EFFECTIVE MENTAL HEALTH CARE IN THE PERINATAL PERIOD

AUSTRALIAN CLINICAL PRACTICE GUIDELINE

DRAFT — 2 JUNE 2017

Contents

Summary

Studies in Australia and around the world have found that up to one in ten women experience depression during pregnancy and one in seven women in the year following birth. Anxiety disorders are also prevalent (around one in five women in both the antenatal and postnatal periods) and comorbidity with depression is high. Severe mental illnesses — schizophrenia, bipolar disorder and borderline personality disorder — while much less common than depression and anxiety disorders, can have as much, if not more, of a negative impact on maternal and infant outcomes. This is more likely to occur when a mental health disorder is combined with serious or multiple adverse psychosocial circumstances.

The importance of a woman's physical and mental health should be central to every aspect of maternity care. As well as affecting a woman's emotional welfare and happiness, mental health disorders affect her experience of pregnancy and parenting, are associated with a degree of increased risk of obstetric and neonatal complications and can profoundly affect a woman's ability to bond with her baby and the offspring's psychological adaptation over the longer term. Fetal exposure to untreated maternal mental illness can also have a negative impact on the offspring's well-being.

Mental health disorders in the perinatal period often go undetected and untreated, imposing a great burden on women, their families, the health system and society more broadly. This Guideline therefore recommend repeated assessment of psychosocial risk and screening for symptoms of depressive and anxiety disorders for all women in the perinatal period. This approach is critical to providing women with access to early intervention if needed. While referral and care pathways vary with setting (e.g. general practice, maternity services) and location (e.g. metropolitan, rural and remote), it is important that women are provided with access to timely, appropriate services post-assessment, ongoing psychosocial support and appropriate treatments.

While women with pre-existing severe mental illness may already be under the care of a GP and/or psychiatrist, specific consideration must be given to planning their care due to the complexity of these conditions and the substantial challenges for primary care professionals involved in their management.

Care planning for a woman with a mental health disorder ideally begins preconception; requires close cross-disciplinary collaboration; and a particular focus on continuity of care across the different health and other government sectors.

Interventions provided to women with mental health disorders in the perinatal period range from psychosocial support, through structured and systematic psychological interventions to pharmacological treatment, depending on the severity of a woman's symptoms or disorder. Interventions are decided with the woman and her significant other(s) based on risk-benefit analysis, which takes into account the benefit to the woman and the fetus or newborn versus the potential for harm.

The way in which different health professionals use this Guideline will vary depending on their knowledge, skills and role, as well as the setting in which care is provided. Whatever the setting and circumstances, perinatal mental health care should be culturally responsive and family-centred. It should involve collaborative decision-making with the woman and her significant other(s), which includes full discussion of the potential risks and benefits of any treatments offered. Health professionals providing care should have appropriate training and skills and should work together to provide continuity of care for women and their families.

This Guideline provides a reliable and standard reference for health professionals providing care to women in the perinatal period. By providing a summary of the currently available evidence on effective approaches to mental health care at this time, it aims to improve a woman's experience of pregnancy and early parenthood, her emotional wellbeing, her safety and outcomes for all families.

Summary of recommendations and practice points

This section lists the recommendations and practice points included in this consultation draft. Four types of guidance are included:

- *evidence-based recommendation* (EBR) — a recommendation formulated after a systematic review of the evidence, with a clear linkage from the evidence base to the recommendation using GRADE methods and graded either 'strong' (shaded in blue) or 'conditional' (shaded in turquoise)
- *consensus-based recommendation* (CBR) — a recommendation formulated in the absence of quality evidence, after a systematic review of the evidence was conducted and failed to identify sufficient admissible evidence on the clinical question (shaded in green)
- *practice point* (PP) — advice on a subject that is outside the scope of the search strategy for the systematic evidence review, based on expert opinion and formulated by a consensus process (shaded in purple).

SCREENING AND ASSESSMENT			
Training for screening and psychosocial assessment			
i	**CBR**	All health professionals providing care in the perinatal period should receive training in woman-centred communication skills, psychosocial assessment and culturally appropriate care.	
Screening for depression			
1	**EBR**	Use the EPDS to screen women for a possible depressive disorder in the perinatal period.	**Strong**
2	**EBR**	Arrange further assessment of perinatal woman with an EPDS score of 13 or more.	**Strong**
ii	**CBR**	Complete the first antenatal screening as early as practical in pregnancy and repeat screening at least once later in pregnancy.	
iii	**CBR**	Complete the first postnatal screening 6–12 weeks after birth and repeat screening at least once in the first postnatal year.	
iv	**CBR**	For a woman with an EPDS score between 10 and 12, monitor and repeat the EPDS 4–6 weeks later as her score may increase subsequently	
v	**CBR**	Repeat the EPDS at any time in pregnancy and in the first postnatal year if clinically indicated.	
vi	**CBR**	For a woman with a positive score on Question 10 on the EPDS undertake or arrange immediate further assessment and, if there is any disclosure of suicidal ideation, take urgent action in accordance with local protocol/policy.	
vii	**CBR**	When screening Aboriginal and Torres Strait Islander women, consider language and cultural appropriateness of the tool.	
viii	**CBR**	Use appropriately translated versions of the EPDS with culturally relevant cut-off scores. Consider language and cultural appropriateness of the tool.	
Screening for anxiety			
ix	**CBR**	Be aware that anxiety disorder is very common in the perinatal period and should be considered in the broader clinical assessment.	
x	**CBR**	As part of the clinical assessment, refer to anxiety items from screening tools (e.g. EPDS, DASS and K-10) and relevant items in structured psychosocial assessment tools (e.g. ANRQ).	

Assessing psychosocial risk

3	**EBR**	Use the ANRQ to assess the presence of psychosocial risk.	**Strong**
xi	**CBR**	Undertake psychosocial assessment in conjunction with a tool that screens for current symptoms of depression/anxiety (e.g. the EPDS).	
a	**PP**	Assess psychosocial risk factors as early as practical in pregnancy and again 6–12 weeks after the birth.	
b	**PP**	Ensure that health professionals receive training in the importance of psychosocial assessment and use of a psychosocial assessment tool.	
c	**PP**	Ensure that there are clear guidelines around the use and interpretation of the psychosocial tool/interview in terms of threshold for referral for psychosocial care and/or ongoing monitoring.	
d	**PP**	Discuss with the woman the possible impact of psychosocial risk factors (she has endorsed) on her mental health and provide information about available assistance.	
xii	**CBR**	Consider language and cultural appropriateness of any tool used to assess psychosocial risk.	

Assessing mother-infant interaction and safety of the woman and infant

e	**PP**	Assess the mother-infant interaction as an integral part of postnatal care.
f	**PP**	Assess the risk of harm to the infant if significant difficulties are observed with the mother-infant interaction and/or there is concern about the mother's mental health, substance use or family violence.
g	**PP**	When a woman is identified as at risk of suicide (through clinical assessment and/or the EPDS), manage immediate risk, arrange for urgent mental health assessment and consider support and treatment options.

Supporting emotional health and well-being

h	**PP**	At every antenatal or postnatal visit, enquire about women's emotional wellbeing.
i	**PP**	Provide women in the perinatal period with advice on lifestyle issues and sleep, as well as assistance in planning how this advice can be incorporated into their daily activities during this time.
j	**PP**	Assess all women for family violence as well as their smoking status and substance use; and provide advice about the associated harms and assistance available to them.

PREVENTION AND TREATMENT

General principles in prevention and treatment

xiii	**CBR**	Educate all women about the importance of enquiring about, and attending to, any mental health issues that might arise across the perinatal period.
k	**PP**	If a woman agrees, provide information to and involve her significant other(s) in discussions about her emotional wellbeing and care throughout the perinatal period.
l	**PP**	Provide advice about the risk of relapse during pregnancy and especially in the early postpartum period to women who have a new, existing or past mental health disorder and are planning a pregnancy.
m	**PP**	For women with schizophrenia, bipolar disorder or borderline personality disorder, a multidisciplinary team approach to care in the perinatal period is essential, with clear communication and continuity of care across different clinical settings.
n	**PP**	Where possible, health professionals providing care in the perinatal period should access training to improve their understanding of the challenges of caring for women with schizophrenia, bipolar disorder and borderline personality disorder.

General principles in the use of pharmacological treatments

o	**PP**	Discuss the potential risks and benefits of pharmacological treatment in each individual case with the woman and, where possible, her significant other(s).	
p	**PP**	Ensure that women are aware of the risks of relapse associated with stopping medication and that, if a medication is ceased, this needs to be done gradually and with advice from a mental health professional.	
q	**PP**	Discuss treatment (medication and psychological) options that would enable a woman to breastfeed if she wishes and support women who choose not to breastfeed.	
r	**PP**	Ideally, treatment with psychoactive medications during pregnancy would involve close liaison between a treating psychiatrist or where appropriate the woman's GP, and her maternity care provider(s). In more complex cases, it is advisable to seek a second opinion from a perinatal psychiatrist.	
s	**PP**	When exposure to psychoactive medications has occurred in the first trimester — especially with anticonvulsant exposures — pay particular attention to the 18–20 week ultrasound.	
xiv	**CBR**	Where possible, arrange observation of infants exposed to psychoactive medications in pregnancy for the first three days postpartum.	

Postnatal care and support

t	**PP**	Before the birth of the baby, consider access to interventions to support parenting skills and mother-infant attachment for women with schizophrenia, bipolar disorder, severe depression or borderline personality disorder.	
u	**PP**	When caring for mothers with severe mental illness, including borderline personality disorder, it is important to ensure that child protection risks are understood and addressed, if necessary.	
xv	**CBR**	If a mother with a severe postnatal episode requires hospital admission, avoid separation from her infant if possible with co-admission to a specialist mother-baby unit where facilities are available and appropriate.	

DEPRESSIVE AND ANXIETY DISORDERS

Psychosocial support and psychological approaches

4	**EBR**	Provide structured psychoeducation to women with symptoms of depression in the perinatal period.	**Strong**
5	**EBR**	Advise women with symptoms of depression in the postnatal period of the potential benefits of a social support group.	**Conditional**
6	**EBR**	Recommend individual structured psychological interventions (cognitive behavioural therapy or interpersonal psychotherapy) to women with mild to moderate depression in the perinatal period.	**Strong**
xvi	**CBR**	Advise women with symptoms of depression in the perinatal period of the potential benefits of facilitated self-help.	
7	**EBR**	Advise women with depression or anxiety disorder in the postnatal period of the possible benefits of directive counselling.	**Conditional**
xvii	**CBR**	Advise women who experience traumatic birth of the potential benefits of post-traumatic birth counselling if they are experiencing depressive symptoms or PTSD.	
xviii	**CBR**	For women with postnatal depression who are experiencing mother–infant relationship difficulties, consider provision of or referral for individual mother–infant relationship interventions.	

Complementary therapies

8	**EBR**	Advise women who enquire about omega-3 fatty acid supplementation that it does not appear to improve depression symptoms but is not harmful to the offspring when taken during pregnancy or while breastfeeding.	**Conditional**
xix	**CBR**	Advise pregnant women who enquire about St John's Wort that the evidence on potential harms to the fetus is limited and uncertain and that use of this treatment during pregnancy is not recommended.	
xx	**CBR**	Advise pregnant women who enquire about Gingko biloba that the potential harms to the fetus have not been researched, and that use of this treatment during pregnancy is not recommended.	

Pharmacological treatments for depressive and anxiety disorders

9	**EBR**	Consider the use of SSRIs as first-line treatment for moderate to severe depression in pregnant women.	**Conditional**
v	**PP**	Before choosing a particular SSRI for pregnant women, consider the woman's past response to SSRI treatment, obstetric history (e.g. other risk factors for miscarriage or preterm birth) and any factors that may increase risk of adverse effects.	
10	**EBR**	Recommend the use of SSRIs as first-line treatment for moderate to severe depression in postnatal women.	**Strong**
w	**PP**	Before prescribing SSRIs to women who are breastfeeding, consider the infant's health and gestational age at birth.	
xxi	**CBR**	Consider the short-term use of benzodiazepines for treating moderate to severe symptoms of anxiety while awaiting onset of action of an SSRI or TCA in pregnant or postnatal women.	
x	**PP**	Use caution in repeated prescription of long-acting benzodiazepines around the time of the birth.	
y	**PP**	Use caution in prescribing non-benzodiazepine hypnotics (z-drugs) to pregnant women for insomnia.	
z	**PP**	Doxylamine, a Category A drug in pregnancy, may be considered for use as a first-line hypnotic in pregnant women who are experiencing moderate to severe insomnia.	

Psychological intervention for women with moderate to severe anxiety and depressive disorders

xxii	**CBR**	Advise women with moderate to severe anxiety and depressive disorders that first-line treatment is pharmacological and that psychological interventions are a useful adjunct once medications have become effective.

SEVERE MENTALL ILLNESSES

Antipsychotics

11	**EBR**	Consider the use of antipsychotics for treating psychotic symptoms in pregnant women.	**Conditional**
xxiii	**CBR**	Use caution when prescribing any antipsychotic to pregnant women, particularly for women with a propensity for weight gain and metabolic syndrome.	
xxiv	**CBR**	Do not initiate use of clozapine in pregnant women.	
xxv	**CBR**	If women commence or continue antipsychotic treatment during pregnancy, monitor them for excessive weight gain and the development of gestational diabetes.	
aa	**PP**	Use clozapine with caution in women who are breastfeeding and undertake weekly blood testing of the infant for the first six months of life	

Anticonvulsants

bb	**PP**	Given their toxicity in pregnancy, only consider prescribing anticonvulsants (especially valproate) to women of child-bearing age if effective contraception is in place.	
cc	**PP**	Once the decision to conceive is made, if the woman is on valproate wean her off this over 2–4 weeks, while adding in high-dose folic acid (5 mg/day) which should continue for the first trimester.	
12	**EBR**	Do not prescribe sodium valproate to women of childbearing age.	**Strong**
xvi	**CBR**	Use great caution in prescribing anticonvulsants to pregnant women and seek specialist psychiatric consultation when doing so.	
xvii	**CBR**	If anticonvulsants are prescribed to a woman who is breastfeeding, arrange close monitoring of the infant and specialist neonatologist consultation where possible.	
xviii	**CBR**	If lithium is prescribed to pregnant women, ensure that maternal blood levels are closely monitored and that there is specialist psychiatric consultation.	
dd	**PP**	If lithium is prescribed to a pregnant woman, reduce the dose just prior to the onset of labour and aim to recommence treatment immediately after the birth at a pre-pregnancy dose.	
xxix	**CBR**	Where possible, avoid the use of lithium in women who are breastfeeding.	

BORDERLINE PERSONALITY DISORDER

ee	**PP**	For women with borderline personality disorder who have often experienced complex trauma, trauma-informed care and specific support for health professionals in dealing with challenging behaviours is a priority.	
ff	**PP**	Advise women with borderline personality disorder who are planning a pregnancy, of the additional challenges of parenting associated with their emotional dysregulation, and the importance of ongoing support during and after pregnancy.	
gg	**PP**	Where possible, before the birth of the baby, pre-arrange access to enhanced maternal child health care for women with borderline personality disorder.	
xxx	**CBR**	Where possible and appropriate, provide women with borderline personality disorder with structured psychological therapies that are specifically designed for this condition and conducted by adequately trained and supervised health professionals.	
hh	**PP**	Encourage pregnant or postnatal women with borderline personality disorder to undertake mindfulness and/or relaxation training to assist in managing their emotional dysregulation.	
xxxi	**CBR**	As far as possible, do not use pharmacological treatments as the primary therapy for borderline personality disorder, especially in pregnant women.	

ELECTROCONVULSIVE THERAPY

xxxii	**CBR**	Consider ECT when a postnatal woman with severe depression has not responded to one or more trials of antidepressants of adequate dose and duration.	
xxxiii	**CBR**	Consider ECT as first-line treatment for postnatal women with severe depression especially where there is a high risk of suicide or high level of distress; when food or fluid intake is poor; and in the presence of psychotic or melancholic symptoms.	
ii	**PP**	In pregnant women, ECT should be only be undertaken in conjunction with close fetal monitoring (using cardiotocography to monitor slowing of fetal heart rate) and access to specialist maternal-fetal medical support.	

Introduction

The perinatal period (considered here as the period from conception to the end of the first postnatal year) is a time of great change in a woman's life. For most women and their families, pregnancy, childbirth and parenting are a time of great joy and happiness. However, this period is associated with a significantly increased risk for onset and relapse of mental health problems — higher than at many other times in a woman's life. As well, detection of mental health conditions is poor at this time, such that, in the absence of routine, standardised screening, up to three-quarters of women meeting DSM criteria for depressive and anxiety disorders are not identified (Spitzer et al 2000; Coates et al 2004) and only one in ten women requiring mental health care receives it (Bowen et al 2012).

This Guideline therefore has a primary focus on early identification of women experiencing psychosocial problems and mental health disorders in the perinatal period, so that they receive the timely support and care they need. This approach aims to improve a woman's experience of pregnancy and early parenthood, her emotional wellbeing and her safety, noting that suicide in the perinatal period was a leading cause of maternal deaths in Australia in 2008–2012 (Humphrey et al 2015) and the rate of maternal deaths due to psychosocial health problems is rising (Humphrey 2016).

This approach is also beneficial to the wellbeing of families. Most women who suffer mental health problems are able to parent effectively and the majority of infants are not specifically disadvantaged. However, mental health problems in their more severe form are often associated with impaired functioning, especially in relation to a woman's ability to care for her infant and the formation of secure infant attachment, which may in turn be associated with poorer social, cognitive, and behavioural outcomes in the child (1st 1001 Days APPG 2015).

Aim and scope of the Guideline

This draft Guideline aims to update and expand upon Australia's first clinical practice guideline on mental health in the perinatal period, developed by *beyondblue* (*beyondblue* 2011). The initial Guideline played a key role in guiding best practice under Australia's National Perinatal Depression Initiative (2008–13). Since this time there have been advances in both research and innovation and it is through the development of this Guideline that best practice will be informed and supported in the Australian context, and foundations for sustainability built. It is hoped that the Guideline will also encourage further research to inform practice.

To support health professionals in providing evidence-based care, the Guideline provides a summary of current evidence on approaches to the assessment of psychosocial risk factors (associated with or exacerbating mental health conditions) and screening for common mental health symptoms. It also covers the perinatal-specific aspects of prevention and treatment of mental health disorders — specifically *depressive, anxiety and bipolar disorders, schizophrenia, puerperal psychosis and borderline personality disorder*.

The following are beyond the scope of the Guideline:

- the process of diagnosis or specifics of managing mental health disorders in the perinatal period — appropriate guidelines for the general population should be used
- co-occurring conditions related to substance use during the perinatal period
- other aspects of maternity care.

While the impact of the transition to parenthood on partners/significant other(s) is an emerging area of research, this was beyond the scope of the Guideline. However, considerations surrounding this are discussed in Appendix E.

Intended audience

The Guideline is intended for all health professionals caring for women and families during the perinatal period. This includes but is not limited to midwives, general practitioners (GPs), obstetricians, neonatologists, paediatricians, maternal and child health nurses, [1] Aboriginal and Torres Strait Islander health workers, allied health professionals, mental health practitioners (psychologists, psychiatrists,

[1] Also referred to as child and family health nurses in some jurisdictions.

mental health nurses), consumers and carers and those working with families in the community (e.g. social workers, child protection agencies), inpatient and legal systems.

The way in which different professionals use this Guideline will vary depending on their knowledge, skills and role, as well as the setting in which care is provided. Practical guidance for specific health professional groups and information for consumers and carers will be derived from this Guideline.

Development of the Guideline

The development of this Australian Guideline was undertaken by the Centre for Perinatal Excellence (COPE) and developed in accordance with National Health and Medical Research Council (NHMRC) guideline development processes (see Appendix B). Drawing on the company membership of COPE, this involved convening an Expert Working Group comprising members with specific expertise in mental health care, as well as representatives of maternity care (including general practice, obstetrics, midwifery and maternal and child health), consumer and carer organisations and Aboriginal and Torres Strait Islander health care (see Appendix A). Expert subcommittees were also convened to provide specific advice on borderline personality disorder, bipolar disorder and schizophrenia and harms associated with pharmacological treatments (see Appendix A) and formal consultation with a wide range of experts, stakeholders and consumer representatives was undertaken. A systematic literature review, which identified and critically appraised the evidence, provided the basis for the Guideline (see Appendix C).

Implementation and review

As Australia's peak body in perinatal mental health, COPE will facilitate implementation of the Guideline through its membership, online channels and innovative approaches to dissemination. It is anticipated that the Guideline will be updated periodically to include higher-level evidence as it becomes available, ideally with a major review of the evidence undertaken within 5 years.

Structure of the Guideline

The Guideline is structured as follows.

Part A: Background information is a concise review that includes discussion of an individual woman's context, the prevalence and impact of mental health disorders in the perinatal period (Chapter 1), and factors relevant to enabling effective mental health care in the perinatal period (Chapter 2).

Part B: Screening for symptoms and psychosocial assessment discusses considerations before psychosocial assessment and screening (Chapter 3), the acceptability of mental health assessment (Chapter 4), the process of screening for symptoms of depressive and anxiety disorders (Chapter 5), psychosocial factors that affect mental health and approaches to their assessment (Chapter 6), and of assessing mother-infant interaction and the safety of the woman and infant (Chapter 6). Considerations for implementing psychosocial assessment and screening in practice are also outlined (Chapter 8).

Part C: Prevention and treatment discusses general principles in prevention and treatment (Chapter 10), the evidence for the prevention and treatment of depressive and anxiety disorders (Chapter 11), treatment of severe mental illnesses (schizophrenia, bipolar disorder and puerperal psychosis; Chapter 12), borderline personality disorder (Chapter 13) and electroconvulsive therapy (Chapter14).

Part D: Areas for future research Identifies current gaps in the literature and potential areas for development to support the sustainable and measurable implementation of best practice as informed by this Guideline.

Appendices provide further information about the development of the Guideline, including the findings of the systematic literature review and the public consultation process and provide copies of the tools used for psychosocial assessment and screening and a summary of the emerging evidence on the impact of the transition to parenthood on partners/significant other(s).

Practice summaries are included in Parts B and C (Chapters 9 and 15).

PART A — BACKGROUND INFORMATION

1 Mental health disorders in the perinatal period

1.1 Understanding the woman's context

Every woman has a right to health care that takes into consideration her individual social and emotional situation. While many Australian women experience economic security, educational attainment and good health, there are still many women living in poverty, subsisting on pensions or low-income occupations, restricted by under-employment and experiencing poor health outcomes (AWHN 2008). Gender inequalities persist, with women economically less secure, maintaining the primary carer role, and subject to violence (including physical and sexual assault, as well as emotional, psychological and financial abuse) (AWHN 2008).

The experience of pregnancy and parenthood differs for each woman and is influenced by the stability of her relationships and social network. While the biggest risk factor for developing perinatal mental health conditions is a past mental health history, the presence of psychosocial risk factors may be associated with greater risk of onset, relapse or exacerbation of mental health conditions. Women who feel isolated either by distance, culture, or both, are more likely to develop distress or mental health disorders in the perinatal period (Austin et al 2015). The likelihood is also greater for women who have experienced life stressors (e.g. family problems, family violence or loss) or multiple trauma (Austin et al 2015). Assessing for specific psychosocial risk factors is discussed in Chapter 6.

Some groups of women have greater exposure to life stressors, trauma or lack of support. Key examples include:

- *Aboriginal and Torres Strait Islander* respondents to the 2012–13 Health Survey indicated that, in the last year they, their family and/or friends had experienced the death of a family member or close friend (37%), serious illness (23%), mental illness (16%) or alcohol-related problems (14%) — this is in addition to disrupted cultural wellbeing and the continuing intergenerational effects of trauma and loss (AIHW 2015)
- *migrant women* (including refugees, asylum seekers and other migrants) experience higher rates of perinatal depression than their non-migrant counterparts in the destination country, with previous depression and poor social support strongly increasing risk — social isolation faced by migrant communities may be exacerbated by language and cultural barriers and can pose a significant hardship for new mothers (Fellmeth et al 2017)

Many of these factors are beyond the scope of this Guideline but taking them into account is important and will lead to a fuller understanding of the individual woman's situation.

1.2 Prevalence and impact of mental health disorders in the perinatal period

1.2.1 Depressive and anxiety disorders

- *Depressive disorders* in the perinatal period are symptomatically the same as those at other times and range from mild to severe.
- *Anxiety disorders* at this time include generalised anxiety disorder, obsessive compulsive disorder, panic disorder, social phobia, specific phobia and post-traumatic stress disorder and are often reported as equally prevalent as depressive disorder in the perinatal period (Fairbrother et al 2016).
- Australian and other studies have found that up to one in ten women experience depression during pregnancy and one in seven women in the year following birth (Buist & Bilsztra 2006).
- Primary anxiety disorders are prevalent and their comorbidity with depression is very high (Wisner et al 2013). Thus, for example the three-month postnatal period prevalence for any anxiety disorder was reported as 17.4% in one study (Fairbrother et al 2016), while another (Giardinelli et al 2012) reported a 21% point prevalence of anxiety disorder in the third trimester of pregnancy.

