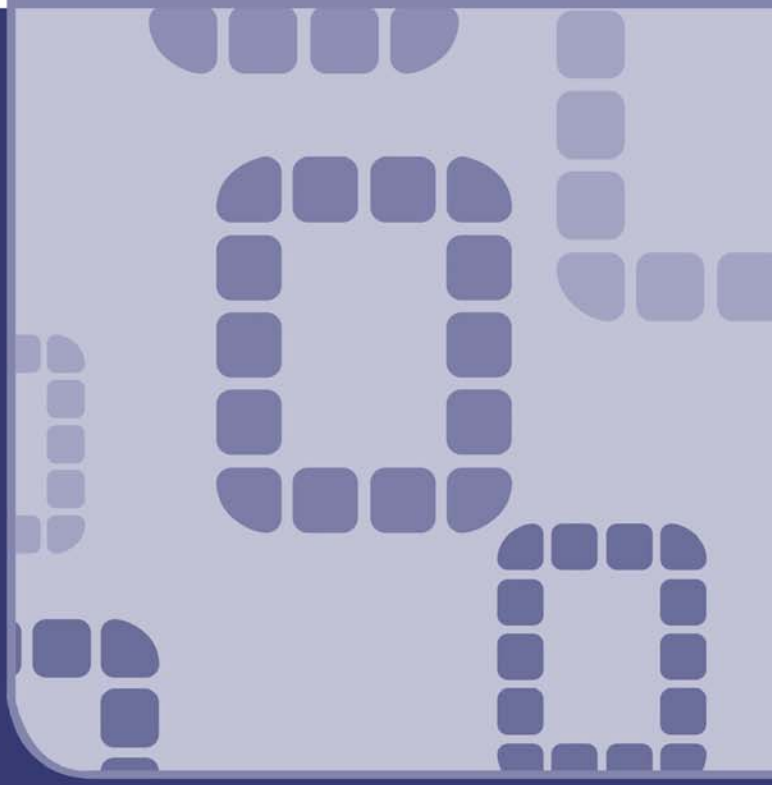
WOMEN AND NEWBORN HEALTH SERVICE

King Edward Memorial Hospital

Perinatal Depressive and Anxiety Disorders

STATEWIDE OBSTETRIC SUPPORT UNIT



Delivering a **Healthy WA**

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INTRODUCTION

This document provides recommendations for the screening, diagnosis, referral and management of women with perinatal* mood and anxiety disorders. These disorders may alter the mother's physiological response, which may result in long-lasting negative effects for the fetus, child and family. Prevention and treatment are possible through improved screening, diagnosis, referral and management.

The aim of providing guidelines is to foster the comprehensive care of perinatal mental health issues, resulting in reduced morbidity and emotional suffering in women and their families. Although some documents have been written (e.g., Scottish Intercollegiate Guidelines Network No. 60), and there are books covering perinatal mental health issues, guidelines relevant for Western Australia have been called for since the publication in 1995 of the "Report on Childbirth Stress and Depression" [1].

The content of this document includes detailed information on the rationale for writing the guidelines, general information about the common diagnoses and how to screen for them, plus guidance on prevention, referral and management. Finally, there is a list of resources that can be accessed by Web or telephone, plus helpful books and journal articles. The companion document entitled "Perinatal Depressive and Anxiety Disorders: Summary Guidelines for Western Australia" is a quick reference for daily use.

The intended audience of these guidelines includes health care professionals involved in the care of perinatal women such as General Practitioners, Obstetricians, Midwives and Child Health Nurses. Other relevant professionals include mental health nurses, psychiatrists, clinical psychologists, social workers, pastoral care staff, lactation consultants, pharmacists, and dieticians. We recommend that health care providers across the State establish and maintain collaborative relationships to provide comprehensive care of perinatal women in a cost-effective and timely manner†.

How to use these Guidelines

Skip to the section that you need to assist you in your work with perinatal women.

Section 1 covers Diagnosis, screening and prevention with diagnostic descriptions and risk factors for perinatal mood and anxiety disorders; general suicide risk factors are included.

Section 2 outlines basic Referral pathways.

Section 3 covers Management options including medications and other treatments.

Section 4 includes sources of More information.

* Perinatal refers to prenatal and postnatal

† Plans are being developed to publish service providers on a Website; in the meantime, a consumer-focused Website has many service providers listed and sorted by postal code at www.yourzone.com.au/perinatal

Scope of the problems of perinatal depressive and anxiety disorders

Key Points:

Antenatal and postnatal disorders of mood and anxiety are common but are often missed.

These disorders may alter the mother's physiological response, which can negatively affect the fetus, child and family.

Prevention and treatment are possible through screening, diagnosis, referral and management.

One in five Australian mothers of full-term infants suffers from a perinatal mental health disorder within the first year of delivery [2] yet many are not diagnosed or treated [3]. Evans et al [4] found that more depressive symptoms were identified on the Edinburgh Postnatal Depression Scale EPDS, [5] antenatally than postnatally, broadening the focus from postnatal to perinatal depression. Antenatal anxiety and depression occur frequently, often together [6], and may lead to postnatal depression and anxiety [7]. Canadian research has shown that postnatal disorders are persistent: just over half of the female and male subjects who were diagnosed with a psychiatric disorder at two months after childbirth remained so at six months postpartum [8]. Detrimental effects on the infant, partner and other family members are wide ranging.

Antenatal depression has been linked to right frontal EEG asymmetry and higher norepinephrine levels in infants, whilst infants born to mothers identified as depressed both before and after delivery had theses changes plus elevated cortisol levels and lower dopamine levels [9]. In short, unfavourable physiological changes in the infant arise from maternal depression.

Emerging research findings suggest that anxiety disorders are at least as disruptive as depression, and possibly more prevalent—at least in the postpartum [10]. Prenatal anxiety rivals well known obstetric risk factors in predicting birth complications like premature delivery and low birth weight [11]. Maternal anxiety and/or depression may be associated with later problems in the infant's temperament [12, 13], behavioural reactivity to novel stimuli [14], delayed motor and cognitive development [15] and childhood problems such as anxiety, reduced attention span and behavioural problems [6, 16-18].

