and maintains a 24/7 hotline for crisis intervention. EPDS[c] screening conducted at 24–28 weeks of gestation, positive screens passed on to internal team of mental HCPs. It is then documented and communicated to obstetric provider.	1. Pregnant women at risk for perinatal depression 2. Physicians and private practice groups	NR	1. Obstetric care providers 2. 22	Job roles were obstetricians (n = 19) or nurse-midwives (n = 3). Participants represented both hospital-employed and private practice groups in geographically and socio-economically diverse suburban communities of a major metropolitan area.
1. Leger *et al.*, 2015,[147] Canada 2. 80%	1. Qualitative 2. Community-based	Mothers Offering Mentorship and Support (MOMS) – home based peer support, in-home weekly visits for 12 weeks, duration of 1 hour to 1.5 hours.	1. New mothers with postnatal depression 2. Peer mentor volunteers	NR	1. Peer mentors 2. 6	NR

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Lind *et al.*, 2017,[131] USA 2. 100%	1. Descriptive 2. Large multispecialty healthcare organisation with multiple community-based clinics in the Midwestern US	Postnatal depression screening programme using EPDS[c] and treatment initiation process. EPDS forms given at 1-, 2- and 4-month routine well-child visits, reviewed and sent to a centralised screening location for further review. If patient within health care system, EPDS entered into medical record. High scores to be discussed with woman and offered referrals.	1. Women arriving for postnatal care 2. Multiple specialty department involved in the care of the women at risk for postnatal depression.	Electronic learning module included as part of routine mandatory annual education process of clinicians that explained the new process of screening.	N/A	N/A
1. Lomonaco-Haycraft *et al.*, 2018,[140] USA 2. 100%	1. Descriptive 2. Denver Health Medical Center	Integrated Perinatal Mental Health program – screening is done initially at the obstetric intake visit using EPDS. Negative score –> provide education and anticipatory guidance. Positive score –> acknowledge, assess and refer. An EPDS is administered twice during pregnancy. All screened at 6-week postnatal, 2-, 4- and 6-month well-child visits.	1. Perinatal women 2. Psychologists, clinical social workers, addictions counsellors and psychiatrist.	NR	N/A	N/A

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Masood *et al.*, 2015,[137] UK 2. 80%	1. Qualitative 2. Across Manchester and Lancashire – general practices and children centres	Positive Health Programme – psychosocial intervention, 23 women put into 4 groups using the cognitive behavioural model. 12 weekly group sessions over 3 months, manual organised into 9 sessions. Adapted for and offered to British South Asian women.	1. Mothers experiencing postnatal depression as diagnosed by CIS-R[e] 2. Trained research staff	NR	1. British South Asian women 2. 17	Interview participants – aged 20–45 years. Most married, one divorced. Majority Pakistani ethnicity.
1. McCauley *et al.*, 2019,[107] Ghana 2. 80%	1. Qualitative 2. Obstetric department in the largest teaching hospital in Accra, Ghana	Routine screening for maternal mental health during and after pregnancy.	1. Women with maternal mental health issues. 2. Healthcare provider	NR	1. Healthcare providers 2. 24	20 doctors, and 4 nurse midwives. Majority female (n = 13). Aged between 25 and 50 years Most were junior doctors and have between 1 and 5 years of experience providing routine maternity care.
1. McKenzie-McHarg *et al.*, 2014,[148] UK 2. 40%	1. Qualitative 2. Warwick Hospital, NHS	Pink sticker communication system – alerts midwifery and obstetric staff ensuring identified women receive appropriate tailored, and emotionally intelligent care.	1. Perinatal and postnatal women with psychological distress or vulnerability 2. Midwives	4 hours of specific training in perinatal psychology, information on the pink sticker system, combining info about psychological presentations and education on how midwives could support women with difficulties through pregnancy and labour.	1. Midwives and women who had a pink sticker 2. 57	Midwives ranged across seniority from at least 2 years qualified to very senior, had all cared for a number of women who had presented with a pink sticker within the last year. All women participants had delivered within the previous year.

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Munodawafa *et al.*, 2017,[138] South Africa 2. 100%	1. Qualitative 2. Community-based, Khayelitsha, Cape Town	Task sharing counselling intervention – 6 to 8 sessions. The sessions were structured manual-based psychosocial individual face-to-face counselling sessions either at participant homes or at the clinic. Based on CBT, IPT and problem-solving therapy principles. Sessions were in the antenatal phase and could continue to postnatal phase. Referrals were made if participants showed any suicidal ideation and if assistance needed was beyond the scope of the workers' intervention.	1. Women with perinatal depression 2. Lay counsellors	5-day workshop on how to implement the manual-based intervention. 2–3 hours weekly group supervision and ongoing training in addition to 30 minutes of individual supervision monthly.	1. Community health workers 2. 6	Education levels ranged from grade 9 to grade 12 and had at least 2.5 years of previous experience in the community doing health promotion. Mean age of 37.2 years.
1. Myors *et al.*, 2015,[112] Australia 2. 70%	1. Qualitative 2. Two specialist perinatal and infant mental health services in New South Wales	Perinatal and infant mental health (PIMH) services – 'Supporting Families Early' policy which provides a framework of promotion, prevention, early intervention and treatment for	1. Women at risk for poor perinatal mental health outcomes. ~20% of women attending these services are non-English-speaking 2. Clinicians	NR	1. PIMH clinicians, their managers, key stakeholders, and women service users 2. 24	Clinicians' job roles included nurses, social workers and psychologists and had been working between 2 and 8 years. Managers and stakeholders had been involved in the PIMH service for 2–12 years. Mean age of women was 28 years.

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
		mothers, infants and their families. Psychosocial assessment and depression screening in the antenatal and early postnatal periods aims to identify women at risk for poor perinatal mental health. The needs of women identified with risk factors are discussed at multidisciplinary case review meetings and, if necessary, referral to specialised services is initiated. The risk factors are categorised into three levels: (1) level 1: no risks identified; (2) level 2: social issues, such as poor support networks; and (3) level 3: complex issues, such as maternal mental illness.				Majority (77.5%) were born in an English-speaking country and were partnered (73.4%). 57.3% had more than 1 child, 47.5% had experienced a pregnancy or infant loss. Majority (84.8%) were referred via the midwives in antenatal clinic.
1. Nakku *et al.*, 2016,[108] Uganda 2. 90%	1. Qualitative 2. Primary care settings in a low-income Kamuli district in Eastern Uganda	Volunteers from within the community are nominated by members of the community to form Village Health Teams (VHTs). These VHTs are entrusted with	1. Pregnant and postnatal women 2. Midwives, Village Health Teams (VHTs), psychiatric clinical officer, psychiatric nurses	NR	1. Pregnant and postnatal women, VHT's, key informants 2. 76	Age range from 18 to 47. Majority female participants (84%). Majority of pregnant and postnatal women only had primary education (n = 36). All Village Health Teams had

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
		taking care of health matters of the village where they live, and they mobilise people for health programmes as well as identify and refer individuals who need care. There is no built structure at this level and there are no qualified health staff. The Kamuli district has only one psychiatric clinical officer (equivalent of a nurse practitioner or nurse prescriber) and a handful of psychiatric nurses. These are all based at the only public hospital and largely work in non-mental health clinics, leaving most of the district with no access to psychiatry personnel. Perinatal women with mental illness are only identified if they are severe enough to be psychotic or suicidal, in which case they are not treated but immediately referred to the regional hospital				secondary education. All key informants had up to tertiary education. Majority of participants were from Christian religion.

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
		in the neighbouring district of Jinja, 60 km away. Depression and other common mental disorders normally remain undetected and untreated at the primary care level.				
1. Nithianandan *et al*., 2016,[122] Australia 2. 90%	1. Qualitative 2. Monash Health, south-east Melbourne	Perinatal mental health screening – Edinburgh Postnatal Depression Scale[c]	1. Perinatal women of refugee background 2. HCPs	NR	1. HCPs and women from refugee background 2. 37	Roles of HCPs included midwives, obstetricians, nurses, psychiatrist, mental health expert, maternity general practice liaison officer, community mental health team leader, refugee health experts, bicultural worker, interpreters. Majority of women were from an Afghan ethnicity.
1. Noonan *et al*., 2018,[116] Ireland 2. 70%	1. Qualitative 2. GP practice	Perinatal mental health care in Ireland – booking appointment with midwife where midwives ask about emotional issues, but this is not always done. Postnatal care is primarily provided by Public Health Nurses who screen for PND and anxiety using the Whooley[f] questions and EPDS[c] and refer to the GP for diagnosis and treatment interventions.	1. Women with perinatal mental health difficulties 2. General practitioners	NR	1. General practitioners 2. 10	Majority had 5–10 years of experience. Majority were from Urban practice type. There were equal numbers of males and females.

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. O'Mahen *et al.*, 2015,[151] UK 2. 100%	1. Qualitative 2. Online-based, UK-wide	Online treatment −11-sessions of Behavioural Activation for Postnatal Depression	1. Women with postnatal depressive symptoms as measured by EPDS[c] 2. Online	N/A	1. Women from the Netmums trial 2. 17	Mean age was 31.3 years. 30% had an £40,000 to £49000 income. 40% had an income of £80,000+ Work status was either homemaker, full or part time employment, a student or volunteer. Majority (80%) were in a relationship. 40% had up to post-16 qualification. Majority (56%) had 1 child.
1. Ormsby *et al.*, 2018,[139] Australia 2. 90%	1. Qualitative 2. Hospitals in Western Sydney, Australia	Referral on to acupuncture – a new treatment within the hospital, which is individually tailored low-risk Chinese medical treatment as a supplementary therapeutic option for antenatal depression.	1. Perinatal women with antenatal depression 2. Midwives and doctors providing referrals	NR	1. Midwives, doctors and maternity service managers 2. 27	Majority of participants were female. Two professionals had spent less than 5 years in their area of expertise. However, most had worked for more than 30 years in their current roles.
1. Pineros-Leano *et al.*, 2015,[117] USA 2. 100%	1. Qualitative 2. The Champaign-Urbana Public Health District – Public health clinic	Mobile health technology – use of mobile electronic devices to assist in healthcare provisions and management.	1. Pregnant and postnatal women 2. Nutritionists, nurses, case managers, administrative assistants, intake specialists	NR	1. Staff members from the Maternal Child Health division of the Champaign-Urbana Public Health District 2. 25	Sample included nutritionists, nurses, case managers, administrative assistants, intake specialists and programme coordinators.

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Pugh *et al.*, 2015,[145] Canada 2. 100%	1. Qualitative 2. Online-based	Specialised internet therapy programme adapted from a Therapist-Assisted Internet Cognitive Behavioural Therapy (TAICBT) programme for major depression. Programme consisted of 7 modules. Following completion, weekly offline homework activities were assigned, and clients received one email a week from their assigned internet therapist.	1. Postnatal women with depressive symptoms as measured by EPDS[c] 2. Internet therapist – researcher.	Trained in and supervised in the provision of TAICBT.	1. Postnatal women with depression who received TAICBT 2. 24	Majority (92%) from Caucasian ethnicity. Majority (96%) were married/common law/engaged. Majority (87%) had a college, some university or undergraduate degree. Most (46%) had given birth once.
1. Reed *et al.*, 2014,[143] Australia 2. 80%	1. Qualitative 2. Two tertiary maternity hospitals in the Australian states of Queensland and Western Australia.	Promoting resilience in mothers' emotions' (PRIME) – counselling. Women were offered this antenatally and 6 weeks postnatal.	1. Perinatal women with symptoms of birth trauma 2. Midwives	Workshops, written manuals, digitally recorded counselling vignettes.	1. Midwives 2. 18	All were female, aged 26–59 years, with a mean of 13 years clinical midwifery experience. 7 were educated in the tertiary sector and 11 in a hospital-based midwifery programme.
1. Rowan *et al.*, 2010,[120] UK 2. 70%	1. Qualitative 2. Two NHS Trusts from two strategic health authorities – an inner-city area and a more urban/rural area.	NHS perinatal mental health services offered by two different NHS Trusts.	1. Women with mental health needs 2. Range of HCPs	NR	1. HCPs 2. 8	NR

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Segre *et al.*, 2014,[123] USA 2. 80%	1. Mixed methods 2. Maternity unit of a Midwestern academic medical centre	Train the Trainer Maternal Depression screening programme (TTT) – incorporated the use of the EPDS[c] tool.	1. Perinatal women with depressive symptoms as measured by EPDS[c] 2. Maternity unit administrative nurses	Lectures and activities to train to administer the screening tool.	1. Maternity unit nurses 2. 34	Most nurses were white/non-Hispanic and ranged from 36 to 55 years of age. Majority had a bachelor's degree and approximately 1/3 were employed full-time.
1. Shakespeare *et al.*, 2003,[124] UK 2. 70%	1. Qualitative 2. GP practices in Oxford City Primary Care Group	Oxford City Postnatal Depression Strategy – routine screening with EPDS[c] at 8 weeks and 8 months after birth. Subsequent actions such as non-directive counselling is based on screening score and health visitor assessment.	1. Postnatal women 2. Health visitors	4–6 half-day sessions followed by 2-monthly supervision. 6–8 hours of personal study using a resource pack entitled 'The emotional effects of childbirth' and 1 day of basic training and subsequent mentoring.	1. Postnatal women 2. 39	The mean of the women was 34 years; range=19 to 42 years. Majority (*n* = 37) were white. Most (*n* = 24) were upper or middle class.
1. Shorey and Ng, 2019,[146] Singapore 2. 80%	1. Qualitative 2. Tertiary hospital in Singapore	Technology-based peer support intervention programme (PIP) – support from peer volunteers for at least one month after birth including a minimum of once a week correspondence through any technology-based means. Frequency and duration were tailored to maternal needs.	1. Mothers at risk of postnatal depression 2. Peer volunteers	Training session by a psychiatrist.	1. Mothers and peer volunteers 2. 39	Mothers: 25–40 years of age 50% were Chinese; 45% Malay; 5% Indian 95% married 80% university undergraduates 50% monthly household income of over 5000 S$ Peer volunteers: 25–54 years 90% were Chinese; 90% married' 68% university graduates; 47% monthly household income of over 5000 S$

continued

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Vik *et al.*, 2009,[118] Norway 2. 80%	1. Qualitative 2. Norwegian health centres	EPDS[c] screening by health visitors.	1. Mothers with postnatal depression 2. Health visitors	NR	1. Health visitors and one midwife 2. 7	Six of the participants were experienced health visitors with a three-year bachelor's degree and 1 year of specialising in a community health service.
1. Willey *et al.*, 2019,[125] Australia 2. 80%	1. Mixed methods 2. Refugee antenatal clinic in the southeastern suburbs of Melbourne, Australia	Perinatal mental health screening programme – routine use of the mental health psychosocial questionnaire and use of EPDS[c]. Undertook screening using iPad and the I-cope system (generates immediate screening score and report with recommendation). Following assessment, women referred to counselling or other services.	1. Pregnant women of refugee background 2. Midwives	NR	1. HCPs 2. 31	Employed across all areas of implementation and included midwives, midwifery managers, bicultural workers and administrators, the Refugee Health Nurse Liaison, and counsellors.
1. Williams *et al.*, 2016,[119] UK 2. 80%	1. Qualitative 2. NHS maternity care, antenatal booking appointment	Women were asked the Whooley[f] questions by midwives during their booking appointment.	1. Pregnant women 2. Midwives	NR	1. Midwives and women 2. 35	Most midwives were aged 50+. All White-British ethnicity. Most been practicing for over 20 years and over since completing midwifery training. Most had no mental health qualification. Most women were aged 30–39 years. Majority of White-British ethnicity. Majority had previous experience of depression.

TABLE 13 Characteristics of studies included in R1 (*continued*)

1. Author, year, country, 2. Quality rating	1. Design, 2. Healthcare setting	Description of care	1. Recipient of care, 2. Provider of care	Training of providers	1. Sample interviewed, 2. *N*	Interview sample demographics
1. Young *et al.*, 2019,[110] San Francisco, USA 2. 90%	1. Qualitative 2. Paediatric primary care clinic – Kempe Clinic	All women complete the EPDS[c] at each well child visit, provided by medical assistants, filled out via self-report and reviewed by paediatrician or social worker. Multidisciplinary team work together to create an individualised plan for each parent-child dyad. Appointments (2–45 minutes) scheduled so they are seen on the same day as their child's paediatric visit. Women can be offered follow-up for an unlimited number of appointments at a frequency mutually agreeable. Women could be prescribed medication or referred for therapy or other services.	1. Postnatal women. Most women were Hispanic (60%) 2. Psychiatrists	NR	1. Postnatal mothers 2. 20	Six participants were monolingual Spanish speakers, age ranged from 25 to 49 years. Nearly half were active patients at time of interview whilst other half had ceased receiving care for various reasons. Majority (60%) were Hispanic-white ethnicity. Majority (80%) had a primary diagnosis of a major depressive disorder.

a HADS, The Hospital Anxiety and Depression Scale.[285]
b CES-D, Centre for Epidemiological Studies Depression Scale.[286]
c EPDS, Edinburgh Postnatal Depression Scale.[104]
d PHQ, Patient Health Questionnaire.[287]
e CIS-R, The Clinical Interview Schedule-Revised.[288]
f Whooley Questions[289] to assess depression symptoms.

Note
N/A, not applicable; NR, not reported.