- Depression may arise in pregnancy or pre-date the perinatal period. In a large US study of women assessed at 6 weeks postpartum, about 40% of episodes of depression began postnatally, about a third during pregnancy and about a quarter had begun before pregnancy (Wisner et al 2013).
- Depression with or without anxiety in the perinatal period is associated with maternal suicide (Humphrey et al 2015).
- Obstetric complications in depressed women (independent of antidepressant use) are slightly increased including risk of preterm birth, low birth weight, gestational hypertension and perinatal death (Grigoriadis et al 2013).
- Anxiety disorders during pregnancy may have a negative influence on obstetric, fetal and perinatal outcomes, including more pregnancy symptoms (nausea and vomiting); more medical visits; increased alcohol or tobacco consumption or unhealthy eating habits; pre-eclampsia and preterm birth; and postnatal depression and mood disorders (Marc et al 2011). High levels of maternal anxiety during pregnancy is associated with increased exposure of the fetus to maternal cortisol and risk of adverse neurodevelopmental outcomes (O'Donnell et al 2012).
- In Australia in 2012, the total disability adjusted life years (DALYs) attributable to maternal perinatal depression was 4,991 in the antenatal period and 11,584 in the postnatal period (PANDA 2012), which represents a significant disease burden and is likely an underestimate. Direct financial costs associated with maternal postnatal depression were estimated as $60.68M and indirect costs as $86.59M (PANDA 2012). The costs of not treating depression and anxiety in the perinatal period in Australia in 2013 were estimated as $538M for 1 year and the cost savings of reducing prevalence by 5% (through detection and early intervention) as $147M in 2 years (PwC 2014).

1.2.2 Severe mental illness

- Severe mental illness includes psychotic disorders (schizophrenia and puerperal psychosis) and bipolar disorder. These are much less common than depressive and anxiety disorders, with a prevalence of around 1 in 100 in the general population for schizophrenia and bipolar disorder (Mitchell et al 2013; Galletly et al 2016) and 1 in 1,000 pregnancies for puerperal psychosis.
- People with schizophrenia or bipolar disorder (in the general population) suffer from high rates of other mental health disorders, including depression and anxiety disorders (Merikangas et al 2011; Galletly et al 2016).
- Population studies demonstrate an increased risk of new onset psychiatric episodes, especially puerperal psychoses, in the first few months postpartum (Munk-Olsen et al 2006), while risk of relapse of pre-existing mood disorder (often following the cessation of medication in pregnancy) increases significantly across the perinatal period (Viguera et al 2000; Cohen et al 2006; Viguera et al 2007), especially for bipolar disorder (Munk-Olsen et al 2009).
- Bipolar disorder has a clear negative impact on pregnancy and childbirth outcomes (Rusner et al 2016), including gestational hypertension and antepartum haemorrhage; increased relapse in the postnatal period; increased severe fetal growth retardation (<2nd–3rd centile) and neonatal morbidity.
- Women with diagnosed schizophrenia or bipolar disorder are more likely than women in the general pregnant population to have obstetric complications (pre-eclampsia, gestational diabetes) (Nguyen et al 2013). Relapse of these conditions during pregnancy is common, with 22.5% of diagnosed women in one study being admitted to a psychiatric hospital during pregnancy (38.6% with schizophrenia and 10.7% with bipolar disorder) (Nguyen et al 2013). Women with schizophrenia had a high rate of involvement of statutory child welfare services (50%).

1.2.3 Borderline personality disorder (and emotional dysregulation)

- *Borderline personality disorder* is characterised by a pervasive pattern of instability of emotions, relationships, sense of identity and poor impulse control and is consistently associated with severe functional impairment.
- Estimates of the prevalence of borderline personality disorder range from 1% among all Australian adults and 3.5% among Australians aged 24–25 years (NHMRC 2012). A more recent study (Quirk et al 2016) estimated prevalence among women aged ≥25 years to be 2.7% (95%CI: 1.4–4.0).

- *Emotional dysregulation* refers to poorly modulated emotional responses and is also referred to as mood or affective instability. It has been measured by a number of well-validated scales, including the Difficulties in Emotional Regulation Scale (Gratz & Roemer 2004). While it is associated with depressive and anxiety disorders, it is considered a core feature of borderline personality disorder (Glenn & Klonsky 2009; Kroger et al 2011).
- Emotional dysregulation and borderline personality disorder are associated with a history of childhood trauma, and/or experience of dysfunctional parenting in a substantial proportion of cases (Fossati et al 2016).
- Women with borderline personality disorder in the perinatal period experience considerable psychosocial impairment — they may anticipate birth as traumatic and frequently request early delivery, comorbidity with substance abuse is common and rates of referral to child protective services high (Blankley et al 2015).
- Borderline personality disorder in pregnancy has been found to be associated with gestational diabetes, premature rupture of the membranes, chorioamnionitis, venous thromboembolism, caesarian section and preterm birth (Pare-Miron et al 2016).
- Mothers with borderline personality disorder are often parenting in the context of significant additional risk factors, such as depression, substance use and low support (Petfield et al 2015). Levels of parenting stress are high, and self-reported competence and satisfaction are low (Petfield et al 2015).
- Mothers with borderline personality disorder symptoms — including emotional dysregulation — are more likely than women without symptoms to engage in maladaptive interactions with their offspring characterised by insensitive, overprotective, and hostile parenting (Eyden et al 2016). Adverse offspring outcomes included borderline personality disorder symptoms, internalising (including depression) and externalising problems, insecure attachment patterns and emotional dysregulation (Eyden et al 2016).

2 Enabling effective care of mental health in the perinatal period

The principles underlying effective provision of mental health care in the perinatal period include:

- establishing a therapeutic relationship
- providing culturally relevant support and information
- ensuring continuity of care, where possible
- monitoring for emerging symptoms or stressors.

2.1 Therapeutic relationship

Providing psychosocial care during the perinatal period involves establishing and maintaining a therapeutic relationship between the health professional and the woman and her significant other(s). Key aspects of the therapeutic relationship include development of trust, confidence, mutuality, active listening and empowerment (Simpson & Creehan 2008).

It is important for health professionals to:

- understand the normal range of emotions common to various stages during the perinatal period so they can better identify anxiety and depressive symptoms if they occur
- allow adequate time to assess, listen and build rapport
- ascertain and address any misconceptions or need for information, encourage women to express their feelings about pregnancy and motherhood, validate any concerns and support their emotional state
- maintain a non-judgemental attitude and address any feelings of stigma (very common)
- assess women's support systems, including the attitudes and availability of her significant other(s) and support network.

Where mental health treatment is required, the collaborative process continues, with the setting of mutually agreed goals and tasks and regular support to help the woman to achieve those goals. If mental health referral is necessary, the process should be managed in an empowering, supportive way.

Engaging women in mental health care

Factors that improve a woman's experience of accessing and engaging with mental health care in the perinatal period include being given the opportunity to develop trusting relationships with health care professionals who acknowledge and reinforce the woman's role in caring for her baby in a non-judgmental and compassionate manner, and foster hope and optimism about treatment (Megnin-Viggars et al 2015). High quality information for women, their families and healthcare professionals, and the provision of individualised care and treatment, are also crucial (Megnin-Viggars et al 2015).

Aboriginal and Torres Strait Islander women

Health professionals working with Aboriginal and Torres Strait Islander peoples are often confronted with extremely complex presentations encompassing mental health issues, cultural disconnection and multiple stressors in the form of poverty or poor housing, child removal, as well as trauma, abuse and loss (AIHW 2014). This level of complexity requires:

- different models of engagement and new approaches and ways of thinking about mental health — trauma-informed care is in particularly important when working with this population
- greater understanding about the determinants of mental health and wellbeing
- recognition of factors consistently identified by Aboriginal and Torres Strait Islander people as critical to the design and delivery of effective services and programs aimed at improving their mental health and social and emotional wellbeing — these include Indigenous definitions of health and wellbeing as holistic, underscored by connections to culture, family, community and country
- changes in the cultural competence of mental health systems, services, professions, disciplines and individual professionals.

2.2 Support and information[2]

Key points to be communicated to women are that mental health disorders are not uncommon and that treatments are available.

Providing information and support

In any health interaction, a woman has the right to (CHF 2004):

- determine what treatment she accepts or chooses not to accept
- be given easily understandable explanations in her first language of the details of her specific health problem, any proposed treatments or procedures and the results of any tests performed
- have access to all health information about herself and her baby
- be treated with respect and dignity and know that, in the majority of cases, her health information will be kept confidential.

Health professionals and women need to communicate and collaborate in a team approach (Kryzanauskas 2005). The woman's input — and that of her significant other(s) when she chooses — is an important part of this process (NHMRC 2010). Consistency of information, especially if this is provided by different professionals, is very important.

Making a choice or consenting should be an ongoing process of discussion between a woman and the health professionals involved in her care.

Cultural safety

Cultural safety is based on the basic human rights of respect, dignity, empowerment, safety and autonomy (Phiri et al 2010). The concept of 'cultural safety' focuses on social position to explain health status rather than on the 'values, beliefs and traditions' of a particular group (Williamson & Harrison 2010). This approach considers the dynamic nature of culture and the diversity within groups, avoids stereotyping and identifies the needs of the individual receiving care. Strategies to ensure culturally safe care include optimising communication (e.g. through the use of accredited interpreters), building sound relationships, acknowledging women's cultural preferences (Phiri et al 2010) and reflecting on and analysing how power relationships and history have affected the health of individuals (Kruske et al 2006).

2.3 Continuity of care

The benefits of continuity of care and carer when providing maternity services are well-documented (Homer et al 2008). Continuity of care involves a shared understanding of care pathways by all professionals involved, with the aim of reducing fragmentation and conflicting advice. Continuity of carer is when a named professional, who is known by the woman, provides all her care as appropriate, thus enabling the development of a relationship. Factors that may improve continuity of care include sharing of information (e.g. through documenting of all assessments), collaborative development of management plans, developing linkages and networks and adapting successful approaches to care (e.g. case conferencing, shared care approaches).

[2] This section is adapted from (Australian Health Ministers' Advisory Council 2012)

PART B — SCREENING AND PSYCHOSOCIAL ASSESSMENT

This section describes screening — which aims to detect signs and symptoms of mental health disorders and psychosocial assessment — which aims to identify the presence of psychosocial factors that are known to be associated with an elevated likelihood of mental health disorders in the perinatal period.

3 Considerations before screening and psychosocial assessment

Key considerations for service provision are outlined below.

- *Systems for follow-up and support* — Before assessment and screening is carried out, systems need to be in place to ensure that appropriate health professionals are available to provide follow-up care if required and to assist if there are concerns for the safety of the woman, the fetus or infant or other children in the woman's care. Health professionals will greatly benefit from identifying other professionals from whom they can seek advice, clinical supervision or support regarding mental health care in the perinatal period. This could potentially be supported through electronic referral pathways or directories.
- *Who attends assessment* — Women need to feel safe during assessment and screening, so consideration should be given to other people who may be present. While the presence of significant others is often helpful, sensitivity is required about whether it is appropriate to continue with psychosocial assessment while they are in the room (e.g. if family violence is suspected). Postnatal assessments with baby and partner present, also provide an opportunity to view the mother-infant relationship and partner relationship (see Section 7.1).
- *Informed consent* — An explanation of the purpose of the assessment and screening should be given before they take place and It is important to stress that this is part of normal care and results will generally remain confidential. Consent can be readily integrated with consent processes for existing routine antenatal and postnatal care procedures. If a woman does not consent to assessment and/or screening, this should be explored and documented and assessment and screening offered at subsequent consultations.
- *Confidentiality* — It should also be explained that confidentiality may not be kept if there is a perceived risk of harm to the woman or her baby as there is a duty of care for this to be communicated to key others. However, in this situation, only information relevant to the risk will be shared.
- *Follow-up to screening* — Decision-making about the need for and type of follow-up mental health care is based on clinical presentation and responses at interview and/or structured assessment, and the woman's preferences. *The initial assessment in the primary setting is not diagnostic*, rather, its aim is to ensure that women who would like help with their distress or symptoms, or who need further assessment for a possible psychiatric condition, will receive the care (including diagnostic assessment) they need.
- *Continuing care* — Most women will not need further monitoring or mental health assessment, while many of those who need it will not accept it, at least initially. Providing ongoing exploration of their symptoms and information and encouraging continuing contact with an appropriate health professional may support women in seeking further assistance. Ideally, ongoing mental health care in the perinatal period is provided by a woman's regular GP. However, it is acknowledged that not all women have access to this type of care or choose it when it is available. Women should be assisted in identifying a health professional with the skills, knowledge and cultural competence to provide appropriate ongoing care.

4 Acceptability of screening and psychosocial assessment

Opportunistic mental health screening that occurs as a component of routine antenatal and postnatal care is acceptable to women and health professionals and, while barriers exist, is considered a feasible approach to perinatal mental health care (Austin & Kingston 2016; Venkatesh et al 2016).

Acceptability of screening among health professionals and women

- Studies have reported high levels of acceptability of perinatal mental health screening among health professionals in Australia (Reay et al 2011; Bowen et al 2012; Austin et al 2013; Bales et al 2015), Canada (Kingston et al 2015b), the United States (Chew-Graham et al 2009; Miller et al 2009) and as reported in systematic reviews (El-Den et al 2015).
- Vulnerable women also report high acceptability, including those with high depression scores at the time of screening (Gemmill et al 2006), women of non-English-speaking background (Matthey et al 2005), those with a previous diagnosis or treatment history for mental illness (Kingston et al 2015b) and those experiencing family violence (Matthey et al 2005).
- Fewer than 4% of women refuse health professional-initiated screening (Chew-Graham et al 2009; Miller et al 2009; Austin et al 2010). These rates may be even lower as women's ability to be honest about emotional health is strongly associated with their comfort with the mode of assessment (Kingston et al 2015b).
- A recent Canadian study found that 99% of pregnant women who had not been screened would have been comfortable with health professional-initiated screening, and 97% of those who had been screened reported the same (Kingston et al 2015b). Demographics, type of health professional and history of diagnosis or treatment for mental illness were unrelated to whether pregnant women found screening acceptable or not (Kingston et al 2015b).

Barriers to routine perinatal screening, follow-up assessment and treatment

- Barriers to screening and referral among *health professionals* include lack of time, education and linkages with mental health resources (Kim et al 2010; Byatt et al 2012). It is recognised that each of these barriers may be alleviated by using innovative approaches to screening, information provision and e-referral pathways.
- Barriers among *women* include stigma, significant others normalising their emotional difficulties, desiring to manage mental health problems on their own, preferring to discuss feelings with significant others, not knowing what emotions are 'normal' and perceiving that the health professional is disinterested or lacks time (Highet et al 2014; Kingston et al 2015a; Kingston et al 2015b). This may be improved by the provision of timely, relevant information and education about emotional and mental health in the perinatal period.
- While 30% of Australian women give birth in the private sector, most of them will not be offered routine psychosocial assessment (Reilly et al 2013b) or screening for depression. Thus, although many women may prefer private care, when it comes to mental health care, these women may in fact be disenfranchised.
- Screening is often not available, accurate or appropriately administered for women of non-English speaking backgrounds due to the lack of validated screening tools in other languages, and/or the accuracies and costs associated with interpreter services. In a recent screening and treatment program less than four percent of non-English speaking women were offered perinatal screening in a maternity setting.
- Recent research suggests that only half of women who screen positive follow up with a subsequent mental health assessment (Kim et al 2010; Reay et al 2011) and 30–85 % (Marcus et al 2003; Woolhouse et al 2009; Reay et al 2011; Bowen et al 2012; Bales et al 2015) do not engage in treatment. This may be improved by consumers as well as health professionals having access to timely and appropriate referral pathways.

Facilitators of screening and subsequent mental health care

- Health professionals in settings that have implemented an infrastructure for routine psychosocial assessment and mental health screening as part of a system of assessment-referral-care have found it to be a feasible, effective approach (Sword et al 2008; Mitchell & Coyne 2009; Flynn et al 2010; Reay et al 2011).
- Screening rates can increase if health professionals are educated about perinatal mental health and trained in the use of a validated tool (Goldin Evans et al 2015). Increases in screening rates are also associated with e-screening, which also reduces screening time.
- The provision of specific MBS items that mandate and incentivise screening by all obstetricians, and the requirement for Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) trainees to have perinatal mental health training as a core competency, would go a long way towards addressing the imbalance between screening in the public and private maternity sectors.
- Women are more likely to accept mental health screening when the health professional is sensitive and interested, and women are reassured that mental healthcare is part of routine antenatal care, that other women experience emotional problems during pregnancy and that help is available (Kingston et al 2015a). Being informed about screening in advance also improves women's acceptance of screening (Brealey et al 2010).
- Women who are not asked about emotional health are far less likely to seek formal mental health care during pregnancy (AOR 0.09, 95%CI 0.04 to 0.24) or postpartum (AOR 0.07, 95%CI 0.02 to 0.13) (Reilly et al 2014).
- Formal referral following assessment increases the number of women who engage in treatment — women who do not receive a formal referral are less likely to engage in treatment in pregnancy (AOR 0.26, 95 % CI 0.15–0.45) and postpartum (AOR 0.14, 95 % CI 0.07–0.27) (Reilly et al 2013a).

Consensus-based recommendation

i. All health professionals providing care in the perinatal period should receive training in woman-centred communication skills, psychosocial assessment and culturally appropriate care.

5 Screening for depressive and anxiety disorders

'Screening' entails the application of a validated test (or questionnaire) to identify people who *may be experiencing a particular disorder*. Screening tools are not diagnostic. The administration of a screening tool for depressive or anxiety disorder is part of a multicomponent program which must include clear rules for further assessment of women who are screening positive; appropriate staff training in screening methods; adequate mental health referral pathways and effective treatments.

Accurately Identifying women experiencing symptoms of depression and anxiety enables referral for more formal mental health assessment and suitable follow-up, with a view to improving outcomes for women. The screening process is informed by the considerations outlined in Chapter 3.

The context for screening has changed in the years since the release of the initial guideline on mental health in the perinatal period (*beyondblue* 2011), with:

- increased awareness of the prevalence of not only antenatal and postnatal depression but also anxiety
- further research conducted into the effectiveness of screening tools and how they may be integrated into comprehensive screening programs
- the increased range and availability of innovative methods of screening (e.g. using electronic tools).

5.1 Screening for depression

5.1.1 Summary of the evidence

Antenatal screening

The systematic review identified evidence on four screening tools for depression in the antenatal period — the Edinburgh Postnatal Depression Scale (EPDS), the depression module of the Patient Health Questionnaire (PHQ-9), the Whooley Questions and the Kessler Psychological Distress Scale (K-10).

There is evidence that the EPDS is accurate in identifying possible depression in the antenatal period with sensitivity and specificity for (NICE 2015):

- major[3] depression of 0.88 (0.89 to 0.94) and 0.88 (0.86 to 0.90) for a score of 10 or more and 0.83 (0.76 to 0.88) and 0.90 (0.88 to 0.92) for a score of 13 or more (high quality)
- minor or major depression of 0.74 (0.65 to 0.82) and 0.86 (0.83 to 0.89) for a score of 10 or more and 0.61 (0.5 to 0.72) and 0.94 (0.92 to 0.96) for a score of 13 or more (moderate quality).

The evidence on the other screening tools (at relevant cut-offs) was of lower quality (NICE 2015):

- K-10 — sensitivity of 0.75 (0.48 to 0.93) to 1.00 (0.88 to 1.00) and specificity of 0.54 (0.44 to 0.63) to 0.81 (0.74 to 0.86) for major depression (low quality)
- PHQ — sensitivity of 0.74 (0.61 to 0.85) to 0.85 (0.66 to 0.96) and specificity of 0.73 (0.38 to 0.94) to 0.84 (0.81 to 0.87) for major depression and sensitivity and specificity of 0.75 (0.64 to 0.84) and 0.88 (0.85 to 0.90) for minor or major depression (very low quality)
- Whooley questions — sensitivity and specificity of 1.00 (0.80 to 1.00) and 0.68 (0.58 to 0.77) for minor or major depression using the questions alone and 0.59 (0.33 to 0.82) and 0.91 (0.77 to 0.98) when an additional 'help' question was added (very low quality).

Postnatal screening

The systematic review identified evidence on the effectiveness of five screening tools for depression in the postnatal period — the EPDS, PHQ-9, shorter versions of the PHQ-9 (PHQ-2), the Whooley Questions and the K-10.

[3] Note that, while the DSM criteria for diagnosing minor or major depression are not suitable for diagnosis in the perinatal period, they were used to measure outcomes in the studies.

There is evidence that the EPDS is accurate in identifying possible depression in the postnatal period with sensitivity and specificity for:

- major depression of 0.95 (0.92 to 0.97) and 0.82 (0.80 to 0.84) for a score or 10 or more, and 0.80 (0.77 to 0.83) for a score of 13 or more (high quality) (NICE 2015)
- minor or major depression of 0.83 (0.81 to 0.86) and 0.85 (0.84 to 0.86) for a score of 10 or more, and 0.68 (0.66 to 0.71) and 0.92 (0.92 to 0.93) for a score of 13 or more (high quality) (NICE 2015).

The evidence on the other screening tools (at relevant cut-offs) was of lower quality (NICE 2015):

- K-10 — sensitivity and specificity of 0.85 (0.66 to 0.96) and 0.41 (0.25 to 0.59) for minor or major depression (low quality)
- PHQ-2 — sensitivity of 0.77 (0.46 to 0.95) to 0.84 (0.71 to 0.94) and specificity of 0.59 (0.53 to 0.66) to 0.79 (0.75 to 0.83) for major depression using a cut-off threshold of 2 or 3 (low quality), and sensitivity and specificity of 0.63 (0.32 to 0.86) and 0.79 (0.73 to 0.84) using a cut-off threshold of 3 or 4 (very low quality)
- PHQ-9 — sensitivity of 0.82 (0.68 to 0.92) to 0.89 (0.80 to 0.95) and specificity 0.65 (0.43 to 0.84) to 0.84 (0.80 to 0.87) for major depression using simple scoring (low quality) and sensitivity and specificity of 0.67 (0.51 to 0.80) and 0.92 (0.89 to 094) using complex scoring (very low quality)
- Whooley questions — sensitivity and specificity of 1.00 (0.81 to 1.00) and 0.64 (0.53 to 0.75) for minor or major depression, and 1.00 (0.92 to 1.00) and 0.44 (0.39 to 0.49) for major depression (very low quality)
- Whooley questions plus 'help' question — sensitivity and specificity of 0.39 (0.17 to 0.64) and 1.00 (0.87 to 1.00) (very low quality).

Evidence-based recommendations **Strong**

1. Use the EPDS to screen women for a possible depressive disorder in the perinatal period.
2. Arrange further assessment of perinatal woman with an EPDS score of 13 or more.

Appendix E includes the EPDS and information on calculating a woman's score.

5.1.2 Other considerations in screening for depression

Timing of screening

The timing of screening should reflect available resources and existing contacts between the woman and the health professionals caring for her:

- an obvious contact point is the first antenatal visit, however, it is acknowledged that the time available at this visit and the number of other medical assessments undertaken may limit opportunities for assessment of mental health
- postnatal assessment may be integrated into routine maternal and infant checks.

Timing of repeat screening is based on results of the initial screen and clinical indications.

Consensus-based recommendations

ii. Complete the first antenatal screening as early as practical in pregnancy and repeat screening at least once later in pregnancy.

iii. Complete the first postnatal screening 6–12 weeks after birth and repeat screening at least once in the first postnatal year.

iv. For a woman with an EPDS score between 10 and 12, monitor and repeat the EPDS in 4–6 weeks as her score may increase subsequently.

v. Repeat the EPDS at any time in pregnancy and in the first postnatal year if clinically indicated.

Mode of assessment

The EPDS is a self-report tool and is usually completed by the woman, preferably without consultation with others. It may at times be appropriate for the health professional to verbally administer the questionnaire whether face to face or by phone. Electronic screening using the EPDS is an emerging practice.

Risk of harm

Regardless of the total EPDS score, perinatal women who score positive on Question 10 may be at risk of harming themselves and/or their children and further assessment is necessary. Section 7.3 provides guidance on assessing the risk of self-harm or suicide.

Consensus-based recommendation

vi. For a woman with a positive score on Question 10 on the EPDS, undertake or arrange immediate further assessment and, if there is any disclosure of suicidal ideation, take urgent action in accordance with local protocol/policy.

5.2 Culturally appropriate screening for depression

Aboriginal and Torres Strait Islander women

For Aboriginal and Torres Strait Islander women, EPDS score may be influenced by the woman's understanding of the language used, mistrust of mainstream services or fear of consequences of depression being identified. Translations of the EPDS developed in consultation with women from Aboriginal communities have been found to identify a slightly higher number of women experiencing symptoms of depression (Hayes et al 2006; Campbell et al 2008).

Consensus-based recommendation

vii. When screening Aboriginal and Torres Strait Islander women, consider language and cultural appropriateness of the tool.