Wadhwa [14] contends that antenatal maternal stress triggers a response in the maternal hypothalamic-pituitary-adrenal (HPA) axis to release cortisol and increase cortico-tropin-releasing hormone (CRH) in the human placenta. Elevated levels of placental CRH have been associated with premature birth and fetal growth restriction [11]. This phenomenon might be an example of fetal programming [19] via the HPA axis whereby exposure to stress hormones in utero may program the fetus to be more reactive to stressors over his or her life [6, 14, 16-18, 20].

Matthews and Meaney [21] cogently explain the physiological mechanisms involved in converting the mother's distress into fetal growth retardation. A key factor involves maternal-fetal glucocorticoids: these are raised when the mother is under stress, suffers from infections or malnutrition (low protein), and/or consumes alcohol or

tobacco. Glucocorticoids interfere with the effects of growth hormone. Prolonged exposure to cortisol reduces the function of the placental enzyme which normally counteracts brief exposures to cortisol (11β-hydroxysteroid dehydrogenase type 2 or 11β-HSD2). Moreover, although babies with low birth weight catch up by one year of age, there may be permanent changes to their hepatic genes which regulate glucose and fat metabolism ("fetal programming" of metabolic syndrome). Matthews and Meaney conclude that early adversity causes changes in the hippocampus and prefrontal cortex which predispose people to depression, anxiety, posttraumatic stress disorder, and cognitive/attentional deficits.

The postnatal environment (such as one's family life and quality of nurturing) may moderate the effects of the prenatally determined vulnerabilities. Matthews and Meaney [21] reviewed the literature to conclude that maternal depression and anxiety or stress are associated with negative parenting and poor attachment, thereby failing to mitigate against prenatally induced vulnerability to the whole range of cognitive, emotional and physiological problems associated with maternal distress and fetal growth retardation. Treatment has proven helpful in disadvantaged families.

The depressed mother's state of mind regarding attachment has been shown to be a moderator between postnatal depression and insecure attachment [22]. Fathers might compensate for maternal attachment problems by developing secure child-father attachment [23]. On the other hand, paternal depression may have independent negative effects on the offspring, primarily exhibited as behavioural problems (especially in boys), but also some emotional problems [24].

Maternal suicide is an alarming outcome of severe mood disorder. The report entitled, "Perinatal, Infant and Maternal Mortality in Western Australia, 1999-2001" [25] demonstrates the seriousness of this concern. Two of the 23 maternal deaths that could be classified using the WHO criteria were by suicide. The suicide rate could be as high as one suicide every two years if we consider data available from the Confidential Enquiry into Maternal Deaths [26] in the UK. Australia-wide data suggest that psychiatric disease* and obstetric haemorrhage rank an equal first for cause of maternal deaths [27]. Mention is not made of the consequences to the infant and family in such reports. Recommendations from the UK document have been implemented in some settings in WA; this includes screening and referral, followed by assessment by an appropriate clinician during pregnancy and documentation of a treatment plan.

Infanticide is another rare but alarming consequence of severe mental illness. In an Indian study examining infanticidal ideas and behaviours in postnatal women admitted to a psychiatric hospital with severe mental illness, nearly half admitted to thoughts of infanticide, whilst a third reported some form of infanticidal behaviour such as smothering [28].

"**Perinatal depression or anxiety**": Screening for depression should be broadened to include screening for anxiety, during the entire perinatal period [29, 30]. A simple method to screen for anxiety and depression would facilitate early intervention for both disorders. Given that many centres already use the Edinburgh Postnatal Depression Scale EPDS, [5] to screen for depression, its anxiety subscale (items 3, 4,

* reporting problems likely lead to underestimation of the suicide rate

& 5) identified by previous factor analyses might be readily employed to screen for anxiety [31-33], but more research is needed.

In addition to a high score on the EPDS and/or its anxiety items, other risk factors for perinatal mood or anxiety disorders include a history of depression or anxiety in the woman or her family, stressful life events, low level of social supports including lack of support from her partner, perfectionistic personality, pregnancy and delivery complications, and low socioeconomic status [34]. Risk factors will be discussed in more detail in the next section on Diagnosis, screening and prevention.

What can be done to help the women of WA?

Many women are currently screened for mental health problems at antenatal clinics in Western Australia, and often by their family practitioners, obstetricians or community midwives. These health professionals should be capable of screening using the widely used Edinburgh Postnatal Depression Scale (EPDS, described below) along with a brief clinical interview. Generally most women with mental health problems are not identified [34, 35], however broad screening can be achieved through a concerted effort including education and training [36, 37]. Once women are screened positive, referral for treatment should follow. Problems have been identified around referral processes in some Western Australian settings, so better education around referral pathways has been recommended here [38] and in other jurisdictions [39-41] for health professionals involved in the care of child-bearing women.

As care of mental health problems has shifted to community settings, improved collaboration between relevant health care professionals is essential. Sweeney and Kisely [42] examined the treatment of mental health issues in southern WA and found that communication between the community workers and mental health workers was often lacking. This was apparently being addressed at many levels and may serve as a model for other communities to follow. One recommendation was to create guidelines for the management of individuals with anxiety and depressive disorders.

At a national level, interested general practitioners (GPs) are being trained to provide better mental health care through provision of basic support, referrals, and case conferences with psychiatrists [43]. Although the initiative has met with criticism, most agree that mental health issues need to be urgently addressed, primarily by GPs who are the first port of call for people who may have a treatable disorder. Since many postnatal women will not identify themselves as depressed or anxious, they may visit for “other” reasons (e.g., unsettled baby). GPs and Child Health Nurses should therefore routinely inquire about mood, anxiety and how the woman is coping [3] and consider administering the EPDS routinely at check-ups.

There is evidence that early identification followed by intensive postpartum support are effective psychosocial interventions for postnatal depression [44]. Australian researchers have concluded that psychological and pharmacological treatments are effective for postnatal depression and anxiety [45] but more high quality prevention and treatment efficacy studies are needed [2, 46-48]. Research is underway to examine whether the “implementation of screening programs as a public health strategy [can] reduce perinatal mental health disorders” [2]. In other words, screening has been shown to improve detection, and possibly referral for treatment, but we lack evidence to demonstrate that this reduces morbidity [49].