Appendix 2

TABLE 14 Characteristics of studies included in R2

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Bina (2020)[69]	31 (35) 1993–2018	Service use for postpartum depression or 'distress' from women (and HCP) perspectives	11 countries (4 LMIC)	7219 232.9 (414.7)	NR	2 weeks – up to 3 years postnatal	Six studies specified recruitment of migrant women or ethnic minority women r$^{(EA; H; Ar)}$	Depressive symptoms, emotional difficulties or current/past diagnosis of mood disorder	Two studies recruited women with low income. One study recruited women using Medicaid
Brealey *et al.* (2010)[74]	13 (16) 1997–2007	Acceptability to women (and HCP) of screening to identify women with increased risk of postnatal depression	Five countries (all HIC)	1715 131.9 (253.06)	24–34 M (n = 8) = 29.63	First antenatal appointment – 12 months after birth	Two studies recruited ethnic minority women $^{(B; EA; Ar)}$	Women at risk of postnatal depression	One study reported marriage (29/30 women were married)
Button *et al.* (2017)[46]	24 (24) 1993–2016	Help-seeking for postnatal depression	Nine studies carried out in UK; no other countries reported	NR	NR	Postnatal	Nine studies recruited ethnic minority women Three studies had mixed samples	Postnatal depression	NR
Dennis and Chung-Lee (2006)[47]	40 (40) NR	Maternal help-seeking barriers and facilitators and treatment preferences for postnatal depression	3 were explicitly stated (all HIC)	NR	NR	Up to 1 year after birth	Three studies recruited ethnic minority women$^{(SA; EA; B; Ar)}$	Postnatal depression	NR

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details						
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Evans *et al.* (2017)[75]	14 (14) 2009–15	Acceptability of non-pharmacological interventions for antenatal anxiety	Six countries (all HIC)	235 16.8 (9.6)	NR	Between 6 and 40 weeks gestation	NR	Eight studies recruited women with a history of mood concerns/anxiety or depression	Two studies recruited women with 'social risk factors'
Forde *et al.* (2020)[105]	13 (15) 2003–18	Published empirical studies exploring women's or family members' experiences of PP and/or recovery using a qualitative methodology	Four countries (all HIC)	103 7.92 (2.96)	Range: 23–62	All postnatal, ranging from 4 months to 26 years after onset of postnatal psychosis	One woman was an Orthodox Jewish woman	All women had recovered from, or were currently experiencing postnatal psychosis	NR
Giscombe *et al.* (2020)[76]	8 (8) 2008–17	Refugee or asylum-seeking women, with mental health complications during perinatal period	Three countries (all HIC)	NR	NR	NR	Syrian refugees, Eritrean refugees	Six studies recruited women with depression; 3 with PTSD (1 study recruited both depression and PTSD)	All women were refugees or asylum seekers
Hadfield and Wittkowski (2017)[72]	17 (17) 2004–15	Mothers with postnatal depression and their experiences about help-seeking for psychosocial support	Four countries (all HIC)	532 31.3 (25.97)	Range 18–45 M (n = 2) = 30.2	Postnatal	Three studies recruited women who weren't born in the UK(B; EA)	Postnatal depression	NR

continued

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Hansotte *et al.* (2017)[70]	18 (18) 2004–15	Screening for postnatal depression and barriers to accessing treatment in low-income women in Western countries	Two countries (all HIC)	85190 5011 (11613)	M (*n* = 11) = 25.11	Postnatal	All studies recruited a diverse sample of migrant women or ethnic minority women (B; L; W; As; NI)	Self-report depression symptoms or depression diagnosis	All women were low-income living in high-income Western countries
Hewitt *et al.* (2009)[77]	13 (16) 1997–2007	Acceptability to women (and HCP) about methods to identify postnatal depression	Five countries (all HIC)	1715 131.9 (253.06)	M (*n* = 8) = 29.63	Postnatal: 1–12 months Antenatal: all trimesters	Four studies recruited ethnic minority women (Ar; EA; B; NI; NS)	Perinatal depression	Two studies looked at marriage. The majority of women were married (87–97%)
Holopainen and Hakulinen (2019)[78]	13 (15) 2005–15	Mothers (and fathers) experiences of postnatal depression symptoms	Seven countries (all HIC)	199 15.31 (8.21)	Ages ranged from 16 to 45	1–12 months after birth	Five studies recruited ethnic minority women (B; L; H; SA; EA)	Most studies looked at symptoms of depression, two looked at diagnoses	One study recruited low-income women, one recruited adolescent mothers. Most women were married (*n* = 3; 59–66%). Most women had more than 9 years of education (*n* = 2; 87–100%)

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Jones *et al.* (2014)[79]	5 (5) 1995–2012	Women's experiences of peer support for any degree of perinatal mental illness	Three countries (all HIC)	95 19 (18.93)	NR	6 weeks to 2 years after birth	NR	Postnatal depression diagnosis or symptoms	NR
Jones (2019)[80]	19 (19) 2008–17	Help-seeking in women with perinatal depression	All USA	6089 358.90 (1226.22)	NR	Pregnancy to 6 months after birth	Six studies were ethnic minority women $^{(B; L; SA; EA; NS)}$	All had perinatal depression identified through screening measures, or self-reported	All women had pregnancy complications. Three studies recruited women on a low income
Kassam (2009)[81]	11 separate populations 1999–2013	Voices of immigrant and refugee women with postnatal depression in terms of social support as a coping resource	Three countries stated (HIC and UMIC countries)	191 23.88 (10.89)	All aged over 17	Screened high on a postnatal depression scale within 2 weeks – 5 years after birth	All studies recruited migrant women or ethnic minority women $^{(NS; As; Ar; SA; H)}$	Most had post-natal depressive symptoms, identified through screening. One study reported depression diagnosis	One study looked at risk profile of women (e.g. low income, experienced violence, experienced war, previous mental health difficulty). All women in two studies were married or in a relationship. One study recruited low-income women

continued

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Lucas *et al.* (2019)[82]	19 (19) 1999–2017	Young women's perception of their mental health and well-being	Three countries (all HIC)	356 18.74 (10.02)	Ages ranged from 13–25. M (*n* = 2) = 18.75	11 studies recruited were parents (3 months – 2 years postnatal). 2 studies recruited pregnant women. Remaining studies recruited both pregnant and postnatal women	Majority of studies (15) recruited ethnically diverse $^{(L; B; H; SA; M; As)}$ samples. Four studies did not report ethnicity	Depressive symptoms, depression diagnosis, other diagnoses (bipolar, panic disorder, mood disorder)	All women were young (maximum age 25)
Megnin-Viggars *et al.* (2015)[48]	39 (39) 2001–13	Women with, or at risk of developing postnatal mental health difficulties and their views on factors that improve or diminish access to perinatal mental health services	Only reported for 3 studies (all UK)	955 24.49 (43.77)	One study recruited teen-age mother. No other ages reported	Antenatal and postnatal	Five studies recruited ethnically diverse samples $^{(B; NS; SA)}$	Most studies recruited women with depression (*n* = 14) or women at risk (*n* = 18) of perinatal mental health difficulties	One study recruited teenage mothers
Mollard *et al.* (2016)[83]	11 (11) 1995–2014	Women living in rural areas of the USA with PPD. Looking at screening uptake, intervention acceptability, lived experience, help-seeking	All USA	1610 146.36 (159.57)	NR	Postnatal	5 studies recruited ethnically diverse samples $^{(NI; B; NS; H)}$	Postnatal depression symptoms, most used EPDS[a] (*n* = 6) screen	All women lived in rural locations, three studies recruited low-income women

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Morrell *et al.* (2016)[84]	38 individual samples of women in the qualitative review 1987–2013	Pregnant and postnatal women, views on preventative or targeted services for PND	Eight countries (1 LMIC – India)	1673 (34 studies reported sample size) 49.21 (98.49)	Ages ranged from 15–54 M (*n* = 12) = 28.62	Pregnancy and postnatal	10 recruited ethnically diverse samples (SA; EA, B; H; NI; L; M; NS)	Depression – both symptoms and diagnoses	25 studies reported sociodemographic characteristics. 16 studies reported marital status, in all but 1 study the majority of women were married/cohabiting/in a relationship. 8 studies reported education status: most had completed high school or above. 4 studies recruited low-income women or those living in an impoverished/deprived area

continued

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Newman *et al.* (2019)[85]	4 (4) 2008–16	Women with depression during the postnatal period sharing views on help-seeking	Three countries (all HIC)	118 29.5 (9)	M (*n* = 3) = 31.97	Postnatal	NR	Depressive symptoms, measured by EPDS[a]	NR
Nilaweera *et al.* (2014)[86]	9 (15)	Women who have migrated from South Asian countries to live in high-income countries, barriers and enablers to health care access	Four countries (all HIC)	20,788 2309.78 (3926.13)	NR	2 weeks to 5 years postnatal	All studies recruited women born in South Asia	Most (*n* = 5) used EPDS[a] to assess postnatal depression symptoms	NR
Praetorius *et al.* (2020)[87]	8 (8) 1999–2016	Mothers with depression and suicidality	Five countries (3 HIC, 1 UMIC, 1LMIC)	199 24.88 (12.52)	Ages range from 17 to 44	Pregnancy and postnatal	All studies recruited diverse samples (B; L; M; SA; EA; Ar; W)	All women had depression and suicidality	NR

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Randall and Briscoe (2018)[88]	4 (4) 2005–14	Women's decision-making process around antidepressant use during pregnancy	Two countries (all HIC)	368 92 (37.09)	Ages ranged from 25–34 M (*n* = 2) = 31	Pregnancy	3 studies reported ethnicity. The majority of women were white (77.5–95%)	Depression – 1 study used the CES-D[b] to identify depressive symptoms	Three studies report education, the majority (82.5–100%) were educated to above high school level. Three studies reported relationship status, the majority (80–98%) were married/living with partner

continued

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Slade, Molyneux and Watt (2021)[92]	13 (13 – qualitative papers only) 2007–19	Help-seeking for birth trauma/postnatal PTSD	Seven countries (1 UMIC; 6 HIC)	394 30.31 (32.85)	Ages range from 2–45 M ($n = 4$) = 32	Up to 18 months after birth	Eight studies reported ethnicity. One study reported recruiting ethnic minority women r$^{(B; H)}$	All PTSD after birth	One study recruited low-income women. Two studies reported marital status, over 58% were married. Two studies reported higher education, at least 50% of women had completed this
Sambrook Smith *et al.* (2019)[89]	24 (35) 2007–18	Barriers to accessing perinatal mental health care from the perspective of women (families and HCP)	All UK	384 16 (8.80)	NR	Postnatal	Nine recruited ethnic minority women $^{(B; SA; EA)}$	Most looked at depressive symptoms ($n = 12$). Studies also recruited women with antenatal anxiety ($n = 1$), postnatal psychosis ($n = 5$), PTSD ($n = 1$) and substance misuse ($n = 1$)	NR

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			**Participant details**					
	***N* studies about women (Total *N*), Years (range)**	**Inclusion criteria**	**Country of studies**	***N*, M (SD)**	**Age**	**Perinatal period**	**Ethnicity**	**Mental illness**	**Socio-economic status**
Sorsa, Kylmä and Bondas (2021)[93]	14 (14) 2002–18	Help-seeking in women with perinatal distress	Five countries (all HIC)	345 24.65 (11.99)	Ages ranged from 18 to 55 M ($n = 7$) = 30.21	Antenatal and postnatal	NR	Postnatal depression ($n = 8$); Prenatal depression ($n = 2$); Perinatal mental health needs ($n = 2$); Postpartum mood disorder ($n = 1$); Bipolar disorder ($n = 1$)	NR
Schmied *et al.* (2017)[90]	Twelve individual samples 1999–2015	Migrant women living in high-income countries	Four countries (all HIC)	250 20.83 (12.52)	M ($n = 5$) = 29.4	Postnatal	All studies recruited migrant women or ethnic minority women (SA; EA; H; B; Ar; L)	Depressive symptoms or formal diagnosis	One study recruited low-income women
Scope *et al.* (2017)[91]	Twelve individual samples 1987–2014	Service user views on uptake, acceptability of preventative interventions for PND	Seven countries (all HIC)	982 (reported by author)	13–45 years	Antenatal and postnatal	NR	NR	NR

continued

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Staneva *et al.* (2015)[94]	8 (8) 2006–12	Women's experience of antenatal mental health difficulties	Five countries (1 LMIC – Cambodia)	1094 14 (6.26)	Ages ranged from 16 to 47	Antenatal	Most studies (*n* = 6) recruited ethnically diverse samples (B; M)	Self-report distress, depression (*n* = 5); diagnoses depression/anxiety (*n* = 2); FOC = 1	50–100% of women were in a relationship
Tobin *et al.* (2018)[95]	8 (individual samples) 2004–13	Refugee or immigrant women's experiences of postpartum depression	Three countries (all HIC)	139 17.38 (7.98)	Age ranges between 17 and 54 years	Postnatal	All studies recruited migrant women and ethnic minority women (L; H; SA;EA;B)	Postnatal depression	Six studies reported relationship status 50–85% of women were married/in a relationship
Viveiros and Darling (2019)[49]	7 (26) 2009–18	To explore women's (and midwives') perceptions on factors that impede access to perinatal mental health care in high resource settings	Two countries (both HIC)	301 43 (66.30)	One study reported age range from 23 to 40	Antenatal and postnatal	Two studies recruited ethnic minority women, one recruited all black women	PTSD symptoms (*n* = 1); mental health difficultiess (*n* = 2); mental illness diagnosis (*n* = 1)	NR

TABLE 14 Characteristics of studies included in R2 (*continued*)

	Review details			Participant details					
	N studies about women (Total *N*), Years (range)	Inclusion criteria	Country of studies	*N*, M (SD)	Age	Perinatal period	Ethnicity	Mental illness	Socio-economic status
Watson *et al.* (2019)[96]	15 (15) 1994–2015	Ethnic minority women's experience of perinatal mental ill health, help-seeking and perinatal mental health services in Europe	All UK	4970 331.33 (1173.09)	NR	Antenatal and postnatal	All studies recruited ethnic minority women (SA; NS; N; EA; M)	Distress, depression, mood and mental health, well-being	NR
Wittkowski *et al.* (2014)[97]	12 (12) 1983–2009	Culturally determined risk factors of PND in sub-Saharan Africa	Three countries – all sub-Saharan Africa	3642 404.67 (343.16)	NR	Postnatal	NR	All used self-report measures of depression	NR

HCP, healthcare professional; LMIC, lower-middle income country; HIC, higher income country; PTSD, post-traumatic stress disorder; FOC, fear of childbirth; NR, not reported. For ethnicities: As, Asian (where the area of Asia was not specified in the study); EA, East Asian (e.g. Vietnamese; Chinese; Thai); SA, South Asian (e.g. Indian; Bangladeshi; Sri Lankan); Ar, Arab countries (e.g. Jordanian, Egyptian); Ar, Arabic; B, black; H, Hispanic; L, Latina; M, mixed or multiple ethnic groups; NI, native/Indigenous; NS, not specified; W, white.

a Edinburgh Postnatal Depression Scale[104].

b Center for Epidemiological Studies-Depression[287].

Note

Where studies recruited populations that were not perinatal women, the information from these populations are not included in this table.

Appendix 3

TABLE 15 Risk of bias of studies included in R1

	Domain 1: Design and methodology					Domain 2: Researcher influence		Domain 3: Participants		Domain 4: Interpretation of results	
Qualitative	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Rating/risk of bias**
Ammerman *et al.* (2014)[126]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Moderate
Atif *et al.* (2016)[106]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Atif *et al.* (2019)[133]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Bina *et al.* (2018)[144]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Boyd *et al.* (2011)[113]	Unclear	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Byatt *et al.* (2013)[142]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Moderate
Chartier *et al.* (2015)[132]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Doering *et al.* (2017)[114]	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No/limited
Drozd *et al.* (2018)[149]	Unclear	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Moderate
Friedman *et al.* (2010)[135]	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Moderate
Ganann *et al.* (2019)[109]	Unclear	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Hadfield *et al.* (2019)[152]	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No/limited
Jallo *et al.* (2015)[153]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Kerker *et al.* (2018)[130]	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Moderate
Kim *et al.* (2009)[128]	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Moderate
Leger *et al.* (2015)[147]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Masood *et al.* (2015)[137]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
McCauley *et al.* (2019)[107]	Unclear	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No/limited
McKenzie-McHarg *et al.* (2014)[148]	Unclear	Yes	Yes	Unclear	Unclear	No	No	No	Yes	Yes	Serious

TABLE 15 Risk of bias of studies included in R1 (*continued*)

	Domain 1: Design and methodology					Domain 2: Researcher influence		Domain 3: Participants		Domain 4: Interpretation of results	
Qualitative	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Rating/risk of bias**
Munodawafa *et al.* (2017)[138]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No methodological concerns
Myors *et al.* (2015)[112]	Unclear	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Nakku *et al.* (2016)[108]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Nithianandan *et al.* (2016)[122]	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No/limited
Noonan *et al.* (2018)[116]	Unclear	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
O'Mahen *et al.* (2015)[151]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Ormsby *et al.* (2018)[139]	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No/limited
Pineros-Leano *et al.* (2015)[117]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Pugh *et al.* (2015)[145]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Reed *et al.* (2014)[143]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Rowan *et al.* (2010)[120]	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Moderate
Segre *et al.* (2014)[123]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Shakespeare *et al.* (2003)[124]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Shorey *et al.* (2019)[146]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Vik *et al.* (2019)[118]	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Moderate
Willey *et al.* (2019)[125]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Williams *et al.* (2016)[119]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Minor
Young *et al.* (2019)[110]	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No/limited

continued

TABLE 15 Risk ofa bias of studies included in Review 1 (*continued*)

Qualitative	Domain 1: Design and methodology					Domain 2: Researcher influence		Domain 3: Participants	Domain 4: Interpretation of results	
	Domain 1: Author credentials		Domain 2: Opinion development		Domain 3: Literature support		Rating/risk of bias			
Text and opinion	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**				**Rating/risk of bias**
Beeber *et al.* (2009)[141]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
Cox *et al.* (2017)[134]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
Eappen *et al.* (2018)[136]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
Feinberg *et al.* (2006)[127]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
Garcia Fernandez *et al.* (2011)[121]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
Judd *et al.* (2011)[129]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
Lind *et al.* (2017)[130]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
Lomonaco-Haycraft *et al.* (2018)[140]	Yes	Yes	Yes	Yes	Yes	N/A	Minor			
	Domain 1: Participants		**Domain 2: Methodology**					**Domain 3: Analysis**	**Rating/risk of bias**	
Cross-sectional	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**		
Higgins *et al.* (2018)[115]	Yes	No	Yes	N/A	N/A	N/A	Yes	Yes	Minor	

Notes

Qualitative
Domain 1: Design and methodology – High quality (white) = 4 or more yeses; medium quality (light grey) = 3 yeses; low quality (dark grey) = 2 or less yeses.
Domain 2: Researcher influence – High quality (white) = 2 yeses; medium quality (light grey) = 1 yes; low quality (dark grey) = 0 yeses.
Domain 3: Participants – High quality (white) = 2 yeses; medium quality (light grey) = 1 yes; low quality (dark grey) = 0 yeses.
Domain 4: Interpretation of results – High quality (white) = 1 yes; low quality (dark grey) = 0 yeses.

Text and opinion
Domain 1: Author credentials – High quality (white) = 2 yeses; medium quality (light grey) = 1 yes; low quality (dark grey) = 0 yeses.
Domain 2: Opinion development – High quality (white) = 2 yeses; medium quality (light grey) = 1 yes; Low quality (dark grey) = 0 yeses.
Domain 3: Literature support – High quality (white) = 1 yes; low quality = 0 yeses.

Cross-sectional
Domain 1: Participants – High quality (white) = 2 yeses; medium quality (light grey) = 1 yes; low quality (dark grey) = 0 yeses.
Domain 2: Methodology – High quality (white) = 2 yeses; medium quality (light grey) = 1 yes; low quality (dark grey) = 0 yeses.
Domain 3: Analysis – High quality (white) = 1 yes; low quality (dark grey) = 0 yeses.