Migrant and refugee women

Scores used to identify possible depression in migrant and refugee women are generally lower than those used in the general Australian population.

Cultural practices (such as attending the consultation with a family member) and differences in emotional reserve and the perceived degree of stigma associated with depression may also influence the performance of the EPDS.

Consensus-based recommendation

viii. Use appropriately translated versions of the EPDS with culturally relevant cut-off scores. Consider language and cultural appropriateness of the tool.

5.3 Screening for anxiety

The systematic review identified evidence on the accuracy of screening tools for identifying possible anxiety disorders in the:

- *antenatal period* — the full EPDS (Tran et al 2011), the General Health Questionnaire (GHQ) (using 12, 28 or 30 items) (Sharp 1988; Kitamura et al 1989; Aderibigbe & Gureje 1992; Abiodun et al 1993; Kitamura et al 1994; Tran et al 2011), the Hospital Anxiety and Depression Scale (HADS) (Abiodun et al 1993), K-10 (Spies et al 2009) and the State-Trait Anxiety Inventory (STAI) (Grant et al 2008).
- *postnatal period* — the full EPDS (Navarro et al 2007; Tran et al 2011), the GHQ (using 12 or 30 items) (Nott & Cutts 1982; Kitamura et al 1994; Navarro et al 2007; Tran et al 2011)
- *perinatal period* — the full EPDS (Grigoriadis et al 2011; Simpson et al 2014), items 3, 4 and 5 of the EPDS (EPDS-3A) (Grigoriadis et al 2011; Simpson et al 2014) and the Generalised Anxiety Disorder 7-Item Scale (GAD-7) (Simpson et al 2014).

The evidence was heterogeneous in terms of study characteristics and cut-off values used and firm conclusions could not be drawn.

In the absence of a free, practical screening tool for anxiety disorders with adequate evidence in the perinatal period, clinical judgment must be used. This may include consideration of items 3, 4 and 5 of the EPDS (Matthey et al 2013a; Matthey et al 2013b).

Consensus-based recommendations

ix. Be aware that anxiety disorder is very common in the perinatal period and should be considered in the broader clinical assessment.

x. As part of the clinical assessment, refer to anxiety items from other screening tools (e.g. EPDS, DASS and K-10) and relevant items in structured psychosocial assessment tools (e.g. ANRQ).

6 Assessing psychosocial factors that affect mental health

In addition to screening for symptoms of depression and anxiety, psychosocial assessment is essential in allowing identification of circumstances (past and present) that may contribute to a woman's mental health problems, or need attention in their own right in terms of the woman's (and family's) welfare. The number and type of psychosocial factors identified influences the care pathway, with more approaches or interventions needed to support women experiencing multiple psychosocial factors, while the presence of complex risk factors will require a coordinated multidisciplinary approach to the woman's care plan.

Psychosocial assessment can be undertaken as part of the clinical interview and/or using a structured psychosocial assessment tool. Different approaches can be taken to suit the setting, health professional confidence and skill set, as well as time constraints. Structured questionnaires are useful in providing a comprehensive, time-efficient overview of the woman's circumstances, especially when the health professional is not experienced in undertaking a detailed psychosocial assessment as part of the broader clinical evaluation.

6.1 Psychosocial assessment tools

6.1.1 Summary of the evidence

Tools developed with the aim of identifying psychosocial factors in the antenatal and postnatal periods, for which there is moderate to high quality evidence include the Antenatal Psychosocial Health Assessment (ALPHA), the AnteNatal Risk Questionnaire (ANRQ) and the Pregnancy Risk Questionnaire (PRQ). Evaluation of these tools for their technical performance and acceptability found the following.

ALPHA

The ALPHA (Carroll et al 2005) is a 34-item questionnaire, which does not generate a total risk score but asks the clinician to score their level of concern on a 7-point scale: from *not at all* to *extremely concerned*. Broadly it assesses: relationship with partner, substance use, social support, recent stressful life events, attitude to pregnancy, lack of self-esteem, previous history of depression or during pregnancy, having witnessed or experienced abuse as a child, and quality of relationship with parents in childhood.

The ALPHA has limited psychometric properties, is moderately acceptable to users and is effective in identifying family violence (OR 2.7; 95%CI 1.1 to 6.9) (moderate quality) and 'high level of psychosocial concern' on the health professional's part (OR 2.8; 95%CI 0.7 to 11.7). The ALPHA does not have adequate capacity to identify women at increased risk of postnatal depression but 'may be particularly useful for raising and discussing sensitive (psychosocial) issues' (Blackmore et al 2006).

PRQ

The Pregnancy Risk Questionnaire PRQ (Austin et al 2005) the longer antecedent to the ANRQ (see below), is an 18-item tool covering similar domains to those of the ALPHA.

It has acceptable psychometric properties and is effective in predicting cases of postnatal depression and anxiety (OR 9.18; p <0.001) (moderate quality), with sensitivity 0.44, specificity 0.92, positive predictive value 0.235 and negative predictive value 0.968. The PRQ is considered too lengthy for routine use in the public health setting (Austin et al 2005).

ANRQ

The ANRQ (Austin et al 2013; Reilly et al 2015) is a 13-item structured questionnaire with categorical (yes/no) and dimensional (1 to 5) responses, which generates a total psychosocial risk score (cumulative risk) as well as identifying specific risk factors that independently put the woman at greater psychosocial risk (past history of trauma or significant mental health condition). This tool has two functions: it provides a brief, structured approach to psychosocial assessment; and gives the health professional some indication as to the woman's degree of risk for mental health morbidity and/or difficulty adjusting to the parenting role. The ANRQ covers relationship with partner, social support, recent stressful life events, anxiety or perfectionism, past history of depression or other mental health conditions (and treatment for same), having experienced abuse as a child or as an adult, and quality of relationship with mother in childhood.

The ANRQ is effective in identifying women at greater risk of postnatal depression and anxiety disorder (OR 6.3 [95% CI 3.5 to 11.5]) (moderate quality), with sensitivity 0.62, specificity 0.64, positive predictive value 0.3 and negative predictive value 0.87. As the items on the ANRQ are applicable to both pregnancy and postnatal women, it can be used postnatally using the same cut-off score.

the ANRQ is easy to administer and score in the clinical setting, is acceptable among pregnant women (92–97%) and midwives (98%) and, used in conjunction with the EPDS, has a positive effect on the rates of referral for further mental health assessment (moderate quality) (Austin et al 2013; Reilly et al 2015).

Appendix E includes the ANRQ and guidance on its use in clinical practice, scoring and interpretation of results.

Evidence-based recommendation **Strong**

3. Use the ANRQ to assess presence of psychosocial risk factors.

Consensus-based recommendation

xi. Undertake psychosocial assessment in conjunction with a tool that screens for current symptoms of depression/anxiety (e.g. the EPDS).

Practice point

a. Assess psychosocial risk factors as early as practical in pregnancy and again 6–12 weeks after the birth.

6.2 Other considerations in psychosocial screening

6.2.1 Further exploration and interpretation of psychosocial assessment

Psychosocial risk items endorsed by the woman (whether through use of a structured tool or as part of a broader interview) need to be further explored and documented. The results of the evaluation need to be conveyed to the woman and then (in consultation with the woman) be translated into a tangible approach to referral or monitoring. This will be reliant on the availability of adequate referral pathways.

Practice point

b. Ensure that health professionals receive training in the importance of psychosocial assessment and the use of a psychosocial assessment tool.

c. Ensure that there are clear guidelines around the use and interpretation of the psychosocial tool/interview in terms of threshold for referral for psychosocial care and/or ongoing monitoring.

6.2.2 Education about psychosocial risk factors

Given the potential impact that psychosocial risk factors may have on a woman's mental health and the wellbeing of her baby/other children, it is important that all women are provided with information about the nature of the different risk factors that may increase her likelihood of experiencing a mental health condition in the perinatal period. In turn this provides an opportunity to identify supports (protective factors) to assist in the prevention of mental health conditions, and/or raise awareness of the importance of early symptom recognition to facilitate early detection and intervention.

Practice point

d. Discuss with the woman the possible impact of psychosocial risk factors (she has endorsed) on her mental health and provide information about available assistance.

6.2.3 Culturally appropriate assessment of psychosocial risk

The psychosocial assessment tools described above are only available in English and no published evidence has been identified describing their use in Aboriginal and Torres Strait Islander or migrant and refugee women. A more conversational approach to psychosocial assessment may be needed in these groups, with a focus on developing rapport and trust. Consideration should also be given to psychosocial risk factors that are not covered in the tools but may be relevant to specific groups (e.g. housing, experience of persecution or trauma, being isolated from family).

Consensus-based recommendation

xii. Consider language and cultural appropriateness of any tool used to assess psychosocial risk.

7 Assessing mother-infant interaction and safety of the woman and infant

7.1 Mother-infant interaction[4]

The table below provides a list of prompts to assess risk for disrupted mother-infant relationship. The list is not exhaustive and is not intended to be used as a checklist or formal assessment tool. Rather, it indicates areas of functioning that are important to the mother-infant relationship. If any concerns arise, consulting with and/or referring to the appropriate specialist service is a consideration.

Table 6.1: Indications of difficulties in the mother-infant interaction

Psychosocial risk factors	**Relationship factors (observed or reported)**
• Unresolved family of origin issues	• Is the mother thoughtful about her baby?
• History of physical/sexual abuse, family violence, childhood neglect	• Can the mother describe the baby's daily routine?
• Past pregnancy loss or excess pregnancy concern	• Is the mother able to reflect on the baby's needs?
• Unplanned or unwanted pregnancy	• Does the mother express empathy for the baby?
• Was the mother able to touch the baby on the day of birth?	• Does the mother engage in enjoyable activities with the baby?
• Did the mother have responsibility for infant care during the first week of life?	• Does the mother play/talk appropriately to the baby?
• Who is involved in the baby's care?	• Does she delight in her baby?
• Availability of emotional/social/practical support	• Does the baby ever make her feel uncomfortable, unhappy or enraged?
• How much time does the mother spend away from the baby	• Is the mother excessively worried about the baby?
Infant factors (Liaise with child health nurse and/or GP)	• Does the mother cope with the baby's distress?
• Is baby achieving normal developmental milestones?	• Does she respond and attend appropriately to the baby's cues?
• Is the baby growing adequately?	• Are her responses consistent?
• Are there feeding difficulties, reflux, gastric distress, sleep difficulties?	• Is she protective of the baby?
Behaviour of concern (observed or reported)	**Maternal factors**
• Gaze avoidance	• Current maternal psychopathy
• Flat affect	• Antenatal or postnatal mood disorder
• Lack of crying	• Psychosis
• Limited vocalising	• Diagnosed personality disorder
• Emotionally under-responsive	• Suicidal or homicidal ideation
• Interacts too easily with strangers (age dependent)	• Negative symptoms (low motivation, anhedonia, blunted affect, poverty of thought/speech)
• Unsettled sleep or feeding	• Medication side-effects
• Difficult to console when distressed	• Substance abuse
• Irritable, constant crying	• Engaging in dangerous or risk-taking behaviours (e.g. alcohol or drug misuse)
• Difficulty separating from parent (age dependent)	
Protective factors	
• Mother is sensitive to the baby	• Mother is able to monitor the baby's well being adequately
• Mother is responsive to the baby	• Mother is able to cope with flexibility in her routine
• Mother has a close relationship with at least one other adult	• Mother is thoughtful about what might be going on in the baby's mind

Practice point

e. Assess the mother-infant interaction as an integral part of postnatal care.

[4] This section is adapted from (Stefan et al 2009).

7.2 Risk to the infant

If there are observed difficulties with the mother-infant interaction and/or if the woman has a significant mental health disorder, further assessment is required. Risk of harm to the infant can be related to suicide risk in the mother but can also be a separate issue. It should be noted that expressions of fear of harming the baby *may be a sign of anxiety rather than intent,* but should always be assessed further.

The nature of the enquiry will depend on a range of factors, including the setting and the extent of the therapeutic relationship. The following are *examples of questions* that could be asked, taken from the Postpartum Bonding Questionnaire (Brockington et al 2006) and adapted to the perinatal context.

- Have you felt irritated by being pregnant or by your baby?
- Have you had significant regrets about becoming pregnant or having the baby?
- Does the baby feel like it's not yours at times?
- Have you wanted to harm your unborn child or shake or slap your baby?
- Have you ever harmed your baby?

Action will depend on the answers to these questions. It is preferable that the mother and infant remain together but, if there is a perceived risk of harm to the infant, alternative arrangements or notification to the relevant child protection agency may be necessary.

Health services and other child and maternal agencies will generally have internal policies setting out the requirements for employees and their managers in relation to reporting concerns about children at risk of harm from abuse or neglect. Health professionals should therefore be familiar with the legislation in their State or Territory as well as their agency's policy on reporting.

Practice point

f. Assess the risk of harm to the infant if significant difficulties are observed with the mother-infant interaction and/or there is concern about the mother's mental health, substance use or family violence.

7.3 Risk of suicide[5]

Suicide risk assessment requires clinical judgement, a sense of the woman in context, understanding of the baby/infant as both a protective factor and a risk factor, and awareness of how mental illness symptoms might affect impulsivity.

Assessing the risk of suicide

Assessment of risk involves making enquiry into the extent of suicidal thoughts and intent, including:

- *suicidal thoughts* — if suicidal thoughts are present, how frequent and persistent are they?
- *plan* — if the woman has a plan, how detailed and realistic is it?
- *lethality* — what method has the woman chosen; how lethal is it?
- *means* — does the woman have the means to carry out the method?

Consideration should also be given to:

- risk and protective factors
- mental state — hopelessness, despair, psychosis, agitation, shame, anger, guilt, impulsivity
- history of suicidal behaviour
- family history of suicidal behaviour
- substance use — current misuse of alcohol or other drugs
- strengths and supports — availability, willingness and capacity of supports.

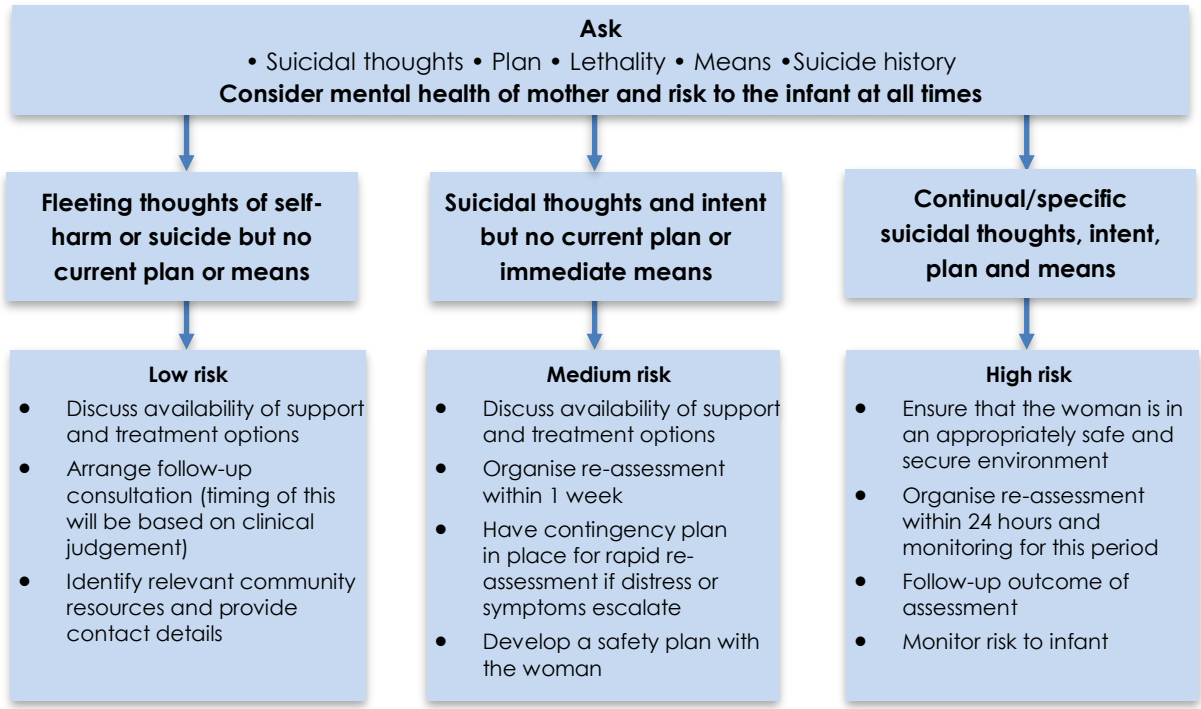
Whenever assessing a woman for risk of suicide, enquiry should be made about her capacity to care for the infant and any thoughts of harm to the infant.

[5] This section has been developed based on resources available through the Australian National Suicide Prevention Strategy (NSPS) website — www.livingisforeveryone.com.au.

Managing immediate risk

The following diagram represents some general principles for responding to suicide risk. Care and referral pathways will need to be adapted to individual circumstances and local resources and will be informed by clinical judgement, including assessment of impulsivity. The safety of the baby must also be considered.

Figure 7.1: General responses to identified risk of suicide



Additional considerations in managing identified risk of suicide

- *Low risk* — Seek to understand what precipitates the fleeting thoughts. If triggers are core to the woman's current perinatal experience (e.g. sense of maternal failure; shame about negative thoughts towards infant; interpersonal conflict), ensure a safety plan is specific to the issues.
- *Medium risk* — Assess context of current suicidal thoughts (e.g. previous suicide ideation or behaviours and outcomes). Establish factors that might contribute to escalation of risk (e.g. unsettled baby; conflict with partner). If triggers relate to the woman's current perinatal experience (and cannot be immediately resolved), carers for infant/children and mother need to be located.
- *High risk* — Locate a support person to care for infants/children. A mother can deny intent yet be at high risk. A woman with significant perinatal mental health decline, inability to sleep, distorted thinking, inability to care for self or infant with fleeting thoughts her family would be better off without her can be just as at risk as a woman with intent.

Developing a safety plan

A safety plan is a prioritised list of coping strategies and sources of support that women can use when they experience suicidal thoughts. Developing a safety plan involves assisting the woman to identify:

- warning signs that she may be at risk of imminent suicide (e.g. feeling trapped, worthless or hopeless) and actions to protect herself and the infant
- internal coping strategies that decrease the level of risk
- people within the woman's network who can assist in times of need
- health professionals and agencies that can be contacted for help.

Safety plans should be frequently revisited and modified as needed.

Practice point

g. When a woman is identified as at risk of suicide (through clinical assessment and/or the EPDS), manage immediate risk, arrange for urgent mental health assessment and consider support and treatment options.

8 Implementing psychosocial assessment and screening

Untreated mental health problems in the perinatal period impose a great burden on women, their families, the health system and society more broadly. Routine assessment of all women in the perinatal period is critical to providing them with access to early intervention and reducing this burden. While referral and care pathways vary with setting (e.g. general practice, maternity services) and the location (e.g. metropolitan, rural and remote), it is important that women are provided with access to timely, appropriate services post-assessment and ongoing psychosocial support.

8.1 Incorporating psychosocial assessment and screening into routine practice

Recommended psychosocial assessment and depression screening (e.g. with the EPDS) can be conducted by a variety of health professionals depending on where a woman seeks antenatal and postnatal care.

- *General practice* — In the general practice setting, psychosocial assessment and screening may be conducted by the general practitioner or a practice nurse.
- *Midwifery and maternal and child health care* — Midwives and maternal and child health nurses[6] are well-placed to conduct psychosocial assessment and screening in the antenatal and postnatal periods, respectively.
- *Public obstetric practice* — Obstetricians working in the public sector will usually not be directly involved in psychosocial assessment and screening as this is undertaken by the clinic midwives.
- *Private obstetric practice* — Obstetricians in private practice are responsible for ensuring that psychosocial assessment and screening with the EPDS take place. Regardless of who conducts the assessments (e.g. the obstetrician or a practice midwife), the hospital at which the woman will give birth needs to be notified if there are any concerns and relevant information included in the woman's discharge summary.

8.2 General approaches post-assessment

Psychosocial assessment and depression screening provide an indication of a woman's general mental health status and the presence of psychosocial risk factors but do not provide a diagnosis. Initial steps following these assessments include determining whether comprehensive mental health assessment is required (which may lead to a psychiatric diagnosis) and identifying supports and services tailored to the woman's needs. The following points illustrate a range of situations and the types of approaches that may be appropriate:

- **women with moderate to severe symptoms** will require comprehensive mental health assessment — subsequent management will most likely involve pharmacological treatment, ongoing psychosocial support and possibly psychological therapy once medication(s) have become effective (see Section 11.2.3)
- **women with a past history of severe mental health disorder** will require comprehensive mental health assessment before conception or in the antenatal period and additional support (particularly in the early postnatal period)
- **women with mild to moderate symptoms** may require comprehensive mental health assessment and may also benefit from some form of psychological therapy (see Section 11.2) in addition to psychosocial support
- **women experiencing mild depressive or anxiety symptoms in the early postnatal period** may benefit from practical and emotional support (e.g. advice on parenting, unsettled infants, sleep deprivation) and monitoring to determine the effectiveness of such support
- **women without current symptoms but experiencing significant psychosocial risk** (e.g. a recent separation) may benefit from ongoing psychosocial support.

[6] Also referred to as child and family health nurses in some jurisdictions.

Women with a pre-existing mental health problem may already be under the care of a GP, psychologist and/or psychiatrist (depending on the nature and severity of their disorder). However, comprehensive mental health assessment is required if the woman has, or is suspected to have, a recurrence or new onset of severe mental health disorder, suicidal thoughts or evidence of harm to herself or infant, or if other children in her care may be at risk of harm.

8.3 Referral and care pathways

The general principles for referral are the same in all settings. However, referral pathways will depend on the setting and the access to services available in the area. Whatever pathway is chosen, there is a need for documentation, coordinated care and inter-professional communication as well as clear communication with the woman and her significant other.

Consideration needs to be given to the urgency of the referral, particularly when women have severe symptoms or suicidal thinking. In cases of severe mental health disorders, women may need to be referred directly to the local mental health team for urgent assessment or even scheduled to the local psychiatric facility.

In rural and remote settings, mental health services may not be locally available and waiting times can be long. In such cases, advice may need to be sought from a GP, visiting psychiatrist, telehealth or mental health support line. For women from Aboriginal and Torres Strait Islander or culturally and linguistically diverse populations, involvement of a culturally appropriate worker (e.g. Aboriginal and Torres Strait Islander health worker, cultural liaison officer, interpreter) is advisable.

- *General practice* — Where possible a GP will diagnose and develop a management plan for depressive and anxiety disorders. Women with symptoms suggestive of more serious low prevalence disorders should be referred directly to a psychiatrist. Once a psychiatric diagnosis is established, and where psychological therapy is deemed the best treatment approach, a GP may develop a mental health treatment plan to allow the woman to access the relevant Medicare items for psychological therapy.
- *Midwifery* — For midwives, referral pathways will differ depending on whether they are independent, involved in a group midwifery practice, working through an Aboriginal Medical Service or hospital-based. Midwives in a hospital-based setting may provide ongoing care and support to the family, seeking the advice of an in-house, psychiatrist and/or allied health professional (e.g. mental health nurse, psychologist) and/or social worker as required. Midwives in other settings may refer women to a GP or private mental health service providers.
- *Obstetrics* — For obstetricians in the public sector, referral pathways will usually be established with in-house social workers and allied mental health clinicians. Women may be referred back to their GP if there is shared care. For obstetricians in private practice, referral is likely to be to the woman's GP or directly to a psychologist or a psychiatrist, depending on the individual situation and availability. Only GPs can provide a mental health care plan to access subsidised psychological care.
- *Postnatal care* — Most women will see a maternal and child health nurse in the postnatal period. In this setting, referral will likely be to a GP for further referral for counselling or psychological assessment. A maternal and child health nurse may provide ongoing care and support to the family, seeking the advice of a GP and/or allied mental health professional as required.

Addressing individual psychosocial risk factors is beyond the scope of this Guideline. In some situations, referral of women to other agencies (e.g. child protection, alcohol and drug, family violence and other support services) may be necessary.

8.4 Supporting emotional health and wellbeing

Ongoing psychosocial support

Whether or not referral is required, primary and maternity care professionals have an ongoing role in the psychosocial care of women in the perinatal period. Regular enquiry about emotional wellbeing provides a woman with opportunities for discussion about how she is managing and allows health professionals to determine whether repeat depression screening or other assessments are indicated.

Practice point

h. At every antenatal or postnatal visit, enquire about women's emotional wellbeing.

Lifestyle advice

All women in the perinatal period will benefit from advice on healthy diet, physical activity and sleep patterns. During pregnancy or following the birth of a baby, these aspects of a woman's life may be disrupted and can contribute to impaired mental health. Lifestyle advice for the general population will need to be adapted to suit the woman's particular circumstances, taking into consideration the demands of the pregnancy or baby and other family needs. For example, regardless of whether women follow healthy sleep habits, their nights will be disrupted during the early postnatal period and they should be encouraged to take opportunities to rest during the day (e.g. when the baby is asleep).