To screen women at risk and intervene early, it is imperative to promote and support the education of all health professionals involved in the care of perinatal women [40]. This would ensure that these professionals are proficient in addressing perinatal mental health issues. Resources are necessary to back up the screening efforts [29, 37]. Guidelines for screening, management and referral are needed in Western Australia and could underpin education about perinatal mental health problems. In view of directives to treat more health problems in the community, community-based practitioners must be able, with assistance and back-up, to assess, manage and/or refer women with acute or chronic mental health problems.

DIAGNOSIS, SCREENING AND PREVENTION

Below is an overview of diagnostic issues, followed by brief descriptions of the major diagnostic categories, and then discussions about screening and prevention.

Some have argued that **medicalising maternal distress** [50] has increased over time, resulting in the increased demand to medicate women's normal life transitions [51]. A primary issue has to do with the **consequences of a psychiatric diagnosis**, about which women need to be informed and reassured. Diagnostic labels tell us little about treatment: a listing of functional problems that can be addressed is arguably more helpful. On the other hand, some women feel relieved to receive a name for what they have been feeling. The diagnostic label permits them to accept the sick role and gain medical and social support [52].

Contextual factors, especially cultural differences, must be considered. For example, averted eyes is polite in some cultures, but is often seen as a sign of depression in Australian culture. Some groups are suspicious of persons in authority and might appear guarded or uncooperative; within their culture such behaviour is normal not pathological.

Fathers may become depressed or anxious, often in tandem with their spouses [24], but may be reluctant to admit to problems because their perceived role is to support the new mother.

Antenatal diagnosis of mental health disorders should be conducted as part of routine antenatal care [29] because a significant percentage of women with postnatal depression (PND) are depressed during pregnancy [4, 53-55]. Indeed, there appears to be nothing different about the depression around childbirth: it is effectively the same condition that occurs at other times of life but with specific features that require attention and treatment [56, 57].

Physical disorders involving thyroid dysfunction, anaemia or hypertension can contribute to symptomatology and need to be ruled out [58, 59].

Prevalence and incidence rates of antenatal and postnatal depression vary widely as a result of methodological issues in the research [60, 61]. For example, the widely adopted *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, Text Revision DSM IV TR, [62] defines postnatal depression as that which occurs within four weeks of childbirth. However, it is widely acknowledged that mood disorders commonly occur during pregnancy and through the year after birth, so in practice this wider time-frame is used [63].

Recent data analysed from the Western Australian cohort of the prospective *beyondblue* National Postnatal Depression Program [64] yielded prevalence rates as follows: 10% of women were considered to be in the high risk category on the EPDS antenatally; 26% of them remained so postnatally when re-tested. Overall, 6% were in the high risk range after delivery. These percentages are lower than the 13% figure often reported from the meta-analysis conducted by Evans et al [4]. The WA results also varied considerably across hospital sites with the private hospital and family birth centre patients scoring lower on average than public hospital patients.

A longitudinal study of postnatal depression suggested that depressive symptoms peak around 4 to 8 weeks after delivery and generally decline by 10 to 14 weeks, but about a third of the study subjects still reported significant mood symptoms 2 years after delivery [65]. Depressive disorders tend to be more refractory than anxiety and adjustment disorders [8]. Unfortunately, no consistent rates for these latter disorders during and after pregnancy are available [59].

Key Interview Topics

Common signs and symptoms of mental health problems which can be used to guide questioning at clinical interview include the following:

- **Depressed / irritable / anxious mood** most of the day nearly every day
- **Mood swings**
- Loss of **interest, pleasure or motivation** in usual activities
- Problems with **thinking clearly, concentration, memory, making decisions**
- **Negative thoughts** (death, disaster)
- **Suicidal ideation** or plans
- Feelings of **worthlessness or guilt; low self-esteem**
- Unusual change in **weight or appetite**
- Significant change in **sleep**
- Significant **fatigue** or loss of energy
- Significant speeding up or slowing down of **psychomotor activity**
- Excessive **anxiety**, panicky feelings, worry or rumination
- **Avoidance** (of people, places, things, activities)
- **Misuse of alcohol or other substances**
- **Very unusual behaviour or thinking:** psychotic symptoms

Depressive Disorders

Because women with underlying bipolar disorder present at times with depressive symptoms, the possibility of an underlying Bipolar Mood Disorder should be borne in mind when there is a family history of Bipolar Disorder or if the Depressive Disorder is melancholic, severe and/or treatment-resistant [66, 67]. Treatment of such women with antidepressants alone may have negative outcomes.

Some women can suffer extreme exhaustion or depression. They may not warrant a diagnosis of depression, but require assistance nonetheless to prevent a more serious mood disorder [68].

Major Depressive Disorder

The *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, Text Revision (DSM IV TR, 2000) diagnostic criteria suggest that women must exhibit five or more of the following ***symptoms*** for at least two weeks plus they must have either or both of the first two:

- Depressed mood
- Anhedonia (no interest or pleasure)
- Significant change in weight or appetite
- Markedly increased or decreased sleep
- Psychomotor agitation or retardation
- Fatigue or loss of energy
- Feelings of worthlessness or guilt
- Reduced concentration
- Recurrent thoughts of death or suicide

Some of the above neurovegetative* symptoms overlap with pregnancy symptoms – for example, disturbed sleep and appetite, reduced libido and energy [69] – and so diagnosis can be missed by clinicians and women themselves who think the symptoms are normal for pregnancy or new motherhood. More clearly abnormal symptoms are anhedonia (loss of interest or pleasure in usually pleasing activities), feelings of guilt or hopelessness, and thoughts of suicide or escape. It is not normal to have considerable difficulty falling back to sleep after feeding the baby [58, 70], so this might distinguish normal sleep disturbances from those generated by a mood disorder.

(***Treatment*** options are discussed in the chapter entitled Management and include medication and psychotherapy).

Minor Depressive Disorder

The symptoms for a Minor Depressive Disorder are generally the same as those for Major Depressive Disorder, but are of shorter duration with perhaps fewer total symptoms reported.

