Background to this call

This document provides further information to support applications for the above call. The call is concerned with providing evidence for how perinatal mental health (PMH) services may be improved to deliver accessible, timely and cost-effective care across the range of primary, secondary and tertiary maternity and infant health, and mental health services in each local health system in the UK. Perinatal mental health problems occur during pregnancy or in the first year following the birth of a child. Some women with enduring mental health problems and those with learning disabilities may also require specialist mental health support. Perinatal mental illness affects up to 20% of women in pregnancy and post-partum, and covers a wide range of conditions (Davies 2014). If left untreated, it can have significant and long-lasting effects on the woman and her family. Perinatal mental health problems can also have long-standing effects on children's emotional, social and cognitive development.

The provision of maternity and neonatal services, and perinatal mental health services are undergoing rapid change in the UK, including with investment of £365m by NHSE between 2015/16 and 2020/2 to deliver the objective in the Mental Health Five Year Forward View (Mental Health Taskforce 2016) so that, by 2020/21, there will be increased access to specialist perinatal mental health support in all areas in England, in the community or in-patient mother and baby units (MBUs). This would allow at least an additional 30,000 women each year to receive evidence-based treatment (NICE 2014), closer to home, when they need it. Provision is currently highly variable, and along with new investment, presents opportunities for addressing important gaps in evidence in the service delivery and organisation of health and care services (SIGN 2012). Improved provision and co-ordination is recommended in plans across the UK: Mental Health Strategy 2017-2027 in Scotland (The Scottish Government 2017), Together for Mental Health in Wales (Welsh Government 2012, Welsh Government 2016), and while PMH services are not described in the Health and Wellbeing 2026 (NI - DoH 2016), there are relevant recommendations in the recent Review of Perinatal Mental Health Services in Northern Ireland (RQIA 2017).

1. Identified service need

Global epidemiological evidence, reviewed in the Lancet series (Howard 2014a), provides compelling evidence for the widespread occurrence of mental ill health of childbearing women, and the negative impact on their on-going mental and physical health, birth experience and birth outcomes, as well as longer term impact for mother and infant. The perinatal period is associated with an increased risk of exacerbation of severe mental disorders (bipolar disorder, affective psychosis and schizophrenia, as a continuation of a psychotic illness, or new onset post partum psychosis), with substantial impact on the women, her baby and family (Jones 2014). Most epidemiological research on non-psychotic PMH disorders is on depression, with relatively less known about the occurrence and treatment of anxiety disorders including PTSD (post-traumatic stress disorder) associated with childbirth (Howard 2014b). The impact on child health is less well studied, but there is evidence from longitudinal studies of adverse impacts on the health of the baby even into adolescence (Taylor 2017), particularly if maternal mental ill health persists. Most research has focused on mothers, but growing evidence suggests that the fathers' mental health is also associated with child developmental disturbances. But the effects are not inevitable, and potentially remediable moderating factors include the quality of parenting, social and material support to parents, and interventions to address parental disorders. Effective and early intervention to treat the parent and address parenting skills are critical (Stein 2014).

The worldwide and UK importance of, and need for, health services research to address mental health problems of women in pregnancy and in the first year after birth, has been known for many years. This
research needs to include the health of the foetus, and the immediate and long-term impact on the child of the mother’s mental health wellbeing during pregnancy and in that first year of life. In the UK, one in five women develop mental health problems in pregnancy or in the year after birth. For each 1000 maternities, there are expected to be two cases of post-partum psychosis, two cases of serious mental illness, 30 cases of depressive illness, 100-150 cases of mild to moderate depression and anxiety, 30 cases for PTSD and 150-300 cases of adjustment disorders and distress (NHS England 2016a). The Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries (MBRRACE) UK of maternal deaths show almost a quarter of women who died between six weeks and one year after the end of pregnancy died from psychiatric disorders, one in seven died by suicide. If the women who died by suicide became ill today, 40% would not get any specialist perinatal mental healthcare, while just a quarter could receive best standard care. The audit provided very clear evidence of fragmented care, gaps in care, and a lack of care co-ordination for women and babies across multiple services and specialties (Manktelow 2017).