Appendix 4

TABLE 16 Risk of bias of systematic reviews included in R2

Author, year	Q1. PICO	Q2. Protocol*	Q3. Study design	Q4. Literature search*	Q5. Study selection	Q6. Data extraction	Q7. Excluded studies*	Q8. Included studies	Q9. ROB	Q.10 Funding	Q13. ROB interpretation	Q14. Heterogeneity	Q16. Conflict of interest*	Rating
Bina, 2020[69]	Yes	Yes	No	Partial yes	Yes	No	Partial yes	Yes	No	No	No	Yes	No	LOW
Brealey *et al.*, 2010[74]	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Partial yes	No	Yes	Yes	No	CRITICALLY LOW
Button *et al.*, 2017[46]	Yes	No	Yes	Yes	No	No	Partial yes	Partial yes	Yes	No	Yes	Yes	Yes	LOW
Dennis and Chung-Lee, 2006[47]	Yes	No	Yes	Yes	No	Yes	No	Partial yes	No	No	No	No	No	CRITICALLY LOW
Evans *et al.*, 2020[75]	Yes	Yes	Yes	Yes	Yes	Yes	Partial yes	Yes	Yes	No	Yes	Yes	Yes	HIGH
Forde *et al.*, 2020[105]	Yes	Yes	Yes	Partial yes	Yes	No	Partial yes	Ys	Yes	No	Yes	Yes	Yes	MODERATE
Giscombe *et al.*, 2020[76]	Yes	No	Yes	Partial yes	No	No	Partial yes	Yes	Yes	No	No	Yes	No	CRITICALLY LOW
Hadfield and Wittkowski, 2017[72]	Yes	Yes	Yes	Yes	No	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	MODERATE
Hansotte *et al.*, 2017[70]	Yes	No	Yes	Yes	Yes	Yes	Partial yes	Yes	No	No	No	Yes	Yes	LOW
Hewitt *et al.*, 2009[77]	Yes	Yes	Yes	Yes	Yes	Yes	Partial yes	Yes	Yes	No	Yes	Yes	Yes	HIGH
Holopainen and Hakulinen, 2019[78]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	HIGH
Jones *et al.*, 2014[79]	Yes	No	Yes	Yes	No	Yes	No	Partial yes	Yes	No	Yes	Yes	Yes	CRITICALLY LOW
Jones, 2019[80]	Yes	No	Yes	Partial yes	Yes	No	Partial yes	Yes	No	No	Yes	Yes	Yes	LOW

TABLE 16 Risk of bias of systematic reviews included in R2 (*continued*)

Author, year	Q1. PICO	Q2. Protocol*	Q3. Study design	Q4. Literature search*	Q5. Study selection	Q6. Data extraction	Q7. Excluded studies*	Q8. Included studies	Q9. ROB	Q.10 Funding	Q13. ROB interpretation	Q14. Heterogeneity	Q16. Conflict of interest*	Rating
Kassam, 2019[81]	Yes	Yes	Yes	Partial yes	No	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	MODERATE
Lucas *et al.*, 2019[82]	Yes	Yes	Yes	Yes	Yes	Yes	Partial yes	Yes	Yes	No	Yes	Yes	Yes	HIGH
Megnin-Viggars *et al.*, 2015[48]	Yes	Yes	Yes	Partial yes	No	Yes	Partial yes	Yes	Yes	No	Yes	Yes	No	LOW
Mollard *et al.*, 2016[83]	Yes	No	Yes	Partial yes	No	No	Partial yes	Partial yes	No	No	No	Yes	Yes	LOW
Morell *et al.* 2016[84]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Ye	No	Yes	Yes	Yes	HIGH
Newman *et al.*, 2019[85]	Yes	No	Yes	Yes	No	No	Partial yes	Yes	Yes	No	No	No	Yes	LOW
Nilaweera *et al.*, 2014[86]	Yes	No	No	Partial yes	No	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	LOW
Praetorius *et al.*, 2020[87]	No	No	Yes	Yes	No	Yes	Partial yes	Partial yes	No	No	No	No	Yes	LOW
Randall and Briscoe, 2018[88]	Yes	No	No	Partial yes	Yes	No	Partial yes	Partial yes	Yes	No	No	Yes	Yes	LOW
Sambrook Smith *et al.*, 2019[89]	Yes	Yes	Yes	Partial yes	Yes	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	MODERATE
Schmied *et al.*, 2017[90]	Yes	No	Yes	Partial yes	Yes	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	LOW
Scope *et al.*, 2017[91]	Yes	Yes	Yes	Partial yes	Yes	Yes	Partial yes	Yes	Yes	No	Yes	Yes	No	LOW
Staneva *et al.*, 2015[94]	Yes	Yes	Yes	Partial yes	Yes	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	MODERATE

continued

TABLE 16 Risk of bias of systematic reviews included in R2 (*continued*)

Author, year	Q1. PICO	Q2. Protocol*	Q3. Study design	Q4. Literature search*	Q5. Study selection	Q6. Data extraction	Q7. Excluded studies*	Q8. Included studies	Q9. ROB	Q.10 Funding	Q13. ROB interpretation	Q14. Heterogeneity	Q16. Conflict of interest*	Rating
Slade *et al.*, 2020[92]	Yes	Yes	Yes	Yes	No	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	MODERATE
Sorsa *et al.*, 2021[93]	Yes	No	Yes	Partial yes	Partial yes	Yes	Partial yes	Yes	Yes	No	Yes	Yes	Yes	LOW
Tobin *et al.*, 2018[95]	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes	MODERATE
Viveiros and Darling, 2018[49]	Yes	No	No	Yes	Yes	No	Partial yes	Yes	No	No	No	Yes	Yes	LOW
Watson *et al.*, 2019[96]	Yes	Yes	Yes	Partial yes	Yes	No	Partial yes	Yes	Yes	No	Yes	Yes	Yes	MODERATE
Wittkowski *et al.*, 2014[97]	Yes	No	Yes	Partial yes	No	No	Partial yes	Yes	Yes	No	Yes	Yes	No	CRITICALLY LOW

Appendix 5

Papers supporting the multi-level themes at different stages of the care pathway

TABLE 17 Factors affecting women's decision to consult

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies
1 Women			
1.1 Beliefs about health services			
1.1.1 Services only offer medication	14	5	Bina, 2020[69]; Button *et al.*, 2017[46]; Jones, 2019[80]; Megnin-Viggars *et al.*, 2015[48]; Nilaweera *et al.*, 2014[86]
1.1.2 Services are stretched	2	1	Hadfield and Wittkowski, 2017[72]
1.1.3 Services are too complicated	2	1	*Ganann et al., 2019*[109]
1.2 Beliefs about healthcare professionals			
1.2.1 Not understanding healthcare professionals' role	12	6	Button *et al.*, 2017[46]; Megnin-Viggars *et al.*, 2015[48]; Mollard *et al.*, 2016[83]; Morrell *et al.*, 20161[84]; Nilaweera *et al.*, 2014[86]; Schmied *et al.*, 2017[90]
1.2.2 Believing healthcare professionals won't be interested	2	1	Bina, 2020[69]
1.3 Beliefs about perinatal mental illness			
1.3.1 What is it?			
1.3.1.1 What is perinatal mental illness?	18	14	Bina, 2020[69]; Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Hansotte *et al.*, 2017[70]; Jones, 2019[80]; Lucas *et al.*, 2019[82]; Morrell *et al.*, 2016[84]; Newman *et al.*, 2019[85]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Scope *et al.*, 2017[91]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
1.3.1.2 No language to describe perinatal mental illness	5	4	Brealey *et al.*, 2010[74]; Staneva *et al.*, 2015[94]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
1.3.2 Causes of perinatal mental illness			
1.3.2.1 Spiritual/cultural causes	6	6	*Atif et al., 2016*[106]; *McCauley et al., 2019*[107]; *Nakku et al., 2016*[108], Button *et al.*, 2017[46]; Schmied *et al.*, 2017[90]; Wittkowski *et al.*, 2014[97]
1.3.2.2 External causes	8	8	Bina, 2020[69]; Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Lucas *et al.*, 2019[82]; Schmied *et al.*, 2017[90]; Staneva *et al.*, 2015[94]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]

continued

TABLE 17 Factors affecting women's decision to consult (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies
1.3.2.3 Physical causes	13	9	Bina, 2020[69]; Button *et al.*, 2017[46]; Forde *et al.*, 2020[105]; Jones *et al.*, 2014[79]; Newman *et al.*, 2019[85]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Staneva *et al.*, 2015[94]; Watson *et al.*, 2019[96]
1.3.2.4 A normal response to motherhood?	9	8	Dennis and Chung-Lee, 2006[47]; Giscombe *et al.*, 2020[76]; Jones *et al.*, 2014[79]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Slade *et al.*, 2020[92]; Sorsa *et al.*, 2021[93]; Viveiros and Darling, 2019[49]
1.3.3 How to cope with symptoms			
1.3.3.1 Ignore them	6	6	Bina, 2020[69]; Hadfield and Wittkowski, 2017[72]; Jones, 2019[80]; Newman *et al.*, 2019[85]; Schmied *et al.*, 2017[90]; Slade *et al.*, 2020[92]
1.3.3.2 Seek spiritual guidance	4	4	Hansotte *et al.*, 2017[70]; Kassam, 20139[81]; Schmied *et al.*, 2017[90]; Watson *et al.*, 2019[96]
1.3.3.3 Minimise them	14	2	Staneva *et al.*, 2015[94]; Watson *et al.*, 2019[96]
1.4 Deciding to seek help			
1.4.1 Recognising something is wrong	8	8	Bina, 2020[69]; Button *et al.*, 2017[46]; Forde *et al.*, 2020[105]; Hadfield and Wittkowski, 2017[72]; Slade *et al.*, 2020[92]; Sorsa *et al.*, 2021[93]; Staneva *et al.*, 2015[94]; Viveiros and Darling, 2019[49]
1.4.2 Where do I go to seek help?	9	8	*Ganann et al., 2019*[109]; Bina, 2020[69]; Dennis and Chung-Lee, 2006[47]; Hansotte *et al.*, 2017[70]; Megnin-Viggars *et al.*, 2015[48]; Schmied *et al.*, 2017[90]; Sorsa *et al.*, 2021[93]; Tobin *et al.*, 2018[95]
1.5 Fear of judgement			
1.5.1 Fear of being seen as a bad mum	9	2	Bina, 2020[69]; Forde *et al.*, 2020[105]
1.5.2 Social services/ removal of child	17	5	*Young et al., 2019*[110] Dennis and Chung-Lee, 2006[47]; Forde *et al.*, 2020[105]; Jones, 2019[80]; Watson *et al.*, 2019[96]
1.7 Social and family life			
1.7.1 Social isolation or support	9	2	Jones *et al.*, 2014[79]; Viveiros and Darling, 2019[49]
1.7.2 Family and friends' beliefs	30	11	Bina, 2020[69]; Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Forde *et al.*, 2020[105]; Holopainen and Hakulinen, 2019[78]; Jones, 2019[80]; Lucas *et al.*, 2019[82]; Nilaweera *et al.*, 2014[86]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Sorsa *et al.*, 2021[93]
1.8 Sociodemographic factors			
1.8.1 Ethnicity	2	2	Bina, 2020[69]; Dennis and Chung-Lee, 2006[47]
1.8.2 Age	2	2	Bina, 2020[69]; Hansotte *et al.*, 2017[70]
1.9 Mental health factors			
1.9.1 Previous experiences of mental health care	6	4	Button *et al.*, 2017[46]; Hadfield and Wittkowski, 2017[72]; Hansotte *et al.*, 2017[70]; Watson *et al.*, 2019[96]

TABLE 17 Factors affecting women's decision to consult (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies
1.9.2 Previous diagnoses or symptoms	2	2	Bina, 2020[69]; Sorsa *et al.*, 2021[93]
1.9.3 Current diagnoses or symptoms	6	1	Sorsa *et al.*, 2021[93]
2.3 Healthcare professional's attributes			
2.3.1 Similar demographic characteristics	6	2	Dennis and Chung-Lee, 2006[47]; Watson *et al.*, 2019[96]
2.3.3 Valued characteristics	25	1	Jones, 2019[80]
3 Interpersonal			
3.1 Trusting relationship and rapport	23	1	Dennis and Chung-Lee, 2006[47]
3.2 Language barriers	16	2	Dennis and Chung-Lee, 2006[47]; Schmied *et al.*, 2017[90]
3.4 Open and honest communication	9	2	Schmied *et al.*, 2017[90]; Watson *et al.*, 2019[96]
4 Organisational			
4.1 Overall organisational aspects			
4.1.1 Co location and buildings	7	1	Bina, 2020[69]
4.1.2 Service integration and collaborative working	17	1	Newman *et al.*, 2019[85]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.1 Continuity of carer	17	1	Button *et al.*, 2017[46]
4.2.1.2 Culturally sensitive care	19	5	Bina, 2020[69]; Dennis and Chung-Lee, 2006[47]; Jones, 2019[80]; Schmied *et al.*, 2017[90]; Watson *et al.*, 2019[96]
4.2.1.5 Logistical support	13	1	Jones, 2019[80]
4.2.1.6 Home delivery	10	1	Jones 2019[80]
4.2.1.8 Provision of information	7	1	Schmied *et al.*, 2017[90]
5 Commissioners			
5.2 Lack of appropriate or timely services	22	4	Jones, 2019[80]; Megnin-Viggars *et al.*, 2015[48]; Newman *et al.*, 2019[85]; Viveiros and Darling, 2019[49]
6 Political			
6.1 Immigration status	9	3	Bina, 2020[69]; Hansotte *et al.*, 2017[70]; Schmied *et al.*, 2017[90]
6.2 Economic status and healthcare costs	16	5	Bina, 2020[69]; Hansotte *et al.*, 2017[70]; Jones, 2019[80]; Lucas *et al.*, 2019[82]; Tobin *et al.*, 2018[95]

continued

TABLE 17 Factors affecting women's decision to consult (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies
7 Societal			
7.1 Stigma	43	14	*Nakku et al., 2016*[108] Bina, 2020[69]; Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Hansotte *et al.*, 2017[70]; Jones, 2019[80]; Kassam, 2019[81]; Mollard *et al.*, 2016[83]; Nilaweera *et al.*, 2014[86]; Sorsa *et al.*, 2021[93]; Tobin *et al.*, 2018[95]; Viveiros and Darling, 2019[49]; Watson *et al.*, 2019[96]
7.2 Culture	30	15	*Atif et al., 2016*[106]; *McCauley et al., 2019*[107]; *Nakku et al., 2016*[108] Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Giscombe *et al.*, 2020[76]; Jones, 2019[80]; Kassam, 2019[81]; Praetorius *et al.*, 2020[87]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Staneva *et al.*, 2015[94]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]; Wittkowski *et al.*, 2014[97]
7.3 Maternal norms	27	13	Bina, 2020[69]; Button *et al.*, 2017[46]; Hadfield and Wittkowski, 2017[72]; Hansotte *et al.*, 2017[70]; Holopainen and Hakulinen, 2019[78]; Johnson *et al.*, 2020[112]; Kassam, 2019[81]; Lucas *et al.*, 2019[82]; Mollard *et al.*, 2016[83]; Nilaweera *et al.*, 2014[86]; Schmied *et al.*, 2017[90]; Sorsa *et al.*, 202[19]; Staneva *et al.*, 2015[94]

TABLE 18 Factors affecting contact with healthcare professionals

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1 Women			
1.3.2 Causes of perinatal mental illness			
1.3.2.1 Spiritual/cultural causes	6	2	Dennis and Chung-Lee, 2006[47]; Schmied *et al.*, 2017[90]
2 Healthcare professional			
2.1 Healthcare professionals knowledge about PMH			
2.1.1 Healthcare professionals knowledge about PMI	17	1	*McKenzie-McHarg et al., 2014*[148]
2.2 Getting it right the first time			
2.2.1 Being dismissive or normalising symptoms	11	8	Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Forde *et al.*, 2020[105]; Hadfield and Wittkowski, 2017[72]; Hansotte *et al.*, 2017[70]; Newman *et al.*, 2019[85]; Sorsa *et al.*, 2021[93]; Watson *et al.*, 2019[96]
2.2.2 Not recognising help seeking or PMI	5	4	Megnin-Viggars *et al.*, 2015[48]; Tobin *et al.*, 2018[95]; Viveiros and Darling, 2019[49]; Watson *et al.*, 2019[96]

TABLE 18 Factors affecting contact with healthcare professionals (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
2.2.3 Focussing on infant	2	1	Megnin-Viggars *et al.*, 2015[48]
2.2.4 Making time	11	3	*Myors et al., 2015*[112] Hewitt *et al.*, 2009[77]; Watson *et al.*, 2019[96]
2.3 Healthcare professional's attributes			
2.3.3 Valued characteristics	25	2	*Myors et al., 2015*[112] Newman *et al.*, 2019[85]
3 Interpersonal			
3.2 Language barriers	16	2	Button *et al.*, 2017[46]; Sambrook Smith *et al.*, 2019[89]
4 Organisational			
4.1 Overall organisational aspects			
4.1.7 Training	28	1	*Nakku et al., 2016*[108]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.2 Culturally sensitive care	19	2	Dennis and Chung-Lee, 2006[47]; Sambrook Smith *et al.*, 2019[89]
7 Societal			
7.2 Culture	30	3	Dennis and Chung-Lee, 2006[47]; Nilaweera *et al.*, 2014[86]; Sambrook Smith *et al.*, 2019[89]

TABLE 19 Factors affecting assessment

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1 Women			
1.1 Beliefs about health services			
1.1.1 Services only offer medication	14	2	*Doering et al., 2017*[114]; *Williams et al., 2016*[119]
1.3 Beliefs about perinatal mental illness			
1.3.1 What is it?			
1.3.1.1 What is perinatal mental illness?	18	1	*Kerker et al., 2018*[130]
1.7 Social and family life			
1.7.2 Family and friends' beliefs	30	7	*Boyd et al., 2011*[113]; *Doering et al., 2017*[114]; *Higgins et al., 2018*[115]; *Noonan et al., 2018*[116]; *Pineros-Leano et al., 2015*[117]; *Vik et al., 2009*[118]; *Williams et al., 2016*[119]
1.7.3 Additional personal difficulties	7	2	*Boyd et al., 2011*[113]; *Williams et al., 2016*[119]

continued

TABLE 19 Factors affecting assessment (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
2 Healthcare professional			
2.1 Healthcare professionals knowledge about PMH			
2.1.1 Healthcare professionals knowledge about PMI	17	7	*Higgins et al., 2018*[115]; *McCauley et al., 2019*[108]; *Rowan et al., 2010*[120] Bina, 2020[69]; Dennis and Chung-Lee, 2006[47]; Megnin-Viggars *et al.*, 2015[48]; Slade *et al.*, 2020[92]; Viveiros and Darling, 2019[49]
2.1.2 Healthcare professional's knowledge about services/referral pathways	8	1	*Higgins et al., 2018*[115]
2.1.3 Healthcare professionals confidence	9	3	*Cox et al., 2017*[134]; *Fernandez y Garcia et al., 2011*[121]; *Higgins et al., 2018*[116]
2.2 Getting it right the first time			
2.2.2 Not recognising help seeking or PMI	5	2	Bina, 2020[69]; Watson *et al.*, 2019[96]
2.2.4 Making time	11	1	Bina, 2020[69]
2.2.5 Assessment specific behaviours	12	12	*Doering et al., 2017*[114]; *Fernandez y Garcia et al., 2011*[121]; *Nithianandan et al., 2016*[122]; *Segre et al., 2014*[123]; *Vik et al., 2009*[118]; *Williams et al., 2016*[119] Brealey *et al.*, 2010[74]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Slade *et al.*, 2020[92]; Viveiros and Darling, 2019[49]; Watson *et al.*, 2019[96]
2.3 Healthcare professional's attributes			
2.3.1 Similar demographic characteristics	6	1	*Nithianandan et al., 2016*[122]
2.3.2 Culturally sensitive	4	2	Kassam, 2019[81]; Nilaweera *et al.*, 2014[86]
2.3.3 Valued characteristics	25	4	*Boyd et al., 2011*[113]; *Doering et al., 2017*[114]; *Kim et al., 2009*[129] Hewitt *et al.*, 2009[77]
3 Interpersonal			
3.1 Trusting relationship and rapport	23	3	*Doering et al., 2017*[114]; *Higgins et al., 2018*[116] Bina, 2020[69]
3.2 Language barriers	16	3	*Doering et al., 2017*[114]; *Ganann et al., 2019*[109]; *Nithianandan et al., 2016*[122]; *Pineros-Leano et al., 2015*[117]; *Segre et al., 2014*[123]; *Willey et al., 2018*[126]; *Williams et al., 2016*[119]
3.4 Open and honest communication	9	5	*Doering et al., 2017*[114]; *Shakespeare et al., 2003*[124], Brealey *et al.*, 2010[74]; Hewitt *et al.*, 2009[77]; Willey *et al.*, 2018[125]
4 Organisational			
4.1 Overall organisational aspects			
4.1.2 Service integration and collaborative working	17	1	*Lomonaco-Haycraft et al., 2018*[140]