* physical symptoms typical of someone who is slowed down or lethargic as a result of depression, including disturbed sleep and appetite, reduced libido, and fatigue

Dysthymic Disorder: Some women report chronic low-grade depressive symptoms that can persist for years and go unrecognized unless specific enquiry is made. This disorder may substantively interfere in bonding and attachment.

Postpartum / Maternity / Baby "Blues"

The "baby blues" are very common so are considered fairly normal, affecting 30-85% of new mothers [70, 71]. They peak on about day three to five after birth and remit fairly soon [72]. If the blues persist, consider a diagnosis of depressive disorder. Severe blues are predictive of subsequent PND [73].

Symptoms may include the following [70]:

- labile mood, tearfulness, irritability
- sleep problems
- anxiety

Puerperal or Postpartum Psychosis

Puerperal psychosis is a rare condition, affecting less than 1% of mothers but can be alarming to all involved when it occurs because of its abrupt onset and severe symptoms [66]. Most often puerperal psychosis is related to underlying bipolar disorder [66]; in a minority of patients it can be due to a diagnosis of schizophrenia or schizoaffective disorder.

Symptoms may include [58, 66, 74]:

- sleeplessness, hyperactivity or stupor
- hallucinations
- delusional beliefs*
- rapid mood swings
- disorientation and confusion
- reduced ability to think clearly
- lack of appetite
- intermittent lucid periods

Bipolar Disorder

Bipolar Disorder is classified into at least two subtypes:
Bipolar I type presents as mania† with psychotic features that is often followed by major depression.
Bipolar II type presents as depressive episodes or dysthymia (chronic low mood) and brief episodes of hypomania‡ [75].

* Delusions are false beliefs that are held in spite of clear evidence to the contrary, and are not consistent with one's subculture

† Mania is characterised by an extremely high or irritable mood, with rapid speech and quickly changing thought flow, reduced need for sleep, heightened distractibility, inflated sense of one's self-worth and ability, impulsivity and poor judgement in the pursuit of goals that can be dangerous or foolhardy

‡ Hypomania is a lesser extreme of mania which appears almost normal but which the patient and her family members know to be out of character, it generally does not impair function to the extent of mania and there are not psychotic features

Rates of substance abuse and suicide are high in both subtypes [76] making diagnosis and treatment complex.

In patients with a history of bipolar disorder the risk for relapse during and after pregnancy is high, especially if medications are ceased and after birth when some might develop psychotic symptoms [71]. They must be monitored very closely in the first two weeks after delivery, with specialist psychiatric involvement if indicated. Risk remains high during the first four months after delivery [58].

To date, psychosocial factors have not been demonstrated to affect the risk of developing a perinatal bipolar episode whilst biological factors have; these include early age of onset of bipolar disorder, experiencing an episode of mood disorder during the first pregnancy, and experiencing medical problems during the index pregnancy [77]. Women who experience episodes around childbearing are less likely to have more children compared to women whose episodes are not related to childbearing [77]. In the past, women with a known diagnosis of bipolar disorder were advised to avoid pregnancy. A recommended approach is to offer relevant information about treatment risks and benefits during a specialized preconception consultation so that women and their partners can make an informed decision [78].

Anxiety Disorders

Anxiety is increasingly gaining notice in maternal health with at least one Australian researcher proposing that we replace the PND acronym with PND-A to denote perinatal depression and anxiety [30]. Although the prevalence of perinatal anxiety disorders is not clear [59, 79], anxiety appears more common in the postpartum period than depression [10]. Compared to the general population, some anxiety disorders are more common in postnatal women [59, 71].

In general, mild to moderate anxiety disorders can be prevented and/or treated through the provision of good communication and psychological therapies (see subsequent chapter on Management). Moderate to severe disorders might warrant anxiolytic and other medications (see Management section). Thyroid dysfunction, anaemia and hypertension have some symptoms which overlap with those of panic and generalized anxiety disorder in perinatal women [59].

Generalized Anxiety Disorder

Generalized Anxiety Disorder appears more commonly in postnatal women than in the general population [59]. It features persistent and excessive anxiety and worry of six months duration or more[*]. The anxiety or worry is about a number of events or activities, the woman cannot easily control the worry, and it interferes with daily functioning. ***Symptoms*** include

- restlessness, feeling on edge
- easily fatigued
- difficulty concentrating
- irritability
- tense muscles
- disturbed sleep

Fears and Phobias

A ***fear of childbirth*** (tokophobia) might cause some women to avoid or terminate a pregnancy, or request a Caesarean Section [80]. Severe fear of childbirth has been identified as a risk factor for developing Posttraumatic Stress Disorder [81].

After the birth, some women fear that the baby will die from cot death and may be unable to sleep [82]. Frequent visits to the GP or obstetrician can signal underlying anxiety and alert the clinician to an underlying anxiety or depressive disorder.

Panic Disorder

Panic Disorder might be more common postnatally [71], perhaps when weaning the baby [59]. The disorder is characterized by recurrent panic attacks with ***symptoms*** including

- heart palpitations, sweating, trembling
- shortness of breath, chest discomfort, upset stomach
- fears of losing control, “going crazy” or dying
- feeling dizzy, unreal or detached
- parasthesias and hot or cold flushes

[*] If duration is less than six months, consider a diagnosis of Adjustment Disorder

Obsessive-Compulsive Disorder (OCD)

Previous history of Obsessive-Compulsive Disorder (OCD) might be a risk for increased symptoms postnatally, along with depression. ***Treatment*** is commonly Cognitive Behaviour Therapy plus medication if indicated (see Management, section below). ***Symptoms*** include

- ***obsessions*** which are "recurrent, unwelcome thoughts, ideas, or doubts that seem senseless, yet give rise to anxiety/distress" and
- ***compulsions*** which are "urges to perform excessive behavioural or mental acts … to suppress or neutralize the obsessional distress" p462, [83]

In contrast to depressive ruminations, the obsessional thoughts are not consistent with the person's view of themselves (ego-dystonic) and so the person tries to control the thoughts. ***Obsessional thoughts*** commonly involve imminent disaster [84] and harm to the baby [83, 85] such as thoughts of infanticide or child sexual abuse [82]. Some women fail to dismiss such thoughts, which leads to extreme anxiety that is reduced by avoidance or rituals, thereby setting up a vicious cycle of obsessions and compulsive behaviours [83]. Thoughts of harm to the baby are very common in new parents and depressed women and are most often not dangerous. However, in women with severe depression or psychosis, the thoughts can be associated with harmful behaviour because of a lack of insight and judgement [59].