Practice point

i. Provide women in the perinatal period with advice on lifestyle issues and sleep, as well as assistance in planning how this advice can be incorporated into their daily activities during this time.

Women should also be asked about family violence, smoking and substance use due to the risks associated with their use in pregnancy and the potential for harm to the baby in the postnatal period.

Practice point

j. Assess all women for family violence as well as their smoking status and substance use; and provide advice about the associated harms and assistance available to them.

Psychological preparation for parenthood

Including psychological preparation for parenthood as a routine part of antenatal care has a positive effect on women's mental health postnatally (Australian Health Ministers' Advisory Council 2014). This type of education focuses on coping, problem-solving and decision-making skills; recognising distress and seeking help; cognitive restructuring and psychosocial issues associated with parenthood.

8.5 Women with complex presentations

When a woman has comorbidities — such as more than one mental health diagnosis, a significant maternal-fetal or medical condition, challenging personality traits, major psychosocial stressors (e.g. adolescent pregnancy, poverty, family violence or substance misuse) — inter-professional collaboration is strongly recommended.

There are several options for how this might take place, depending on the setting. In the public sector, multidisciplinary case-planning meetings may be the most efficient approach. In the private sector, collaboration may take the form of a mental health treatment plan, a chronic disease management plan, case conferencing and/or regular contact between health professionals.

Processes for monitoring outcomes and the continuing safety of the infant or family should be put in place, particularly when women are at risk of loss to follow-up or there is a concern about risk to the infant or mother.

9 Practice summary — assessment and screening

Before assessment	Comments	
Establish referral pathways	Identify appropriate health professionals available to provide follow-up care and to assist if there are concerns for the safety of the woman, fetus or infant Identify other professionals from whom you can seek advice, clinical supervision or support regarding mental health care in the perinatal period	
Seek informed consent	Explain the purpose of the assessment and screening — emphasise that this is part of normal care and results will generally remain confidential.	
Antenatal period	**When**	**Actions**
Assess for depressive symptoms (EPDS)	As early as practical in pregnancy	Arrange further assessment for women with a score of 13 or more Repeat at least once later in pregnancy
Assess psychosocial risk factors	As early as practical in pregnancy	Further explore psychosocial risk as needed
Assess for anxiety symptoms	When conducting EPDS	Refer to relevant items of the EPDS
Assess maternal safety	Based on EPDS Q10 and clinical judgement	Manage immediate risk and arrange specific assessment
Enquire about emotional wellbeing	Every antenatal visit	Determine whether repeat assessments are required
Provide lifestyle advice	At least once during pregnancy	Focus on healthy eating, physical activity & sleep hygiene
Psychological preparation for parenthood	At least once during pregnancy	Focus on coping, problem-solving and decision-making skills and psychosocial issues
Postnatal period	**When**	**Comments**
Assess for depressive symptoms (EPDS)	6–12 weeks after birth	Arrange further assessment for women with a score of 13 or more Repeat at least once in the first postnatal year
Assess psychosocial risk factors	6–12 weeks after birth	Further explore psychosocial risk as needed
Assess for anxiety symptoms	When conducting EPDS	Refer to relevant items of the EPDS
Assess maternal safety	Based on EPDS Q10 and clinical judgement	Manage immediate risk and arrange specific assessment
Assess mother–infant interaction	At postnatal contacts	If there are concerns, consult with or refer to appropriate specialist service
Assess infant safety	Difficulties with mother-infant interaction observed	Manage immediate risk and refer for mother-infant intervention
Enquire about emotional wellbeing	Every antenatal and postnatal visit	Determine whether repeat assessments are required
Provide lifestyle advice	Early postnatal period	Focus on healthy eating, physical activity and sleep

PART C — PREVENTION AND TREATMENT

This section outlines the current evidence on the effectiveness of psychosocial, psychological, pharmacological and complementary therapies in preventing and treating mental health disorders in the perinatal period. For pharmacological, physical and complementary therapies, information on potential harms to the fetus or infant is also included. Interventions are defined in the Glossary.

10 General principles in prevention and treatment

Approaches to prevention and treatment of specific mental health disorders are discussed in detail in Chapters 11 to 13. This chapter outlines general principles in promoting emotional wellbeing.

10.1 Care planning

Care planning for a woman with a mental health disorder in the perinatal period sets out (NICE 2015):

- the care and treatment for the mental health disorder
- the roles of all healthcare professionals, including who is responsible for:
  - coordinating the integrated care plan
  - the schedule of monitoring
  - providing the interventions and agreeing the outcomes with the woman.

The healthcare professional responsible for coordinating the care plan should ensure that (NICE 2015):

- everyone involved in a woman's care is aware of their responsibilities
- there is effective sharing of information with all services involved and with the woman herself
- mental health (including mental wellbeing) is taken into account as part of all care plans
- all interventions for mental health problems are delivered in a timely manner, taking into account the stage of the pregnancy or age of the baby.

10.1.1 Providing information and advice

All women should be given culturally relevant information on mental health problems in pregnancy and the postnatal period, including their prevalence, risk factors and symptoms (NICE 2015).

Consensus-based recommendation

xiii. Educate all women about the importance of enquiring about, and attending to, any mental health issues that might arise across the perinatal period.

Additional information provided to women with mental health disorders and their significant other(s) should include (NICE 2015):

- the potential benefits of psychological interventions and pharmacological treatment
- the possible consequences of no treatment
- the possible harms associated with treatment
- what might happen if treatment is changed or stopped, particularly if pharmacological treatments are stopped abruptly.

Practice point

k. If a woman agrees, provide information to and involve her significant other(s) in discussions about her emotional wellbeing and care throughout the perinatal period.

10.1.2 Preconception planning

Discussion with all women of childbearing potential who have a new, existing or past mental health disorder should cover (NICE 2015):

- the use of contraception and any plans for a pregnancy
- how pregnancy and childbirth might affect a mental health disorder, including the risk of relapse
- how a mental health disorder and its treatment might affect the woman, the fetus and baby
- how a mental health disorder and its treatment might affect parenting.

Practice point

l. Provide advice about the risk of relapse during pregnancy and especially in the early postpartum period to women who have a new, existing or past mental health disorder and are planning a pregnancy.

10.1.3 Planning care for women with severe mental illness

There are specific considerations in planning care for women with severe mental illness, with priority being given to ensuring that mental health professionals involved in their care take into account the complexity of these conditions.

Practice points

m. For women with schizophrenia, bipolar disorder or borderline personality disorder, a multidisciplinary team approach to care in the perinatal period is essential, with clear communication and continuity of care across different clinical settings.

n. Where possible, health professionals providing care in the perinatal period should access training to improve their understanding of the challenges of caring for women with schizophrenia, bipolar disorder and borderline personality disorder.

10.2 Use of pharmacological treatments

While approaches to the pharmacological prophylaxis and treatment of mental health disorders during the perinatal period are not likely to differ from approaches at other times, the potential for harm to the fetus and the breastfed infant must be carefully balanced with the potential harm to mother and offspring if the mother remains untreated. In view of this, medications should only be prescribed after careful deliberation with the woman (and her significant other[s]). Ongoing monitoring and evaluation will be required.

It should be noted that the information on pharmacological treatments in this section is based on the best available evidence, up to September 2016 (the cut-off for the systematic literature review conducted for this Guideline). The evidence base is evolving as new research frequently emerges.

10.2.1 Quality of the evidence

The evidence on harm to the fetus from pharmacological treatments is of low to very low quality as it is beset by methodological limitations, the greatest being reliance on observational studies (as RCTs cannot be conducted on ethical grounds in pregnant women). Other limitations include: a lack of adequate comparison groups (e.g. an unmedicated depressed group); study samples being heterogeneous and underpowered; and significant risk of bias and imprecision in outcome measures.

10.2.2 Discussing risks and benefits

Whenever pharmacological treatment is prescribed to women who are planning a pregnancy, pregnant or breastfeeding, a risk/benefit analysis needs to be performed with consideration given to the risks for the mother as well as the risks to the fetus, and the risks to either of non-treatment.

Practice point

o. Discuss the potential risks and benefits of pharmacological treatment in each individual case with the woman and, where possible, her significant other(s).

Discussion about the possible risks of mental health problems or the benefits and harms of treatment in pregnancy and the postnatal period should include the following, depending on individual circumstances (NICE 2015):

- the likely benefits of each treatment, taking into account the severity of the mental health problem
- the woman's response to any previous treatment
- the background risk of harm to the woman and the fetus or baby associated with maternal mental health problems and the risk to mental health and parenting associated with no treatment
- the possibility of the sudden onset or relapse of symptoms of mental health problems in pregnancy and the postnatal period, particularly in the first few weeks after childbirth (e.g. in women with bipolar disorder)

- the risks or harms to the woman and the fetus or baby associated with each treatment option
- the need for prompt instigation of treatment and monitoring for treatment response because of the potential effect of an untreated mental health problem on the fetus or baby and woman's ability to transition optimally to the parenting role
- the risk of harm to the woman and the fetus or baby associated with stopping or changing a treatment
- the side effects of any medication taken by the woman (especially gestational diabetes, increased bleeding and hypertension).

Practice point

p. Ensure that women are aware of the risks of relapse associated with stopping medication and that, if a medication is ceased, this needs to be done gradually and with advice from a mental health professional.

When discussing the benefits and risks of treatment with a woman and her significant other(s) (NICE 2015):

- acknowledge the woman's central role in reaching a decision about her treatment and that the role of the professional is to inform that decision with balanced and up-to-date information and advice
- use *absolute risk* values based on a common denominator (that is, numbers out of 100 or 1,000) rather than *relative risk* values to more accurately reflect risk to the woman.
- acknowledge and describe, if possible, the uncertainty around any estimate of risk, harm or benefit
- use high-quality decision aids in a variety of numerical and pictorial formats that focus on a personalised view of the risks and benefits
- consider providing records of the consultation, in a variety of visual, verbal or audio formats.

10.2.3 Planning for breastfeeding

Breastfeeding should be discussed with women who may need pharmacological treatment in pregnancy or in the postnatal period (NICE 2015). This may include the benefits of breastfeeding, the potential risks associated with taking medication when breastfeeding and with stopping some medications in order to breastfeed.

Practice point

q. Discuss treatment (medication and psychological) options that would enable a woman to breastfeed if she wishes and support women who choose not to breastfeed.

10.2.4 Pharmacological treatment during pregnancy

Information about specific mental health disorders and their pharmacological treatments is included in Chapters 11 to 13. This section provides guidance on specific considerations in the use and monitoring of effects of pharmacological treatments in pregnancy.

When pharmacological treatment is started in the perinatal period, considerations include (NICE 2015):

- seeking advice, preferably from a specialist in perinatal mental health
- choosing the medication with the lowest risk profile for the woman, fetus and baby, taking into account a woman's previous response to medication
- using the lowest effective dose (this is particularly important when the risks of adverse effects to the woman, fetus and baby may be dose related), but note that sub-therapeutic doses may lead to ineffective treatment of the mental health episode
- use a single drug, if possible, in preference to 2 or more drugs
- take into account that dosages may need to be adjusted in pregnancy.

Practice point

r. Ideally, treatment with psychoactive medications during pregnancy would involve close liaison between a treating psychiatrist or where appropriate the woman's GP, and her maternity care provider(s). In more complex cases, it is advisable to seek a second opinion from a perinatal psychiatrist.

As there is a risk of major malformation associated with the use of some antipsychotics and anticonvulsants in the first trimester (see Chapter 12), it is important that the 18–20 week ultrasound is conducted so that major malformations may be identified. This enables women and their significant other(s) to consider their options (e.g. receive counselling regarding the option of termination) and plan for additional care if the pregnancy continues (e.g. specialist management of the pregnancy and the baby).

Practice point

s. When exposure to psychoactive medications has occurred in the first trimester — especially with anticonvulsant exposures — pay particular attention to the 18–20 week ultrasound.

10.3 Postnatal care and support

10.3.1 Observation of the newborn

Due to the risk of poor neonatal adaptation syndrome associated with the use of some pharmacological treatments in pregnancy, monitoring of exposed newborns is required.

Consensus-based recommendation

xiv. Where possible, arrange observation of infants exposed to psychoactive medications in pregnancy for the first three days postpartum.

10.3.2 Support in the early postnatal period

The early postnatal period is a time of emotional change for most women. Some women may experience distress or symptoms of depression if they feel overwhelmed and unable to manage. They may also experience disappointment and grief if something has gone wrong or their expectations of the pregnancy and birth are not realised. Early intervention, in the form of support or specific care, can help women to adjust and prevent more serious mental health problems from developing. The early postnatal period is also the time when symptoms of postpartum psychosis emerge.

Women with severe mental illness may find the early postnatal period particularly distressing for many reasons, particularly as their attachment with the baby may be compromised. Ensuring partner, family or paid (e.g. nanny) support overnight can be important to ensure the woman can sleep at night. Sleep deprivation is a common trigger for relapse so prevention is worthwhile.

Women with borderline personality disorder are especially likely to have difficulties in the emotional care of the infant and will benefit from programs from early infancy to promote attachment, improve parenting sensitivity and reduce the risk of poor child outcome (Newman 2015)

Practice points

t. Before the birth of the baby, consider access to interventions to support parenting skills and mother-infant attachment for women with schizophrenia, bipolar disorder, severe depression or borderline personality disorder.

u. When caring for mothers with severe mental illness, including borderline personality disorder, it is important to ensure that child protection risks are understood and addressed, if necessary.

10.3.3 Women requiring inpatient care in the postnatal period

The early postnatal period is a time when relapse of severe mental health disorders is common and when some women who have not previously had symptoms experience postpartum psychosis. When symptoms are severe enough to warrant hospital admission, co-admission with the baby will assist with the development of mothercraft skills and a positive relationship with the baby. This approach may not be appropriate for women who are severely unwell and incapable of caring for the baby and/or the safety of the baby may be compromised.

Consensus-based recommendation

xv. If a mother with a severe postnatal episode requires hospital admission, avoid separation from her infant with possible co-admission to a specialist mother-baby unit where facilities are available and appropriate.

11 Depressive and anxiety disorders

A range of psychosocial, psychological and pharmacological therapies have been evaluated for their effect in preventing and treating depressive and anxiety disorders in the perinatal period. This section summarises the current evidence on therapies that have been found to be effective.

11.1 Women at risk of depressive or anxiety disorders

Many psychosocial and psychological approaches to preventing depressive and anxiety disorders in the perinatal period have been evaluated and found to have no preventive effect (low to high quality).

Psychosocial interventions that have shown some preventive effect are:

- psychoeducation that is informed by psychological principles and uses techniques from cognitive behavioural therapy (CBT) and interpersonal psychotherapy (IPT) (individual or face-to-face) (low quality) (NICE 2015)
- mindfulness-based cognitive therapy among pregnant women with a history of severe depression who are not currently depressed (Dimidjian et al 2016).

11.2 Women with mild to moderate depression or anxiety

11.2.1 Psychosocial support

Psychoeducation

Structured psychoeducation improves depression symptoms among women in the perinatal period (high quality) (NICE 2015).

Evidence-based recommendation	**Strong**
4. Provide structured psychoeducation to women with symptoms of depression in the perinatal period.	

Social support

Involvement in a social support group may improve depression symptoms among women in the postnatal period (low quality) (NICE 2015).

Evidence-based recommendation	**Conditional**
5. Advise women with symptoms of depression in the postnatal period of the potential benefits of a social support group.	

Physical activity

Among pregnant women with a diagnosis of depression, integrated yoga (with Tai chi) may improve depression mean scores (very low quality) (Gong et al 2015).

Among women in the postnatal period with symptoms of depression, physical activity (e.g. pram walking exercise program) may improve depression mean scores (very low quality) (NICE 2015).

11.2.2 Psychological approaches

Individual structured psychological interventions

Individual structured psychological interventions (CBT or IPT) in the perinatal period reduce depression diagnosis (high quality) and depression mean scores (moderate quality) and may improve depression symptoms (low quality) among women with symptoms or a diagnosis of depression (NICE 2015).

Evidence-based recommendation	**Strong**
6. Recommend individual structured psychological interventions (cognitive behavioural therapy or interpersonal psychotherapy) to women with mild to moderate depression in the perinatal period.	

Facilitated self-help versus treatment as usual

Facilitated self-help based on cognitive behavioural principles and using a workbook or internet delivery with online or telephone support for women with symptoms of depression (NICE 2015):

- may improve anxiety symptoms during pregnancy (very low quality)
- improves depression mean scores in the postnatal period (high quality)
- may improve depression symptoms in both pregnancy and the postnatal period (very low quality).

Consensus-based recommendation

xvi. Advise women with symptoms of depression in the perinatal period of the potential benefits of facilitated self-help.

Directive counselling

Among women in the postnatal period with a diagnosis of depression, directive counselling — which includes supportive listening, problem-solving and goal setting — may improve depression and anxiety symptoms (low quality) (NICE 2015).

Evidence-based recommendation **Conditional**

7. Advise women with depression or anxiety disorder in the postnatal period of the possible benefits of directive counselling.

Post-traumatic birth counselling

Among women in the postnatal period with a diagnosis of post-traumatic stress disorder (PTSD), individual post-traumatic birth counselling may improve depression symptoms and PTSD mean scores (low quality) (NICE 2015).

Consensus-based recommendation

xvii. Advise women who experience traumatic birth of the potential benefits of post-traumatic birth counselling if they are experiencing depressive symptoms or PTSD.

Mother–infant relationship interventions versus treatment as usual or enhanced treatment as usual

Among women with depression, individual mother–infant interventions may improve mother–infant attachment problems (very low quality) and mother-infant behavior management problems (low quality) (NICE 2015).

Consensus-based recommendation

xviii. For women with postnatal depression who are experiencing mother–infant relationship difficulties, consider provision of or referral for individual mother–infant relationship interventions.

11.2.3 Complementary therapies

Omega-3 fatty acids

Omega-3 fatty acid supplements do not appear to improve depression symptoms (very low quality) (NICE 2015). However, there is no evidence of harms to the fetus when they are taken during pregnancy, with risk of early preterm birth (<34 weeks) (moderate quality) and preterm birth (<37 weeks) slightly reduced (high quality) (Kar et al 2016) and no association with increased risk of intrauterine growth restriction (moderate quality) (Saccone et al 2015). Taken during pregnancy and breastfeeding, these supplements did not reduce cognitive, language or motor development in the infant or child (Gould et al 2013). There was no evidence for an increased risk of postpartum haemorrhage in the studies assessed.

Evidence-based recommendation **Conditional**

8. Advise women who enquire about omega-3 fatty acid supplementation that it does not appear to improve depression symptoms but is not harmful to the offspring when taken during pregnancy or while breastfeeding.

St John's wort

No evidence was identified on the effectiveness of St John's wort in treating depression in the perinatal period and no conclusions on its safety could be drawn due to the inadequate quality of the evidence. St John's wort is known to interact with SSRIs (increased serotonergic effects) and anticonvulsants (reduced blood levels) (TGA 2001).

Consensus-based recommendation

xix. Advise pregnant women who enquire about St John's Wort that the evidence on potential harms to the fetus is limited and uncertain and that use of this treatment during pregnancy is not recommended.

Ginkgo biloba

No evidence was identified on either the effectiveness of Gingko biloba in treating depression in the perinatal period or on potential harms to the fetus.

Consensus-based recommendation

xx. Advise pregnant women who enquire about Gingko biloba that the potential harms to the fetus have not been researched, and that use of this treatment during pregnancy is not recommended.

Acupuncture

There is very low quality evidence that depression-specific acupuncture is more effective than non-depression-specific acupuncture in improving response to treatment (NICE 2015).

11.3 Women with moderate to severe depressive or anxiety disorder

For women with moderate to severe anxiety or depressive disorders, the first-line treatment is pharmacological, with psychological therapies usually best introduced once medication(s) have become effective.

11.3.1 Pharmacological treatments

Antidepressants during pregnancy

There is high quality RCT evidence of the efficacy of antidepressants in the general population (NICE 2009; updated 2016). The evidence on their specific effectiveness in pregnancy is limited (but is not expected to be any different to that in the general population) and, while any increases in absolute risk of less optimal birth outcomes or harm to fetus are small, the quality of evidence is poor (see also Section 10.2.1).

Neonatal mortality

First trimester use of selective serotonin reuptake inhibitors (SSRIs) or tricyclic antidepressants (TCAs) does not appear to be associated with an increased risk of neonatal mortality (very low quality) (Ban et al 2012).

Major or cardiac malformations

Use of SSRIs in the first trimester is not associated with major (Simon et al 2002; Ban et al 2014; Berard et al 2015) or cardiac (Margulis et al 2013; Ban et al 2014; Huybrechts et al 2014; Berard et al 2015; Furu et al 2015; Petersen et al 2016) malformations (very low quality). However, use of sertraline during the first trimester of pregnancy may be associated with an increased risk of septal malformation in the newborn (very low quality) (Berard et al 2015). There does not appear to be an association between major malformation in the newborn and first trimester use of TCAs (very low quality) (Simon et al 2002; Ramos et al 2008; Ban et al 2014) or venlafaxine (very low quality) (Oberlander et al 2008a).

Small-for-gestational age

There does not appear to be an association between use of SSRIs at any time during pregnancy and the newborn being small for gestational age (low quality) (Oberlander et al 2006).

Miscarriage and preterm birth

The risk of miscarriage is increased with use of SSRIs or SNRIs in the first 20 weeks of pregnancy and first trimester use of TCAs (low quality) (Ban et al 2012; Almeida et al 2016). Assessment of the evidence on individual SSRIs found an association between increased risk of miscarriage and paroxetine (low quality) but not fluoxetine, sertraline or fluvoxamine (very low quality) (Nakhai-Pour et al 2010). SSRI use in late pregnancy is associated with a slight increase in risk of preterm birth (low quality) (Grzeskowiak et al 2012).

Neonatal outcomes

There are small increases in absolute risk for:

- convulsions in the newborn (low quality) (Hayes et al 2012).
- persistent pulmonary hypertension in the newborn (low quality) (Huybrechts et al 2015)

- respiratory distress or difficulty in the newborn (very low quality) (Malm et al 2015)
- poor neonatal adaptation syndrome with use in the third trimester compared with use of SNRIs in the same period (very low quality)(Kieviet et al 2015).

Childhood neurobehavioural outcomes

Maternal use of SRIs during pregnancy does not appear to be associated with reduced IQ or increased risk of behavioural problems in children aged 3–6 years (very low quality) (Nulman et al 2015).

Maternal birth outcomes

Maternal use of SSRIs, SRIs and serotonin-norepinephrine reuptake inhibitor (SNRIs) at any time during pregnancy appears to be associated with increased risk of postpartum haemorrhage (inadequate to very low quality) (Jiang et al 2016).

Evidence-based recommendation **Conditional**

9. Consider the use of SSRIs as first-line treatment for moderate to severe depression in pregnant women.

If SSRIs are prescribed, consider the woman's past response to SSRI treatment and whether she has risk factors for miscarriage (e.g. thyroid dysfunction) or preterm birth (e.g. previous preterm birth, active smoking during pregnancy), factors that may increase risk of postpartum haemorrhage and the half-life of the treatment (e.g. risk of poor neonatal adaptation syndrome is increased with SSRIs with a short half-life such as paroxetine).

Practice point

v. Before choosing a particular SSRI for pregnant women, consider the woman's past response to SSRI treatment, obstetric history (e.g. other risk factors for miscarriage or preterm birth) and any factors that may increase risk of adverse effects.

Antidepressants in the postnatal period

There is high quality evidence for efficacy of antidepressants in the general population (NICE 2009; updated 2016). Compared to placebo, treating postnatal depression with an SSRI is associated with good response and remission in a significant proportion of women at 6–8 weeks post-treatment. Effectiveness does not differ significantly between SSRIs and TCAs (Molyneaux et al 2014; NICE 2015).

Compared to exposure to the fetus in pregnancy, exposure to SSRIs and TCAs through breast milk is very low and there is an even greater need to treat depression postnatally (given its effect on the woman's ability to care for the infant and on mother–infant attachment).

Evidence-based recommendation **Strong**

10. Recommend the use of SSRIs as first-line treatment for moderate to severe depression in postnatal women.

The effects of exposure to SSRIs may be increased in preterm or otherwise unwell infants.

Practice point

w. Before prescribing SSRIs to women who are breastfeeding, consider the infant's health and gestational age at birth.

Benzodiazepines and non-benzodiazepine hypnotics

Benzodiazepines are an accepted treatment for anxiety symptoms and panic attacks in the general population. There is evidence that their use in pregnancy is not associated with increased risk of major malformation in the newborn (very low quality) (Oberlander et al 2008b). There is uncertainty about the association with other outcomes due to the inadequate quality of the evidence.

Consensus-based recommendation

xxi. Consider the short-term use of benzodiazepines for treating moderate to severe symptoms of anxiety while awaiting onset of action of an SSRI or TCA in pregnant or postnatal women.

There is evidence of an increased risk of respiratory difficulty in the newborn following repeated late pregnancy exposure to long-acting benzodiazepines (very low quality) (Wikner et al 2007). The risk of poor

neonatal adaptation syndrome is increased with use of benzodiazepines with short-acting or long-acting benzodiazepines (due to accumulation).