TABLE 19 Factors affecting assessment (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
4.1.3 Collaboration within services	14	3	*Higgins et al., 2018*[115]*; Nithianandan et al., 2016*[122]*; Segre et al., 2014*[123]
4.1.4 Adequate workforce provision/ healthcare professionals workload	17	11	*Ammerman et al., 2014*[126]*; Feinberg et al., 2006*[127]*; Ganann et al., 2019*[109]*; Higgins et al., 2018*[115]*; Kim et al., 2009*[128]*; McCauley, et al., 2019*[107]*; Nakku et al., 2016*[108]*; Nithianandan et al., 2016*[122]*; Noonan et al., 2018*[116]*; Vik et al., 2009*[118]*; Willey et al., 2018*[125] Viveiros and Darling, 2018[49]
4.1.5 Clear assessment and referral process	11	6	*Ganann et al., 2019*[109]*; Kim et al., 2009*[128]*; Nithianandan et al., 2016*[122]*; Segre et al., 2014*[123]*; Williams et al., 2016*[119] Bina, 2020[69]
4.1.6 Provision of supervision	3	1	*Vik et al., 2009*[118]
4.1.7 Training	28	14	*Boyd et al., 2011*[113]*; Feinberg et al., 2006*[127]*; Ganann et al., 2019*[109]*; Judd et al., 2011*[129]*; Kerker et al., 2018*[130]*; Kim et al., 2009*[128]*; Lind et al., 2017*[131]*; McCauley et al., 2019*[107]*; Nithianandan et al., 2016*[122]*; Noonan et al., 2018*[116]*; Willey et al., 2018*[125]*; Williams et al., 2016*[119] Bina, 2020[69]; Brealey et al., 2010[74]
4.1.9 Organisational goals/guidelines	2	1	*Ammerman et al., 2014*[127]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.1 Continuity of carer	17	1	*Higgins et al., 2018*[115]
4.2.1.2 Culturally sensitive care	19	3	Brealey *et al.*, 2010[74]; Hewitt *et al.*, 2009[77]; Watson *et al.*, 2019[96]
4.2.1.3 Privacy and confidentiality	7	3	*Higgins et al., 2018*[115]*; Nithianandan et al., 2016*[122], Giscombe *et al.*, 2020[76]
4.2.1.4 Dedicated person/PMH Champion	9	2	*Kim et al., 2009*[128]*; Lomonaco-Haycraft et al., 2018140*
4.2.1.6 Home delivery	10	2	*Myors et al., 2015*[113] Brealey *et al.*, 2010[74]
4.2.1.7 Hospital delivery	5	1	*Shakespeare et al., 2003*[124]
4.2.1.9 Technology	11	7	*Fernandez y Garcia et al., 2011121; Kim et al., 2009*[128]*; Lind et al., 2017*[131]*; Noonan et al., 2018*[116]*; Pineros-Leano et al., 2015*[117]*; Willey et al., 2018*[125]*; Williams et al., 2016*[119]
4.2.2 Assessment specific characteristics			
4.2.2.1 Wording of assessment tools	6	6	*Doering et al., 2017*[114]*; Segre et al., 2014*[123]*; Williams et al., 2016*[119] Brealey *et al.*, 2010[74]; Button *et al.*, 2017[46]; Hewitt *et al.*, 2009[77]

continued

TABLE 19 Factors affecting assessment (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
4.2.2.2 Acceptability of assessment/screening	17	17	*Boyd et al., 2011*[113]; *Doering et al., 2017*[114]; *Feinberg et al., 2006*[127]; *Ganann et al., 2019*[109]; *Kim et al., 2009; Nithianandan et al., 2016; Segre et al., 2014*[128]; *Shakespeare et al., 2003*[124]; *Vik et al., 2009*[118]; *Willey et al., 2018*[125], Brealey *et al.*, 2010[74]; Evans *et al.*, 2020[75]; Hewitt *et al.*, 2009[77]; Megnin-Viggars *et al.*, 2015[48]; Mollard *et al.*, 2016[83]; Sambrook Smith *et al.*, 2019[89]; Viveiros and Darling, 2019[49]
5 Commissioners			
5.1 Referral pathways	6	1	*Higgins et al., 2018*[115]
5.2 Lack of appropriate or timely services	22	5	*Doering et al., 2017*[114]; *Higgins et al., 2018*[115]; *Kerker et al., 2018*[131]; *Noonan et al., 2018*[116]; *Williams et al., 2016*[119]
5.3 Financial complexities	8	2	*Feinberg et al., 2006*[127]; *Ganann et al., 2019*[109]
7 Societal			
7.1 Stigma	43	6	*Atif et al., 2016*[106]; *Chartier et al., 2015*[132]; *Higgins et al., 2018*[115]; *McCauley et al., 2019*[107]; *Shakespeare et al., 2003*[124]; *Vik et al., 2009*[118]
7.2 Culture	30	7	*Boyd et al., 2011*[113]; *Ganann et al., 2019*[109]; *Higgins et al., 2018*[115]; *Segre et al., 2014*[128] Brealey *et al.*, 2010[74]; Hewitt *et al.*, 2009[77]; Tobin *et al.*, 2018[95]
7.3 Maternal norms	27	1	Sorsa *et al.*, 2021[93]

TABLE 20 Factors affecting women's decision to disclose

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1 Women			
1.1 Beliefs about health services			
1.1.1 Services only offer medication	14	2	Sorsa *et al.*, 2021[93]; Tobin *et al.*, 2018[95]
1.1.2 Services are stretched	2	1	Dennis and Chung-Lee, 2006[47]
1.2 Beliefs about healthcare professionals			
1.2.1 Not understanding healthcare professionals' role	12	5	Brealey *et al.*, 2010[74]; Hadfield and Wittkowski, 2017[72]; Hewitt *et al.*, 2009[77]; Sambrook Smith *et al.*, 2019[89]; Scope *et al.*, 2017[91]
1.2.2 Believing healthcare professionals won't be interested	2	1	Hadfield and Wittkowski, 2017[72]

TABLE 20 Factors affecting women's decision to disclose (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1.3 Beliefs about perinatal mental illness			
1.3.1 What is it?			
1.3.1.1 What is perinatal mental illness?	18	3	*Atif et al., 2019*[133] Megnin-Viggars *et al.*, 2015[48]; Staneva *et al.*, 2015[94]
1.3.2 Causes of perinatal mental illness			
1.3.2.4 A normal response to motherhood?	9	1	*Williams et al., 2016*[119]
1.3.3 How to cope with symptoms			
1.3.3.3 Minimise them	14	2	*Shakespeare et al., 2003*[124] Slade *et al.*, 2020[92]
1.5 Fear of judgement			
1.5.1 Fear of being seen as a bad mum	9	7	Brealey *et al.*, 2010[74]; Button *et al.*, 2017[46]; Jones *et al.*, 2014[79]; Lucas *et al.*, 2019[82]; Slade *et al.*, 2020[92]; Sorsa *et al.*, 2021[93]; Viveiros and Darling, 2019[49]
1.5.2 Social services/removal of child	17	6	*Feinberg et al., 2006*[127]; *Shakespeare et al., 2003*[124] Bina, 2020[69]; Brealey *et al.*, 2010[74]; Evans *et al.*, 2020[75]; Newman *et al.*, 2019[85]
1.7 Social and family life			
1.7.2 Family and friends' beliefs	30	2	Nilaweera *et al.*, 2014[86]; Viveiros and Darling, 2019[49]
2 Healthcare professional			
2.2 Getting it right the first time			
2.2.1 Being dismissive or normalising symptoms	11	4	*Ganann et al., 2019*[109] Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Megnin-Viggars *et al.*, 2015[48]
2.2.3 Focussing on infant	2	1	Megnin-Viggars *et al.*, 2015[48]
2.2.4 Making time	11	5	*Feinberg et al., 2006*[127] Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Megnin-Viggars *et al.*, 2015[48]; Slade *et al.*, 2020[92]
2.2.5 Assessment specific behaviours	12	1	Slade *et al.*, 2020[92]
2.3 Healthcare professional's attributes			
2.3.3 Valued characteristics	25	6	*Feinberg et al., 2006*[127]; *Williams et al., 2016*[119] Button *et al.*, 2017[46]; Newman *et al.*, 2019[85]; Slade *et al.*, 2020[92]; Watson *et al.*, 2019[96]
3 Interpersonal			
3.1 Trusting relationship and rapport	23	10	*Feinberg et al., 2006*[127]; *Ganann et al., 2019*[109]; *Kerker et al., 2018*[130]; *Noonan et al., 2018*[116]; *Shakespeare et al., 2003*[124]; *Willey et al., 2018*[125]; *Williams et al., 2016*[119] Brealey *et al.*, 2010[74]; Hewitt *et al.*, 2009[77]; Tobin *et al.*, 2018[95]

continued

TABLE 20 Factors affecting women's decision to disclose (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
3.2 Language barriers	16	1	*Ganann et al., 2019*[109]
3.4 Open and honest communication	9	1	*Vik et al., 2009*[118]
4 Organisational			
4.1 Overall organisational aspects			
4.1.2 Service integration and collaborative working	17	1	*Hadfield et al., 2019*[152]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.1 Continuity of carer	17	8	*Chartier et al., 2015*[132]*; Nithianandan et al., 2016*[122]*; Willey et al., 2018*[125] Brealey *et al.*, 2010[74]; Hadfield and Wittkowski, 2017[72]; Megnin-Viggars *et al.*, 2015[48]; Sambrook Smith *et al.*, 2019[89]; Watson *et al.*, 2019[96]
5 Commissioners			
5.2 Lack of appropriate or timely services	22	1	*Williams et al., 2016*[119]
7 Societal			
7.1 Stigma	43	18	*Atif et al., 2019*[133]*; Feinberg et al., 2006*[127]*; Kerker et al., 2018*[130]*; Nithianandan et al., 2016*[122]*; Noonan et al., 2018*[116]*; Shakespeare et al., 2003*[124]*; Williams et al., 2016*[119] Button *et al.*, 2017[46]; Giscombe *et al.*, 2020[76]; Hewitt *et al.*, 2009[77]; Holopainen and Hakulinen, 2019[78]; Megnin-Viggars *et al.*, 2015[48]; Morrell *et al.*, 2016[84]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Scope *et al.*, 2017[91]; Sorsa *et al.*, 2021[93]; Watson *et al.*, 2019[96]
7.2 Culture	30	13	*Feinberg et al., 2006*[127]*; Noonan et al., 2018*[116] Brealey *et al.*, 2010[74]; Dennis and Chung-Lee, 2006[47]; Giscombe *et al.*, 2020[76]; Hewitt *et al.*, 2009[77]; Holopainen and Hakulinen, 2019[78]; Megnin-Viggars *et al.*, 2015[48]; Praetorius *et al.*, 2020[87]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
7.3 Maternal norms	27	14	*Shakespeare et al., 2003*[124]*; Williams et al., 2016*[119] Brealey *et al.*, 2010[74]; Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Hewitt *et al.*, 2009[77]; Jones *et al.*, 2014[79]; Megnin-Viggars *et al.*, 2015[48]; Newman *et al.*, 2019[85]; Nilaweera *et al.*, 2014[86]; Praetorius *et al.*, 2020[87]; Sambrook Smith *et al.*, 2019[89]; Scope *et al.*, 2017[91]; Slade *et al.*, 2020[92]

TABLE 21 Factors affecting referral

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1.5 Fear of judgement			
1.5.2 Social services/ removal of child	17	1	*Boyd et al., 2011*[113]
2 Healthcare professional			
2.1 Healthcare professionals knowledge about PMH			
2.1.2 Healthcare professional's knowledge about services/referral pathways	8	4	*Ganann et al., 2019*[109]; *Rowan et al., 2010*[121] Hansotte *et al.*, 2017[70]; Viveiros and Darling, 2019[49]
2.1.3 Healthcare professionals confidence	9	2	*Cox et al., 2017*[134]; *Nithianandan et al., 2016*[122]
2.2 Getting it right the first time			
2.2.1 Being dismissive or normalising symptoms	11	1	Dennis and Chung-Lee, 2006[47]
2.2.2 Not recognising help seeking or PMI	5	1	Button *et al.*, 2017[46]
2.2.4 Making time	11	1	*Ganann et al., 2019*[109]
3 Interpersonal			
3.3 Shared decision making	4	1	Hadfield and Wittkowski, 2017[72]
4 Organisational			
4.1 Overall organisational aspects			
4.1.2 Service integration and collaborative working	17	7	*Bina et al., 2018*[144]; *Boyd et al., 2011*[113]; *Feinberg et al., 2006*[127]; *Judd et al., 2011*[129]; *Myors et al., 2015*[112]; *Noonan et al., 2018*[116]; *Rowan et al., 2010*[121]
4.1.3 Collaboration within services	14	2	*Lind et al., 2017*[131]; *Willey et al., 2018*[125]
4.1.4 Adequate workforce provision	17	1	*Ammerman et al., 2014*[126]
4.1.5 Clear assessment and referral process	11	7	*Cox et al., 2017*[134]; *Feinberg et al., 2006*[127]; *Judd et al., 2011*[129]; *Kerker et al., 2018*[130]; *Nithianandan et al., 2016*[122]; *Noonan et al., 2018*[116]; *Rowan et al., 2010*[121]
4.1.7 Training	28	2	*Bina et al., 2018*[144]; *Judd et al., 2011*[129]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.2 Culturally sensitive care	19	1	*Nithianandan et al., 2016*[122]
4.2.1.3 Privacy and confidentiality	7	1	*Feinberg et al., 2006*[127]
4.2.1.4 Dedicated person/ PMH Champion	9	1	*Nithianandan et al., 2016*[122]
4.2.1.8 Provision of information	7	2	Jones, 2019[80]; Megnin-Viggars *et al.*, 2015[48]
4.2.1.9 Technology	11	1	*Feinberg et al., 2006*[127]

continued

TABLE 21 Factors affecting referral (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
4.2.3 Intervention characteristics			
4.2.3.2 Individualised and person centred	19	1	*Doering et al., 2017*[114]
5 Commissioners			
5.1 Referral pathways	6	5	*Ammerman et al., 2014*[126]; *Boyd et al., 2011*[113]; *Nithianandan et al., 2016*[122]; *Rowan et al., 2010*[121]; *Willey et al., 2018*[125]
5.2 Lack of appropriate or timely services	22	1	*Lomonaco-Haycraft et al., 2018*[140]
7 Societal			
7.1 Stigma	43	3	*Boyd et al., 2011*[113]; *Myors et al., 2015*[112] Morrell *et al.*, 2016[84]

TABLE 22 Factors affecting women's access to care and treatment

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1 Women			
1.1 Beliefs about health services			
1.1.1 Services only offer medication	14	2	*Ganann et al., 2019*[109]; *Young et al., 2019*[110]
1.1.3 Services are too complicated	2	1	Tobin *et al.*, 2018[95]
1.1.4 Women's mistrust and fear of services	2	2	*Boyd et al., 2011*[113] Jones, 2019[80]
1.2 Beliefs about healthcare professionals			
1.2.1 Not understanding healthcare professionals' role	12	3	Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Sambrook Smith *et al.*, 2019[89]
1.4 Deciding to seek help			
1.4.2 Where do I go to seek help?	9	1	Hansotte *et al.*, 2017[70]
1.6 Logistics of accessing perinatal mental healthcare			
1.6.1 Childcare	14	14	*Boyd et al., 2011*[113]; *Cox et al., 2017*[134]; *Doering et al., 2017*[114]; *Friedman et al., 2010*[135] Bina, 2020[69]; Button *et al.*, 2017[46]; Dennis and Chung-Lee, 2006[47]; Hansotte *et al.*, 2017[70]; Morrell *et al.*, 2016[84]; Newman *et al.*, 2019[85]; Sambrook Smith *et al.*, 2019[89]; Scope *et al.*, 2017[91]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
1.6.2 Timing of care	7	7	*Atif et al., 2019*[133]; *Friedman et al., 2010*[135] Bina, 2020[69]; Dennis and Chung-Lee, 2006[47]; Newman *et al.*, 2019[85]; Scope *et al.*, 2017[91]; Watson *et al.*, 2019[96]

TABLE 22 Factors affecting women's access to care and treatment (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1.6.3 Location/travel	13	13	*Cox et al., 2017*[134]; *Doering et al., 2017*[114]; *Eappen et al., 2018*[136]; *Friedman et al., 2010*[135]; *Masood et al., 2015*[137]; *Nakku et al., 2016*[108] Bina, 2020[69]; Hansotte *et al.*, 2017[70]; Mollard *et al.*, 2016[83]; Morrell *et al.*, 2016[84]; Newman *et al.*, 2019[85]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
1.7 Social and family life			
1.7.2 Family and friends' beliefs	30	8	*Atif et al., 2019*[133]; *Ganann et al., 2019*[109]; *Masood et al., 2015*[137]; *Nakku et al., 2016*[108]; *Nithianandan et al., 2016*[122]; *Young et al., 2019*[110] Nilaweera *et al.*, 2014[86]; Watson *et al.*, 2019[96]
1.7.3 Additional personal difficulties	7	5	*Atif et al., 2016*[106]; *Kerker et al., 2018*[130]; *Munodawafa et al., 2017*[138]; *Rowan et al., 2010*[120] Hansotte *et al.*, 2017[70]
1.8 Sociodemographic factors			
1.8.1 Ethnicity	4	2	Hansotte *et al.*, 2017[70]; Watson *et al.*, 2019[96]
1.9 Mental health factors			
1.9.3 Current diagnoses or symptoms	6	4	*Friedman et al., 2010*[135]; *Young et al., 2019*[110] Sorsa *et al.*, 2021[93]; Viveiros and Darling, 2019[49]
2 Healthcare professional			
2.1 Healthcare professionals knowledge about PMH			
2.1.1 Healthcare professionals knowledge about PMI	17	1	Megnin-Viggars *et al.*, 2015[48]
2.1.2 Healthcare professional's knowledge about services/referral pathways	8	2	Sambrook Smith *et al.*, 2019[89]; Slade *et al.*, 2020[92]
2.2 Getting it right the first time			
2.2.1 Being dismissive or normalising symptoms	11	1	Watson *et al.*, 2019[96]
2.2.4 Making time	11	1	Watson *et al.*, 2019[96]
2.3 Healthcare professional's attributes			
2.3.2 Culturally sensitive	4	1	Watson *et al.*, 2019[96]
2.3.3 Valued characteristics	25	3	Morrell *et al.*, 2016[84]; Newman *et al.*, 2019[85]; Schmied *et al.*, 2017[90]
3 Interpersonal			
3.1 Trusting relationship and rapport	23	1	Dennis and Chung-Lee, 2006[47]
3.2 Language barriers	16	4	Hansotte *et al.*, 2017[70]; Megnin-Viggars *et al.*, 2015[48]; Sambrook Smith *et al.*, 2019[89]; Watson *et al.*, 2019[96]
3.3 Shared decision making	4	1	Bina, 2020[69]

continued

TABLE 22 Factors affecting women's access to care and treatment (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
4 Organisational			
4.1 Overall organisational aspects			
4.1.1 Co location and buildings	7	2	*Boyd et al., 2011*[113]; *Judd et al., 2011*[129]
4.1.2 Service integration and collaborative working	17	3	*Rowan et al., 2010*[120] Sambrook Smith *et al.*, 2019[89]; Watson *et al.*, 2019[96]
4.1.3 Collaboration within services	14	1	Sambrook Smith *et al.*, 2019[89]
4.1.4 Adequate workforce provision/ healthcare professionals workload	17	2	*Rowan et al., 2010*[120] Bina, 2020[69]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.1 Continuity of carer	17	1	Tobin *et al.*, 2018[95]
4.2.1.2 Culturally sensitive care	19	7	Button *et al.*, 2017[46]; Giscombe *et al.*, 2020[76]; Hansotte *et al.*, 2017[70]; Sambrook Smith *et al.*, 2019[89]; Schmied *et al.*, 2017[90]; Viveiros and Darling, 2019[49]; Watson *et al.*, 2019[96]
4.2.1.4 Dedicated person/PMH Champion	9	3	*Ganann et al., 2019*[109] Bina, 2020[69]; Megnin-Viggars *et al.*, 2015[48]
4.2.1.5 Logistical support	13	11	*Ganann et al., 2019*[109]; *Hadfield et al., 2019*[152]; *Masood et al., 2015*[137]; *Nakku et al., 2016*[108]; *Nithianandan et al., 2016*[122]; *Ormsby et al., 2018*[139] Button *et al.*, 2017[46]; Mollard *et al.*, 2016[83]; Newman *et al.*, 2019[85]; Scope *et al.*, 2017[91]; Watson *et al.*, 2019[96]
4.2.1.8 Provision of information	7	1	Randall and Briscoe, 2018[88]
4.2.1.10 Service inclusion criteria	3	3	*Boyd et al., 2011*[113]; *Ganann et al., 2019*[109] Viveiros and Darling, 2019[49]
4.2.3 Intervention characteristics			
4.2.3.2 Individualised and person centred	19	2	*Ganann et al., 2019*[109] Watson *et al.*, 2019[96]
4.2.3.3 Appropriateness	15	1	*Pugh et al., 2015*[145]
5 Commissioners			
5.2 Lack of appropriate or timely services	22	11	*Boyd et al., 2011*[113]; *Ganann et al., 2019*[109]; *Kerker et al., 2018*[130]; *Myors et al., 2015*[112] Bina, 2020[69]; Button *et al.*, 2017[46]; Megnin-Viggars *et al.*, 2015[48]; Newman *et al.*, 2019[85]; Sambrook Smith *et al.*, 2019[89]; Tobin *et al.*, 2018[95]; Viveiros and Darling, 2019[49]
5.3 Financial complexities	8	1	*Rowan et al., 2010*[120]