Recent research shows half of all acute trusts in the UK have no perinatal mental health services, and three-quarters of maternity services do not have access to a specialist mental health midwife (Hogg 2013, Bauer 2014). Midwives and health visitors receive limited training in identifying managing and referring women at risk or who have PMH problems. Women themselves may be reluctant to seek help due to stigma and because it may raise safeguarding concerns. Where PMH services are available, these are usually part of generic adult mental health services and are not always fully integrated with other maternity services (Joint Commissioning Panel for Mental Health 2012). Access to services is particularly poor for minority ethnic groups (Edge 2010).

Research suggests that at a conservative estimate, the long-term costs of perinatal depression, anxiety and psychosis in the UK is £8.1 billion per year, the equivalent of £10,000 for every birth with the majority of the cost being due to adverse impacts on the child. Yet, estimates suggest it would cost around £280 million a year to bring perinatal mental health care pathways across the UK up to the standards recommended in national guidance (Bauer 2014).

NICE guidance, Better Births which is an independent review (NHS England 2016a), the scoping exercise by NHS Improving Quality (NHS Improving Quality 2015), reports from professional bodies and policy research reports describe the gaps in services and make recommendations for more and better integrated service provision (Royal College of Psychiatrists 2015). For example, The Kings Fund describes key components of in an integrated service where perinatal mental health care would be delivered by specialist perinatal mental health staff embedded within local maternity services, providing training to colleagues and working closely with obstetricians, midwives, health visitors and GPs (NICE 2014). All professionals involved in pregnancy and the postnatal period would have a role to play in ensuring that women’s mental health and wellbeing is supported throughout the perinatal process (Joint Commissioning Panel for Mental Health 2012). This would include important roles for midwives and health visitors in screening and providing basic support and advice (Davies 2014, Department of Health 2014), including referral into Improving Access to Psychological Therapies (IAPT) services (NHS IAPT 2009).

There are numerous gaps in evidence in service configuration, and the organisation and training of the workforce. Health Education England has developed a competency framework for multi-professional training (NHS Health Education England On-going). However, there are no nationally provided nor mandated training programmes for the many clinical professionals involved in PMH and the associated mainstream maternity, community and primary care services.

Professional bodies are articulating the contributions they may make, but evidence for different service configurations and skill mix is lacking. In a briefing paper on guidance to commissioners (McKenzie-McHarg 2016a), the British Psychological Society asserts the various national policy drivers that advocate for improved PMH services emphasise factors that require and are dependent on clinical psychology leadership (Joint Commissioning Panel for Mental Health 2012). These include proactive screening and detection, continuity and integration of holistic care, the provision of high quality evidence-based psychological interventions, psychologically-informed supervision and training of front-line staff. Women are known to welcome talking therapies rather than medication, particularly in pregnancy and post-partum.
Stepped-care psychological services are advised by NICE, but mainstream services such as access to psychological services for common mental health problems, in England via IAPT, vary in expertise and capacity to manage perinatal mental health presentations (McKenzie-McHarg 2016a). Commissioning guidance describes some principles and a number of case studies of new initiatives looking to improving how IAPT services can be part of local PMH service provision (NHS IAPT 2009). A service model across three CCGs, three maternity units and one mental health trust in Coventry and Warwickshire provides an example of an integrated service with significant clinical psychology leadership and provision (McKenzie-McHarg 2016b).

Other relevant services are the Healthy Child Programme (HCP), which provides a universal programme of health reviews, screening, parenting support and health promotion from pregnancy to adulthood. A targeted programme in some areas is the Family Nurse Partnership (FNP) programme. Based on RCT evidence from the USA, it has is an intensive, nurse-led and preventive home visiting programme for first-time young mothers, and is undergoing evaluation in England. Perinatal mental health problems should be identified early during pregnancy. Yet a report of primary care provision notes that removal of health visiting staff from the NHS in England within GP services to be based in children’s centres under local authorities has increased fragmentation of services (Khan 2015). GP services continue to have a pivotal role in maternal and infant mental health, and there are many opportunities for better early detection and on-going re-assessment of mental health status, management in primary care, referral to PMH and IAPT services, better sharing of records, highlighted by the RCGP’s champion (Shakespeare 2015).