Practice point

x. Use caution in repeated prescription of long-acting benzodiazepines around the time of the birth.

There is a lack of evidence regarding potential harms to the fetus associated with the use of non-benzodiazepine hypnotics (z-drugs) in the pregnant women.

Practice point

y. Use caution in prescribing non-benzodiazepine hypnotics (z-drugs) to pregnant women for insomnia.

Antihistamines

Practice point

z. Doxylamine, a Category A drug in pregnancy, may be considered for use as a first-line hypnotic in pregnant women who are experiencing moderate to severe insomnia.

11.3.2 Psychological interventions

The evidence on effective psychological therapies is summarised in Section 11.3.2.

Consensus-based recommendation

xxii. Advise women with moderate to severe anxiety and depressive disorders that first-line treatment is pharmacological and that psychological interventions are a useful adjunct once medications have become effective.

12 Severe mental illnesses: schizophrenia, bipolar disorder and postpartum psychosis

This chapter provides guidance specific to schizophrenia, bipolar disorder and postpartum psychosis. It should be read in conjunction with the advice in Chapter 10, which includes general principles on prevention and treatment.

12.1 Preconception planning

Preconception planning should start at diagnosis of a severe mental illness among women of childbearing age. Many of these women will have poor health literacy and will need clear explanations of the importance of contraception if the woman is not planning a pregnancy, the effects of some medications on fertility, the risk of relapse in pregnancy or after the birth (particularly if medications are stopped) and the complexities of raising a child in the context of severe mental illness. These comments are particularly applicable to women with schizophrenia and more severe bipolar disorder.

Preconception planning should include discussion of pharmacological treatments to be used after the birth, which will involve decision-making by the woman about whether she will breastfeed (e.g. if it is planned that lithium be used postnatally).

12.2 Considerations in providing antenatal and postnatal care

12.2.1 Antenatal care

In addition to the general principles outlined in Chapter 10, key considerations in providing antenatal care to women with severe mental illness include:

- monitoring for early signs of relapse, particularly as medication is often ceased (by the woman and/or her doctor) before or during pregnancy
- education about nutrition and ceasing smoking, illicit substance use and alcohol intake in pregnancy
- monitoring for excessive weight gain in women taking antipsychotics and for an increased risk of gestational diabetes
- referral for multi-dimensional care planning early enough in the pregnancy (particularly if the pregnancy is unplanned) to build trusting relationships and develop a safety net for mother, baby and significant others.

12.2.2 Postnatal care

Careful monitoring is required in the first month after birth for women with severe mental illness, especially those with bipolar disorder, with regular review in the following months. Sleep preservation is an important consideration.

If relapse of severe mental illness occurs, co-admission to a mother and baby unit is recommended. In some instances, it may be necessary for women to cease breastfeeding if they are too unwell, require night-time sedation, or sleep disruption (to feed the infant) would have an adverse effect on their mental state.

Access to specialist intervention to support parenting skills, including the role of partners and significant others, and attend to the mother-infant attachment is a consideration for women with severe mental illness and their families. Such an approach can best be taken in specialist mother-baby units, however, availability of publicly funded mother-baby units that cater to both the woman and her baby is variable across Australian jurisdictions.

12.3 Psychosocial and psychological treatments

Psychoeducation and supportive therapy that includes family and significant others is most important for women with severe mental illness. CBT and other psychological interventions (see Section 11.2) can be beneficial in managing secondary depression or anxiety, which are frequently associated with severe mental illness.

12.4 Pharmacological therapies

12.4.1 Antipsychotics

Antenatal period

There is high quality RCT evidence of efficacy of antipsychotics in the general population (NICE 2014; NICE 2014; updated 2016) and it is important to appropriately treat psychosis in pregnancy. Compared to SSRIs, the evidence base for use of antipsychotics (as a class of drugs) in pregnancy is still very limited. Based on low to very low quality evidence, antipsychotics (as a whole) in pregnancy do not appear to be associated with adverse pregnancy or neonatal outcomes nor birth defects (Lin et al 2010; Huybrechts et al 2016).

Evidence-based recommendation **Conditional**

11. Consider the use of antipsychotics for treating psychotic symptoms in pregnant women.

Looking at the evidence available for specific antipsychotics, first-trimester use of risperidone may be associated with an increase in absolute risk of major malformation and cardiac malformation (low quality) (Huybrechts et al 2016); and there may be an association between increased absolute risk of miscarriage and use of flupenthixol or quetiapine just prior to or during pregnancy (Sorensen et al 2015) (very low quality).

Consensus-based recommendation

xxiii. Use caution when prescribing any antipsychotic to pregnant women, particularly for women with a propensity for weight gain and metabolic syndrome.

There is a hypothetical but concerning risk of agranulocytosis in the infant with the use of clozapine in pregnancy.

Consensus-based recommendation

xxiv. Do not initiate use of clozapine in pregnant women.

Many antipsychotics are associated with weight gain in the general (non-pregnant) population (NICE 2014; NICE 2014; updated 2016), so the use of such agents during pregnancy increases the risk of gestational diabetes with consequent negative impacts on the newborn and the woman's reproductive health.

Consensus-based recommendation

xxv. If women commence or continue antipsychotic treatment during pregnancy, monitor them for excessive weight gain and the development of gestational diabetes.

Postnatal period

The evidence on the safety of clozapine in breastfeeding women is limited.

Practice point

aa. Use clozapine with caution in women who are breastfeeding and undertake weekly blood testing of the infant for the first six months of life

12.4.2 Anticonvulsants

Preconception

There is a risk of major malformation if conception occurs while a woman is taking anticonvulsants (Weston et al 2016).

Practice points

bb. Given their toxicity in pregnancy, only consider prescribing anticonvulsants (especially valproate) to women of child-bearing age if effective contraception is in place.

cc. Once the decision to conceive is made, if the woman is on valproate wean her off this over 2–4 weeks, while adding in high-dose folic acid (5 mg/day) which should continue for the first trimester.

Antenatal period

There is evidence of substantial increases in absolute risk of major malformation and cardiac malformation (Weston et al 2016) and adverse cognitive outcomes (Bromley et al 2014) (very low to low quality) associated with the use of sodium valproate in pregnancy.

Evidence-based recommendation **Strong**

12. Do not prescribe sodium valproate to women of childbearing age.

There is evidence that use of carbamazepine during pregnancy may be associated with an increased risk of major malformation in the newborn (very low quality) (Weston et al 2016) and uncertainty about whether lamotrigine may also have an association with increased risk of birth defects.

Consensus-based recommendation

xxvi. Use great caution in prescribing anticonvulsants to pregnant women and seek specialist psychiatric consultation when doing so.

Postnatal period

Due to the need to treat symptoms in the postnatal period (i.e. due to their potential effect on the woman's ability to care for the infant and on mother–infant attachment), consideration may be given to prescribing anticonvulsants for bipolar disorder.

There is uncertainty about the passage into breastmilk of some anticonvulsants (e.g. lamotrigine) and adverse effects in the infant.

Consensus-based recommendation

xxvii. If anticonvulsants are prescribed to a woman who is breastfeeding, arrange close monitoring of the infant and specialist neonatologist consultation where possible.

12.4.3 Lithium

Antenatal period

Maternal lithium requirements increase as pregnancy progresses, so monitoring of levels is advised and dose adjustment may be required. There is evidence that first trimester use of lithium in pregnancy may be associated with an increased risk of cardiac malformation (very low quality).

Consensus-based recommendation

xxviii. If lithium is prescribed to pregnant women, ensure that maternal blood levels are closely monitored and that there is specialist psychiatric consultation.

There is a sudden increase in lithium level at parturition as the woman's fluid balance shifts and returns to pre-pregnancy levels.

Practice point

dd. If lithium is prescribed to a pregnant woman, reduce the dose just prior to the onset of labour and aim to recommence treatment immediately after the birth at a pre-pregnancy dose.

Postnatal period

There is potential for high passage of lithium into breastmilk and risk of infant toxicity.

Consensus-based recommendation

xxix. Where possible, avoid the use of lithium in women who are breastfeeding.

13 Borderline personality disorder

Borderline personality disorder is a long-term, complex condition that waxes and wanes, has broad impact on socio-occupational function (especially parenting) and has substantial treatment and prognostic implications (NHMRC 2012). Borderline personality disorder often co-exists with depression, anxiety and substance use disorders. It can also be very difficult to differentiate borderline personality disorder from bipolar and post-traumatic stress disorders (NHMRC 2012). There is significant overlap between borderline personality disorder and bipolar disorder type 2 in terms of affective instability and impulsivity; however they remain distinct disorders (Henry et al 2001).

Borderline personality disorder is associated with high levels of morbidity and mortality (lifetime rates of approximately 70% for acts of self-injury, 80% for suicide attempts and 10% for suicide) (Kroger et al 2011). There is growing consensus that emotional dysregulation (also referred to as affective instability; see Section 1.2.3) is a core feature of borderline personality disorder, and was found to be the one DSM-III-R criterion distinguishing individuals with borderline personality disorder from those without (Clifton & Pilkonis 2007). Women with emotional dysregulation will find parenting very challenging (see Section 13.1.3). It is also clear that there are significant risks for offspring of women with borderline personality disorder of the inadvertent intergenerational transfer of mental health problems from mother to child (Eyden et al 2016).

The label 'borderline personality disorder' should be used with caution as it often has negative connotations (especially for health professionals) and may be associated with substantial stigma. Conversely, it is important to identify women with such a condition, as they, their family and treating health professionals will need additional resources and support over the perinatal period and beyond.

13.1 Considerations in providing antenatal and postnatal care

Women who have borderline personality disorder have often experienced sexual, physical or emotional abuse or neglect in childhood. In addition to emotional dysregulation, their behaviour is characterised by efforts to overcome their fear of abandonment; intense and unstable relationships; engaging in impulsive activities (e.g. substance use); talking about or engaging in self-harm and/or suicidal behaviours; inappropriate, intense anger or difficulty controlling anger; and transient, stress-related paranoid ideation or severe dissociative symptoms. These symptoms are particularly difficult to manage in the primary health care setting and the challenging behaviours targeted at staff may make it difficult for health professionals to work optimally with them

Practice point

ee. For women with borderline personality disorder who have often experienced complex trauma, trauma-informed care and specific support for health professionals in dealing with challenging behaviours is a priority.

13.1.1 Preconception planning

While in Australia borderline personality disorder is becoming better recognised, formally diagnosed and discussed with women, many women with emotional dysregulation and/or their treating health professionals may not be aware that the diagnosis makes preconception planning challenging. A first step may be a diagnostic discussion when there is clarity that this approach is likely to be therapeutic.

Multidisciplinary care

As borderline personality disorder is associated with several adverse obstetric and neonatal outcomes (see Section 1.2.3), women with the disorder should be monitored closely by a multidisciplinary health care team before and during their pregnancies (Pare-Miron et al 2016). This approach would aim to optimise management of challenging symptoms and behaviours and address the frequency of comorbid substance misuse and other conditions.

Planning for support during and after pregnancy

Considerations in preconception planning include the woman's capacity for parenting, her support network and other support available in the antenatal period, the need for additional support and parenting interventions in the postnatal period (see Section 13.1.3) and treatment to assist in managing emotional dysregulation and preparing for pregnancy and parenting (see Section 13.2).

Practice point

ff. Advise women with borderline personality disorder who are planning a pregnancy, of the additional challenges of parenting associated with their emotional dysregulation, and the importance of ongoing support during and after pregnancy.

13.1.2 Antenatal care

Health professionals involved in the antenatal care of women with borderline personality disorder should be aware that women who have experienced physical or sexual abuse or complex traumas may experience distress when touched (e.g. when vaginal examination is conducted), that birth may be anticipated as traumatic and that early or caesarean delivery is frequently requested. The woman's emotional dysregulation may cause distress for herself, her family and treating health professionals. A team approach for all health professionals involved in a woman's care, with good open regular communication, is likely to be beneficial to her care.

13.1.3 Postnatal care

The early postnatal period can be particularly distressing for women with borderline personality disorder as they may find normal infant crying intrusive and unsettling. Issues arising for women with borderline personality disorder in the perinatal period reflect possible unresolved early trauma (Newman 2015).

Women with borderline personality disorder are more likely to have difficulties in the emotional care of the infant and in promoting secure attachment (Newman 2015) (see Section 10.1.3). These mothers are also more likely than others to have experienced sexual trauma and exploitation in relationships and to be experiencing domestic violence (Newman 2015).

It is important to ensure that child protection risks are understood and addressed, if necessary. Intensive maternal child health care is advisable and targeted mother–infant therapy (individual or with a group of women with similar requirements for help with their emotional dysregulation) may be considered after other more acute symptoms are controlled.

Practice point

gg. Where possible, before the birth of the baby, pre-arrange access to enhanced maternal child health care for women with borderline personality disorder.

13.2 Psychosocial support and psychological treatments

Psychological and psychosocial therapies are the preferred treatment for borderline personality disorder.

13.2.1 Psychological therapies

A range of structured psychological therapies have been evaluated in the treatment of borderline personality disorder in the general population (NHMRC 2012; Cristea et al 2017). These include CBT, IPT, dialectical behaviour therapy (DBT), mentalisation-based therapy (MBT), schema-focussed psychotherapy (SFT), systems training for emotional predictability and problem solving (STEPPS) and transference-focussed psychotherapy (TFP).

DBT is effective in treatment of borderline personality disorder, with effects including a decrease in inappropriate anger, a reduction in self-harm and an improvement in general functioning (Stoffers et al 2012). While other treatments have been less evaluated, overall findings support a substantial role for psychotherapy in treating borderline personality disorder.

In clinical trials, the duration of treatment for borderline personality disorder ranged from 13 weeks to several years (NHMRC 2012). In clinical practice, some therapies (e.g. DBT) are usually continued for substantially longer periods.

Consensus-based recommendation

xxx. Where possible and appropriate, provide women with borderline personality disorder with structured psychological therapies that are specifically designed for this condition and conducted by adequately trained and supervised health professionals.

13.2.2 Psychosocial support

While specialist psychological treatments are the preferred treatment for borderline personality disorder, these take time to have an effect and other more generic psychological approaches are also required so that women are assisted in managing their emotional dysregulation and are better prepared for pregnancy and early parenthood.

Practice point

hh. Encourage pregnant or postnatal women with borderline personality disorder to undertake mindfulness and/or relaxation training to assist in managing their emotional dysregulation.

13.3 Pharmacological treatments

Overall, pharmacological treatments do not appear to be effective in altering the nature and course of borderline personality disorder (NHMRC 2012). However, they may be useful in the short-term in controlling more acute symptoms.

Consensus-based recommendation

xxxi. As far as possible, do not use pharmacological treatments as the primary therapy for borderline personality disorder, especially in pregnant women.

The risks associated with the use of pharmacological treatments in the perinatal period is discussed in Sections 10.2 (general principles), 11.3.1 (antidepressants and benzodiazepines) and 12.3 (mood stabilisers and antipsychotics). In addition to these risks, if a pharmacological treatment is prescribed to a woman with borderline personality disorder, consideration should be given to avoiding medications that may be lethal in overdose (because of the high risk of suicide) or are associated with substance dependence.

14 Electroconvulsive therapy

Electroconvulsive therapy (ECT) is a safe and effective treatment for the more severe forms of depression. In practice, it is usually reserved for people who have not responded to several trials of medication. ECT is recommended as first-line treatment in severe melancholic depression, particularly when the patient refuses to eat or drink and/or there is a high suicide risk, when the patient has very high levels of distress, has psychotic depression, catatonia or has previously responded to ECT (Malhi et al 2015). It may also be considered in the treatment of mania, severe mixed episodes of bipolar disorder and postpartum psychosis.

Consensus-based recommendations

xxxii. Consider ECT when a postnatal woman with severe depression has not responded to one or more trials of antidepressants of adequate dose and duration.

xxxiii. Consider ECT as first-line treatment for postnatal women with severe depression especially where there is a high risk of suicide or high level of distress; when food or fluid intake is poor; and in the presence of psychotic or melancholic symptoms.

ECT may be prescribed by a perinatal psychiatrist for pregnant women who meet the criteria above. Specific considerations include the risk of induction of premature labour associated with ECT and the risk of reduced fetal heart rate associated with maternal anaesthesia (Lakshmana et al 2014).

For pregnant women, cardiotocography is required pre-ECT, during ECT and in recovery and should be monitored by an expert health professional who can deliver the baby if necessary. For women in the third trimester, advice on obstetric anaesthesia is required.

In all situations, it is essential to have care plans and clear communication about ECT between obstetric care providers and the woman's psychiatrist.

Practice point

ii. In pregnant women, ECT should be only be undertaken in conjunction with close fetal monitoring (using cardiotocography to monitor slowing of fetal heart rate) and access to specialist maternal-fetal medical support.

15 Practice summary — prevention and treatment

General principles in prevention and treatment of mental health disorder in the perinatal period

Action	For whom	Comments
Provide psychoeducation	All women	Mental health problems are common in the perinatal period and can be treated
Involve significant other(s)	All women	Provide information and involve in discussions about the woman's emotional wellbeing and care
Preconception planning	Women of childbearing age with new, existing or past severe mental health disorder	Risk of relapse is substantial in pregnancy and especially in the early postnatal period
Liaise with other health professionals involved in a woman's care	Women who would benefit from pharmacological treatment during pregnancy	This involves clear communication between professionals providing antenatal and maternity care and treating psychiatrists and psychologists. In more complex cases, seek advice from a perinatal psychiatrist
Discuss risks and benefits of medications	Women being prescribed/considering medications in the perinatal period	Where possible, involve significant other(s). Describe absolute risk (i.e. X in 1,000) when discussing risk of birth defects above the risk in the general population.
Discuss risk of relapse	Women on regular medication who fall pregnant and then consider medication cessation	Risk is high if medications are ceased and this needs to be done slowly and with advice from a psychiatrist or GP
Plan for breastfeeding where feasible	Women who will need pharmacological treatment during the postnatal period	Examine the best treatment options for a woman who wishes to breastfeed
Ensure 18–20 week ultrasound is conducted	Women exposed to lithium, anticonvulsants and antipsychotics	Identifies malformations and enables women and significant other(s) to consider options and plan for additional care
Arrange appropriate observation of the newborn	Mothers of infants exposed to any psychotropic medication in pregnancy	Poor neonatal adaptation syndrome is associated with the use of some psychotropic treatments in pregnancy
Arrange co-admission of mother and baby to a mother-baby unit, where possible	Women with a severe postnatal episode	Assists with monitoring safety of the infant, the development of mothercraft skills and a positive relationship with the baby
Action	**By whom**	**Comments**
Take a team approach	Health professionals involved in care of women with severe mental illness	Clear communication and continuity of care across clinical settings is needed
Undertake training	Perinatal health professionals involved in care of women with severe mental illness	Improves understanding of the challenges of caring for women with severe mental illness

Psychosocial and psychological therapies

Lifestyle and psychosocial support	**For whom**	**Comments**
Regular, suitable physical activity	All women	Women with or without symptoms will benefit from physical activity
Psychologically informed psychoeducation	Women with symptoms of depression and/or anxiety	Structured education (often in groups) on preparation for childbirth, practical aspects of childcare and mental health
Social support group	Women with symptoms of depression and/or anxiety	Enables mutual support by bringing women into contact with other women who are having similar experiences
Mindfulness or relaxation training	Women with borderline personality disorder	Assists in managing emotional dysregulation
Enhanced maternal and child health care	Women with borderline personality disorder	The early postnatal period can be particularly distressing, with difficulties in care and emotional parenting of the infant
Psychological therapy	**For whom**	**Comments**
Structured psychological interventions	Women with mild to moderate depression	CBT or IPT provided to individuals by a trained health professional
	Women with moderate to severe depression	As an adjunct once medications have become effective
	Women with severe mental illness	CBT can be beneficial in managing secondary depression or anxiety
	Women with borderline personality disorder	Interventions specifically designed for borderline personality disorder
Facilitated self-help	Women with symptoms of mild to moderate depression	Based on cognitive behavioural principles — workbook or internet delivery with online or telephone support
Directive counselling	Women with mild to moderate depression or anxiety disorder	Involves supportive listening, problem-solving and goal setting
Post-traumatic birth counselling	Women who experience traumatic birth and have depression symptoms or PTSD	Involves explaining what happened during birth; giving women an option to discuss labour, birth, and post-birth experiences; answering any questions
Mother-infant interventions	Women with postnatal depression experiencing mother–infant difficulties	Involves observation of mother–infant interactions, feedback, modelling and cognitive restructuring
	Women with severe mental illness, borderline personality disorder	Provided individually or to groups of women with similar requirements
Complementary therapies	**For whom**	**Comments**
Complementary therapies (e.g. omega-3 fatty acids, St John's wort)	Women who enquire about complementary therapies	Omega-3 fatty acids may be used in pregnancy but not as sole treatment for depression. St John's wort and Gingko biloba are not recommended.

Increase in absolute risk of adverse outcomes associated with pharmacotherapy during pregnancy

Outcome	Medication	Increase in absolute risk	Timing
Antidepressants and anxiolytics			
Miscarriage	SSRIs	From 81 to 109 per 1,000	First 20 wks
	SNRIs	From 81 to 138 per 1,000	
	TCAs	From 81 to 107 per 1,000	First trimester
Preterm birth	SSRIs	From 60 to 161 per 1,000	Late pregnancy
Neonatal convulsions	SSRIs	From 3 to 4 per 1,000 (1 prescription filled) From 3 to 15 per 1,000 (3 prescriptions filled)	3rd trimester
Persistent pulmonary hypertension	SSRIs	From 3 to 4 per 1,000	Late pregnancy
Septal defects	Sertraline	From 3 to 4 per 1,000	1st trimester
Respiratory distress or difficulty	SSRIs	From 32 to 45 per 1,000	During pregnancy
	Benzodiazepines	From 32 to 72 per 1,000	Late pregnancy
Antipsychotics			
Major malformation	Risperidone	From 33 to 42 per 1,000	First trimester
Cardiac malformation	Risperidone	From 15 to 25 per 1,000	First trimester
Miscarriage	Flupenthixol	From 136 to 211 per 1,000	During or just prior to pregnancy
	Quetiapine	From 136 to 224 per 1,000	
Anticonvulsants			
Major malformation	Sodium valproate	From 28 to 88 per 1,000	During pregnancy
	Carbamazepine	From 28 to 42 per 1,000	
Cardiac malformation	Sodium valproate	From 6 to 29 per 1,000	During pregnancy
Lithium			
Cardiac malformation	Lithium	From 6 to 29 per 1,000	During pregnancy

Therapeutic Goods Administration categorisation of medicines

Category	
A	Medicines which have been taken by a large number of pregnant women and women of childbearing age without any proven increase in the frequency of malformations or other direct or indirect harmful effects on the fetus having been observed.
B1	Medicines which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed. Studies in animals have not shown evidence of an increased occurrence of fetal damage.
B2	Medicines which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed. Studies in animals are inadequate or may be lacking, but available data show no evidence of an increased occurrence of fetal damage.
B3	Medicines which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed. Studies in animals have shown evidence of an increased occurrence of fetal damage, the significance of which is considered uncertain in humans.
C	Medicines which, owing to their pharmacological effects, have caused or may be suspected of causing, harmful effects on the human fetus or neonate without causing malformations. These effects may be reversible. Accompanying texts should be consulted for further details.

Category	
D	Medicines which have caused, are suspected to have caused or may be expected to cause, an increased incidence of human fetal malformations or irreversible damage. These medicines may also have adverse pharmacological effects. Accompanying texts should be consulted for further details.
X	Medicines which have such a high risk of causing permanent damage to the fetus that they should not be used in pregnancy or when there is a possibility of pregnancy.

PART D: AREAS FOR FUTURE RESEARCH

Since the 2011 Australian clinical practice guideline (*beyondblue* 2011) there have been considerable advances in research and innovation. While much of this new research was captured by the systematic review conducted for this Guideline and informed recommendations, research in emerging areas is ongoing and has not yet been published. This includes:

- exploration of digital approaches to screening — these include a standalone digital platform for screening and automated reporting across primary, maternity and postnatal settings, which will facilitate reporting at national, state and local levels; an electronic model of assessment integrated into existing maternity sector databases; and web-based applications for self-assessment of psychosocial risk and possible depression
- development of electronic information for consumers and carers by a range of organisations, with many of these linked to the Australian government mental health portal, mindhealthconnect
- internet-based interventions specific to mental health in the perinatal period
- electronic referral pathways, which have the potential to benefit consumers through better coordinated care and health professionals through improved two-way communication, resulting in fewer errors and greater administrative efficiency.

It is anticipated that this research will inform future iterations of this Guideline. The following sections highlight progress against the areas for future research identified in the 2011 Guideline and potential areas for future development to support the sustainable and measurable implementation of best practice.