TABLE 22 Factors affecting women's access to care and treatment (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
6 Political			
6.1 Immigration status	9	6	*Cox et al., 2017*[134]; *Ganann et al., 2019*[109] Hansotte *et al.*, 2017[70]; Kassam, 2019[81]; Schmied *et al.*, 2017[90]; Tobin *et al.*, 2018[95]
6.2 Economic status and healthcare costs	16	14	*Atif et al., 2016*[106]; *Boyd et al., 2011*[113]; *Cox et al., 2017*[134]; *Doering et al., 2017*[114]; *Ganann et al., 2019*[109]; *Lomonaco-Haycraft et al., 2018*[140]; *Nakku et al., 2016*[108]; *Ormsby et al., 2018*[139] Bina, 2020[69]; Hansotte *et al.*, 2017[70]; Kassam, 2019[81]; Lucas *et al.*, 2019[82]; Tobin *et al.*, 2018[95]; Viveiros and Darling, 2019[49]
7 Societal			
7.1 Stigma	43	8	*Cox et al., 2017*[134]; *Young et al., 2019*[110] Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Hansotte *et al.*, 2017[70]; Scope *et al.*, 2017[91]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
7.2 Culture	30	5	*Atif et al., 2016*[106] Giscombe *et al.*, 2020[76]; Hansotte *et al.*, 2017[70]; Sambrook Smith *et al.*, 2019[89]; Viveiros and Darling, 2019[49]
7.3 Maternal norms	27	2	Viveiros and Darling, 2019[49]; Watson *et al.*, 2019[96]

TABLE 23 Factors affecting provision of optimal care

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1 Women			
1.1 Beliefs about health services			
1.1.1 Services only offer medication	14	4	Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Megnin-Viggars *et al.*, 2015[48]; Tobin *et al.*, 2018[95]
1.3 Beliefs about perinatal mental illness			
1.3.1 What is it?			
1.3.1.2 No language to describe perinatal mental illness	5	1	*Bina et al., 2018*[144]
2 Healthcare professional			
2.1 Healthcare professionals knowledge about PMH			
2.1.1 Healthcare professionals knowledge about PMI	17	7	*Beeber et al., 2009*[141]; *Byatt et al., 2013*[142]; *Ganann et al., 2019*[110]; *Judd et al., 2011*[129]; *Noonan et al., 2018*[116]; *Reed et al., 2014*[143] Megnin-Viggars *et al.*, 2015[48]

continued

TABLE 23 Factors affecting provision of optimal care (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
2.1.3 Healthcare professionals confidence	9	5	*Atif et al., 2019*[133]; *Bina et al., 2018*[144]; *Munodawafa et al., 2017*[138]; *Ormsby et al., 2018*[139]; *Reed et al., 2014*[143]
2.2 Getting it right the first time			
2.2.3 Focussing on infant	2	1	Button *et al.*, 2017[46]
2.2.4 Making time	11	3	*Noonan et al., 2018*[116] Dennis and Chung-Lee, 2006[47]; Viveiros and Darling, 2019[49]
2.3 Healthcare professional's attributes			
2.3.1 Similar demographic characteristics	6	3	*Leger et al., 2015*[147]; *Masood et al., 2015*[137]; *Shorey and Ng, 2019*[146]
2.3.2 Culturally sensitive	4	1	Viveiros and Darling, 2019[49]
2.3.3 Valued characteristics	25	9	*Atif et al., 2016*[106], *2019*[133]; *Doering et al., 2017*[114]; *Kerker et al., 2018*[130]; *Munodawafa et al., 2017*[138]; *Pugh et al., 2015*[145]; *Shorey and Ng, 2019*[146] Forde *et al.*, 2020[105]; Staneva *et al.*, 2015[94]
3 Interpersonal			
3.1 Trusting relationship and rapport	23	5	*Hadfield et al., 2019*[152]; *Leger et al., 2015*[147]; *Shorey and Ng, 2019*[146] Bina, 2020[69]; Scope *et al.*, 2017[90]
3.2 Language barriers	16	3	*Beeber et al., 2009*[141]; *Munodawafa et al., 2017*[138]; *Pineros-Leano et al., 2015*[117]
3.3 Shared decision making	4	2	Megnin-Viggars *et al.*, 2015[48]; Randall and Briscoe, 2018[88]
4 Organisational			
4.1 Overall organisational aspects			
4.1.1 Co location and buildings	7	5	*Cox et al., 2017*[134]; *Judd et al., 2011*[129]; *Munodawafa et al., 2017*[138]; *Ormsby et al., 2018*[139]; *Young et al., 2019*[110]
4.1.2 Service integration and collaborative working	17	8	*Atif et al., 2016*[106]; *Byatt et al., 2013*[142]; *Ganann et al., 2019*[110]; *Judd et al., 2011*[129]; *Lind et al., 2017*[131]; *Nithianandan et al., 2016*[122]; *Noonan et al., 2018*[116]; *Rowan et al., 2010*[120]
4.1.3 Collaboration within services	14	9	*Ammerman et al., 2014*[126]; *Cox et al., 2017*[134]; *Eappen et al., 2018*[136]; *Judd et al., 2011*[129]; *Kerker et al., 2018*[130]; *McKenzie-McHarg et al., 2014*[148]; *Munodawafa et al., 2017*[138]; *Nithianandan et al., 2016*[122]; *Ormsby et al., 2018*[139]
4.1.4 Adequate workforce provision/ healthcare professionals workload	17	4	*Bina et al., 2018*[144]; *Drozd et al., 2018*[149]; *Kerker et al., 2018*[130]; *Nakku et al., 2016*[108]
4.1.6 Provision of supervision	3	2	*Atif et al., 2019*[133]; *Munodawafa et al., 2017*[138]

TABLE 23 Factors affecting provision of optimal care (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
4.1.7 Training	28	15	*Ammerman et al., 2014*[136]; *Atif et al., 2016*[106], *2019*[133]; *Beeber et al., 2009*[141]; *Chartier et al., 2015*[132]; *Doering et al., 2017*[114]; *Drozd et al., 2018*[149]; *Ganann et al., 2019*[109]; *Leger et al., 2015*[147]; *McKenzie-McHarg et al., 2014*[148]; *Munodawafa et al., 2017*[138]; *Reed et al., 2014*[143]; *Rowan et al., 2010*[120]; *Shorey and Ng, 2019*[146] Brealey *et al.*, 2010[74]
4.1.9 Organisational goals/guidelines	2	1	*Willey et al., 2018*[125]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.1 Continuity of carer	17	4	*O'Mahen and Flynn, 2008*[150]; *Rowan et al., 2010*[120] Megnin-Viggars *et al.*, 2015[48]; Viveiros and Darling, 2019[49]
4.2.1.2 Culturally sensitive care	19	7	*Ganann et al., 2019*[109]; *Noonan et al., 2018*[116]; *Shorey and Ng, 2019*[146] Dennis and Chung-Lee, 2006[47]; Kassam, 2019[81]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
4.2.1.3 Privacy and confidentiality	7	3	*Atif et al., 2019*[133]; *Jallo et al., 2015*[153]; *O'Mahen and Flynn, 2008*[150]
4.2.1.4 Dedicated person/PMH Champion	9	3	*Chartier et al., 2015*[132]; *Rowan et al., 2010*[120]; *Willey et al., 2018*[125]
4.2.1.5 Logistical support	13	1	*Leger et al., 2015*[147]
4.2.1.6 Home delivery	10	5	*Ammerman et al., 2014*[126]; *Beeber et al., 2009*[141]; *Leger et al., 2015*[147]; *Munodawafa et al., 2017*[139] Hadfield and Wittkowski, 2017[72]
4.2.1.7 Hospital delivery	5	1	Dennis and Chung-Lee, 2006[47]
4.2.1.8 Provision of information	7	5	Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Jones, 2019[80]; Megnin-Viggars *et al.*, 2015[48]; Morrell *et al.*, 2016[84]
4.2.3 Intervention characteristics			
4.2.3.1 Opportunity to talk	7	2	Hadfield and Wittkowski, 2017[72]; Jones *et al.*, 2014[79]
4.2.3.2 Individualised and person centred	19	11	*Chartier et al., 2015*[133]; *Doering et al., 2017*[114]; *Masood et al., 2015*[137]; *McKenzie-McHarg et al., 2014*[148]; *Noonan et al., 2018*[116]; *O'Mahen and Flynn, 2008*[150]; *Pugh et al., 2015*[145]; *Segre et al., 2014*[123]; *Shorey and Ng, 2019*[146] Megnin-Viggars *et al.*, 2015[48]; Viveiros and Darling, 2018[49]
4.2.3.3 Appropriateness	15	12	*Atif et al., 2019*[133]; *Bina et al., 2018*[144]; *Chartier et al., 2015*[133]; *Drozd et al., 2018*[149]; *Leger et al., 2015*[147]; *McKenzie-McHarg et al., 2014*[148]; *Munodawafa et al., 2017*[139]; *Noonan et al., 2018*[116]; *Ormsby et al., 2018*[139]; *Pugh et al., 2015*[145]; *Reed et al., 2014*[143]; *Shorey and Ng, 2019*[146]

continued

TABLE 23 Factors affecting provision of optimal care (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
4.2.3.4 Flexible	11	7	*Atif et al., 2019*[133]*; Bina et al., 2018*[144]*; Ganann et al., 2019*[109]*; Judd et al., 2011*[130]*; Munodawafa et al., 2017*[139]*; Shorey and Ng, 2019*[146] Sorsa *et al.*, 2021[93]
4.2.3.5 Group support	14	3	*Masood et al., 2015*[137] Dennis and Chung-Lee, 2006[47]; Scope *et al.*, 2017[91]
5 Commissioners			
5.2 Lack of appropriate or timely services	22	7	*Boyd et al., 2011*[113]*; Leger et al., 2015*[147]*; Munodawafa et al., 2017*[138]*; Nakku et al., 2016*[108]*; Noonan et al., 2018*[116]*; Rowan et al., 2010*[120] Jones *et al.*, 2014[79]
5.3 Financial complexities	8	7	*Cox et al., 2017*[134]*; Friedman et al., 2010*[135]*; Ganann et al., 2019*[109]*; Kim et al., 2009*[128]*; Lomonaco-Haycraft et al., 2018*[140]*; Ormsby et al., 2018*[139]*; Rowan et al., 2010*[120]
6 Political			
6.1 Immigration status	9	5	Giscombe *et al.*, 2020[76]; Kassam, 2019[81]; Schmied *et al.*, 2017[90]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
6.2 Economic status and healthcare costs	16	3	Hansotte *et al.*, 2017[70]; Kassam, 2019[81]; Lucas *et al.*, 2019[82]
7 Societal			
7.1 Stigma	43	8	*Atif et al., 2016*[106]*; Chartier et al., 2015*[132]*; Kerker et al., 2018*[130]*; Munodawafa et al., 2017*[138]*; O'Mahen and Flynn, 2008*[150] Dennis and Chung-Lee, 2006[47]; Lucas *et al.*, 2019[82]; Megnin-Viggars *et al.*, 2015[48]
7.2 Culture	30	6	*Bina et al., 2018*[144]*; Boyd et al., 2011*[113]*; Friedman et al., 2010*[135]*; Ganann et al., 2019*[109] Kassam, 2019[80]; Tobin *et al.*, 2018[95]

TABLE 24 Factors affecting women's experience of care

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1 Women			
1.3.2 Causes of perinatal mental illness			
1.3.2.3 Physical causes	13	1	*O'Mahen and Flynn, 2008*[150]
1.7 Social and family life			
1.7.1 Social isolation or support	9	7	Giscombe *et al.*, 2020[76]; Hansotte *et al.*, 2017[70]; Jones *et al.*, 2014[79]; Kassam, 2019[81]; Lucas *et al.*, 2019[82]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
1.7.2 Family and friends' beliefs	30	3	*Atif et al., 2016*[106]*; O'Mahen and Flynn, 2008*[150] Hadfield and Wittkowski, 2017[72]

TABLE 24 Factors affecting women's experience of care (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
1.9 Mental health factors			
1.9.1 Previous experiences of mental health care	6	2	*O'Mahen and Flynn, 2008*[150] Evans *et al*., 2020[75]
1.9.3 Current diagnoses or symptoms	6	2	*Chartier et al., 2015*[132]; *Hadfield et al., 2019*[152]
2 Healthcare professional			
2.1 Healthcare professionals knowledge about PMH			
2.1.1 Healthcare professionals knowledge about PMI	17	2	Dennis and Chung-Lee, 2006[47]; Morrell *et al*., 2016[84]
2.1.2 Healthcare professional's knowledge about services/referral pathways	8	1	Dennis and Chung-Lee, 2006[47]
2.2 Getting it right the first time			
2.2.1 Being dismissive or normalising symptoms	11	1	Megnin-Viggars *et al*., 2015[48]
2.2.4 Making time	11	1	Dennis and Chung-Lee, 2006[47]
2.3 Healthcare professional's attributes			
2.3.3 Valued characteristics	25	9	*Munodawafa et al., 2017*[138] Brealey *et al*., 2010[74]; Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Hewitt *et al*., 2009[77]; Megnin-Viggars *et al*., 2015[48]; Morrell *et al*., 2016[84]; Schmied *et al*., 2017[90]; Staneva *et al*., 2015[94]
3 Interpersonal			
3.1 Trusting relationship and rapport	23	6	*Atif et al., 2016*[106]; *Young et al., 2019*[110] Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Megnin-Viggars *et al*., 2015[48]; Morrell *et al*., 2016[84]
3.2 Language barriers	16	1	*Masood et al., 2015*[137]
3.3 Shared decision making	4	2	Hadfield and Wittkowski, 2017[72]; Scope *et al*., 2017[91]
3.4 Open and honest communication	9	1	Hadfield and Wittkowski, 2017[72]
4 Organisational			
4.1 Overall organisational aspects			
4.1.2 Service integration and collaborative working	17	1	*Noonan et al., 2018*[116]
4.2 Characteristics of PMH care			
4.2.1 Across the care pathway			
4.2.1.1 Continuity of carer	17	5	Button *et al*., 2017[46]; Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Megnin-Viggars *et al*., 2015[48]; Slade *et al*., 2020[92]

continued

TABLE 24 Factors affecting women's experience of care (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
4.2.1.2 Culturally sensitive care	19	6	Dennis and Chung-Lee, 2006[47]; Hadfield and Wittkowski, 2017[72]; Kassam, 2019[81]; Schmied *et al.*, 2017[90]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
4.2.1.6 Home delivery	10	3	*Ammerman et al., 2014[127]; Judd et al., 2011[129]* Hansotte *et al.*, 2017[70]
4.2.1.7 Hospital delivery	5	3	*Atif et al., 2019[133]; Boyd et al., 2011[113]; Kerker et al., 2018[130]*
4.2.1.8 Provision of information	7	1	Scope *et al.*, 2017[91]
4.2.1.9 Technology	11	3	*Jallo et al., 2015[153]; Shorey and Ng, 2019[146], Doering et al., 2017[115]*
4.2.3 Intervention characteristics			
4.2.3.1 Opportunity to talk	7	6	Dennis and Chung-Lee, 2006[47]; Evans *et al.*, 2020[75]; Hadfield and Wittkowski, 2017[72]; Kassam, 2019[81]; Morrell *et al.*, 2016[84]; Praetorius *et al.*, 2020[87]
4.2.3.2 Individualised and person centred	19	11	*Masood et al., 2015[137]; McKenzie-McHarg et al., 2014[148]* Evans *et al.*, 2020[75]; Hadfield and Wittkowski, 2017[72]; Megnin-Viggars *et al.*, 2015[48]; Morrell *et al.*, 2016[84]; Schmied *et al.*, 2017[90]; Scope *et al.*, 2017[91]; Slade *et al.*, 2020[92]; Viveiros and Darling, 2019[49]; Watson *et al.*, 2019[96]
4.2.3.3 Appropriateness	15	4	*Pugh et al., 2015[145]* Evans *et al.*, 2020[75]; Megnin-Viggars *et al.*, 2015[48]; Scope *et al.*, 2017[91]
4.2.3.4 Flexible	11	4	*Hadfield et al., 2019[152]; O'Mahen and Flynn, 2008[150]; Pugh et al., 2015[145]* Watson *et al.*, 2019[96]
4.2.3.5 Group support	14	13	*Hadfield et al., 2019[152]; Masood et al., 2015[137]; Nakku et al., 2016[108]* Evans *et al.*, 2020[75]; Hadfield and Wittkowski, 2017[72]; Holopainen and Hakulinen, 2019[78]; Jones *et al.*, 2014[79]; Megnin-Viggars *et al.*, 2015[48]; Morrell *et al.*, 2016[84]; Schmied *et al.*, 2017[90]; Slade *et al.*, 2020[92]; Tobin *et al.*, 2018[95]; Watson *et al.*, 2019[96]
4.2.3.7 Face to face delivery	4	4	*O'Mahen and Flynn, 2008[150]; Pugh et al., 2015[145]; Shorey and Ng, 2019[147]* Schmied *et al.*, 2017[90]
6 Political			
6.1 Immigration status	9	1	*Ganann et al., 2019[109]*
6.2 Economic status and healthcare costs	16	2	*Munodawafa et al., 2017[138]; Nakku et al., 2016[108]*
7 Societal			
7.1 Stigma	43	2	*McKenzie-McHarg et al., 2014[148]* Hadfield and Wittkowski, 2017[72]

TABLE 24 Factors affecting women's experience of care (*continued*)

Theme	Total number of papers that contribute to this theme	Number of papers that contribute to this theme within this stage of the care pathway	Studies citing this theme
7.2 Culture	30	4	*Masood et al., 2015*[137] Kassam, 2019[81]; Schmied *et al.*, 2017[90]; Watson *et al.*, 2019[96]
7.3 Maternal norms	27	1	Jones *et al.*, 2014[79]