Many of the above reports note the contribution of the voluntary sector in supporting women with a range of psychological and social problems, some of which also focus on parenting. Some are commissioned by health or social services, most are self-funded and rely on local support and volunteers to be maintained (NHS Improving Quality 2015). Most are not explicitly research evidence-based, and nor have they been evaluated in relation to preventing or addressing PMH problems. Examples are described below.

NHS England has launched a phased, five-year transformation programme to build capacity and capability in specialist perinatal mental health services, focused on improving access to and experience of care, early diagnosis and intervention, and greater transparency and openness. This includes developing agreed pathways from early intervention through to care and recovery; leadership and expertise in service development from perinatal mental health networks in all regions; a workforce strategy as well as a multidisciplinary skills and competency framework; increasing access and provision of new Mother and Baby Units (MBUs); a fund for development of community specialist perinatal mental health services; developing and linking NHS data and developing outcome measures (Gray 2016). (See below). The DH have pledged that 30,000 more women will have access to IAPT services throughout England by 2020/21 (Prime Minister’s Office 2016). There are planned developments in Wales (Welsh Government 2016) and Scotland (The Scottish Government 2017), and a recent review relevant to Northern Ireland (RQIA 2017).

NHS England has funded 20 successful bids for funds in the first wave of the Perinatal Mental Health Development Fund, with further applications under consideration. (NHS England 2016b). This is in the context of great variation of services at present and rapid service reconfiguration of maternity services (NMPA project team 2017), as revealed in the first UK-wide audit of all 155 eligible trusts and boards (134 English trusts, 14 Scottish and 7 Welsh boards). These services are facing many organisational challenges, such as large-scale reconfiguration of obstetric and maternity units and widespread skilled clinical workforce shortages. Infrastructure problems, such as being able to share maternity records electronically for all women, is of particular relevance for services to ensure early and consistent PMH care. Strategic system leadership also varies, with 85% of trusts and boards involved in a maternity network, but as yet, only 68% involved in the 12 perinatal mental health networks.

In order to be clear that services are identifying women, offering appropriate and accessible services and achieving outcomes acceptable to women and clinicians, NHSE proposes to include an indicator in both the NHS and the public health outcomes framework from 2018 and has commissioned research to develop and pilot test a suite of perinatal mental health indicators (PMHI) which would reflect care at certain critical time-points in pregnancy and the postnatal period (Gray 2016).
NHSE is working with NHS Digital to create linked datasets to support delivery of the Five Year Forward View for perinatal mental health services: Mental Health Services Data Set (MHSDS), which has data going back 10 years, which has become all age from January 2016. It is service and professional based, and does not include diagnoses. Perinatal mental services are in MHS102 of the Maternity Services Data Set (MSDS) Data Model, which went live with new cases from April 2015. This includes data on the mother prenatally, and for the baby, through to when both leave hospital. It includes infant data in neonatal care, and infant data up to discharge from hospital (including feeding status). The Child Health Dataset, with data to at least age 18 years, will replace the Children and Young Peoples’ dataset in November 2017. Public Health England has also published a guide and profiling tools for professionals and commissioners for children and young people’s mental well-being, and a PMH catalogue and a PMH profile tool (PHE 2017a, PHE 2017b). The Royal College of Psychiatrists is reviewing outcomes measurement for PMH mothers and babies (Royal College of Psychiatrists 2017 (Draft)).

There is a need for evidence for commissioners, and providers and patients as to optimal models of services, and workforce skill-mix, competence and training. Currently, new services and service re-configurations are being developed which provide opportunities for natural experiments and other forms of evaluation, which could include both primary research and use of secondary datasets.

2. Identified research need

Research summarised below is an overview of some relevant studies on assessment, intervention and service uptake in perinatal mental health. We identified few studies on evaluation of service models relevant to the UK, and those which were identified seem to be mainly small-scale service evaluations. There is therefore a need for research with robust designs. Relevant NIHR studies are listed.