Remainder to be developed following public consultation

APPENDICES

A Membership of the expert working group and subcommittees

Membership of the Expert Working Group

Representative	Expertise	Organisation Representing	Institutional Affiliation(s)	Location
Prof Marie-Paule Austin (Chair)	Perinatal Psychiatrist, Former Chair beyondblue Clinical Guideline, researcher and clinician working across private and public perinatal settings	Royal Australian and New Zealand College of Psychiatrists (RANZCP)	University of New South Wales, St John of God Healthcare, Royal Hospital for Women, Black Dog Institute.	Sydney, NSW
Dr Nicole Highet (Co-chair)	Former Co-Chair & Director beyondblue Clinical Guideline, online training programs & resources. Expertise in consumer/carer research, advocacy, policy & implementation	Centre of Perinatal Excellence (COPE)	Centre of Perinatal Excellence (COPE)	Flemington, Victoria
Dr James Best	General practitioner	Royal Australian College of General Practitioners (RACGP)	Your Doctors (Medical Practice)	Leichhardt & Summer Hill, NSW
Mr Andrew Davis	Carer Representative and volunteer at PANDA	Carer Representative	None	Melbourne, Victoria
Ms Suzanne Higgins	Mental health nurse and social worker with expertise clinical and educational expertise in perinatal mental health	Australian College of Mental Health Nurses (ACMHN)	St John of God Healthcare.	Geelong, Vic.
Dr Helen Lindner	Health psychologist and former member of the EWG for beyondblue perinatal guideline	Australian Psychological Society (APS)	Australian Psychological Society (APS)	Melbourne, Vic.
Ms Creina Mitchell	Clinician, researcher and educator in maternal and child health with expertise and interest in perinatal mental health	Maternal & Child Family Health Australia	Griffith University	Brisbane, Qld.
Ms Jenni Richardson	Consumer representative involved in the management of PANDA helpline with expertise in consumer needs, experiences and advocacy	Consumer representative Perinatal Anxiety and Depression Association (PANDA)	Perinatal Anxiety and Depression Association (PANDA)	Fitzroy, Vic
Prof Rhonda Marriott	Midwife, researcher and specialist in Aboriginal and Torres Strait Islander perinatal mental health	Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM)	Murdoch University	Perth, WA

Representative	Expertise	Organisation Representing	Institutional Affiliation(s)	Location
Dr Vijay Roach	Obstetrician with dedicated expertise in perinatal mental health. Chair of the Gidget Foundation (perinatal mental health support organisation) and carer.	Royal Australian College of Obstetricians and Gynaecologists (RANZCOG)	Royal North Shore Hospital	Sydney, NSW
Ms Terri Smith (from 28 April 2017)	CEO, Perinatal Anxiety and Depression Association (PANDA)	CEO, Perinatal Anxiety and Depression Association (PANDA)	Perinatal Anxiety and Depression Association (PANDA)	Fitzroy, Vic
Dr Jan Taylor	Clinician, researcher and educator in midwifery with expertise in perinatal mental health. Former member of the beyondblue EWG.	Australian College of Midwives (ACM)	Canberra University	Canberra, ACT

We would also like to acknowledge the contribution of the proxy representatives in the development of the Guideline.

- Dr Anne Sved Williams (proxy for Professor Marie-Paule Austin)
- Julie Ferguson (proxy for Ms Suzanne Higgins)
- Dr Louise Roufiele (proxy for Dr Helen Lindner)
- Dr Agnes Wilson (proxy for Dr Vijay Roach)
- Dr Catherine Chamberline (proxy for Professor Rhonda Marriott)

Membership of the Harms Expert Subcommittee

Representative	Expertise	Institutional Affiliation	Location
Prof Marie-Paule Austin (Chair)	Chair Perinatal Mental Health Unit, Professorial Fellow and Consultant Psychiatrist	University of New South Wales, Black Dog Institute, University of New South Wales.	Sydney, NSW
Prof Phillip Boyce	Professor of Psychiatry, Perinatal Psychiatrist	University of Sydney and Westmead Hospital.	Wentworthville, NSW
Prof Megan Gallbally	Foundation Chair in Perinatal Psychiatry & Perinatal Psychiatrist	University of Notre Dame, Fiona Stanley Hospital.	Perth, Western Australia
Dr Debra Kennedy	Director, Mothersafe	Royal Hospital for Women	Sydney, NSW.
Dr Tram Nguyen	Consultant Psychiatrist. Centre for Women's Mental Health	The Royal Women's Hospital	Melbourne, Victoria
Dr Anne Sved-Williams	Perinatal Psychiatrist Head, Medical Unit	Helen Mayo House Family Unit.	Glenside, South Australia

Membership of the Borderline Personality Disorder and Schizophrenia Subcommittee

Representative	Expertise	Institutional Affiliation	Location
Prof Marie-Paule Austin (Chair)	Chair Perinatal Mental Health Unit, Professorial Fellow and Consultant Psychiatrist	University of New South Wales, Black Dog Institute.	Sydney, NSW
Prof Phillip Boyce	Perinatal Psychiatrist & Professor of Psychiatry.	University of Sydney and Westmead Hospital.	Wentworthville, NSW
Prof Anne Buist	Perinatal Psychiatrist & Director, North-East Women's Mental Health Parent Infant Program	Austin Hospital and University of Melbourne	Heidelberg West, Victoria.
Dr Sylvia Lim-Gibson	Perinatal Psychiatrist and Conjoint Senior Lecturer UNSW	Royal Hospital for Women and University of New South Wales.	NSW
Dr Tram Nguyen	Consultant Psychiatrist. Centre for Women's Mental Health.	The Royal Women's Hospital	Melbourne, Vic.
Prof Louise Newman	Director, Centre of Women's Mental Health.	The Royal Women's Hospital	Melbourne, Vic.
Dr Anne Sved-Williams	Perinatal Psychiatrist. Head, Medical Unit.	Helen Mayo House Family Unit.	Glenside, South Australia.

Guideline development team

Guideline developer — COPE

Dr Nicole Highet, Executive Director

Systematic literature review — Hereco health research consulting

Dr Sarah Norris	Dr Kristina Harvey
Dr Sue Campbell	Dr Jennifer Ring
Ms Sherin Chikhani	Ms Rosie Wade

Technical writing — Ampersand Health Science Writing

Ms Jenny Ramson

B Administrative report

The Centre for Perinatal Excellence (COPE) has developed this draft Guideline with the aim of promoting the early identification of women with risk factors for or symptoms of mental health disorders in the perinatal period and to support health professionals in providing evidence-based advice on prevention and treatment.

Process of guideline development

The development of the draft Guideline has followed the key principles and processes outlined in *Procedures and Requirements for Meeting the 2011 NHMRC Standard for Clinical Practice Guidelines* (NHMRC 2011) and the 2016 NHMRC Standards for Guidelines.

Financial support

COPE acknowledges the financial support received for the development of this Guideline from the Commonwealth Department of Health and Ageing.

Editorial independence from funders

The commissioning of the Guideline Development to COPE as the national peak body in perinatal mental health ensures editorial independence from the Commonwealth as the funding body.

People involved in the guideline development process

COPE is a not-for-profit company, limited by guarantee. As detailed in the COPE constitution, the company's governance structure is made up of a Board and the company membership, which comprises of the *peak professional bodies representing primary and maternity care* and *consumer bodies* in perinatal mental healthcare in Australia.

Company members are as follows:

- Australian College of Mental Health Nurses (ACMHN)
- Australian College of Midwives (ACM)
- Australian Psychological Society (APS)
- Maternal Child and Family Health Nursing Association (MCaFNA)
- Post and Antenatal Depression Association (PANDA)
- Royal Australian College of General Practitioners (RACGP)
- Royal Australian New Zealand College of Obstetricians and Gynaecologists (RANZCOG)
- Royal Australian and New Zealand College of Psychiatrists (RANZCP)
- The Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM)

Nominated representatives from each of these bodies work with us to inform and shape COPE's work, and identify collaborative opportunities to improve outcomes of women, men and their families.

Formation of the Expert Working Group

On the commissioning of this Guideline, the Executive Director of COPE wrote to all company members, inviting their respective College or Organisation to nominate a representative for the Guideline Expert Working Group. In doing so the College was asked to consider the expertise and representation of the College in the area of perinatal mental health specifically.

The nominated members assigned to the Expert Working Group from their respective Colleges and Organisations is detailed in Appendix A.

Processes used to ensure consumer perspectives are incorporated

The establishment of the EWG with dedicated consumer and carer representation was considered fundamental to the inclusion of consumer and carer perspectives in the development of this Guideline. In particular the appointment of representatives from Australia's peak perinatal consumer body (PANDA) ensured that the perspectives of many consumers were included at the Expert Working Group level. It is also noted that a number of EWG Professional College representatives brought to the table expertise and insights from the lived experience of perinatal mental health.

In addition, the perspectives of consumers and carers will be facilitated through the consultation process, whereby those organisation and EWG representatives with access to consumers will play a key role in promoting the Guideline to their constituents in the consultation process.

Processes used to ensure perspectives of specific groups are incorporated

Aboriginal and Torres Strait Islander perspectives were captured through the inclusion of an EWG representative from Aboriginal and Torres Strait Islander background, who was also a health professional with a specialist background in perinatal mental health. As with all other members of the EWG who were nominated by their respective professional body, the representative was nominated on behalf of The Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM).

Processes used for declaration and management of competing interests

At the outset of the Guideline development process, all representatives were informed of the importance of managing competing interests and ensuring that any potential conflicts of interest were identified in advance of any meeting (as evidenced in meeting minutes). Processes put in place to manage any potential conflicts of interest were as follows:

- All EWG members and proxies involved in the Guideline development process were required to complete a Declaration of Interest Form (as per the NHMRC requirements). These signed and scanned forms were reviewed by the Co-Chairs of the EWG and are held by the Guideline developer.
- On sending out agenda papers, EWG members were informed of the arising agenda items and asked to notify the Chairperson in advance of the meeting of any potential conflicts of interest that had arisen since the most recent meeting.
- Any arising conflicts of interest were adjudicated by the Chair and Co-Chair. When a conflict of interest was declared by a EWG member, he or she was invited to take part and contribute to discussions but was asked to leave the room (or was not involved in email discussions) when recommendations were being formed. A conflict of interest held by the Chair was managed by the Co-Chair and the area of conflict clearly stated. The same provisions as for other members were applied.
- If a conflict of interest was deemed to be material prior to a meeting, the member was asked to continue to contribute to the committee, with the above measures taken to limit the introduction of bias.

Systematic literature review

The development of the draft Guideline was informed by a systematic literature review as discussed in Appendix C.

Formulation of recommendations and practice points

The process for formulation of recommendations is outlined in the Technical Report (see Section A3.4).

Public consultation

The draft Guideline was released for a 30-day public consultation, as required in the *NHMRC Act*, 1992 (as amended), so that the final guideline could be submitted for approval by the CEO of the NHMRC, under Item 14A *Approval by CEO of guidelines for third parties,* under the Act.

The public consultation began on 5 June 2017 and will formally end on 4 July 2017.

Summary of issues raised through the consultation process

To be developed following public consultation

Implementation and dissemination

As Australia's peak body in Perinatal Mental Health, the COPE, the Centre of Perinatal Excellence will provide leadership and collaborate with its membership to support and promote the implementation of the final Guideline.

The final complete Guideline, together with a series of companion documents and resources (see below), will be disseminated broadly through the implementation of the following strategies.

Overarching

- Production of Guideline and companion documents in electronic and hard copy formats.
- Placement of Guideline on key websites (COPE, Colleges, PANDA and the Commonwealth Government)
- E-dissemination of the Guideline through all professional bodies.
- National and targeted Media releases to announce the release of the new Perinatal Guideline.

Health Professionals (targeted)

- Writing and dissemination of newsletters and articles to disseminated across all professional bodies (COPE Membership) to inform respective college members of the new Guideline and where and how to access them.
- Presentation of key recommendations at key meetings/conferences, including the Marce Australasian Conference in September 2017.
- Publication of journal articles for journals commonly referred to by health practitioners.

Consumers and carers (targeted)

- Promotion of key recommendations of interest for consumers across broad and targeted media (including broad-span and social media channels).
- Education of all staff at the PANDA Helpline regarding the key recommendations and the implications for advice to consumers who may be calling the helpline.
- The development of targeted social media to promote key messages and direct consumers to the guideline and companion documents.
- Placement and links to Guideline and companion documents on partner organisation websites (e.g. beyondblue, PANDA, Pregnancy, Birth and Baby, Healthshare).

Tools and resources that will be developed to accompany the Guideline

In addition to deploying a range of approaches to raise awareness in ensure easy access to the Guideline, a range of engaging and innovative tools and mediums will be used to disseminate the contents of the Guideline across health professional groups, consumers and carers.

Health professionals

- Currently all Guideline information for health professionals is hosted under a specific tab on the **COPE website** (www.cope.org.au/healthprofessionals) as well as being housed on the Commonwealth Department of Aging website. This will be updated and expanded to reflect changes to the Guideline.
- A range of **companion documents for health professionals** will be developed to enable easy access and reference to particular elements of the Guideline, as relevant to the respective professional bodies. This is likely to include a range of fact sheets to summarise key recommendations and practice points. These resources will be promoted widely across all College memberships and made available through COPE and College websites.
- The development of an online (accredited) training program to inform and educate health professionals about the Guideline recommendations and practice points. This online training program will be promoted widely across all College memberships.

Consumers and carers

- All information currently contained on the COPE website is underpinned by the previous clinical practice guideline. As such, all website content will be reviewed to ensure it accurately reflects the new Guideline and directs people to access the Guideline and companion documents.
- The development, promotion and dissemination of **companion documents for consumers and carers** will facilitate the dissemination of Guideline information in a succinct and digestable format for consumers and carers.
- The development of an **innovative e-guide for consumers** to receive relevant information throughout pregnancy and the postnatal period will be developed and widely disseminated. All content will be underpinned by the clinical practice guideline, and provides an engaging and innovative approach to information dissemination for consumers and carers.

C Summary of the systematic literature review

This appendix provides a summary of the systematic literature review (SLR) conducted to inform the development of this Guideline. The full technical report is available from the COPE website.

Clinical research questions

The clinical research questions in this Guideline update are grouped under five headings, with each defined as follows:

- **Psychosocial assessment**: defined as the use of multidimensional validated tools/instruments to identify factors related to an individual woman that might place her at higher risk of susceptibility to a perinatal mental health disorder
- **Screening**: defined as the use of validated tools/instruments for the detection of signs or symptoms of a perinatal mental health disorder (but not a formal diagnosis)
- **Prevention**: defined as an intervention in the ante- or post-natal period delivered with the purpose of reducing the development of a mental health disorder in a woman not previously diagnosed.
- **Treatment:** defined as an intervention in the ante- or post-natal period delivered with the purpose of reducing the impact of a mental health disorder in a woman with a diagnosis of that disorder.
- **Harms:** defined as the adverse impact on the fetus or breast-feeding infant of an intervention delivered to the mother in the ante- or post-natal period, respectively,

The clinical research questions are summarised in the table below. As shown in the table, some questions were addressed via the SLR, others by a narrative or descriptive review.

Table C.1: Clinical research questions

Psychosocial assessment	
Main question	What is the most appropriate method for psychosocial assessment of women at risk of mental health problems in the perinatal period?
Sub-questions	What is the performance (defined as reliability, validity and predictive accuracy) of validated multidimensional tools for perinatal psychosocial assessment? [addressed via systematic review] What are the non-technical characteristics (defined as number of items, time to administer, complexity of scoring, training requirements, and available languages) of validated multidimensional tools for perinatal psychosocial assessment? [addressed via descriptive review] What is the acceptability to pregnant or post-partum women, health professionals, and the general public of validated multidimensional tools for perinatal psychosocial assessment? [addressed via narrative review] What is the effectiveness (defined as impact on detection, care sought or received, and mental health outcomes) of perinatal psychosocial assessment with validated multidimensional tools? [addressed via narrative review] What are the implications (for resourcing, workforce, and models of care) of implementing perinatal psychosocial assessment (via different modes of delivery) with a validated multidimensional tool? [addressed via narrative review]

Depression screening	
Main question	What is the most appropriate method for screening women for depression in the perinatal period?
Sub-questions	What is the performance (defined as reliability, sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio) of validated tools for perinatal depression screening? [addressed via systematic review] What are the non-technical characteristics (defined as number of items, time to administer, complexity of scoring, training requirements, and available languages) of validated tools for perinatal depression screening? [addressed via descriptive review] What is the acceptability to pregnant or post-partum women, health professionals, and the general public of screening for perinatal depression? [addressed via narrative review] What is the effectiveness (defined as impact on detection, care sought or received, and mental health outcomes) of screening for perinatal depression? [addressed via narrative review] What are the implications (for resourcing, workforce, and models of care) of implementing perinatal depression screening (via different modes of delivery) with a validated tool? [addressed via narrative review]
Anxiety screening	
Main question	What is the most appropriate method for screening women for anxiety in the perinatal period?
Sub-questions	What is the performance (defined as reliability, sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio) of validated tools for perinatal anxiety screening? [addressed via systematic review] What are the non-technical characteristics (defined as number of items, time to administer, complexity of scoring, training requirements, and available languages) of validated tools for perinatal anxiety screening? [addressed via descriptive review] What is the acceptability to pregnant or post-partum women, health professionals, and the general public of screening for perinatal anxiety? [addressed via narrative review] What is the effectiveness (defined as impact on detection, care sought or received, and mental health outcomes) of screening for perinatal anxiety? [addressed via narrative review] What are the implications (for resourcing, workforce, and models of care) of implementing perinatal anxiety screening (via different modes of delivery) with a validated tool? [addressed via narrative review]
Treatment interventions	
Main question	What is the efficacy and safety of interventions for the treatment of mental health problems in women in the antenatal or postnatal period?
Sub-questions	What is the efficacy and safety of psychosocial interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of psychological interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of pharmacological interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of complementary interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of physical interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review]

Prevention interventions	
Main question	What is the efficacy and safety of interventions for the prevention of mental health problems in women in identified as being at risk of developing a mental health problem in the antenatal or postnatal period?
Sub-questions	What is the efficacy and safety of psychosocial interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of psychological interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of pharmacological interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of complementary interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review] What is the efficacy and safety of physical interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review]
Harms: Pharmacological intervention	
Main question	What are the harms that occur as a result of perinatal exposure to pharmacological intervention used for the treatment of mental health problems?
Sub-questions	What are the harms that occur to the fetus as a result of perinatal exposure to a pharmacological intervention used for the treatment of mental health problems? [malformations; addressed via systematic reviewt] What are the harms that occur to the infant as a result of perinatal exposure to a pharmacological intervention used for the treatment of mental health problems? [pregnancy and birth outcomes] What are the harms that occur to the child as a result of perinatal exposure to a pharmacological intervention used for the treatment of mental health problems? [neurodevelopmental outcomes] What are the harms that occur to the mother as a result of perinatal exposure to a pharmacological intervention used for the treatment of mental health problems? [postpartum haemorrhage]
Harms: complementary intervention	
Main question	What are the harms that occur as a result of perinatal exposure to a complementary intervention used for the treatment of mental health problems?
Sub-questions	What are the harms that occur to the fetus as a result of perinatal exposure to a complementary intervention used for the treatment of mental health problems? [malformations; addressed via systematic review] What are the harms that occur to the infant as a result of perinatal exposure to a complementary intervention used for the treatment of mental health problems? [pregnancy and birth outcomes; addressed via systematic review] What are the harms that occur to the child as a result of perinatal exposure to a complementary intervention used for the treatment of mental health problems? [neurodevelopmental outcomes; addressed via systematic review] What are the harms that occur to the mother as a result of perinatal exposure to a complementary intervention used for the treatment of mental health problems? [postpartum haemorrhage; addressed via systematic review]

Harms: Physical intervention	
Main question	What are the harms that occur as a result of perinatal exposure to a physical intervention used for the treatment of mental health problems?
Sub-questions	What are the harms that occur to the fetus as a result of perinatal exposure to a physical intervention used for the treatment of mental health problems? [malformations; addressed via systematic review] What are the harms that occur to the infant as a result of perinatal exposure to a physical intervention used for the treatment of mental health problems? [pregnancy and birth outcomes] What are the harms that occur to the child as a result of perinatal exposure to a physical intervention used for the treatment of mental health problems? [neurodevelopmental outcomes] What are the harms that occur to the mother as a result of perinatal exposure to a physical intervention used for the treatment of mental health problems? [postpartum haemorrhage; addressed via systematic review]

Linking evidence to recommendations

This section maps the evidence statements from the Technical Report to the evidence-based recommendations in this Guideline. Full details of the evidence, including summary of findings tables, are given in the Technical Report.

Psychosocial assessment and screening

Screening for depressive and anxiety disorders	
Evidence statements: screening tool	
Antenatal screening	
A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in pregnant women (high quality evidence).	
A score of 10 or above on the EPDS has moderate sensitivity and moderate specificity for detecting possible depressive disorders (minor and major depression) in pregnant women (moderate quality evidence)	
It is uncertain if the PHQ has adequate sensitivity or specificity to detect possible depressive disorders in pregnant women (very low to low quality evidence)	
It is uncertain if the 'Whooley questions' have adequate sensitivity or specificity to detect possible minor or major depression in pregnant (very low quality evidence).	
It is uncertain if the K-10 has adequate sensitivity or specificity to detect possible major depression in pregnant women (low quality evidence).	
Postnatal screening	
A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in postpartum women (high quality evidence)	
A score of 10 or above on the EPDS has moderate sensitivity and moderate specificity for detecting possible depressive disorders (minor and major depression) in postpartum women (high quality evidence).	
It is uncertain if the PHQ has adequate sensitivity or specificity to detect possible depressive disorders in postpartum women (very low to low quality evidence).	
It is uncertain if the 'Whooley questions' have adequate sensitivity or specificity to detect possible depression in postpartum women (very low quality evidence)	
It is uncertain if the K-10 has adequate sensitivity or specificity to detect possible depression in postpartum women (very low quality evidence)	
Recommendation: Use the EPDS to screen women for a possible depressive disorder in the perinatal period.	**Strong**

Rationale: Based on evidence that the EPDS in the antenatal or postnatal period has moderate sensitivity and moderate to high specificity for identifying possible depression (moderate to high quality) and that there is uncertainty about the adequacy of sensitivity or specificity of the PHQ (very low to low quality), 'Whooley questions (very low quality) or K-10 (low quality).

References: (NICE 2015)

Implications for implementation: The use of the EPDS in the antenatal period was recommended in the previous perinatal mental health guideline. It is hoped that this recommendation will continue to increase rates of screening, which may have implications for services providing further assessment or treatment in primary care settings, while potentially reducing the severity of disorders (through early identification) and hence need for medical/specialist care. The EPDS is a free tool for use in clinical and research settings, and permission has also been granted to the Guideline developer to use it for e-screening.

It is also recommended that there is an expansion of the Medicare item number 16590 to further support screening to be undertaken by general practitioners and specialist services (obstetricians). This will support screening in line with best practice — particularly in the private sector where screening rates are significantly lower (when compared with the public maternity sector).

Evidence statements: screening tool cut-off

A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in pregnant women (high quality evidence).

A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in postpartum women (high quality evidence)

Recommendation: Arrange further assessment of perinatal woman with an EPDS score of 13 or more	**Strong**

Rationale: Based on evidence that a cut-off score of 13 or more is associated with the highest sensitivity, specificity and positive likelihood ratio and the lowest negative likelihood ratio for detecting possible major depression in the antenatal or postnatal period compared to other cut-off scores (high quality evidence).

References: (NICE 2015)

Implications for implementation: The availability of the EPDS in many languages currently (some validated and some invalidated) supports the use of the EPDS for women of non-English speaking backgrounds. Translated versions of EPDS are free for use in clinical and research settings, and permission granted by the Guideline developer to use for e-screening. In addition, the Guideline developer has translated the EPDS into other languages not previously available and has permission to make these available in electronic formats.

Psychosocial assessment

Evidence statements: psychosocial assessment tool

The ALPHA is effective at identifying family violence (moderate quality evidence).

The ANRQ is effective at predicting cases of depression (moderate quality evidence).

The PRQ is effective at predicting cases of depression (moderate quality evidence).

Recommendation: Use the ANRQ to assess the presence of psychosocial risk factors.	**Strong**

Rationale: Based on evidence that the ANRQ has high technical performance in identifying women at increased risk of depression or anxiety disorder (OR 6.3 [95% CI 3.5 to 11.5]), is acceptable among pregnant women (92–97%) and midwives (98%) and has a positive effect on the rates of referral for mental health assessment (moderate quality evidence). In contrast, the ALPHA has limited psychometric properties, is moderately acceptable to users and is effective in identifying family violence (OR 2.7; 95%CI 1.1 to 6.9) and 'high level of psychosocial concern' on the health professional's part (OR 2.8; 95%CI 0.7 to 11.7) but does not have adequate capacity to identify women at increased risk of postnatal depression (moderate quality evidence).