Appendix 6

TABLE 25 CERQual evidence rating table

1 Women								
1.1 Beliefs about health services								
1.1.1 Services only offer medication	The belief that health services will only offer medication to treat PMH concerns	*Doering et al.*, 2017; *Ganann et al.*, 2019; *Williams et al.*, 2016; *Young et al.*, 2019;[110,111,115,120] Bina, 2020; Button *et al.*, 2017; Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017; Jones, 2019; Megnin-Viggars *et al.*, 2015; Nilaweera *et al.*, 2014; Sorsa *et al.*, 2021; Tobin *et al.*, 2018[46–48,69,72,80,86,93,95]	14	Moderate confidence	Low confidence	High confidence	Low confidence	Low confidence
1.1.2 Services are stretched	The belief that PMH services are too stretched and will therefore be unable to help women	Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017[47,72]	2	Low confidence	Very low confidence	Low confidence	Moderate confidence	Low confidence
1.1.3 Services are too complicated	Services being too complex or complicated	*Ganann et al.*, *2019*[110] Tobin *et al.*, 2018[95] SH	2	Moderate confidence	Very low confidence	High confidence	Moderate confidence	Low confidence
1.1.4 Women's mistrust and fear of services	Having little trust in health services	*Boyd et al.*, *2011*[114] Jones, 2019[80]	2	Moderate confidence	Very low confidence	High confidence	Low confidence	Low confidence
1.2 Beliefs about HCPs								
1.2.1 Not understanding HCPs' roles	Not understanding the roles of HCPs and how their roles related to PMH	Brealey *et al.*, 2010; Button *et al.*, 2017; Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017; Hewitt *et al.*, 2009; Megnin-Viggars *et al.*, 2015; Mollard *et al.*, 2016; Morrell *et al.*, 2016; Nilaweera *et al.*, 2014; Sambrook Smith *et al.*, 2019; Schmied *et al.*, 2017; Scope *et al.*, 2017[46–48,72,74,77,83,84,86,89–91]	12	Low confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence

TABLE 25 CERQual evidence rating table (*continued*)

1.2.2 Believing HCPs won't be interested	Believing HCPs won't be interested in PMH	Bina, 2020; Hadfield and Wittkowski, 2017[69,72]	2	Moderate confidence	Very low confidence	Low confidence	Moderate confidence	Low confidence
1.3 Beliefs about perinatal mental illness								
1.3.1 What is it?								
1.3.1.1 What is perinatal mental illness?	Having poor or no knowledge about PMI	*Atif et al., 2019; Kerker et al., 2018*[131,134] Bina, 2020; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017; Hansotte *et al*., 2017; A. Jones, 2019; Lucas *et al*., 2019; Megnin-Viggars *et al*., 2015; Morrell *et al*., 2016; Newman *et al*., 2019; Sambrook Smith *et al*., 2019; Schmied *et al*., 2017; Scope *et al*., 2017; Staneva *et al*., 2015; Tobin *et al*., 2018; Watson *et al*., 2019[46–48,69,72,80,82,84,85,89–91,94–96]	18	Moderate confidence	Moderate confidence	High confidence	Moderate confidence	Moderate confidence
1.3.1.2 No language to describe perinatal mental illness	Not having the language to describe PMI	*Bina et al., 2018*[145] Brealey *et al*., 2010; Staneva *et al*., 2015; Tobin *et al*., 2018; Watson *et al*., 2019[74,94–96]	5	Moderate confidence	Very low confidence	Moderate confidence	Moderate confidence	Low confidence
1.3.2 Causes of perinatal mental illness								
1.3.2.1 Spiritual/cultural causes	Believing that symptoms are caused by cultural or spiritual factors	*Atif et al., 2016; McCauley et al., 2019; Nakku et al., 2016*[107–109] Button *et al*., 2017; Schmied *et al*., 2017; Wittkowski *et al*., 2014[46,90,97]	6	Moderate confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence
1.3.2.2 External causes	Believing that symptoms are caused by external factors such as jobs, being a migrant	Bina, 2020; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Lucas *et al*., 2019; Schmied *et al*., 2017; Staneva *et al*., 2015; Tobin *et al*., 2018; Watson *et al*., 2019[46,47,69,82,90,94–96]	8	Moderate confidence	Low confidence	Moderate confidence	Low confidence	Low confidence
1.3.2.3 Physical causes	Believing that symptoms are caused by physical factors such as tiredness and hormones	*O'Mahen* and *Flynn, 2008*[151] Bina, 2020; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Forde *et al*., 2020; C. C. G. Jones *et al*., 2014; Newman *et al*., 2019; Sambrook Smith *et al*., 2019; Schmied *et al*., 2017; Staneva *et al*., 2015; Watson *et al*., 2019[4 6,47,69,79,85,89,90,94,96,105]	13	Low confidence	Low confidence	High confidence	Moderate confidence	Low confidence

continued

TABLE 25 CERQual evidence rating table (*continued*)

1.3.2.4 A normal response to motherhood?	Believing symptoms are just a normal response to motherhood	*Williams et al., 2016*[120] Dennis and Chung-Lee, 2006; Giscombe *et al.*, 2020; Jones *et al.*, 2014; Sambrook Smith *et al.*, 2019; Schmied *et al.*, 2017; Slade *et al.*, 2020; Sorsa *et al.*, 2021; Viveiros and Darling, 2018[47,49,76,79,89,90,92,93]	9	Low confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence
1.3.3 How to cope with symptoms								
1.3.3.1 Ignore them	Women may deal with symptoms by ignoring them and assuming they will go away on their own	Bina, 2020; Hadfield and Wittkowski, 2017; Jones *et al.*, 2014; Newman *et al.*, 2019; Schmied *et al.*, 2017; Slade *et al.*, 2020[69,72,79,85,90,92]	6	Low confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence
1.3.3.2 Seek spiritual guidance	Women may cope with symptoms by seeking spiritual guidance	Hansotte *et al.*, 2017; Kassam, 2019; Schmied *et al.*, 2017; Watson *et al.*, 2019[70,81,90,96]	4	Moderate confidence	Very low confidence	High confidence	Moderate confidence	Low confidence
1.3.3.3 Minimise them	Women may minimise or deny their symptoms	*Shakespeare et al., 2003*[125] Bina, 2020; Dennis and Chung-Lee, 2006; Forde *et al.*, 2020; Hewitt *et al.*, 2009; Holopainen and Hakulinen, 2019; Jones *et al.*, 2014; Kassam, 2019; Megnin-Viggars *et al.*, 2015; Schmied *et al.*, 2017; Slade *et al.*, 2020; Staneva *et al.*, 2015; Tobin *et al.*, 2018; Watson *et al.*, 2019[47,48,69,77–79,81,90,92,94–96,105]	14	Moderate confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence
1.4 Deciding to seek help								
1.4.1 Recognising something is wrong	The first step to seeking help for many women, was recognising that something was 'wrong'	Bina, 2020; Button *et al.*, 2017; Forde *et al.*, 2020; Hadfield and Wittkowski, 2017; Slade *et al.*, 2020; Staneva *et al.*, 2015; Viveiros and Darling, 2018[46,49,69,72,92,94,105]	8	Moderate confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence
1.4.2 Where do I go to seek help?	The next step to help-seeking is then understanding where to go in order to seek help	*Ganann et al., 2019*[110] Bina, 2020; Dennis and Chung-Lee, 2006; Hansotte *et al.*, 2017; Megnin-Viggars *et al.*, 2015; Schmied *et al.*, 2017; Sorsa *et al.*, 2021; Tobin *et al.*, 2018[47,48,69,70,90,93,95]	9	Low confidence	Very low confidence	High confidence	Low confidence	Low confidence

TABLE 25 CERQual evidence rating table (*continued*)

1.5 Fear of judgment								
1.5.1 Fear of being seen as a bad mum	Fear of being judged and being seen as a bad mother	Bina, 2020; Brealey *et al*., 2010; Button *et al*., 2017; Forde *et al*., 2020; Jones *et al*., 2014; Lucas *et al*., 2019; Slade *et al*., 2020; Sorsa *et al*., 2021; Viveiros and Darling, 2018[46,49,69,74,79,82,92,93,105]	9	Low confi-dence	Low confi-dence	High confi-dence	High confi-dence	Moderate confi-dence
1.5.2 Social services/ removal of child	Fear of social services involvement or their child being removed from their care	*Boyd et al., 2011; Feinberg et al., 2006; Shakespeare et al., 2003; Young et al., 2019*[111,114,125,128] Bina, 2020; Brealey *et al*., 2010; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Evans *et al*., 2020; Forde *et al*., 2020; Hadfield and Wittkowski, 2017; Hewitt *et al*., 2009; A. Jones, 2019; Megnin-Viggars *et al*., 2015; Newman *et al*., 2019; Tobin *et al*., 2018; Watson *et al*., 2019[46–48,69,72,74,75,77,80,85,95,96,105] SH	17	Moderate confi-dence	Moderate confi-dence	High confi-dence	High confi-dence	High confi-dence
1.6 Logistics of accessing perinatal mental health care								
1.6.1 Childcare	Lack of childcare as a barrier to PMH care	*Boyd et al., 2011; Cox et al., 2017; Doering et al., 2017; Friedman et al., 2010*[114,115,135,136] Bina, 2020; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Hansotte *et al*., 2017; Morrell *et al*., 2016; Newman *et al*., 2019; Sambrook Smith *et al*., 2019; Scope *et al*., 2017; Watson *et al*., 2019[46,47,69,70,84,85,89,91,96]	14	Moderate confi-dence	Low confi-dence	High confi-dence	Low confi-dence	Low confi-dence
1.6.2 Timing of care	Timing of appointments and services offered	*Atif et al., 2019; Friedman et al., 2010*[134,136] Bina, 2020; Dennis and Chung-Lee, 2006; Newman *et al*., 2019; Scope *et al*., 2017; Watson *et al*., 2019[47,69,85,91,96]	7	Moderate confi-dence	Low confi-dence	Moderate confi-dence	Low confi-dence	Low confi-dence
1.6.3 Location/ travel	Location of services or travel costs to get to services	*Cox et al., 2017; Doering et al., 2017; Eappen et al., 2018; Friedman et al., 2010; Masood et al., 2015; Nakku et al., 2016*[109,115,135–138] Bina, 2020; Hansotte *et al*., 2017; Mollard *et al*., 2016; Morrell *et al*., 2016; Newman *et al*., 2019; Tobin *et al*., 2018; Watson *et al*., 2019[47,69,85,91,96]	13	Moderate confi-dence	Low confi-dence	High confi-dence	Low confi-dence	Low confi-dence

continued

TABLE 25 CERQual evidence rating table *(continued)*

1.7 Social and family life								
1.7.1 Social isolation or support	Women's experiences of social support or social isolation	Giscombe *et al.*, 2020; Hansotte *et al.*, 2017; A. Jones, 2019; Jones *et al.*, 2014; Kassam, 2019; Lucas *et al.*, 2019; Tobin *et al.*, 2018; Viveiros and Darling, 2018; Watson *et al.*, 2019[49,70,76,80–82,95,96]	9	Low confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence
1.7.2 Family and friends' beliefs	Women's family and friends' beliefs about mental illness	*Atif et al., 2016, 2019; Boyd et al., 2011; Doering et al., 2017; Ganann et al., 2019; Higgins et al., 2018; Masood et al., 2015; Nakku et al., 2016; Nithianandan et al., 2016; Noonan et al., 2018; O'Mahen* and *Flynn, 2008; Pineros-Leano et al., 2015; Vik et al., 2009; Williams et al., 2016; Young et al., 2019*[107,109–111,114–120,123,134,138,151] Bina, 2020; Button *et al.*, 2017; Dennis and Chung-Lee, 2006; Forde *et al.*, 2020; Hadfield and Wittkowski, 2017; Holopainen and Hakulinen, 2019; A. Jones, 2019; Lucas *et al.*, 2019; Nilaweera *et al.*, 2014; Sambrook Smith *et al.*, 2019; Schmied *et al.*, 2017; Sorsa *et al.*, 2021; Viveiros and Darling, 2018; Watson *et al.*, 2019[46,47,49,69,72,78,80,82,86,89,93,96,105]	30	Moderate confidence	High confidence	Moderate confidence	Moderate confidence	Moderate confidence
1.7.3 Additional personal difficulties	Personal difficulties outside of PMH such as unemployment	*Atif et al., 2016; Boyd et al., 2011; Kerker et al., 2018; Munodawafa et al., 2017; Rowan et al., 2010; Williams et al., 2016*[107,114,120,121,131,139] Hansotte *et al.*, 2017[70]	7	Moderate confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence
1.8 Sociodemographic factors								
1.8.1 Ethnicity	Women's ethnicity	Bina, 2020; Dennis and Chung-Lee, 2006; Hansotte *et al.*, 2017; Watson *et al.*, 2019[47,69,70,96]	4	Low confidence	Very low confidence	High confidence	Moderate confidence	Low confidence
1.8.2 Age	Women's age	Bina, 2020; Hansotte *et al.*, 2017[69,70]	2	Low confidence	Very low confidence	High confidence	Very low confidence	Very low confidence
1.9 Mental health factors								
1.9.1 Previous experiences of mental health care	Previous experiences of mental health care	*O'Mahen* and *Flynn, 2008*[151] Button *et al.*, 2017; Evans *et al.*, 2020; Hadfield and Wittkowski, 2017; Hansotte *et al.*, 2017; Watson *et al.*, 2019[46,70,72,75,96]	6	Moderate confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence

TABLE 25 CERQual evidence rating table (*continued*)

1.9.2 Previous diagnoses or symptoms	Previous experiences of mental health symptoms or diagnoses	Bina, 2020; Sorsa *et al*., 2021[69,93]	2	Low confidence	Very low confidence	High confidence	Very low confidence	Very low confidence
1.9.3 Current diagnoses or symptoms	Current experiences of mental health symptoms or diagnoses	*Chartier et al., 2015; Friedman et al., 2010; Hadfield et al., 2019; Young et al., 2019*[111,133,136,153] Sorsa *et al*., 2021; Viveiros and Darling, 2018[49,93]	6	Low confidence	Low confidence	High confidence	Moderate confidence	Low confidence
2. HCP								
2.1 HCP's knowledge about PMH								
2.1.1 HCP's knowledge about PMI	HCP's knowledge about PMH actual and perceived by women	*Beeber et al., 2009; Byatt et al., 2013; Ganann et al., 2019; Higgins et al., 2018; Judd et al., 2011; McCauley et al., 2019; McKenzie-McHarg et al., 2014; Noonan et al., 2018; Reed et al., 2014; Rowan et al., 2010*[108,110,116,117,121,130,142–144,149] Bina, 2020; Dennis and Chung-Lee, 2006; Megnin-Viggars *et al*., 2015; Morrell *et al*., 2016; Slade *et al*., 2020; Viveiros and Darling, 2018[47–49,69,84,92] SH	17	Moderate confidence	Moderate confidence	High confidence	Moderate confidence	Moderate confidence
2.1.2 HCP's knowledge about services/ referral pathways	HCP's knowledge about PMH services and referral pathways actual and perceived by women	*Ganann et al., 2019; Higgins et al., 2018; Rowan et al., 2010*[110,116,121] Dennis and Chung-Lee, 2006; Hansotte *et al*., 2017; Sambrook Smith *et al*., 2019; Slade *et al*., 2020; Viveiros and Darling, 2018[47,49,70,89,92]	8	Moderate confidence	Low confidence	High confidence	High confidence	High confidence
2.1.3 HCP's confidence	HCP's confidence in addressing PMH	*Atif et al., 2019; Bina et al., 2018; Cox et al., 2017; Fernandez y Garcia et al., 2011; Higgins et al., 2018; Munodawafa et al., 2017; Nithianandan et al., 2016; Ormsby et al., 2018; Reed et al., 2014*[116,122,123,134,135,139,140,144,145] SH	9	Moderate confidence confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence
2.2 Getting it right the first time								
2.2.1 Being dismissive or normalising symptoms	HCP dismissing or normalising symptoms	*Ganann et al., 2019*[110] Button et al., 2017; Dennis and Chung-Lee, 2006; Forde *et al*., 2020; Hadfield and Wittkowski, 2017; Hansotte *et al*., 2017; Megnin-Viggars *et al*., 2015; Newman *et al*., 2019; Sorsa *et al*., 2021; Watson *et al*., 2019[46–48,70,72,85,93,96,105] SH	11	Low confidence	Low confidence	High confidence	High confidence	High confidence

continued

TABLE 25 CERQual evidence rating table (*continued*)

2.2.2 Not recognising help-seeking or PMI	HCP not recognising help-seeking or PMI	Bina, 2020; Button *et al*., 2017; Megnin-Viggars *et al*., 2015; Tobin *et al*., 2018; Watson *et al*., 2019[46,48,69,95,96]	5	Moderate confidence	Very low confidence	High confidence	Moderate confidence	Moderate confidence
2.2.3 Focusing on infant	HCP focusing mainly on the infant	Button *et al*., 2017; Megnin-Viggars *et al*., 2015[46,48]	2	Low confidence	Very low confidence	High confidence	Moderate confidence	Low confidence
2.2.4 Making time	A HCP who makes time to address PMH concerns	*Feinberg et al., 2006; Myors et al., 2015; Noonan et al., 2018*[113,117,128] Bina, 2020; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Hewitt *et al*., 2009; Megnin-Viggars *et al*., 2015; Slade *et al*., 2020; Viveiros and Darling, 2018; Watson *et al*., 2019[46–49,69,77,92,96]	11	Low confidence	Low confidence	Moderate confidence	High confidence	Moderate confidence
2.2.5 Assessment specific behaviours	HCP's assessment specific behaviours, such as asking about PMH, carrying out in a tick box way or in a personalised way	*Doering et al., 2017; Fernandez y Garcia et al., 2011; Nithianandan et al., 2016; Segre et al., 2014; Vik et al., 2009; Williams et al., 2016*[115,119,120,122–124] Brealey *et al*., 2010; Sambrook Smith *et al*., 2019; Schmied *et al*., 2017; Slade *et al*., 2020; Viveiros and Darling, 2018; Watson *et al*., 2019[49,74,89,90,92,96]	12	Moderate confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence
2.3 HCPs' attributes								
2.3.1 Similar demographic characteristics	HCP having similar demographics to women	*Leger et al., 2015; Masood et al., 2015; Nithianandan et al., 2016; Shorey* and *Ng, 2019*[123,138,147,148] Dennis and Chung-Lee, 2006; Watson et al., 2019[47,96]	6	Moderate confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence
2.3.2 Culturally sensitive	HCP being sensitive to women from all cultures	Kassam, 2019; Nilaweera *et al*., 2014; Viveiros and Darling, 2018; Watson *et al*., 2019[49,81,86,96]	4	Moderate confidence	Very low confidence	Moderate confidence	Moderate confidence	Low confidence

TABLE 25 CERQual evidence rating table (*continued*)

2.3.3 Valued characteristics	HCP possessing valued characteristics Trustworthy, empathetic, kind, caring with a genuinine interest, and going above and beyond	*Atif et al., 2016, 2019; Boyd et al., 2011; Doering et al., 2017; Kerker et al., 2018; Kim et al., 2009; Munodawafa et al., 2017; Myors et al., 2015; Pugh et al., 2015; Shorey and Ng, 2019*[107,113–115,129,131,134,139,146,147] Brealey *et al.*, 2010; Button *et al.*, 2017; Dennis and Chung-Lee, 2006; Forde *et al.*, 2020; Hadfield and Wittkowski, 2017; Hewitt *et al.*, 2009; Jones, 2019; Megnin-Viggars *et al.*, 2015; Morrell *et al.*, 2016; Newman *et al.*, 2019; Schmied *et al.*, 2017; Slade *et al.*, 2020; Staneva *et al.*, 2015; Watson *et al.*, 2019[46–48,72,74,77,80,84,85,90,92,94,96,105] SH	25	Moderate confidence	High confidence	High confidence	High confidence	High confidence
3. Interpersonal								
3.1 Trusting relationship and rapport	The development of a trusting relationship and rapport between HCP and women	*Atif et al., 2016; Doering et al., 2017; Feinberg et al., 2006; Ganann et al., 2019; Hadfield et al., 2019; Higgins et al., 2018; Kerker et al., 2018; Leger et al., 2015; Noonan et al., 2018; Shakespeare et al., 2003; Shorey and Ng, 2019; Willey et al., 2018; Williams et al., 2016; Young et al., 2019*[107,110,111,115–117,120,125,126,128,131,147,148,153] Bina, 2020; Brealey *et al.*, 2010; Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017; Hewitt *et al.*, 2009; Megnin-Viggars *et al.*, 2015; Morrell *et al.*, 2016; Scope *et al.*, 2017; Tobin *et al.*, 2018[47,48,69,72,74,77,84,91,95]	23	Moderate confidence	High confidence	Moderate confidence	High confidence	High confidence
3.2 Language barriers	Difficulties in communicating due to language barriers	*Beeber et al., 2009; Doering et al., 2017; Ganann et al., 2019; Masood et al., 2015; Munodawafa et al., 2017; Nithianandan et al., 2016; Pineros-Leano et al., 2015; Segre et al., 2014; Willey et al., 2018; Williams et al., 2016*[110,115,118,120,123,124,126,138,139,142] Dennis and Chung-Lee, 2006; Hansotte *et al.*, 2017; Megnin-Viggars *et al.*, 2015; Sambrook Smith *et al.*, 2019; Schmied *et al.*, 2017; Watson *et al.*, 2019[47,48,70,89,90,96] SH	16	Moderate confidence	Moderate confidence	High confidence	High confidence	High confidence

continued

TABLE 25 CERQual evidence rating table (*continued*)