Some patients report increased ***compulsions*** to clean their hands and house, fearing contamination of the baby that could lead to illness or death. ***Checking behaviour*** commonly relates to the newborn's well-being, such as repeatedly checking on the baby during the night [84].

Posttraumatic Stress Disorder (PTSD)

Approximately 2 or 3% of women suffer from PTSD after childbirth during which they experienced extreme pain, loss of control and a fear of death of themselves or their infant [81, 86-90]. A history of psychological problems, severe fear of childbirth, and antenatal symptoms similar to PTSD predicted postnatal PTSD in a recent large prospective study conducted in Sweden [81].

Symptoms are often described in three classes:

- intrusive symptoms such as nightmares and flashbacks
- hyperarousal or heightened arousal like anxiety, exaggerated startle reflex
- avoidance of reminders of the traumatic event(s), avoidance of sexual intimacy

Sufferers might avoid or terminate a subsequent pregnancy or may experience increased symptoms during another pregnancy. They might wish to be unaware of childbirth and may request a Caesarean Section under general anaesthesia. Some avoid reminders of a traumatic delivery such as the baby crying or fussing; this interferes with bonding and care of the baby. Moreover, many also suffer from depression [81, 89].

Typically these women are reluctant to seek help and may discharge themselves early from hospital to avoid reminders of the birth. Research into PTSD in general populations suggests that the symptoms can be very long-lasting, purportedly as a result of changes to the stress-response system (HPA axis).

Adjustment Disorders

Women who experience significant distress around the time of childbirth may warrant a diagnosis of Adjustment Disorder if the distress is more severe than one would expect and it disrupts her social or occupational functioning.

Symptoms are of clinically significant emotional or behavioural changes in response to a stressor, typically the symptoms of depression and/or anxiety. By definition, the symptoms are transient (begins within 3 months of a stressor and ends within 6 months), otherwise a more severe underlying disorder may be emerging. Subtypes are specified as occurring with depression and/or anxiety, depending on the predominant features.

Risk Factors for Perinatal Depressive and Anxiety Disorders

Psychological

- Antenatal anxiety, depression or mood swings [64]
- Previous history of anxiety, depression, or mood swings, especially if occurred perinatally [64, 91]
- Family history of anxiety, depression or alcohol abuse, especially in first degree relatives
- Severe baby blues [73]
- Personal characteristics like guilt-prone, perfectionistic, feeling unable to achieve, low self-esteem [64]
- EPDS score ≥ 12

Social

- Lack of emotional and practical support from partner &/or others
- Domestic violence, history of trauma or abuse (including childhood sexual assault)
- Many stressful life events recently
- Low socioeconomic status, unemployment
- Unplanned or unwanted pregnancy [64]
- Expecting first child or has many children already [64]
- Child care stress [92]

Biological / medical

- Ceased psychotropic medications recently
- Medical history of serious pregnancy or birth complications, neonatal loss, poor physical health, chronic pain or disability**,** or premenstrual syndrome
- Perinatal sleep deprivation [58, 93]
- Neonatal medical problems [94] or difficult temperament [92]

Where risks are identified, it is important to note these on file clearly and not with short-hand such as “past PND” which fails to alert the team to the possible seriousness of the risk(s).

Risk factors for perinatal ***depression*** have been widely examined; risks for ***anxiety*** have received less attention, but are similar to those mentioned for depression, which is not surprising give that the two disorders often occur together [64].

Risk factors for ***puerperal psychosis*** include a personal or family history of puerperal psychosis or psychotic illness (especially affective psychosis) [95-99].

Women with a history of ***bipolar disorder*** were more likely to suffer a recurrence of the illness postnatally if they had an onset of the disorder at an early age, had experienced an episode during their first pregnancy, and experienced physical problems during the pregnancy [77].

Perinatal sleep deprivation is a risk factor for postnatal mental illness [58]. A longitudinal study of 505 women demonstrated that women who did not endorse depressive symptoms at one week postnatally often did so at 4 and 8 weeks if they also reported that they received less than 6 hours of sleep per 24 hours, they often felt tired, and the baby cried often [93]. It may be prudent to consider a family meeting, discuss with the Child Health Nurse and refer to a community agency to obtain practical support in the home so the mother can rest, at night if feasible.

Suicide risk

The rate of maternal suicide is thought to be as high as 2 per 100,000 [25, 26] or approximately one case every two years in WA*. Some cases were deemed preventable through early identification, rapid referral and treatment [25-27].

All women should be screened antenatally for a personal or family history of mental illness, this should be noted clearly on her file, and she should be monitored closely if required. Each woman with a mental health problem should be further assessed for suicidality, and reassessed especially if her mood declines or if she displays a marked change in mood or behaviour (which could include a lift in mood, increased energy or agitation).

A matter-of-fact approach with clear and simple questions is recommended.
For example, ask the woman these questions [100]:

- "Have you got or had suicidal thoughts?" (*If yes, ask further)*
- "Have you ever made plans?" (*If yes, note how lethal and available are the means)*
- "Have you ever made or got close to making a suicide attempt?"
- "Do you feel you can keep in control of your suicidal thoughts?"

Further factors to assess include:

- Access to means of suicide (tablets, firearms)
- Family history of suicide
- Has persistent thoughts of death or dying
- Hopelessness, anhedonia†
- Psychiatric disorder like depression or psychosis; personality disorder
- Substance abuse, greater risk if also depressed
- Social isolation, withdrawal, limited communication
- Single marital status, divorce, separation, relationship break-up

* Not all cases of maternal suicide are clearly coded as such; coding practices have changed recently to address this problem

† total lack of pleasure or happiness when engaging in what were usually pleasurable activities

- Recent loss, or death in family / close associate
- Chronic insomnia &/or other health problems such as pain or disability

Regardless of her score on the EPDS, suicidality compels consultation and a decision whether to refer to a mental health clinician. Question 10 on the EPDS asks about ***self-harm***, and this issue might arise during a clinical interview. Deliberate self-harm is not always equal to suicidal intent; for example, many people with a diagnosis of borderline personality disorder cut themselves. On the other hand, personality disorders are often diagnosed in individuals who commit suicide [101].