Studies of assessment:

There is now a body of knowledge on the cost and effectiveness of short and robust diagnostic screening questions for use in the UK health services, including the Edinburgh Postnatal Depression Scale (EPDS) (Cox 1987) and the two item Whooley questions (Whooley 1997, Whooley 2016) for depression in pregnancy and their use in services in the UK. See NIHR HS & DR 11/2004/23, and NIHR RP-PG-1210-12002 – (Wendy study) below. But there is relatively little research on the tools for screening for other mental health problems and psychosocial risk factors, and how feasible, acceptable and effective they are in UK health services.

A recent systematic review examined the evidence on GPs’ routine identification, diagnosis and management of anxiety and depression in perinatal period. Ten studies were included from USA, Australia, UK, Netherlands and Canada. Reported awareness and ability to diagnose perinatal depression among GPs was high. GPs were aware and used screening tools more in the UK than in the USA. The review identified gaps in the literature on management of anxiety disorders and barriers to disclosure and recognition in primary care (Ford 2017). Another review examined the evidence on the benefits and harms of depression screening and treatment, and accuracy of screening instruments. Twenty-three studies (five from UK) examined the accuracy of the EPDS and three studies (one from UK) examined the Patient Health Questionnaire (PHQ). Screening pregnant and post-partum women for depression reduced depressive symptoms, particularly in the presence of additional treatment supports (e.g. treatment protocols, care management). Evidence on benefits of screening and treatment for pregnant women was sparse but consistent with the evidence for postpartum women (O’Connor 2016).

Studies of service models:

Completed research on PMH service models in the UK is insufficient. Current research (NIHR RP-PG-1210-12002) includes a cohort study design on the comparative effectiveness and cost-effectiveness of psychiatric Mother and Baby Units (MBUs) compared with general psychiatric wards or care from intensive Crisis Resolution Teams (CRTs) for acute severe postnatal disorders for women in the year post birth (Howard 2017).
There is a range of international evidence on the problems of uptake of available PMH services. Byatt et al investigated the extent to which interventions in outpatient perinatal care settings are associated with an increase in the uptake of depression care. Seventeen articles with a range of study designs were included. High rates of mental health care use (81%) was associated with implementation of additional interventions, including mental health resources or referrals for depressed women, perinatal care provider training, on-site assessment, and access to mental health consultation for perinatal care providers. These studies did not assess whether increased mental health care reduces depression severity (Byatt 2015).

Smith et al determined factors associated with mental health service use among 465 pregnant and postpartum women receiving care at publicly funded obstetric clinics in the USA. Thirty eight percent of referred women attended at least one mental health visit while only 6% of women remained in treatment during the 6-month follow-up interval. Women who received a behavioural health referral at the same site as their prenatal or postpartum care were more likely to attend a mental health treatment visit than those women referred offsite. Future studies are needed to understand how to achieve better engagement with women in mental health services (Smith 2009). A meta-ethnographic review of 12 studies of migrant women’s experience of postnatal depression, of which two studies were in the UK of women of West African and of Pakistani origin, found multiple barriers to their access to services (Schmied 2017). The Born in Bradford cohort study shows women were discontinued from pharmacological treatment early in pregnancy, but this was accompanied by recorded access to non-drug treatments in only 15 % at the time of delivery. Fewer minority ethnic women accessed treatments compared to White British women despite minority ethnic women being 55–70 % more likely than White British women to have been identified with anxiety in their medical record (Prady 2016). Research is needed to develop PMH services that address the needs of recent immigrants and those from ethnic minorities in the UK.

**Studies of complex service interventions:**

Baby Steps is an evidence based perinatal education programme licensed by the NSPCC. The intervention is a group-based programme delivered to disadvantaged parents from the 28th week of pregnancy. The intervention aims to help vulnerable parents manage the transition to parenthood successfully, with a particular emphasis on the relationship between partners and the development of a positive parent infant relationship (Brookes 2014). Baby Steps has been implemented since 2011 and is delivered in nine locations across the UK, with around 3,000 parents enrolled in this programme in 2015. The programme is designed to be jointly delivered by a health practitioner (midwife or health visitor) and a children’s services practitioner (family support worker or social worker) (Coster 2015). During the first year, the programme was evaluated. First time as well as experienced parents reported a range of positive outcomes such as increased confidence in parenting, developed stronger support networks and better communication with their partners and babies (Brookes 2014). More recent evaluation of the programme indicates there have been positive changes in parents’ self-reported satisfaction with their relationships with partners, and reductions anxiety and depression. There were also improvements in parents’ relationship with their babies both ante and post-natally. It is not known what changes are sustained, (Coster 2015), nor the effects on perinatal mental health outcomes since the focus is not specific to PMH.