References: (Austin et al 2005; Carroll et al 2005; Austin et al 2013; Reilly et al 2015)

Implications for implementation: The ANRQ is a free tool for use in clinical and research settings (request from m.austin@unsw.edu.au), and permission has been granted by its authors (Austin et al 2013) for the Guideline developer to use for e-screening. It forms part of the Mummatters online tool, which can be downloaded via the internet at https://mummatters.com.au. Mummatters is designed for pregnant and postnatal women to self-assess and track their emotional wellbeing.

Prevention and treatment

Psychosocial support

Structured psychoeducation

Evidence statements

Psychologically (CBT/IPT)-informed psychoeducation improves depression symptomatology (high quality evidence) at endpoint or first measurement compared with treatment as usual or enhanced treatment as usual in women who have symptoms (or subthreshold symptoms) of depression in the perinatal period.

Psychologically (CBT/IPT)-informed psychoeducation has inconsistent effects on depression diagnosis at endpoint or first measurement (very low quality evidence), at intermediate follow-up (17-24 weeks post-intervention) (very low quality evidence), and at long follow-up (25-103 weeks post-intervention) (very low quality evidence) compared with treatment as usual or enhanced treatment as usual in women who have symptoms (or subthreshold symptoms) of depression in the perinatal period.

Psychologically (CBT/IPT)-informed psychoeducation has inconsistent effects on depression mean scores at endpoint or first measurement (moderate quality evidence), at short follow-up (9-16 weeks post-intervention) (moderate quality evidence), at intermediate follow-up (17-24 weeks post-intervention) (low quality evidence), and at long follow-up (25-103 weeks post-intervention) (low quality evidence) compared with treatment as usual or enhanced treatment as usual in women who have symptoms (or subthreshold symptoms) of depression in the perinatal period; however, the magnitude of any benefit may not be clinically significant.

Recommendation: Provide structured psychoeducation to women with symptoms of depression in the perinatal period.	**Strong**

Rationale: Based on evidence that psychologically (CBT/IPT)-informed psychoeducation improves depression symptoms among women in the perinatal period (high quality evidence).

References: (NICE 2015)

Implications for implementation: The need for quality psychoeducational material for pregnant women, new mothers and their families supports the need for educational resources to be provided across maternity and healthcare settings. This has previously taken the form of education booklets and electronic information for consumers and family members. The provision of psychoeducation resources needs to be sustained, taking into account the needs of women from non-English speaking backgrounds.

Social support group

Evidence statements

Social support group combined with physical exercise (a pram walking exercise program) may improve depression mean symptoms (low quality evidence) and may have an effect on depression symptomatology (low quality evidence) compared with enhanced treatment as usual (telephone support) in women who have symptoms of depression in the postnatal period.

Social support group may improve depression mean symptoms at endpoint or first measurement (low quality evidence) compared with physical exercise (a pram walking exercise program) in women who have symptoms of depression in the postnatal period.

Recommendation: Advise women with symptoms of depression in the postnatal period of the potential benefits of a social support group.	**Conditional**

Rationale: Based on evidence that involvement in a social support group may improve depression mean symptoms in women who have symptoms of depression in the postnatal period (low quality evidence).

References: (NICE 2015)

Implications for implementation: This supports the need for continued provision of support groups (e.g. mothers' group) and the promotion of other support networks within community settings.

Psychological therapy

Individual structured psychological interventions

Evidence statements

Structured psychological interventions (individual CBT or IPT) improve depression diagnosis at endpoint or first measurement (high quality evidence) compared with treatment as usual or enhanced treatment as usual in pregnant or postpartum women with a diagnosis of depression.

Structured psychological interventions (individual CBT or IPT) appear to have no effect on depression diagnosis at intermediate follow-up (17-24 weeks post-intervention) (low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder or depression.

Structured psychological interventions (individual CBT or IPT) improve depression mean scores at endpoint or first measurement (moderate quality evidence) compared with treatment as usual or enhanced treatment as usual in pregnant and postpartum women with a diagnosis of depression or symptoms of depression.

Structured psychological interventions (individual CBT or IPT) appear to have no effect on depression mean scores at intermediate follow-up (17-24 weeks post-intervention) (very low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder or depression.

Structured psychological interventions (individual CBT) appear to have no effect on depression symptomatology at short follow-up (9-16 weeks post-intervention) (low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder.

Structured psychological interventions (individual CBT) appear to have no effect on depression symptomatology at long follow-up (>24 weeks post-intervention) (very low quality evidence) compared with enhanced treatment as usual non-specific emotional support and mothercraft advice) in postpartum women with a diagnosis of major depressive disorder.

Structured psychological interventions (individual CBT) appear to have no effect on depression symptomatology at short follow-up (9-16 weeks post-intervention) (low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder.

Structured psychological interventions (individual CBT) may reduce risk of self-harm mean scores at endpoint or first measurement (low quality evidence) compared with treatment as usual in postpartum women with symptoms of depression; however, the magnitude of the benefit may not be clinically significant.

Structured psychological interventions (individual CBT) improves mother–infant play frequency at endpoint or first measurement (high quality evidence) compared with enhanced treatment as usual (home visits) in pregnant or postpartum women with a diagnosis of major depressive episode.

Structured psychological interventions (individual IPT) may improve anxiety mean scores at endpoint or first measurement (low quality evidence) compared with enhanced treatment as usual (psychoeducation booklet, monitoring and improved access to support) in pregnant or postpartum women with a diagnosis of depression; however, the magnitude of the benefit may not be clinically significant.

Recommendation: Recommend individual structured psychological interventions (cognitive behavioural therapy or interpersonal psychotherapy) to women with mild to moderate depression in the perinatal period.	**Strong**

Rationale: Based on evidence that individual structured psychological interventions (CBT or IPT) in the perinatal period improve depression (high quality) and depression mean scores at (moderate quality) and may improve depression symptomatology (low quality) among women with symptoms or a diagnosis of depression.

References: (NICE 2015)

Implications for implementation: This supports the need for: 1) clear referral pathways for health professionals to refer women to suitably qualified health professionals and/or online treatments for the provision of timely recommended psychological treatments; 2) continued Medicare rebatable item numbers to ensure the continued provision of psychological services to women within the perinatal period.

Directive counselling
Evidence statements
Directive counselling may improve depression symptomatology (low quality evidence) at endpoint or first measurement compared with treatment as usual in postpartum women with a diagnosis of minor depression or major depressive disorder.
Directive counselling appears to have no effect on depression mean scores at endpoint or first measurement (low quality evidence) but may improve depression mean scores at long follow-up (25-103 weeks post-intervention) (low quality evidence) compared with treatment as usual in postpartum women with a diagnosis of minor depression or major depressive disorder.
Directive counselling may improve anxiety mean scores at endpoint or first measurement (low quality evidence) compared with treatment as usual in postpartum women with a diagnosis of minor depression or major depressive disorder.
Recommendation: Advise women with depression or anxiety disorder in the postnatal period of the possible benefits of directive counselling. **Conditional**
Rationale: Based on evidence that, among women in the postnatal period with a diagnosis of minor or major depression, directive counselling may improve depression and anxiety symptomatology (low quality).
References: (NICE 2015)
Implications for implementation: This supports the need for: 1) clear referral pathways for health professionals to refer women to suitably qualified health professionals and/or online treatments for the provision of timely recommended psychological treatments; 2) continued Medicare rebatable item numbers to ensure the continued provision of psychological services to women within the perinatal period.
Complementary therapies
Omega-3 fatty acids
Evidence statements: effectiveness
Treatment with omega-3 fatty acids appears to have no effect on response rate at 8 weeks post-treatment compared with placebo, in women with antenatal or postnatal depression (very low quality evidence).
Treatment with omega-3 fatty acids appears to have no effect on remission rate at 8 weeks post-treatment compared with placebo, in women with antenatal or postnatal depression (very low quality evidence).
Treatment with omega-3 fatty acids appears to have no effect on depression mean score at 6–36 weeks post-treatment compared with placebo, in women with antenatal or postnatal depression (very low quality evidence).
Treatment with omega-3 fatty acids does not appear to be associated with an increased risk of mild/transient side effects at 6-8 weeks post-treatment compared with placebo, in antenatal or postnatal depression (very low quality evidence).
Evidence statements: harms
Maternal use of omega-3 fatty acids at any time during pregnancy is associated with a decreased risk of early preterm birth (< 34 weeks), from an absolute risk of 0.3% to 0.1% (high quality evidence).
Maternal use of omega-3 fatty acids at any time during pregnancy is associated with a decreased risk of preterm birth (< 37 weeks), from an absolute risk of 0.6% to 0.5% (high quality evidence).
Maternal use of omega-3 fatty acids at any time during pregnancy may be associated with a decreased risk of the infant being small for gestational age; however, the finding was not statistically significant (moderate quality evidence).
Maternal use of omega-3 fatty acids at any time during pregnancy is not associated with an increased risk of intrauterine growth restriction in women with a history of intrauterine growth restriction (moderate quality evidence).
Maternal use of omega-3 fatty acids at any time during pregnancy may be associated with a decreased risk of neonatal mortality; however, the finding was not statistically significant (moderate quality evidence).
Maternal use of omega-3 fatty acids at any time during pregnancy or lactation is not associated with a reduction in cognitive development at < 12 months, 12-24 months and 5-12 years (moderate to high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy or lactation is associated with an improvement in cognitive development at 2-5 years (high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy only is not associated with a reduction in cognitive development at 2-5 years (low to high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy or lactation is not associated with a reduction in motor development at < 12 months, 12-24 months and 2-5 years (very low to moderate quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy only is not associated with a reduction in motor development at 12-24 months (high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy only is not associated with a reduction in language development at 12-24 months and 2-5 years (moderate to high quality evidence).

Recommendation: Advise women who enquire about omega-3 fatty acid supplementation that it does not appear to improve depression symptoms but is not harmful to the offspring when taken during pregnancy or while breastfeeding.	**Conditional**

Rationale: Based on evidence that omega-3 fatty acid supplementation does not appear to have an effect on depression symptoms in the antenatal or postnatal periods (very low quality). There is an association with a slightly reduced risk of early preterm birth (<34 weeks) (from 3 to 1 per 1,000) (moderate quality); a slightly reduced risk of preterm birth (<37 weeks) (6 to 5 per 1,000) (high quality); a lack of association between use during pregnancy and increased risk of intrauterine growth restriction in women with a history of intrauterine growth restriction (moderate quality) or reduction in cognitive development at 2–5 years (low to high quality), motor development at 12–24 months (high quality) or language development at 12–24 months and 2–5 years (moderate to high quality); and a lack of association with reduced cognitive development at <12 months, 12–24 months and 5–12 years (moderate to high quality) or reduced motor development at <12 months, 12–24 months and 2–5 years (very low to moderate quality) when used during pregnancy and lactation. There was no evidence for an increased risk of postpartum haemorrhage in the studies assessed. There is a lack of effect as prophylaxis in women at risk of postnatal depression (low quality).

References: (Gould et al 2013; NICE 2015; Saccone et al 2015; Kar et al 2016)

Implications for implementation: This supports the need for quality information provision to women and families about the role of omega-3 fatty acid supplementation as part of psychoeducation (outlined above).

Pharmacological treatments

SSRIs during pregnancy

Evidence statements: harms

Maternal use of SSRIs during the first trimester of pregnancy does not appear to be associated with an increased risk of major malformation in the newborn (very low quality evidence).

Maternal use of SSRIs during the first trimester of pregnancy does not appear to be associated with an increased risk of cardiac malformation in the newborn (very low quality evidence).

Maternal use of SSRIs during the first trimester of pregnancy does not appear to be associated with an increased risk of neonatal mortality (very low quality evidence).

Maternal use of SSRIs during the first 20 weeks of pregnancy is associated with an increased risk of miscarriage, from an absolute risk of 8% to 11% (low quality evidence).

Maternal use of SSRIs during late pregnancy is associated with an increased risk of preterm birth, from an absolute risk of 6% to 16% (low quality evidence).

Maternal use of SSRIs at any time during pregnancy does not appear to be associated with an increased risk of the newborn being small for gestational age (low quality evidence).

Maternal use of SSRIs at any time during pregnancy appears to be associated with an increased risk of poor neonatal adaptation syndrome in the newborn, but due to the inadequate quality of the evidence this association is uncertain.

Maternal use of SSRIs during the third trimester of pregnancy may be associated with an increased risk of poor neonatal adaptation syndrome compared with maternal use of SNRIs during the same period (increase in absolute risk not estimable) (very low quality evidence).

Maternal use of SSRIs during late pregnancy may be associated with an increased risk of persistent pulmonary hypertension in the newborn, from an absolute risk of 0.3% to 0.4% (low quality evidence).	
Maternal use of SSRIs at any time during pregnancy may be associated with an increased risk of respiratory distress in neonates, from an absolute risk of 3% to 5% (very low quality evidence).	
Maternal use of SSRIs during the third trimester of pregnancy is associated with an increased risk of convulsions in the newborn, and the risk increases with increasing exposure, from an absolute risk of 0.3% up to 0.4% for one prescription filled, and up to 1.5% for three prescriptions filled (low quality evidence).	
Maternal use of SRIs at any time during pregnancy does not appear to be associated with a reduction in IQ in children aged 3 to 6 years, after controlling for maternal level of education (very low quality evidence)	
Maternal use of SRIs at any time during pregnancy does not appear to be associated with an increased risk of behavioural problems in children aged 3 to 6 years (very low quality evidence)	
There appears to be an association between maternal use of SSRIs at any time during pregnancy and an increased risk of postpartum haemorrhage, but due to the inadequate quality of the evidence, this association is uncertain.	
Recommendation: Consider the use of SSRIs for treating moderate to severe depression in pregnant women.	**Conditional**
Rationale: Based on high quality RCT evidence of efficacy in the general population, evidence that use in pregnancy is not associated with major and cardiac malformations (very low quality) and evidence that increases in absolute risk of other adverse outcomes are small (very low to low quality) — miscarriage (from 81 to 109 per 1,000 with use in first 20 weeks), preterm birth (from 60 to 161 per 1,000 with use in late pregnancy), convulsions in the newborn (from 3 to 4 per 1,000 with one prescription filled in the third trimester, and 3 to 15 with three prescriptions filled in the third trimester), persistent pulmonary hypertension (from 3 to 4 per 1,000 with use in late pregnancy), respiratory distress or difficulty (from 32 to 45 per 1,000 with use at any time).	
References: (Simon et al 2002; NICE 2009; updated 2016; Ban et al 2012; Ban et al 2014; Berard et al 2015) (Margulis et al 2013; Ban et al 2014; Huybrechts et al 2014; Berard et al 2015; Furu et al 2015; Petersen et al 2016) (Oberlander et al 2006) (Nakhai-Pour et al 2010) (Grzeskowiak et al 2012; Hayes et al 2012; Almeida et al 2016) (Huybrechts et al 2015) (Malm et al 2015) (Kieviet et al 2015) (Nulman et al 2015) (Jiang et al 2016)	
Implications for implementation: This supports the need for: 1) education and training for health professionals about the safe and effective use of SSRIs in pregnant women; 2) the provision of patient information.	
SSRIs in the postnatal period	
Evidence statements: effectiveness	
Treatment with an SSRI may improve response rate at 6–8 weeks post-treatment compared with placebo, in women with postnatal depression, from a rate of 37% to 52% (very low quality evidence).	
Treatment with an SSRI may improve response rate at 6–8 weeks post-treatment compared with placebo, in women with postnatal depression, from a rate of 37% to 52% (very low quality evidence).	
Treatment with an SSRI may improve remission rate at 6–8 weeks post-treatment compared with placebo, in women with postnatal depression, from a rate of 26% to 46% (very low quality evidence).	
Treatment with an SSRI appears to have no effect on depression mean score at 6 weeks post-treatment compared with placebo, in women with postnatal depression (very low quality evidence).	
Treatment with an SSRI may improve global severity mean score at 6 weeks post-treatment compared with placebo, in women with postnatal depression (very low quality evidence).	
Evidence statements: harms	
Treatment with an SSRI does not appear to be associated with an increased risk of maternal adverse events at 6-8 weeks post-treatment compared with placebo, in women with postnatal depression (very low quality evidence).	
Recommendation: Recommend the use of SSRIs as first-line treatment for moderate to severe depression in postnatal women.	**Strong**
References: (Molyneaux et al 2014; NICE 2015) (NICE 2009; updated 2016)	
Implications for implementation: This supports the need for: 1) education and training for health professionals about the safe and effective use of SSRIs in pregnant women; 2) the provision of patient information.	

Antipsychotics

Evidence statements: harms

Maternal use of any antipsychotic medication during early pregnancy may be associated with an increased risk of major malformation in the newborn, but due to the inadequate quality of the evidence any such association is uncertain

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of neonatal mortality (very low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of stillbirth (very low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of miscarriage (low quality evidence).

Maternal use of any antipsychotics during pregnancy (either first, second or third trimester) does not appear to be associated with an increased risk of preterm birth (very low quality evidence).

Maternal use of any antipsychotics during pregnancy (either first, second or third trimester) does not appear to be associated with an increased risk of the newborn being small for gestational age (very low quality evidence).

Maternal use of any antipsychotics during the third trimester may be associated with an increased risk of the newborn being large for gestational age (low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of seizures in the newborn (very low quality evidence).

Maternal use of any antipsychotics during pregnancy a does not appear to be associated with an increased risk of respiratory distress in newborns (very low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of poor neonatal adaptation syndrome (very low quality evidence).

Maternal use of any antipsychotics during the first two trimesters of pregnancy does not appear to be associated with an increased risk of poor neonatal adaptation syndrome (very low quality evidence).

Recommendation: Consider the use of antipsychotics for treating psychotic symptoms in pregnant women. **Conditional**

Rationale: Based on high quality RCT evidence of efficacy in the general population and evidence that use of most antipsychotics in pregnancy does not appear to be associated with adverse pregnancy/birth or neonatal outcomes (very low to low quality).

References: (Lin et al 2010; NICE 2014; NICE 2014; updated 2016; Huybrechts et al 2016)

Implications for implementation: This supports the need for: 1) education and training for health professionals about the safe and effective use of antipsychotics in pregnant women; 2) the provision of patient information.

Anticonvulsants

Evidence statements: harms

Maternal use of sodium valproate during pregnancy is associated with an increased risk of major malformation in the newborn, from an absolute risk of 3% to 9% (very low quality evidence)

Maternal use of sodium valproate during pregnancy is associated with an increased risk of cardiac malformation in the newborn, from an absolute risk of 0.6% to 3.0% (very low quality evidence)

Maternal use of sodium valproate during pregnancy is associated with an increased risk of below average IQ (full-scale IQ score at 1 SD level) in the child (low quality evidence)

Maternal use of sodium valproate during pregnancy may be associated with a reduction in mean verbal IQ score in the child (very low quality evidence)

Maternal use of sodium valproate during pregnancy may be associated with a reduction in mean performance IQ score in the child (very low quality evidence)

Recommendation: Do not prescribe sodium valproate to women of childbearing age.	**Strong**
Rationale: Based on evidence of substantial increases in absolute risk of major malformation (from 28 to 88 per 1,000), cardiac malformation (from 6 to 29 per 1,000) and adverse cognitive outcomes (very low to low quality).	
References: (Bromley et al 2014; Weston et al 2016)	
Implications for implementation: This supports the need for education and training for health professionals about the danger of use of sodium valproate among women of childbearing age and provision of clear information to women.	

D Psychosocial assessment and screening

The following pages include tools for use in psychosocial assessment and screening for depression. These are followed by guides to scoring the tools.

Edinburgh postnatal depression scale

Instructions: Please answer the following questions based on how you have been feeling **over the last 7 days**:

1. I have been able to laugh and see the funny side of things	☐ As much as I always could ☐ Not quite so much now ☐ Definitely not so much now ☐ Not at all
2. I have looked forward with enjoyment to things	☐ As much as I ever did ☐ Rather less than I used to ☐ Definitely less than I used to ☐ Hardly at all
3. I have blamed myself unnecessarily when things went wrong	☐ Yes, most of the time ☐ Yes, some of the time ☐ Not very often ☐ No, never
4. I have been anxious or worried for no good reason	☐ No, not at all ☐ Hardly ever ☐ Yes, sometimes ☐ Yes, very often
5. I have felt scared or panicky for no very good reason	☐ Yes, quite a lot ☐ Yes, sometimes ☐ No, not much ☐ No, not at all
6. Things have been getting on top of me	☐ Yes, most of the time I haven't been able to cope at all ☐ Yes, sometimes I haven't been coping as well as usual ☐ No, I have been coping as well as ever ☐ No, most of the time I have coped quite well
7. I have been so unhappy that I have had difficulty sleeping	☐ Yes, most of the time ☐ Yes, sometimes ☐ Not very often ☐ No, not at all
8. I have felt sad or miserable	☐ Yes, most of the time ☐ Yes, quite often ☐ Not very often ☐ No, not at all
9. I have been so unhappy that I have been crying	☐ Yes, most of the time ☐ Yes, quite often ☐ Only occasionally ☐ No, never
10. The thought of harming myself has occurred to me	☐ Yes, quite often ☐ Sometimes ☐ Hardly ever ☐ Never

Calculating a score on the Edinburgh Postnatal Depression Scale

1. I have been able to laugh and see the funny side of things	As much as I always could (score of **0**) Not quite so much now (score of **1**) Definitely not so much now (score of **2**) Not at all (score of **3**)
2. I have looked forward with enjoyment to things	As much as I ever did (score of **0**) Rather less than I used to (score of **1**) Definitely less than I used to (score of **2**) Hardly at all (score of **3**)
3. I have blamed myself unnecessarily when things went wrong	Yes, most of the time (score of **3**) Yes, some of the time (score of **2**) Not very often (score of **1**) No, never (score of **0**)
4. I have been anxious or worried for no good reason	No, not at all (score of **0**) Hardly ever (score of **1**) Yes, sometimes (score of **2**) Yes, very often (score of **3**)
5. I have felt scared or panicky for no very good reason	Yes, quite a lot (score of **3**) Yes, sometimes (score of **2**) No, not much (score of **1**) No, not at all (score of **0**)
6. Things have been getting on top of me	Yes, most of the time I haven't been able to cope at all (score of **3**) Yes, sometimes I haven't been coping as well as usual (score of **2**) No, I have been coping as well as ever (score of **1**) No, most of the time I have coped quite well (score of **0**)
7. I have been so unhappy that I have had difficulty sleeping	Yes, most of the time (score of **3**) Yes, sometimes (score of **2**) Not very often (score of **1**) No, not at all (score of **0**)
8. I have felt sad or miserable	Yes, most of the time (score of **3**) Yes, quite often (score of **2**) Not very often (score of **1**) No, not at all (score of **0**)
9. I have been so unhappy that I have been crying	Yes, most of the time (score of **3**) Yes, quite often (score of **2**) Only occasionally (score of **1**) No, never (score of **0**)
10. The thought of harming myself has occurred to me	Yes, quite often (score of **3**) Sometimes (score of **2**) Hardly ever (score of **1**) Never (score of **0**)

Antenatal risk questionnaire

ANTENATAL RISK QUESTIONNAIRE – CLIENT

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The questions below are designed to help you and your clinician understand whether you may benefit from some extra support during this time of change. You may find some questions challenging, but please choose the answers that best apply to you. There are no right or wrong answers.

Please complete all questions, unless instructed to SKIP a question. Once you have completed the questions, your clinician will discuss your responses with you. If you have any concerns about any of the questions, please let your clinician know.

Total ☐

Q1 Have you ever had a period of 2 weeks or more when you felt particularly worried, miserable or depressed?

No ☐ → *If No, SKIP to Q1c*

Yes ☐ → *If Yes, please answer Q1a, Q1b and Q1c*

If Yes, did this:

Q1a) Seriously interfere with your work and your relationships with friends and family?

Not at all ☐ A little ☐ Somewhat ☐ Quite a lot ☐ Very much ☐

Q1b) Lead you to seek professional help?

No ☐ Yes ☐

Did you see a: psychiatrist☐ psychologist/counsellor☐ GP☐

Did you take tablets/herbal medicine? No☐ Yes☐

→ **If yes,** name of professional:_____

→ **If yes**, list medication(s):_____

Q1c) Do you have any other history of mental health problems?

e.g. eating disorders, psychosis, bipolar, schizophrenia No☐ Yes☐

→ **If yes,** please list other mental health problems:

_____

Q2 Is your relationship with your partner an emotionally supportive one?

Very much ☐ Quite a lot ☐ Somewhat ☐ A little ☐ Not at all ☐ No partner ☐

Q3 Have you had any stresses, changes or losses *in the last 12 months*?

***(eg.only:** separation, domestic violence, job loss, bereavement etc.)*

No ☐ → *If No, SKIP to Q4*

Yes ☐ → *If Yes, please answer Q3a*

If yes, please specify:

_____

If Yes:

Q3a) How distressed were you by these stresses, changes or losses?

Not at all ☐ A little ☐ Somewhat ☐ Quite a lot ☐ Very much ☐

Q4 Would you generally consider yourself a worrier?

Not at all ☐ A little ☐ Somewhat ☐ Quite a lot ☐ Very much ☐

Q5 In general, do you become upset if you do not have order in your life?