Multiple risk factors increase the overall level of risk. Suicidal intent is more serious than thoughts: if the woman has a plan, intent and means available, this warrants urgent referral to psychiatric services to facilitate hospitalisation.

It is recommended to involve family or friends whom the woman perceives to be helpful (some family members might be perceived to be harmful).
Consult with a peer or mental health professional and document the assessment, consultation, referral and management actions.
Continue to monitor closely even after psychiatric hospitalisation as some women commit suicide after appearing to improve when they are discharged from care.
No evidence supports the clinical practice of asking the patient if she can provide a "contract for safety" [101].

Risk of harm to baby

Inquire about thoughts of harm to the baby, actions (such as shaking), strategies used to cope with frustration, substance misuse, social supports, and her confidence that she can keep the baby safe.

Screening for perinatal depressive and anxiety disorders

Questions to ask women during their antenatal visit to elicit a mental health history include [40]:

- "Have you ever had emotional problems / mental health problems during or after your previous pregnancies? Or at other times?"
- "Describe it" (*seriousness*)
- "What treatment helped? Didn't help?" (*if hospitalised before, very high risk*)
- "Are you worried that it might happen again?"
- "Has anyone in your family had any similar problems? Did anyone have serious problems after having a baby?"

Key Points*:*

- ***Assess all antenatal and postnatal women for symptoms of anxiety and depression.*** At a minimum, women should be asked to report their personal and family history of mental health problems and suicidal thoughts. Also ask about mood over the past two weeks, level of pleasure and interest in normally enjoyable activities, and feelings of uselessness or guilt [102].
- ***The Edinburgh Postnatal Depression Scale (EPDS)* should be offered antenatally and postnatally***. As it highlights risk rather than diagnosis, further assessment must be conducted for those who screen positive, namely those who score at or above 12 in total [46]. A positive response to item 10 warrants further discussion and perhaps referral. Because screening highlights probable diagnosis only, it is unwise to tell the woman she has a diagnosis of depression on the basis of her EPDS score [50].
- ***Ask all postnatal women how the delivery was to uncover symptoms of trauma***. Listen empathically.
- ***Women with significant risk factors should be referred and managed by appropriate mental health clinicians who can ensure close monitoring.***
- ***Psychosis constitutes a psychiatric emergency***.

Antenatal screening is a routine part of care in many West Australian centres where midwives are trained to administer the Edinburgh Postnatal Depression Scale (EPDS), [5] and ask some key questions about personal and family history of mental health problems. If this becomes part of the routine medical history-taking conducted by most of the obstetric team members, women are more likely to disclose relevant information without fearing the stigma associated with psychiatric disorders [57, 103].

The EPDS is a 10-item self-report questionnaire developed as a screening tool for postnatal depression, but it can also be used antenatally. Three questions measure anxiety symptoms (items 3, 4 and 5). For each item, women are asked to select one of four responses that most closely describes how they have felt over the past seven days. Question 10 asks about self-harm. Each response has a value of between 0 and 3 and scores for the 10 items are added together to give a total score. EPDS scores from 12 to 30 are classified as high risk in accordance with the screening criteria and referral guidelines administered at KEMH. It should be noted that the cut-off scores used vary across settings and some have recommended that an antenatal score of 15 or more should be used to suggest probable depression and a

* a copy is included in the Appendices

postnatal score of 13 or more be used [104]. To optimize safety and simplicity, we recommend that a cut-off score of 12 or more be used.

Formal training in the use of the EPDS is widely recommended to ensure its appropriate use.* It is reliable and valid for most women from European countries and descendents including Australia, Canada, and the USA. It should be briefly explained before administration in a confidential setting, with an overview of its purpose and what happens if the woman's score is high. The results and referral should be discussed with the woman immediately afterwards, especially if she answers positive to the last question (about self-harm).

As the EPDS is a screening tool and does not diagnose mood or anxiety disorders, clinicians must conduct a clinical interview and use professional judgement to arrive at a probable mental health disorder [105, 106, 107; see section on Referral]. Higher scores (e.g., ≥ 12) on the EPDS are associated with a probable diagnosis of depression and/or anxiety, but some women score high because of transient events. The questionnaire's purpose is obvious, so some women might not answer openly. There may be cultural or language issues that lead to unusual responses, for example self-harm might be misunderstood. If someone reads or interprets the questions for the mother, this can reduce its validity. The respondent might feel affronted by being handed a form to complete rather than being asked such personal questions face-to-face. Some women might fear that their baby will be taken away if they admit to mental health problems. It is therefore necessary to note other risk factors in addition to the EPDS score, and to ask about the signs and symptoms of mental health problems after providing information and reassurance about the outcomes of screening.

Optimal times for screening are at the initial antenatal appointment, during the third trimester and six weeks after delivery [108]. After delivery, Child Health Nurses in WA screen before 10 days if concerned about a mother's wellbeing; they routinely screen at scheduled appointments at 6-8 weeks, 3-4 months, and at 8 months. Because some women with many risk factors develop mental health problems later, it is useful to monitor them regularly for up to 2 years after delivery.

Symptoms of trauma might be uncovered early after childbirth by asking about the overall experience, levels of pain, and satisfaction of care provided. Later it might be useful to seek information that could suggest a diagnosis of Posttraumatic Stress Disorder (PTSD), by asking about symptoms of avoidance, intrusive thoughts and heightened arousal (sample questions are outlined by Alder and colleagues [109]; summarised in Appendices).

Those women screened as positive or at significant risk for mental health problems must be referred and/or managed, otherwise the screening may be considered ineffective and even unethical.