3.3 Shared decision-making	Shared decision-making between HCP and women	Hadfield and Wittkowski, 2017; Megnin-Viggars *et al.*, 2015; Randall and Briscoe, 2018; Scope *et al.*, 2017[48,72,88,91]	4	Low confi-dence	Very low confi-dence	Moderate confi-dence	Moderate confi-dence	Low confi-dence
3.4 Open and honest communication	Open and honest communication between HCP and women	*Doering et al., 2017; Shakespeare et al., 2003; Vik et al., 2009; Willey et al., 2018*[115,119,125,126] Brealey *et al.*, 2010; Hadfield and Wittkowski, 2017; Hewitt *et al.*, 2009; Schmied *et al.*, 2017; Watson *et al.*, 2019[72,74,77,90,96] SH	9	Moderate confi-dence	Low confi-dence	Moderate confi-dence	High confi-dence	Moderate confi-dence
4. Organisational								
4.1 Overall organisational aspects								
4.1.1 Co-location and buildings	Location of the service including co-location of different services within the same building	*Boyd et al., 2011; Cox et al., 2017; Judd et al., 2011; Munodawafa et al., 2017; Ormsby et al., 2018; Young et al., 2019*[111,114,130,135,139,140] Bina, 2020[69] SH	7	Moderate confi-dence	Low confi-dence	Moderate confi-dence	Low confi-dence	Low confi-dence
4.1.2 Service integration and collaborative working	Collaborative working across services SH	*Atif et al., 2016; Bina et al., 2018; Boyd et al., 2011; Byatt et al., 2013; Feinberg et al., 2006; Ganann et al., 2019; Hadfield et al., 2019; Judd et al., 2011; Lind et al., 2017; Lomonaco-Haycraft et al., 2018; Myors et al., 2015; Nithianandan et al., 2016; Noonan et al., 2018; Rowan et al., 2010*[107,110,113,114,117,121,123,128,130,132,141,143,145,153] Newman *et al.*, 2019; Sambrook Smith *et al.*, 2019; Watson *et al.*, 2019[85,89,96]	17	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence
4.1.3 Collaboration within services	Collaborative working within services SH	*Ammerman et al., 2014; Cox et al., 2017; Eappen et al., 2018; Higgins et al., 2018; Judd et al., 2011; Kerker et al., 2018; Lind et al., 2017; McKenzie-McHarg et al., 2014; Munodawafa et al., 2017; Nithianandan et al., 2016; Ormsby et al., 2018; Segre et al., 2014; Willey et al., 2018*[116,123,124,126,127,130–132,135,137,139,140,149] Sambrook Smith *et al.*, 2019[89]	14	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence

TABLE 25 CERQual evidence rating table (*continued*)

4.1.4 Adequate workforce provision/HCP's workload	Ensuring an adequate workforce provision so PMH can be addressed	*Ammerman et al., 2014; Bina et al., 2018; Drozd et al., 2018; Feinberg et al., 2006; Ganann et al., 2019; Higgins et al., 2018; Kerker et al., 2018; Kim et al., 2009; McCauley et al., 2019; Nakku et al., 2016; Nithianandan et al., 2016; Noonan et al., 2018; Rowan et al., 2010; Vik et al., 2009; Willey et al., 2018*[108–110,116,117,119,121,123,126–129,131,145,150] Bina, 2020; Viveiros and Darling, 2018[49,69] SH	17	Low confi-dence	Moderate confi-dence	High confi-dence	High confi-dence	High confi-dence
4.1.5 Clear assessment and referral process	Clear assessment and referral processes within the organisation	*Cox et al., 2017; Feinberg et al., 2006; Ganann et al., 2019; Judd et al., 2011; Kerker et al., 2018; Kim et al., 2009; Nithianandan et al., 2016; Rowan et al., 2010; Segre et al., 2014; Williams et al., 2016*[110,120,121,123,124,128–131,135] Bina, 2020[69] SH	11	Moderate confi-dence	Low confi-dence	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence
4.1.6 Provision of supervision	Supervision for HCPs	*Atif et al., 2019; Munodawafa et al., 2017; Vik et al., 2009*[119,134,139]	3	Moderate confi-dence	Very low confi-dence	High confi-dence	Very low confi-dence	Very low confi-dence
4.1.7 Training	Provision of training for all HCPs working with perinatal women	*Ammerman et al., 2014; Atif et al., 2016, 2019; Beeber et al., 2009; Bina et al., 2018; Boyd et al., 2011; Chartier et al., 2015; Doering et al., 2017; Drozd et al., 2018; Feinberg et al., 2006; Ganann et al., 2019; Judd et al., 2011; Kerker et al., 2018; Kim et al., 2009; Leger et al., 2015; Lind et al., 2017; McKenzie-McHarg et al., 2014; Munodawafa et al., 2017; Nakku et al., 2016; Nithianandan et al., 2016; Noonan et al., 2018; Reed et al., 2014; Rowan et al., 2010; Shorey and Ng, 2019; Willey et al., 2018; Williams et al., 2016*[107,109,110,114,115,117,120,121,123,126–134,139,142,144,145,147–150] Bina, 2020; Brealey *et al*., 2010[69,74] SH	28	Moderate confi-dence	High confi-dence	High confi-dence	High confi-dence	High confi-dence
4.1.9 Organisational goals/guidelines	Clear organisational goals and guidelines	*Ammerman et al., 2014; Willey et al., 2018*[126,127]	2	Low confi-dence	Very low confi-dence	Very low confi-dence	Very low confi-dence	Very low confi-dence

continued

TABLE 25 CERQual evidence rating table (*continued*)

4.2 Characteristics of PMH Care								
4.2.1 Across the care pathway								
4.2.1.1 Continuity of carer	Care that provides the same HCP along the care pathway	*Chartier* et al., *2015; Higgins* et al., *2018; Nithianandan* et al., *2016; O'Mahen* and *Flynn, 2008; Rowan* et al., *2010; Willey* et al., *2018*[116,121,123,126,133,151] Brealey *et al*., 2010; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017; Megnin-Viggars *et al*., 2015; Sambrook Smith *et al*., 2019; Slade *et al*., 2020; Tobin *et al*., 2018; Viveiros and Darling, 2018; Watson *et al*., 2019[46–49,72,74,89,92,95,96] SH	17	Moderate confidence	Moderate confidence	High confidence	High confidence	High confidence
4.2.1.2 Culturally sensitive care	Care that is culturally sensitive to women's needs	*Ganann* et al., *2019; Nithianandan* et al., *2016; Noonan* et al., *2018; Shorey* and *Ng, 2019*[110,117,123,147] Bina, 2020; Brealey *et al*., 2010; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Giscombe *et al*., 2020; Hadfield and Wittkowski, 2017; Hansotte *et al*., 2017; Hewitt *et al*., 2009; Jones, 2019; Kassam, 2019; Sambrook Smith *et al*., 2019; Schmied *et al*., 2017; Tobin *et al*., 2018; Viveiros and Darling, 2018; Watson *et al*., 2019[46,47,49,69,70,72,74,76,77,80,81,89,90,95,96]	19	Moderate confidence	Moderate confidence	High confidence	High confidence	High confidence
4.2.1.3 Privacy and confidentiality	Care that is private and maintains women's confidentiality	*Atif* et al., *2019; Feinberg* et al., *2006; Higgins* et al., *2018; Jallo* et al., *2015; Nithianandan* et al., *2016; O'Mahen* and *Flynn, 2008*[116,123,128,134,151,154] Giscombe *et al*., 2020[76]	7	Moderate confidence	Low confidence	Moderate confidence	Low confidence	Low confidence
4.2.1.4 Dedicated person/PMH Champion	Care that has a dedicated person or PMH Champion	*Chartier* et al., *2015; Ganann* et al., *2019; Kim* et al., *2009; Lomonaco-Haycraft* et al., *2018; Nithianandan* et al., *2016; Rowan* et al., *2010; Willey* et al., *2018*[110,121,123,126,129,133,141] Bina, 2020; Megnin-Viggars *et al*., 2015[48,69]	9	Moderate confidence	Low confidence	Moderate confidence	Low confidence	Low confidence
4.2.1.5 Logistical support	Logistical support for women including easily accessible location, childcare, travel costs	*Ganann* et al., *2019; Hadfield* and *Wittkowski, 2017; Leger* et al., *2015; Masood* et al., *2015; Nakku* et al., *2016; Nithianandan* et al., *2016; Ormsby* et al., *2018*[72,109,110,123,138,140,148] Button *et al*., 2017; Jones, 2019; Mollard *et al*., 2016; Newman *et al*., 2019; Scope *et al*., 2017; Watson *et al*., 2019[46,80,83,85,91,96]	13	Moderate confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence

TABLE 25 CERQual evidence rating table (*continued*)

4.2.1.6 Home delivery	Care that is delivered at home	*Ammerman et al., 2014; Beeber et al., 2009; Judd et al., 2011; Leger et al., 2015; Munodawafa et al., 2017; Myors et al., 2015*[113,127,130,139,142,148] Brealey *et al*., 2010; Hadfield and Wittkowski, 2017; Hansotte *et al*., 2017; Jones, 2019[70,72,74,80]	10	Moderate confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence
4.2.1.7 Hospital delivery	Care that is delivered in hopsital/medical setting	*Atif et al., 2019; Boyd et al., 2011; Kerker et al., 2018; Shakespeare et al., 2003*[114,125,131,134] Dennis and Chung-Lee, 2006[47]	5	Low confidence	Very low confidence	Low confidence	Low confidence	Low confidence
4.2.1.8 Provision of information	Whether care provides information	Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017; Jones, 2019; Megnin-Viggars et al., 2015; Morrell et al., 2016; Randall and Briscoe, 2018; Schmied et al., 2017[47,48,72,80,84,88,90]	7	Low confidence	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence
4.2.1.9 Technology	The use of technology in care	*Doering et al., 2017; Feinberg et al., 2006; Fernandez y Garcia et al., 2011; Jallo et al., 2015; Kim et al., 2009; Lind et al., 2017; Noonan et al., 2018; Pineros-Leano et al., 2015; Shorey and Ng, 2019; Willey et al., 2018; Williams et al., 2016*[115,117,118,120,122,126,128,129,132,147,154] SH	11	Moderate confidence	Low confidence	High confidence	High confidence	High confidence
4.2.1.10 Service inclusion criteria	Inclusion criteria of services	*Boyd et al., 2011; Ganann et al., 2019*[110,114] Viveiros and Darling, 2018[49]	3	Low confidence	Very low confidence	Moderate confidence	Low confidence	Low confidence
4.2.2 Assessment specific characteristics								
4.2.2.1 Wording of assessment tools	How assessment tools are worded	*Doering et al., 2017; Segre et al., 2014; Williams et al., 2016*[115,120,124] Brealey *et al*., 2010; Button *et al*., 2017; Hewitt *et al*., 2009[46,74,77]	6	Low confidence	Low confidence	High confidence	High confidence	Moderate confidence
4.2.2.2 Acceptability of assessment/ screening	Whether assessment tools and assessment/ screening in general are acceptable to women and HCPs	*Boyd et al., 2011; Doering et al., 2017; Feinberg et al., 2006; Ganann et al., 2019; Kim et al., 2009; Nithianandan et al., 2016; Segre et al., 2014; Shakespeare et al., 2003; Vik et al., 2009; Willey et al., 2018*[110,114,115,119,123–126,128,129] Brealey *et al*., 2010; Evans *et al*., 2020; Hewitt *et al*., 2009; Megnin-Viggars *et al*., 2015; Mollard *et al*., 2016; Sambrook Smith *et al*., 2019; Viveiros and Darling, 2018[48,49,74,75,77,83,89]	17	Low confidence	Moderate confidence	Moderate confidence	Moderate confidence	Moderate confidence

continued

TABLE 25 CERQual evidence rating table *(continued)*

4.2.3 Intervention characteristics								
4.2.3.1 Opportunity to talk	Interventions that provide an opportunity to talk	*Dennis* and *Chung-Lee, 2006; Evans et al., 2020; Hadfield* and *Wittkowski, 2017; Jones et al., 2014; Kassam, 2019; Morrell et al., 2016; Praetorius et al., 2020*[47,72,75,79,81,84,87]	7	Low confidence	Low confidence	High confidence	Low confidence	Low confidence
4.2.3.2 Individualised and person centred	Individualised and person-centred interventions/care	*Chartier et al., 2015; Doering et al., 2017; Ganann et al., 2019; Masood et al., 2015; McKenzie-McHarg et al., 2014; Noonan et al., 2018; O'Mahen* and and *Flynn, 2008; Pugh et al., 2015; Segre et al., 2014; Shorey* and *Ng, 2019*[110,115,117,124,133,138,146,147,149,151] Evans *et al.*, 2020; Hadfield and Wittkowski, 2017; Megnin-Viggars *et al.*, 2015; Morrell *et al.*, 2016; Schmied *et al.*, 2017; Scope *et al.*, 2017; Slade *et al.*, 2020; Watson *et al.*, 2019[48,72,75,84,90–92,96] SH	19	Moderate confidence	Moderate confidence	Moderate confidence	High confidence	Moderate confidence
4.2.3.3 Appropriateness	Appropriateness of intervention being offered, from women's and HCPs' point of view	*Atif et al., 2019; Bina et al., 2018; Chartier et al., 2015; Drozd et al., 2018; Leger et al., 2015; McKenzie-McHarg et al., 2014; Munodawafa et al., 2017; Noonan et al., 2018; Ormsby et al., 2018; Pugh et al., 2015; Reed et al., 2014; Shorey* and *Ng, 2019*[117,133,134,139,140,144–150] Evans *et al.*, 2020; Megnin-Viggars *et al.*, 2015; Scope *et al.*, 2017[48,75,91]	15	Moderate confidence	Moderate confidence	High confidence	Low confidence	Moderate confidence
4.2.3.4 Flexible	Flexibility of intervention	*Atif et al., 2019; Bina et al., 2018; Ganann et al., 2019; Hadfield et al., 2019; Judd et al., 2011; Munodawafa et al., 2017; O'Mahen* and *Flynn, 2008; Pugh et al., 2015; Shorey* and *Ng, 2019*[110,130,134,139,145–147,151,153] Sorsa *et al.*, 2021; Watson *et al.*, 2019[93,96]	11	Moderate confidence	Low confidence	High confidence	Moderate confidence	Moderate confidence
4.2.3.5 Group support	Group/peer support as an intervention	*Hadfield et al., 2019; Masood et al., 2015; Nakku et al., 2016*[109,138,153] Dennis and Chung-Lee, 2006; Evans *et al.*, 2020; Hadfield and Wittkowski, 2017; Holopainen and Hakulinen, 2019; Jones *et al.*, 2014; Megnin-Viggars *et al.*, 2015; Schmied *et al.*, 2017; Scope *et al.*, 2017; Slade *et al.*, 2020; Tobin *et al.*, 2018; Watson *et al.*, 2019[47,48,72,75,78,79,90–92,95,96] SH	14	Moderate confidence	Low confidence	Moderate confidence	High confidence	Moderate confidence

TABLE 25 CERQual evidence rating table (*continued*)

4.2.3.7 Face-to-face delivery	Face-to-face delivery of intervention	*O'Mahen and Flynn, 2008; Pugh et al., 2015; Shorey and Ng, 2019*[146,147,151] Schmied *et al.*, 2017[90] SH	4	Moderate confi-dence	Very low confi-dence	High confi-dence	High confi-dence	Low confi-dence
5. Commissioners								
5.1 Referral pathways	Clear referral pathways	*Ammerman et al., 2014; Boyd et al., 2011; Higgins et al., 2018; Nithianandan et al., 2016; Rowan et al., 2010; Willey et al., 2018*[114,116,121,123,126,127] SH	6	Moderate confi-dence	Low confi-dence	Moderate confi-dence	High confi-dence	Moderate confi-dence
5.2 Lack of appropriate or timely services	Lack of appropriate and timely services to refer women on to	*Boyd et al., 2011; Doering et al., 2017; Ganann et al., 2019; Higgins et al., 2018; Kerker et al., 2018; Leger et al., 2015; Lomonaco-Haycraft et al., 2018; Munodawafa et al., 2017; Myors et al., 2015; Nakku et al., 2016; Noonan et al., 2018; Rowan et al., 2010; Williams et al., 2016*[109,110,113–117,120,121,131,139,141,148] Bina, 2020; Button *et al.*, 2017; Jones, 2019; Jones *et al.*, 2014; Megnin-Viggars *et al.*, 2015; Newman *et al.*, 2019; Sambrook Smith *et al.*, 2019; Tobin *et al.*, 2018; Viveiros and Darling, 2018[46,48,49,69,79,80,85,89,95] SH	22	Low confi-dence	High confi-dence	High confi-dence	High confi-dence	High confi-dence
5.3 Financial complexities	Financial complexities including funding, and sourcing money and resources for services and financial reimbursement	*Cox et al., 2017; Feinberg et al., 2006; Friedman et al., 2010; Ganann et al., 2019; Kim et al., 2009; Lomonaco-Haycraft et al., 2018; Ormsby et al., 2018; Rowan et al., 2010*[110,121,128,129,135,136,140,141] SH	8	Moderate confi-dence	Low confi-dence	Moderate confi-dence	Moderate confi-dence	Moderate confi-dence
6. Political								
6.1 Immigration status	How the immigration status of women may impact their PMH care journey	*Cox et al., 2017; Ganann et al., 2019*[110,135] Bina, 2020; Giscombe *et al.*, 2020; Hansotte *et al.*, 2017; Kassam, 2019; Schmied *et al.*, 2017; Tobin *et al.*, 2018; Watson *et al.*, 2019[69,70,76,81,90,95,96] SH	9	Moderate confi-dence	Low confi-dence	High confi-dence	High confi-dence	High confi-dence

continued

TABLE 25 CERQual evidence rating table (*continued*)