A feasibility and acceptability RCT of a telephone-based peer support intervention for women suffering from perinatal depression (PND) recruited 28 participants who were randomised to receive standard care (n=14) or standard care plus the evidence based Mums4Mums intervention (telephone based peer support for a period of four months, by peer supporters who had recently recovered from PND). Peer support in addition to standard care increased the likelihood of a reduction in PND at 6 months follow-up. There was no evidence of an impact on parent-infant interaction. Recruitment was insufficient to justify a full trial (Caramlau 2011).

Parents under Pressure (PuP) is an evidence-based programme for drug dependent parents based on a model developed in Australia, and which has now been evaluated as part of a multicentre RCT in the UK with parents of children less than 36 months of age (Caramlau 2011). The programme involves the use of mindfulness techniques aimed at promoting parental affect regulation, and video feedback to promote sensitive parent-infant interaction. The findings of the RCT show promising results (Barlow forthcoming). The model has been further adapted for high risk pregnant women referred by midwives to children’s social
services due to concerns about the wellbeing of the unborn baby. The pathway provides support to high-risk mothers from 18 weeks’ gestation and includes an intensive intervention from 22 weeks ante-natally and post the birth of their infant up to 12 months. It has now been evaluated using a quasi-experimental design, and shows promising results in terms of reducing the risk of child abuse (Barlow 2016, Harnett 2017 (In press)). A manualised version of the pathway has also been produced and piloted (Lushley 2017 (In press)).

Effectiveness of Services for mothers with Mental Illness (ESMI) is a five-year programme of research funded by the NIHR to examine the effectiveness and cost-effectiveness of perinatal psychiatry services. It consists of several linked studies to fill gaps in the evidence and make recommendations to policy makers, NHS commissioners and providers. As part of this programme, DAWN (Depression: an exploratory parallel-group randomised controlled trial of Antenatal guided self-help for WoMen) is an RCT in which there is a 50:50 chance of women receiving Guided Self Help rather than care as usual. The intervention being evaluated is a supported self-help intervention for mild to moderate anxiety and depression designed by the research team and delivered by IAPT workers (Trevillion 2016).

3. Relevant work in the HS&DR portfolio and wider NIHR portfolio

Ongoing

14/68/08 - (HTA) Multi Centre RCT of a group psychological intervention for postnatal depression in British mothers of south Asian origin - ROSHNI-2. Professor Nusrat Husain (March 2015 – June 2020)

15/80/19 – (HTA) Antidepressant use during pregnancy: assessing benefits to mothers and long-term neurodevelopmental risks to children using the Clinical Practice Research Datalink. Dr Dheeraj Rai (July 2016 – June 2019)

11/3002/01 – (PHR) Trial of Healthy Relationship Initiatives for the Very Early-years (THRIVE): a Three-Arm Randomised Controlled Trial for Mothers Identified as Vulnerable in Pregnancy and their Babies who are at High Risk of Maltreatment. Dr Marion Henderson (October 2011 – January 2018)


RP-PG-1210-12002 The Effectiveness and cost-effectiveness of perinatal mental health services (ESMI) Dr Louise Howard (2019)

CLAHRC North West Coast – Improving access to support for perinatal women through peer facilitation. Professor P Slade

CLAHRC South London – Perinatal mental illness and health inequality. Abigail Easter

NIHR Maudsley Biomedical Research Centre
http://www.maudsleybrc.nihr.ac.uk/research/

NIHR King’s Clinical Research Facility
WENDY: A cross-sectional study comparing the Whooley questions and Edinburgh postNatal depression scale against a diagnostic assessment in identifying Depression in pregnancy (18/9/14 - not provided) CI – Dr Elizabeth Ryan
https://kingscrf.nihr.ac.uk/Content.aspx?dbid=kcl_admin_live&areaid=855&uirefid=2325&name=Default%20Home&type=Content&oid=Screen

In Editorial


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