* Training is currently available in WA with funding from the State Perinatal Reference Group

Prevention

Research evidence that prevention is effective has been scant and often contrary to clinical wisdom. The list of unsuccessful preventative interventions includes preparation for parenthood classes [110], antenatal education [111-113], antidepressant medication [48], hormones, minerals [114], and fish oil [115, 116]. Long-term follow-up studies of preventions are virtually non-existent [47].

Postnatal interventions have been demonstrated to be more effective than antenatal with one reviewer concluding that intensive postnatal support provided by professionals was most helpful [44]. A key element of such support is having someone with whom to discuss problems. Women report that actions and comments of friends, family and professionals have an influence on their emotional well-being, so it follows that good communication should be recommended to all of these people, including the mother herself. For example, ensuring that clear information about procedures is provided to expectant mothers seems to be common sense, yet failures are cited often, especially by women who develop Posttraumatic Stress Disorder [88].

Special populations require special consideration

Adolescent mothers

Many adolescent mothers have a history of difficulties in their formative years such as domestic violence and negative relationship with parents, loss, depression, high-risk behaviours, and drug or alcohol misuse [117]. Adolescents might be especially distressed about their changing body shape [118]. Factors found to mitigate against mood problems in this group of women should be assessed, including high self-esteem, good material resources, and social supports [119]. Young women with many risk factors and few supports may benefit from extra support and monitoring in an age-appropriate manner (e.g., many are more comfortable communicating by email or text messaging than in a face-to-face conversation in a medical office).

Culturally and Linguistically Diverse (CALD) and Indigenous women

Some risk factors for perinatal mental health problems might be culturally bound, so it is important to ask open-ended questions at interview to discover if the mother feels sad or worried in general or about the pregnancy and parenting in particular. For example, the gender of the child has been identified as a potentially stressful factor in Hong Kong [120]. Canadian research has identified recent immigration in mothers [121] or being foreign-born in the male partners [8] as risks for PND. Given that low social support is a commonly cited risk factor in women generally, it would be a key risk factor for women who have migrated or otherwise left their home, even temporarily to have a baby in hospital.

A resource manual developed in WA [122] comprises 36 translated versions of the EPDS that can be offered to non-English-speaking women, based upon the earlier work of Cox and Holden [123]. Half of these have been validated for use in screening. Many include specific notations (e.g., about the meaning of depression within that culture) followed by recommendations for culturally sensitive screening. Different cut-off scores have been recommended for some populations.

If a woman appears uncomfortable completing the scale, even with reassurance about its purpose, verbal discussion about key risk factors is recommended. For example, the scale is unhelpful with Aboriginal women in the Kimberley where a brief face-to-face interview with culturally-sensitive questions has proven more acceptable (C Down, personal communication). Even if the scale is offered in their own language, women from war-torn countries might be embarrassed to admit that they never learned to read. This can apply even to mainstream Australian women who are functionally illiterate.

Transport to appointments can be especially difficult for women who do not read or speak English or routinely travel by public transport. Some agencies provide translated directions by telephone and arrange to meet a woman at the local train or bus station to facilitate attendance. Perhaps taxi vouchers can be provided where indicated. Some agencies provide a home visiting service.

Victims of abuse or trauma, including childhood sexual abuse and domestic violence

A history of previous trauma (especially sexual) may predispose the mother to experience further trauma symptoms or distress during maternal health checks, childbirth, Caesarean section, admission to hospital for the mother or admission to the Neonatal Intensive Care Unit for her infant, and even breast-feeding. Casual comments by staff members can be misconstrued by a woman who has learned to carefully monitor the words and actions of those around her. Other predisposing factors include low social support, high trait anxiety, and low coping strategies coupled with specific characteristics during delivery including high pain, unexpected events, and feelings of powerlessness [88]. Some migrants have experienced extreme trauma prior to settling in Australia and are particularly vulnerable if they cannot speak English.

Dissociation, as evidenced by the woman appearing to not really be "present" in the room, can occur during antenatal visits and birth. Whilst it might seem appropriate to hold her hand in order to help "ground" her, many women dislike being touched and see this as another violation of their body which heightens distress.

It may be useful to ask the woman if there is anything that can be done to make the experience easier for her, especially anything that would increase her perception of control over events. Female staff members might be preferred, including a female translator for women who do not speak English.

Previous loss of pregnancy or infant

Pregnancy loss—through miscarriage, termination due to genetic abnormalities, fetal death in utero, or stillbirth—causes grief, as well as heightened anxiety in a subsequent pregnancy. Women with such a complicated obstetric history should be assessed for symptoms of anxiety and grief and referred as necessary. Anniversary dates of the loss might be times of heightened distress; these dates include the gestational age or date of the loss, as well as the previous due date. More support and reassurance than normal might be necessary at times. See O'Leary for full discussion including treatment pointers, [124.]

Partners

Partners of women with psychiatric disorders often suffer from disorders themselves including adjustment disorder, mood and anxiety disorders [8]. Teenaged fathers are especially at risk [125]. Some fathers or others providing support at the birth report symptoms of trauma after viewing a traumatic delivery.

REFERRAL

For those women with a **high score on the EPDS (≥ 12) and/or other significant risk factors**, **further assessment** is recommended to confirm a diagnosis and arrange treatment. Clinicians with special skills in mental health assessment include mental health nurses, psychologists, general practitioners, and psychiatrists, some of whom may not be available in some regions of the state.

The process of **referral to a mental health specialist** demands good communication to promote attendance and cooperation: a clear explanation of the purpose and benefits to the woman and her family are critically important, with reassurance where necessary. If an assessment interview can be scheduled by telephone whilst the woman is present, this will encourage her to follow through, plus the mental health specialist can request further information from the referral source and mother as needed. When an **interpreter** is present, she or he can translate details of the assessment interview including its purpose, whether financial payment is expected, the appointment time and location, and organise interpreter assistance for the subsequent appointment.

Once a woman is diagnosed with a depressive or anxiety disorder, decisions must be made about the most appropriate treatment and where that can be accomplished. The mental health specialist considers the severity of the disorder, comorbid problems like substance abuse, and risk of harm to herself, her infant or others [126] and levels of social support currently available. Treatment in the community is the preferred option whenever feasible.