(eg. regular timetable, tidy house)

Not at all ☐ A little ☐ Somewhat ☐ Quite a lot ☐ Very much ☐

Q6 Do you feel you will have people you can depend on for support with your baby?

Very much ☐ Quite a lot ☐ Somewhat ☐ A little ☐ Not at all ☐

Now you are having a baby, you may be starting to think about your own childhood and what it was like:

Q7 Were you emotionally abused *when you were growing up*?

No ☐ Yes ☐

Q8 Have you ever been sexually☐ or physically☐ abused?

No ☐ Yes ☐

Q9 *When you were growing up*, did you feel your mother was emotionally supportive of you?

Very much ☐ Quite a lot ☐ Somewhat ☐ A little ☐ Not at all ☐ No mother ☐

Have you had any other concerns that you would like to talk about today? _____

ANTENATAL RISK QUESTIONNAIRE (ANRQ)
CLINICIAN INFORMATION AND SCORING TEMPLATE

Background

The Antenatal Risk Questionnaire (ANRQ) addresses key domains of psychosocial health that have been shown to be associated with increased risk of perinatal mental health morbidity (e.g., depressive or anxiety disorder) and less optimal mother-infant attachment. The ANRQ can be **self-completed or administered** by the clinician and can be used during pregnancy or postnatally[1]. The ANRQ has **12 scored items** relating to the following risk domains:

- Mental health history
- History of physical, sexual or emotional abuse or neglect
- Level of practical support and emotional support from partner
- Anxiety and perfectionism levels
- Stressors/losses in the last year (e.g. bereavement, separation etc.).

Scoring the ANRQ

- There are **12 scored items**
- **Use the scoring template provided:**
  - **Q 1, Q1b, Q3, Q7, Q8:** No = 0, Yes = 5
  - **Q 1a, Q2, Q3a, Q4, Q5, Q6, Q9:** Scores range from 1 to 5
  - **Notes:**
    - If Q1=No, Q1a and Q1b should not be answered or scored;
    - Q1c should not be scored;
    - If Q3=No, Q3a should not be answered or scored.
- Based on these scoring instructions, place individual question scores **in the score box on the right hand side.**
- Add up the maximum 12 scored items and place the **Total Score in the box at the top of the questionnaire.**
- The range of scores is 5 – 60. **A higher score indicates greater psychosocial risk.**

Rules for clinical use of the ANRQ

It is recommended that the following rules be followed when administering the ANRQ:

- The ANRQ should only be used by appropriately **trained** staff with ongoing clinical supervision;
- Ideally, the ANRQ should be administered toward end of a visit;
- ANRQ responses should be **discussed** with the woman, and **a psychosocial care plan** developed as appropriate (see Box);
- The ANRQ should be administered with a **depression screening measure** (e.g., Edinburgh Depression Scale) to assess for possible current depression;
- The ANRQ is only intended as an adjunct to clinical history taking. **ANRQ items and the ANRQ cut-off scores** have been developed to aid the identification women at increased psychosocial risk but are not a substitute for clinical judgement. If you feel a woman is experiencing distress or is at risk of such, you should discuss your concerns with her, explore these issues further and develop a psychosocial care plan as appropriate.

Summary of ANRQ results and clinical interpretation

- **Cut-off scores**: There is no absolute cut-off score, however an ANRQ **cut-off score of 23 or more is recommended,** to maximise specificity (i.e., minimise 'false positives')[2]
- **A significant mental health history** (i.e., causing functional impairment or requiring professional hep) **or** a **history of abuse** places the woman at increased risk of poor psychosocial outcome, **irrespective** of the total ANRQ score (see Box below).

Actions arising from responses to the ANRQ

Results should be **discussed** with the woman, responses further explored, and **a psychosocial care plan** developed as appropriate, for women who meet **any** of the following criteria:

- **Total ANRQ score of 23 or more;**
- **Significant mental health history:** If Q1=5 (Yes) **AND [**Q1a ≥ 4 (Quite A Lot/Very Much) OR Q1b=5 (Yes)**];**
- **History of abuse:** If Q7=5 (Yes) **OR** Q8=5 (Yes).
- If **clinical judgement** indicates a woman is experiencing distress, or is at risk of such.

[1] The ANRQ has been validated for use during pregnancy, but is yet to be validated in the postnatal period.
[2] Austin et al (2013). The Antenatal Risk Questionnaire (ANRQ): Acceptability and use for psychosocial risk assessment in the maternity setting. Women & Birth, 26, 17-25.

ANTENATAL RISK QUESTIONNAIRE (ANRQ)
CLINICIAN INFORMATION AND SCORING TEMPLATE

Brief Scoring instructions & Interpretation of Results

- There are a maximum of **12 scored items**. Based on the scoring instructions, place individual question scores **in the score box on the right hand side.**
- Add up the maximum 12 scored items and place the Total Score **in the box at the top of the questionnaire.**
- **Total scores range from 5 - 60. A higher score indicates greater psychosocial risk.**

Women are at increased psychosocial risk if ANY of the following criteria are met:

- **Total ANRQ score of 23 or more;**
- **Significant mental health history:** If Q1=5 (Yes) **AND [**Q1a ≥ 4 (Quite A Lot/Very Much) OR Q1b=5 (Yes)**];**
- **History of abuse:** If Q7=5 (Yes) **OR** Q8=5 (Yes).
- If **clinical judgement** indicates a woman is experiencing distress, or is at risk of such.

Instructions for women identified as at 'increased risk' (as per above):

- **Explore** psychosocial risk further as needed;
- **Discuss** the ANRQ and depression screening[1] results with the woman and establish a **care plan** with her as appropriate.

[1] NOTE: The ANRQ should be administered with a depression screening measure (e.g., Edinburgh Depression Scale) to assess for possible current depression.

Total Score (5-60) ☐

Q1 Have you ever had a period of 2 weeks or more when you felt particularly worried, miserable or depressed?

No 0 → *If No, SKIP to Q1c*

Yes 5 → *If Yes, please answer Q1a, Q1b and Q1c*

☐ *Score Q1a and Q1b ONLY if Q1=5(Yes)

If Yes, did this:

Q1a) Seriously interfere with your work and your relationships with friends and family?

Not at all 1 | A little 2 | Somewhat 3 | Quite a lot 4 | Very much 5 ☐

Q1b) Lead you to seek professional help?

No 0 | Yes 5 ☐

- Did you see a: Psychiatrist☐ Psychologist/counsellor☐ GP☐
- Did you take tablets/herbal medicine? No☐ Yes☐

☐ Name of professional:_____

☐ Specify medication: _____

Q1c) Do you have any other history of mental health problems?
e.g. eating disorders, psychosis, bipolar, schizophrenia No☐ Yes☐

→ **If yes**, please list other mental health problems:
_____

UNSCORED

Q2 Is your relationship with your partner an emotionally supportive one?

Very much 1 | Quite a lot 2 | Somewhat 3 | A little 4 | Not at all 5 | No partner 5 ☐

Q3 Have you had any stresses, changes or losses *in the last 12 months*?
(e.g., separation, domestic violence, job loss, bereavement etc.)

No 0 → **If No, SKIP to Q4**

Yes 5 → ***If Yes, please answer Q3a***

☐ *Score Q3a ONLY if Q3=5(Yes)

If yes, please specify: _____

If Yes:

Q3a) How distressed were you by these stresses, changes or losses?

Not at all 1 | A little 2 | Somewhat 3 | Quite a lot 4 | Very much 5 ☐

Q4 Would you *generally* consider yourself a worrier?

Not at all 1 | A little 2 | Somewhat 3 | Quite a lot 4 | Very much 5 ☐

Q5 *In general,* do you become upset if you do not have order in your life?
(e.g., regular timetable, tidy house)

Not at all 1 | A little 2 | Somewhat 3 | Quite a lot 4 | Very much 5 ☐

Q6 Do you feel you have/will you have people you can depend on for support with your baby?

Very much 1 | Quite a lot 2 | Somewhat 3 | A little 4 | Not at all 5 ☐

Now you are having a baby, you may be starting to think about your own childhood and what it was like:

Q7 Were you emotionally abused *when you were growing up*?

No 0 | Yes 5 ☐

Q8 Have you ever been sexually☐ or physically☐ abused?

No 0 | Yes 5 ☐

Q9 *When you were growing up*, did you feel your mother was emotionally supportive of you?

Very much 1 | Quite a lot 2 | Somewhat 3 | A little 4 | Not at all 5 | No mother 5 ☐

E Perinatal mental health in men

Richard Fletcher

A summary

- Significant numbers of fathers suffer paternal perinatal depression (PPD) and anxiety
- PPD places infants' development at risk and may impair maternal mental health
- There is no widely accepted screening tool for PPD
- Key issues for fathers in the perinatal period that may trigger mental health needs:
  - Witnessing birth trauma
  - Presence of mental illness in the mother
  - Changes in the couple relationship
  - Attachment / bonding difficulties with their infant
  - Adjustment issues including the responsibility of being a new father
  - Prior personal history of anxiety or depression
  - Financial stressors

The context of becoming a father

The transition to parenthood for fathers carries expectations of joy and wonder. However, the demands of the new baby and the challenge in reconfiguring their relationships and identity can bring exhaustion, confusion and stress, leading fathers to experience depression and anxiety (Asenhed et al 2014).

Fathers' depression and anxiety

Mood disorders among fathers have not been well studied but the emerging evidence suggests that the individual and social costs of paternal perinatal depression and anxiety present a significant health issue. A meta-analysis of 43 studies of fathers' mental health from North America, Europe, England and Australia found an average rate of 10.4% for paternal depression between the first trimester and 1 year postpartum (Paulson & Bazemore 2010). In similar fashion, a review of studies examining anxiety among expectant and new fathers found rates up to 16.0% during the prenatal period and up to 18.0% during the postnatal period, although there was wide variation between studies (Leach et al 2016). Paternal depression may also influence a fathers' parenting and therefore the wellbeing of his infant into the future. Depressed fathers in the USA, for example, were four times more likely to spank their one-year-old babies and less than half as likely to read to them as non-depressed fathers (Davis et al 2011). Studies following infants whose fathers showed signs of postnatal depression through to childhood show that these infants are three times more likely to exhibit behaviour problems as a pre-schooler and twice as likely to receive a psychiatric diagnosis by 7 years of age (Ramchandani & Psychogiou 2009; Fletcher et al 2011). Severe mental illness among fathers has been shown to pose a risk to infant's physical and mental wellbeing (Fletcher et al 2013).

Fathers' mental health will impact on, and be affected by, the mental health of their partner. Among couples recruited during pregnancy, antenatal paternal depression predicted significant worsening in mothers overall symptom severity during the first six postnatal months (Paulson et al 2016). Australian studies have found that fathers' postnatal depression is particularly affected by the couple relationship and the mother's mental health difficulties (Matthey et al 2000; Dudley et al 2001). Not surprisingly, when both fathers and mothers are depressed their children are at higher risk of behavioural impairment (Paulson et al 2006).

Screening fathers for depression and anxiety

The Edinburgh Depression Scale the most commonly used screening instrument for mothers has been validated for fathers with a lower cut-off of 5/6 recommended (Cox et al 1987; Matthey et al 2001). However, since fathers may express their low mood in behaviours, such as anger and irritation that may differ from those for mothers alternate scales have been introduced to some settings to better identify

distressed fathers (Fletcher et al 2015). An important question, in consideration of screening fathers, is the access point where screening is to take place. Fathers attending the ultrasound, antenatal preparation classes or the birth report that they have few opportunities to raise their concerns and nurses find including fathers when screening mothers a challenge (Elmir & Schmied 2016; Rollans et al 2016). Perinatal practice guidelines, in South Australia for example, recommend assessing fathers' mental health without specifying measures, procedures or referrals (SA Dept Health 2012).

Treatment and support mechanisms for fathers

In recognition of male-female differences in accessing mental health services, programs using cognitive behavioural therapy, group work, and blended delivery have attempted to tailor their content and delivery to better engage men. However, few adaptations, and no programs addressing paternal mental health have been evaluated (O'Brien et al 2016). The Perinatal Anxiety and Depression Australia (PANDA) telephone counselling service accepts calls from men, either on their own behalf or in regard to their partner and approximately 7% (2,600 in 2013) of callers are male but again, no evaluation of the service for men have been published (Shafiei et al 2014).

The widespread adoption of mobile technology may present an alternate route for assessing and supporting new fathers. The provision of timely, relevant information for fathers throughout the antenatal and postnatal period is useful, and can be effectively achieved through the use of technology (*beyondblue* 2016; Fletcher et al 2016). The costs of failing to assess and address paternal perinatal depression and anxiety are high. Developing effective support for new fathers will require innovative solutions to the design and delivery of information, assessment and treatment options.

Acknowledgements: Anne Sved-Williams, Catherine Rawlinson, Tracey Fay Stammbach and Virginia Schmied reviewed the document and provided editing direction.

Glossary

For the purposes of this Guideline, the following terms are defined as outlined below.

Aboriginal and Torres Strait Islander peoples: It is recognised that there is no single Aboriginal or Torres Strait Islander culture or group, but numerous groupings, languages, kinships, and tribes, as well as ways of living. Furthermore, Aboriginal and Torres Strait Islander peoples may currently live in urban, rural or remote settings, in urbanised, traditional or other lifestyles, and frequently move between these ways of living.

Agranulocystosis: An acute condition involving a severely lowered white blood cell count, most commonly of neutrophils. Also known as agranulosis or granulopenia.

Anticonvulsants: Medications used in the treatment of epileptic seizures. Anticonvulsants are also used in the treatment of bipolar disorder, as many also act as mood stabilisers.

Antidepressants: Medications used to treat moderate to severe depression and dysthymia. Antidepressants include selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants (TCAs).

Antihistamines: Medications that oppose the activity of histamine receptors and are used in the treatment of, among other things, insomnia.

Antipsychotics: Medications most commonly, but not exclusively, used to treat psychosis.

Baseline risk: The risk of an event without treatment, intervention or exposure (e.g. risk of becoming ill without treatment or risk of birth defects without exposure to a specific medication).

Bipolar disorder: A condition characterised by intense and sustained mood shifts usually between episodes of depression and mania.

Borderline personality disorder: A condition characterised by a pervasive pattern of instability of emotions, relationships, sense of identity and poor impulse control that is consistently associated with severe functional impairment.

Catatonia: An abnormality of movement and behaviour arising from a disturbed mental state (typically schizophrenia).

Cognitive-behavioural therapy: Psychological therapy based on the assumption that faulty thinking patterns, maladaptive behaviours and "negative" emotions are all inter-related. Treatment focuses on changing an individual's thoughts (cognitive patterns) or maladaptive behaviours in order to change emotional states. Cognitive-behavioural therapy integrates the cognitive restructuring approach of cognitive therapy with the behavioural modification techniques of behavioural therapy.

Dialectical behaviour therapy: A cognitive behavioural treatment that was originally developed to treat chronically suicidal individuals diagnosed with borderline personality disorder, which is now an accepted psychological treatment for this population.

Directive counselling: An intervention incorporating elements of supportive listening and history taking and techniques of problem clarification, goal formation, problem solving and partner sessions, delivered individually or in a group format.

Electroconvulsive therapy: A procedure used to treat certain psychiatric conditions. It involves passing a carefully controlled electric current through the brain, which affects the brain's activity and aims to relieve severe depressive and psychotic symptoms.

Emotional dysregulation: a term used by clinicians to refer to an emotional response that is poorly modulated, and does not fall within the conventionally accepted range of emotive response. Emotional dysregulation may be referred to as labile mood (marked fluctuation of mood), mood swings, or mood or affective instability.

Facilitated self-help: A psychological intervention typically based on cognitive behavioural principles that seeks to equip people with strategies and techniques to begin to overcome and manage their psychological difficulties. Self-help usually provides information in the form of books or other written materials that include psychoeducation about the problem and describe techniques to overcome it. A therapist or a computer-based system (stand alone or web based) assists the individual in using the materials.

Generalised anxiety disorder: Feeling anxious about a wide variety of things on most days over a long period of time (e.g. 6 months).

Interpersonal psychotherapy: A short-term supportive psychotherapy that focuses on the connection between interactions between people and the development of psychological disorder symptoms.

Mental health (or psychiatric) disorder: Disorder fulfilling diagnostic criteria (depression, anxiety disorder, bipolar disorder, puerperal psychosis), which may be mild, moderate or severe.

Mental health symptoms: Signs of mental health problems that do not in themselves constitute a clinical diagnosis.

Mentalisation-based therapy: An integrative form of psychotherapy, bringing together aspects of psychodynamic, cognitive-behavioural, systemic and ecological approaches designed for the treatment of borderline personality disorder.

Mindfulness training: Mindfulness-based cognitive therapy is intended to enable people to learn to become more aware of the bodily sensations, thoughts and feelings associated with depressive relapse, and to relate constructively to these experiences. It is based on theoretical and empirical work demonstrating that depressive relapse is associated with the reinstatement of automatic modes of thinking, feeling and behaving that are counterproductive in contributing to and maintaining depressive relapse and recurrence (for example, self-critical thinking and avoidance) (NICE 2015).

Mixed depression: This term is not used in this Guideline but is used in the accompanying technical report to describe minor or major depression.

Mood stabilisers: Medications used to treat bipolar disorder.

Mother-infant relationship interventions: Interventions that aim to improve the relationship between the mother and infant (NICE 2015). These interventions are based on a psychological theory about the nature of attachment between the mother and infant and typically involve observations of mother–infant interactions, feedback (often video-based), modelling and cognitive restructuring. The primary goal is to enhance maternal sensitivity to child behavioural cues and awareness of the child's developing skills and needs.

Negative predictive value: The probability that a person who tests negative using a test does not have the condition.

Neonatal persistent pulmonary hypertension (NPPH): A serious and life-threatening, but rare, lung condition that occurs soon after birth. Neonates with NPPH have high pressure in their lung blood vessels and are not able to get enough oxygen into their bloodstream.

Non-directive counselling: A therapeutic approach that aims to help individuals to resolve problems and to facilitate decisions based on solutions that are appropriate for them at that time. The approach is not value-laden, biased or directive, but rather aims to allow the individual to share his or her perspectives, values and current life circumstances.

Non-psychotic disorder: A mental health disorder (e.g. depressive or anxiety disorder) without psychotic symptoms.

Obsessive compulsive disorder: Ongoing unwanted/intrusive thoughts and fears that cause anxiety (obsessions) and a need to carry out certain rituals in order to feel less anxious (compulsions).

Panic disorder: Frequent attacks and intense feelings of anxiety that seem like they cannot be brought under control; this may go on to be associated with avoidance of certain situations (e.g. going into crowded places).

Perinatal period: The period covering pregnancy and the first year following birth.

Personality dysfunction: Longstanding maladaptive behaviours and coping styles associated with difficulties in the areas of occupational and social function and the ability to utilise health services effectively.

Positive predictive value: The probability that a person who tests positive using a test has the condition.

Post-traumatic birth counselling: An intervention that aims to: explain to women what happened in the birth; give the woman an option to discuss labour, birth, and post-birth experiences; and to answer any questions she has.

Post-traumatic stress disorder: Bursts of anxiety any time from one month after experiencing a traumatic event (e.g. a traumatic birth, sexual assault or violence).

Postnatal depression: This term is *not* used in this Guideline as it is often used inappropriately as a general term for any mental health disorder in the perinatal period. In this Guideline reference is made to the specific period in which the disorder occurs.

Postpartum psychosis: Acute psychotic episode arising in the early postnatal period.

Practice point: For the purposes of this Guideline, these are points of advice that are based on lower quality evidence than is required for recommendations, and/or best practice clinical judgement.

Psychodynamic therapy: A long-term method of psychological therapy involving in-depth exploration of past family relationships, as they were perceived during an individual's infancy, childhood and adolescence. The approach assumes dysfunctional or unwanted behaviour is caused by unconscious, internal conflicts and focuses on gaining insight into these and developing strategies for change.

Psychoeducation: a structured educational treatment (often offered in groups), which may focus on preparation for childbirth (antenatal) or practical aspects of childcare (postnatal) but also includes a specific mental health component with information about common mental health disorders in the antenatal and/or postnatal period (NICE 2015). These interventions are often informed by psychological principles and use techniques such as cognitive restructuring, pleasant event scheduling, role play, guided relaxation, and homework exercises.

Psychosis and psychotic episode/disorder: An acute mental health episode defined by abnormality of thinking, perception and behaviour in which the patient loses touch with reality and lacks insight into being ill.

Psychosocial: Various psychological and social factors that may have an impact on health and wellbeing in the perinatal period.

Psychotherapy: A general term for a process of treating mental and emotional disorders through an intentional interpersonal relationship used by trained psychotherapists to aid the person in overcoming the problems of living.

Relative risk: The ratio of the risk (rate) of an outcome in an exposed group (e.g. to a specific medication) to the risk (rate) of the outcome in an unexposed group in a specified time period.

Schema-focussed psychotherapy

Schizophrenia: A complex disorder of brain function with wide variation in symptoms and signs, and in the course of the illness. The experiential 'core' of schizophrenia has been described as a disturbance involving the most basic functions that give the person a feeling of individuality, uniqueness and self-direction (Galletly et al 2016).

Sensitivity: The proportion of people with the condition who have a positive test result.

Significant other(s): Individuals who are significant to the woman and considered by the woman to be important to her care. This may include her partner or members of her immediate or extended family. In some cases, the father of the infant may be estranged from the mother but remain significant to the infant.

Social phobia: Intense fear of criticism, being embarrassed or humiliated, even in everyday situations (e.g. eating in public or making small talk).

Social support group: A system of giving and receiving help founded on key principles of respect, shared responsibility, and mutual agreement of what is helpful and is primarily in one direction with a clearly defined peer supporter and recipient of support (NICE 2015). Peer volunteers who are mothers themselves and also have a history of antenatal or postnatal mental health problems are recruited and trained to deliver interventions. These interventions can include befriending and mentoring. Support groups also provide an opportunity for peer support but are usually facilitated by a healthcare professional and discussions are usually structured around a series of pre-defined topic areas (for instance, transition to motherhood, postnatal stress management, co-parenting challenges). However, the primary goal of these interventions is to enable mutual support by bringing women into contact with other women who are having similar experiences and providing opportunities for sharing problems and solutions.

Sociocultural: Relating to both social and cultural factors.

Specific phobia: Fearful feelings about a particular object or situation (e.g. going near an animal, flying on a plane or receiving an injection).

Specificity: The proportion of people without the condition who have a negative test result.

Systems training for emotional predictability and problem solving

Transference-focussed psychotherapy

Trauma-informed care: Trauma-informed care and practice is a strengths-based framework grounded in an understanding of and responsiveness to the impact of trauma, that emphasises physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment (Kezelman & Stavropoulos 2012).

Yoga: a system of gentle exercises, with the aim of attaining bodily or mental control and wellbeing (Marc et al 2011)

Abbreviations and acronyms

ACM	Australian College of Midwives
ACMHN	Australian College of Mental Health Nurses
AIHW	Australian Institute of Health and Welfare
ALPHA	Antenatal Psychosocial Health Assessment
ANPQ	Antenatal Psychosocial Questionnaire
AOR	adjusted odds ratio
APS	Australian Psychological Society
AWHN	Australian Women's Health Network
CBR	consensus-based recommendation
CBT	cognitive behavioural therapy
CHF	Consumers Health Forum
CI	confidence interval
COPE	Centre of Perinatal Excellence
DALY	disability-adjusted life year
DASS	Depression, Anxiety and Stress Scale
DBT	dialectical behaviour therapy
DSM	Diagnostic and Statistical Manual of Mental Disorders
EBR	evidence-based recommendation
ECT	electroconvulsive therapy
EPDS	Edinburgh Postnatal Depression Scale
EPDS-3A	EPDS items 3, 4 and 5
EWG	Expert Working Group
GAD-7	Generalised Anxiety Disorder 7-Item Scale
GHQ	General Health Questionnaire
GP	general practitioner
HADS	Hospital Anxiety and Depression Scale
IPT	interpersonal psychotherapy
K10	Kessler Psychological Distress Scale
MAOIs	monoamine oxidase inhibitors
MBT	mentalisation-based therapy
MCaFNA	Maternal Child and Family Health Nursing Association
NHMRC	National Health and Medical Research Council
NICE	National Institute for Health and Clinical Excellence (UK)
NPPH	neonatal persistent pulmonary hypertension
OR	odds ratio
PANDA	Perinatal Anxiety and Depression Australia
PHQ	Patient Health Questionnaire
PP	practice point
PRQ	Pregnancy Risk Questionnaire
PTSD	post-traumatic stress disorder
RACGP	Royal Australian College of General Practitioners
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RANZCP	Royal Australian and New Zealand College of Psychiatrists
RCT	randomised clinical trial
SFT	schema-focused psychotherapy
SLR	systematic literature review
SNRI	serotonin-norepinephrine reuptake inhibitor
SSRI	selective serotonin reuptake inhibitor
STAI	State-Trait Anxiety Inventory
STEPPS	systems training for emotional predictability and problem solving
TCA	tricyclic antidepressants
TFP	transference-focussed psychotherapy
TGA	Therapeutic Goods Administration

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