5.2 Economic status and healthc are costs	How the cost of health care, and women's economic status may impact their PMH care journey	*Atif et al., 2016; Boyd et al., 2011; Cox et al., 2017; Doering et al., 2017; Ganann et al., 2019; Lomonaco-Haycraft et al., 2018; Munodawafa et al., 2017; Nakku et al., 2016; Ormsby et al., 2018*[107,109,110,114,115,135,139–141] Bina, 2020; Hansotte *et al*., 2017; Jones, 2019; Kassam, 2019; Lucas *et al*., 2019; Tobin *et al*., 2018; Viveiros and Darling, 2018[49,69,70,80–82,95] SH	16	Moderate confidence	Moderate confidence	High confidence	Low confidence	Moderate confidence
7. Societal							
7.1 Stigma	Stigma related to mental illness	*Atif et al., 2016, 2019; Boyd et al., 2011; Chartier et al., 2015; Cox et al., 2017; Feinberg et al., 2006; Higgins et al., 2018; Kerker et al., 2018; McCauley et al., 2019; McKenzie-McHarg et al., 2014; Munodawafa et al., 2017; Myors et al., 2015; Nakku et al., 2016; Nithianandan et al., 2016; Noonan et al., 2018; O'Mahen* and *Flynn, 2008; Shakespeare et al., 2003; Vik et al., 2009; Williams et al., 2016; Young et al., 2019*[107–109,111,113,114,116,117,119,120,123,125,128,131,133–135,139,149,151] Bina *et al*., 2018; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Giscombe *et al*., 2020; Hadfield and Wittkowski, 2017; Hansotte *et al*., 2017; Hewitt *et al*., 2009; Holopainen and Hakulinen, 2019; A. Jones, 2019; Kassam, 2019; Lucas *et al*., 2019; Megnin-Viggars *et al*., 2015; Mollard *et al*., 2016; Morrell *et al*., 2016; Nilaweera *et al*., 2014; Sambrook Smith *et al*., 2019; Schmied *et al*., 2017; Scope *et al*., 2017; Sorsa *et al*., 2021; Tobin *et al*., 2018; Viveiros and Darling, 2018; Watson *et al*., 2019[46–49,69,70,72,76–78,80–84,86,89–91,93,95,96] SH	43	Moderate confidence	High confidence	High confidence	High confidence	High confidence

TABLE 25 CERQual evidence rating table (*continued*)

7.2 Culture	Cultural beliefs about mental illness and seeking and accessing help	*Atif et al., 2016; Bina et al., 2018; Boyd et al., 2011; Feinberg et al., 2006; Friedman et al., 2010; Ganann et al., 2019; Higgins et al., 2018; Masood et al., 2015; McCauley et al., 2019; Nakku et al., 2016; Noonan et al., 2018; Segre et al., 2014*[107–110,114,116,117,124,128,136,138,145] Brealey *et al*., 2010; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Giscombe *et al*., 2020; Hansotte *et al*., 2017; Hewitt *et al*., 2009; Holopainen and Hakulinen, 2019; Jones, 2019; Kassam, 2019; Megnin-Viggars *et al*., 2015; Praetorius *et al*., 2020; Sambrook Smith *et al*., 2019; Schmied *et al*., 2017; Staneva *et al*., 2015; Tobin *et al*., 2018; Viveiros and Darling, 2018; Watson *et al*., 2019; Wittkowski *et al*., 2014[46–49,70,74,76–78,80,81,87,89,90,94–97] SH	30	Moderate confi-dence	High confi-dence	High confi-dence	High confi-dence	High confi-dence
7.3 Maternal norms	Maternal norms of being a ‘good mother’ and a ‘strong woman’	*Shakespeare et al., 2003; Williams et al., 2016*[120,125] Bina, 2020; Brealey *et al*., 2010; Button *et al*., 2017; Dennis and Chung-Lee, 2006; Hadfield and Wittkowski, 2017; Hansotte *et al*., 2017; Hewitt *et al*., 2009; Holopainen and Hakulinen, 2019; Johnson *et al*., 2020; Jones *et al*., 2014; Kassam, 2019; Lucas *et al*., 2019; Megnin-Viggars *et al*., 2015; Mollard *et al*., 2016; Newman *et al*., 2019; Nilaweera *et al*., 2014; Praetorius *et al*., 2020; Sambrook Smith *et al*., 2019; Schmied *et al*., 2017; Slade *et al*., 2020; Sorsa *et al*., 2021; Staneva *et al*., 2015; Viveiros and Darling, 2018; Watson *et al*., 2019[46–49,69,70,72,74,77–79,81–83,85–87,89,90,92–94,96,112] SH	27	Moderate confi-dence	High confi-dence	High confi-dence	High confi-dence	High confi-dence

SH, stakeholder group.

Note
Italicised studies are implementation studies from Review 1; non-itaclised studies are systematic reviews from Review 2.

Appendix 7

TABLE 26 Geographical distribution of research

[1-7]Review	UK	HIC/Western	LMIC/Eastern	Don't know
1	*Hadfield et al., 2019; Masood et al., 2015; McKenzie-McHarg et al., 2014; O'Mahen and Flynn, 2008; Rowan et al., 2010; Shakespeare et al., 2003; Williams et al., 2016*[120,121,125,138,149,151,153]	**Australia:** *Judd et al., 2011; Myors et al., 2015; Nithianandan et al., 2016; Ormsby et al., 2018; Reed et al., 2014; Willey et al., 2018*[113,123,126,130,140,144] **Canada:** *Chartier et al., 2015; Leger et al., 2015; Pugh et al., 2015*[133,146,148]	**Ghana:** *Munodawafa et al., 2017*[139] **Israel:** *Bina et al., 2018*[145] **Pakistan:** *Atif et al., 2016, 2019*[107,134]	
		Ireland: *Higgins et al., 2018; Noonan et al., 2018*[116,117] **Norway:** *Drozd et al., 2018; Vik et al., 2009*[119,150] **USA:** *Ammerman et al., 2014; Beeber et al., 2009; Boyd et al., 2011; Byatt et al., 2013; Cox et al., 2017; Doering et al., 2017; Feinberg et al., 2006; Fernandez y Garcia et al., 2011; Friedman et al., 2010; Ganann et al., 2019; Jallo et al., 2015; Kerker et al., 2018; Kim et al., 2009; Lind et al., 2017; Lomonaco-Haycraft et al., 2018; Pineros-Leano et al., 2015; Segre et al., 2014; Young et al., 2019*[110,111,114,115,118,122,124,127–129,131,132,135,136,141–143,154]	**Peru:** *Eappen et al., 2018*[137] **Singapore:** *Shorey and Ng, 2019*[147] **South Africa:** *McCauley et al., 2019*[108] **Uganda:** *Nakku et al., 2016*[109]	
2	Brealey *et al*., 2010[74] – 53% Button *et al*., 2017[46] – 100% Forde *et al*., 2020[105] – 66% Hadfield and Wittkowski, 2017[72] – 53%	Bina, 2020[69] – 83% Evans *et al*., 2020[75] – 100% Giscombe *et al*., 2020[76]– 88% Hansotte *et al*., 2017[70] – 100% Holopainen and Hakulinen, 2019[78] – 77% Jones *et al*., 2014[79] – 100% Kassam, 2019[81]– 88%	Wittkowski *et al*., 2014[97] – 100% (sub-Saharan Africa)	Dennis and Chung-Lee, 2006; Jones, 2019; Megnin-Viggars *et al*., 2015[47,48,80]
	Hewitt *et al*., 2009[77]– 53% Sambrook Smith *et al*., 2019[89]– 100% Slade *et al*., 2020[92]– 53% Viveiros and Darling, 2018[49] – 71% Watson *et al*., 2019[96] – 100%	Lucas *et al*., 2019[82] – 100% Mollard *et al*., 2016[83] – 100% Morrell *et al*., 2016[84]– 92% Newman *et al*., 2019[85]– 100% Nilaweera *et al*., 2014[86] – 100% Praetorius *et al*., 2020[87]– 75% Randall and Briscoe, 2018[88]– 100% Schmied *et al*., 2017[90] – 100% Scope *et al*., 2017[91] – 95% Sorsa *et al*., 2021[93] – 100% Staneva *et al*., 2015[94]– 88% Tobin *et al*., 2018[95]– 100%		

Appendix 8

Development of the MATRIx conceptual framework

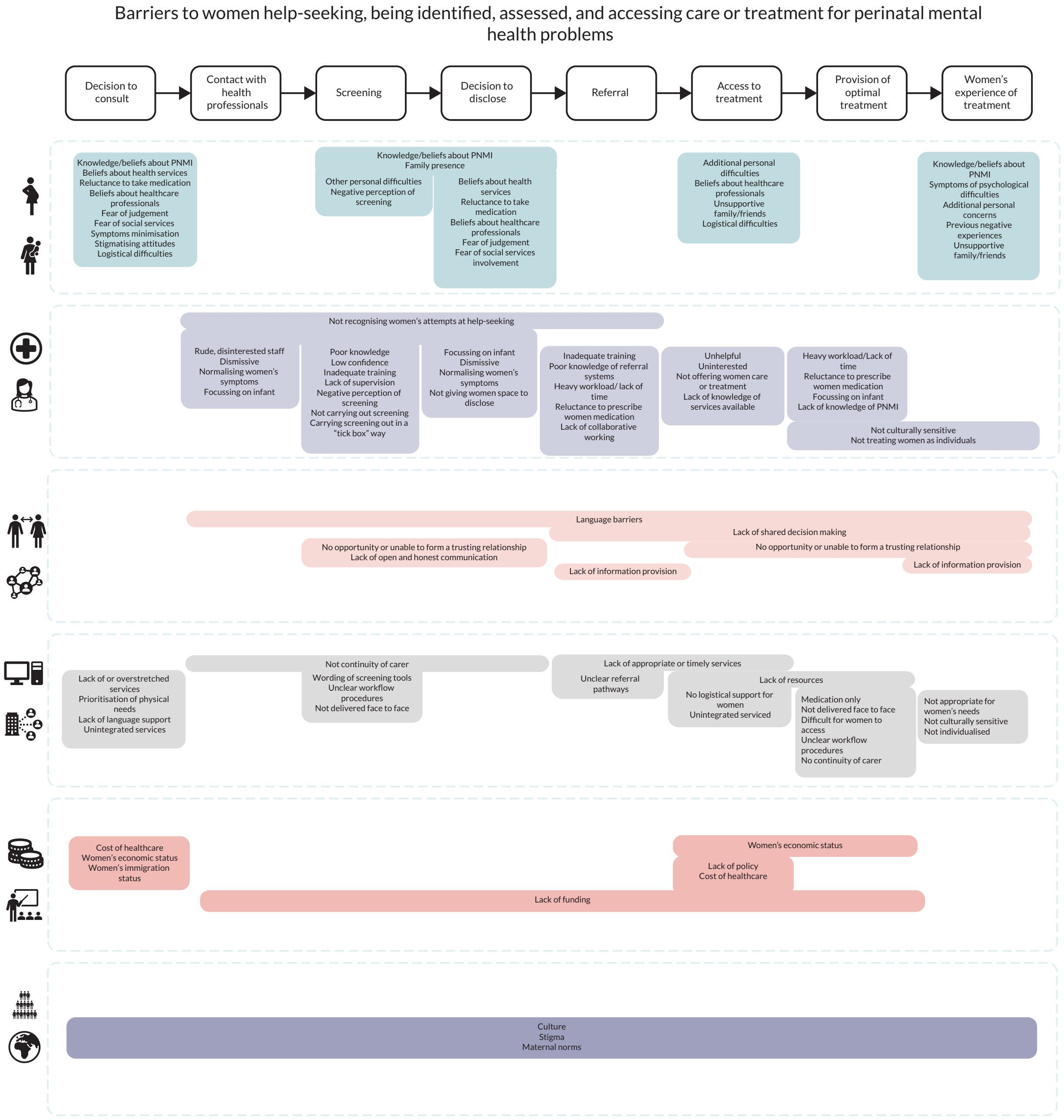

FIGURE 14 Version one of the MATRIx conceptual framework (May 2021).

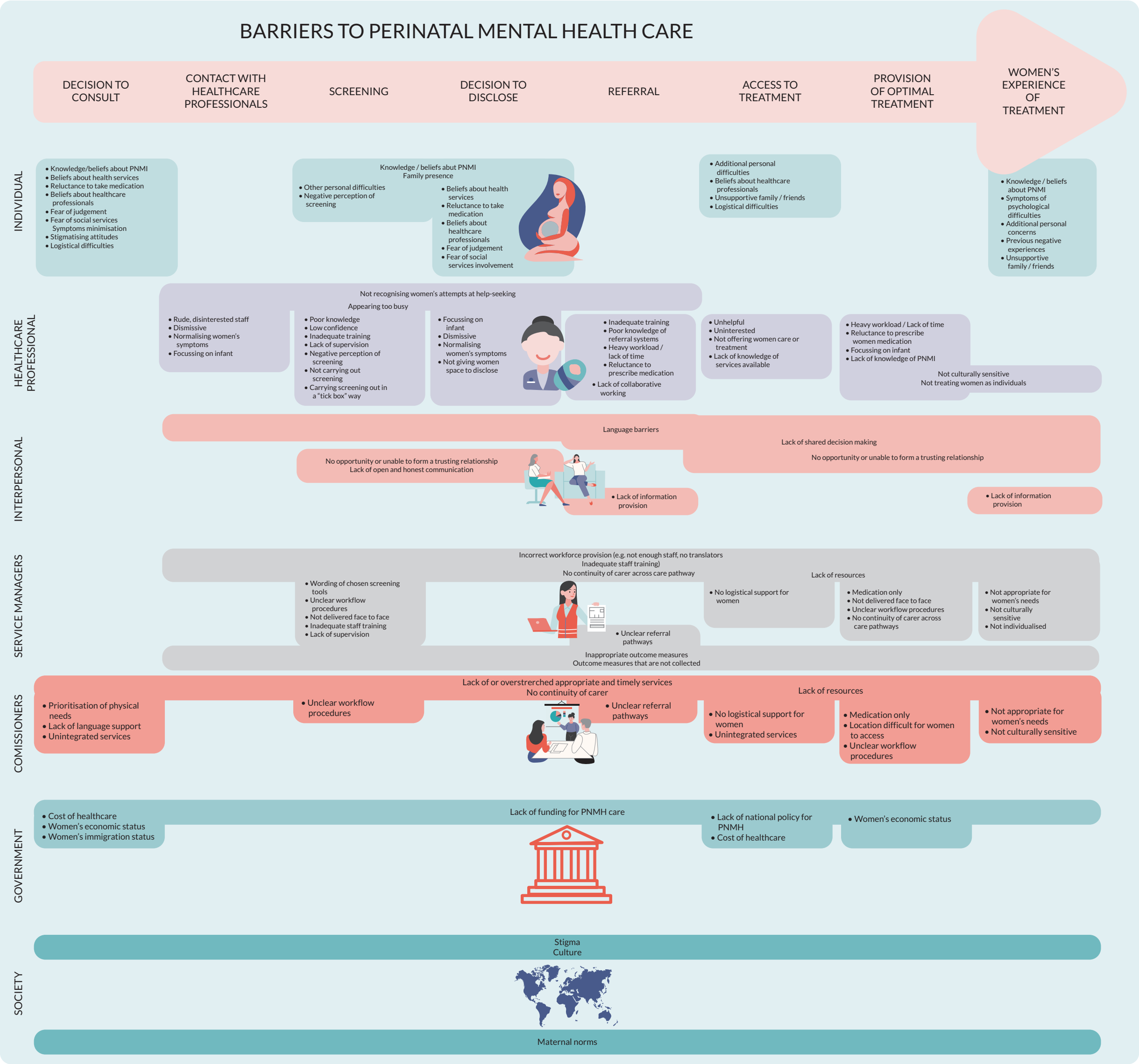

FIGURE 15 Version two of the MATRIx conceptual framework (July 2021).

Appendix 9

TABLE 27 List of barriers and facilitators to perinatal mental health care

#	Barriers		Facilitators
1	*Assessment viewed as not acceptable by women and HCPs*	1	*Assessment viewed as acceptable by women and HCPs*
2	*Care provision lacks privacy and confidentiality*	2	*Care offeres privacy*
3	*Care that does not provide logistical support*	3	*Care that provides logistical support*
4	*Care that is not appropriate to women's needs*	4	*Care that is appropriate to women's needs*
5	*Care that is not delivered in a home setting*	5	*Home delivery of care*
6	*Care that lacks cultural sensitivity*	6	*Culturally sensitive care*
7	*Confusing organisational referral and assessment processes*	7	*Clear organisational assessment and referral processes*
8	*HCP not making time to address PMH difficulties*	8	*HCPs making time to address PMH*
9	*HCP carrying out assessment in an impersonal way (e.g. tick box exercise)*	9	*HCP carrying out assessment in a personalised way*
10	*HCPs having a poor knowledge about PMI*	10	*HCP having a good knowledge of PMH*
11	*HCP having a poor knowledge about services*	11	*HCP having a good knowledge of services and pathways*
12	*HCP having low confidence about addressing PMH*	12	*HCP having high confidence about addressing PMH*
13	*HCP not having received adequate PMH training*	13	*HCP having received adequate PMH training*
14	*HCP's workload too heavy due to inadequate workforce provision*	14	*Adequate workforce provision to meet women's needs*
15	*Inflexible care*	15	*Flexible care*
16	*Issues with technology*	16	*Working technology*
17	*Lack of collaboration between services*	17	*Collaboration between services*
18	*Lack of information provision about care and PMI*	18	*Care provides information about PMI and available services*
19	*Lack of support from family and friends*	19	*Supportive family and friends*
20	*No continuity of carer*	20	*Continuity of carer*
21	*No open honest communication between women and HCP*	21	*Open and honest communication*
22	*No relationship and rapport between women and HCP*	22	*Trusting relationship between women and HCP*
23	*No shared decision-making between women and HCP*	23	*Shared decision-making between women and HCP*
24	*Staff within services not working together*	24	*Collaboration within services*
25	*Women being socially isolated*	25	*Women's social support network*
26	*Women viewing peer support as not an acceptable intervention*	26	*Women finding group support acceptable*

continued

TABLE 27 List of barriers and facilitators to perinatal mental health care (*continued*)

#	Barriers		Facilitators
27	*Women's previous negative experiences of mental health services*	*27*	*Women's previous positive experiences of mental health services*
28	Being an immigrant or a refugee woman	28	Care that offers an opportunity to talk
29	Care that is carried out in medical setting	29	Champion/dedicated PMH person
30	Complicated or confusing wording of assessment tools	30	Clear goals and guidelines
31	Complicated services	31	Clear referral pathways
32	Cultural barriers	32	Co-location of services
33	Current symptoms getting in the way of treatment	33	Face-to-face care
34	Funding complexities	34	HCP receiving supervision
35	HCP dismissive or normalising symptoms	35	Individualised person-centred care
36	HCP focusing only on infant	36	Previous mental health diagnoses/symptoms
37	HCP lacking cross-cultural knowledge of PMH	37	Recognising something is wrong
38	HCP not being interested in PMI	38	Valued characteristics of HCP
39	HCP not recognising help-seeking	39	Women and HCP having similar demographics
40	Lack of appropriate services		
41	Lack of childcare		
42	Language barriers		
43	Maternal norms of being a 'good mother' and a 'strong' woman		
44	Mother's worries about being judged as a 'bad mum'		
45	Restrictive eligibility criteria of care		
46	Stigma		
47	Stretched services		
48	The belief that services only offer medication		
49	Timing of services not suitable to women's needs		
50	Travel costs		
51	Women's additional personal difficulties		
52	Women being from an ethnic minority		
53	Women being on a low income		
54	Women being worried about social services involvement		
55	Women being younger		
56	Women believing PMH symptoms are a normal part of motherhood		

continued

TABLE 27 List of barriers and facilitators to perinatal mental health care (*continued*)

#	Barriers	Facilitators
57	Women believing PMH symptoms are due to physical causes	
58	Women coping with symptoms by ignoring them	
59	Women coping with symptoms by seeking spiritual guidance	
60	Women coping with PMI by minimising symptoms	
61	Women not having the language to describe PMI	
62	Women not knowing what PMI is	
63	Women not knowing where to go to seek help	
64	Women not understanding the role of HCPs	
65	Women's belief that PMI is caused by spiritual factors	
66	Women's belief that PMI is due to external causes	

Note
Italic text is where concepts overlap.

EME
HSDR
HTA
PGfAR
PHR

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