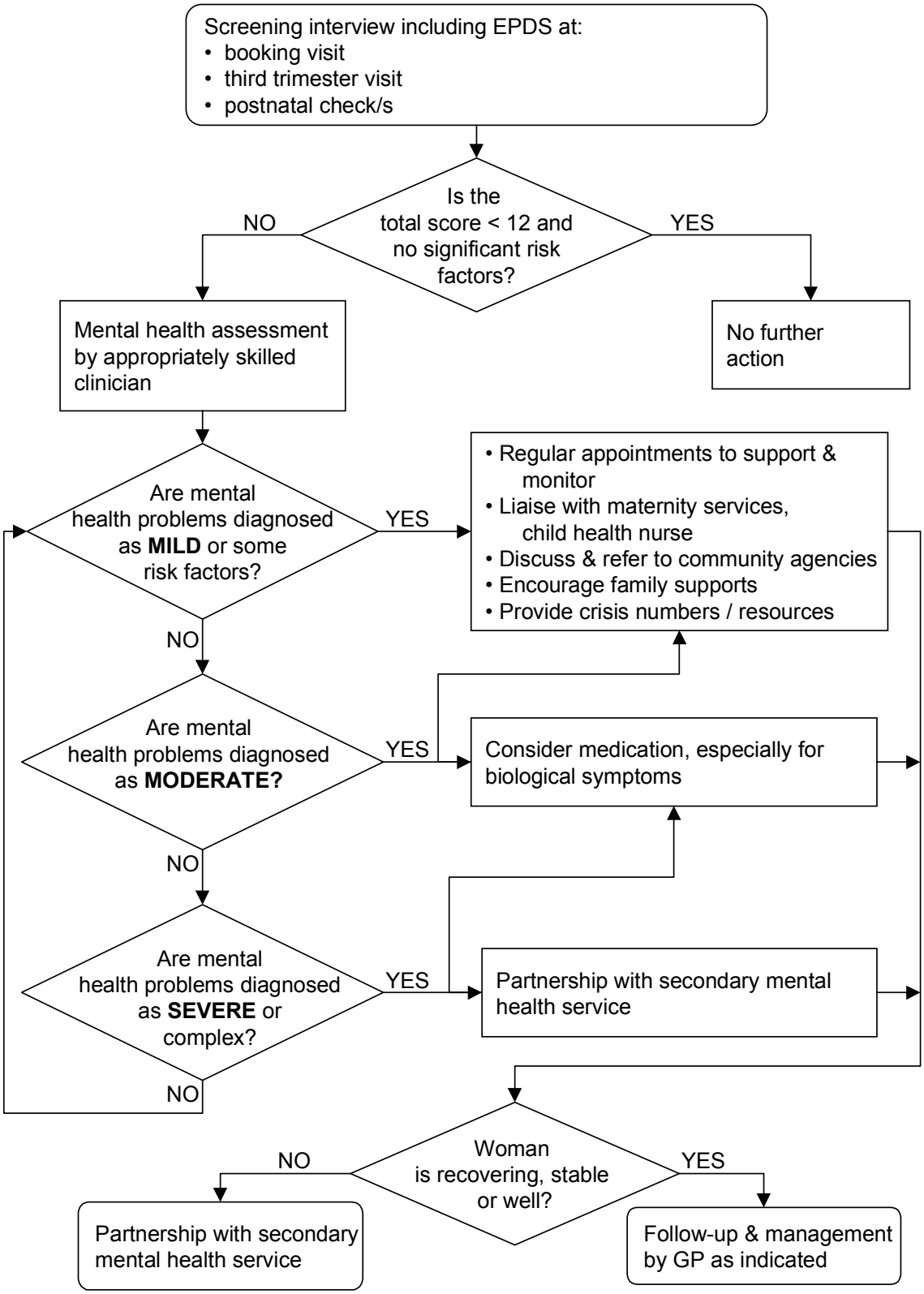
Referral to a psychiatrist is considered if a person "has bipolar disorder, psychotic depression or active suicidal thoughts; when there is no response to one or two trials of treatment; or when there may be a need for ECT" electroconvulsive therapy, p22, [127]. In cases of severe mood disorder or psychosis, or high risk of harm, **psychiatric hospitalisation** might be the best option, preferably at the mother-baby unit where the mother remains with her infant while she is closely monitored and supported.

Low-risk women might benefit from receiving an information package about perinatal mental health problems and resources [128]. It may be less threatening to refer mothers to a volunteer organisation rather than to social services for example [52]. If a social services agency is recommended, the mother needs to be reassured that the purpose is to support her in her mothering role, and not to remove her child or to suggest that she is a poor mother. Even the suggestion of day-care for older children can be misinterpreted.

Development of referral networks is planned, but needs to start at local agencies. Referring clinicians should communicate regularly with local treatment providers [42].

When in doubt, discuss with a mental health specialist and/or err on the side of caution.

CARE PATHWAYS



MANAGEMENT

Prolonged and untreated perinatal mood and anxiety disorders can have negative effects on the mother, developing fetus and child, and other family members. Some of these can be reduced through effective pharmacological and psychosocial interventions.

The mother and partner need to be fully informed of the risks and benefits of treatment options to foster treatment acceptance and adherence. In particular, risks to herself and the baby must be specifically addressed as some women ignore treatment advice if they are not reassured about the risks to the fetus or baby. Referrals to appropriate services should be expedited, ideally with the family's endorsement, to prevent those rare cases of infanticide or suicide. Multidisciplinary and cross-sectoral coordination are helpful in treating the whole person and her family; it can be very confusing for women to receive differing opinions from members of her care team.

Written care plan

A written care plan should be documented for women at significant risk of a perinatal depressive or anxiety disorder. In addition to a clear diagnostic statement, the care plan should include medications, breastfeeding plans, nature and frequency of psychiatric appointments, names and contact numbers of relevant psychiatric personnel, and a crisis plan [40].

Medications in pregnancy and lactation

Risks & benefits analysis

One should discuss with the woman and her partner the relative risks and benefits to the mother and fetus of different treatment options [72, 79]. The following steps are recommended:

- conduct a full analysis of exposure to other medications and substances with an aim to reduce nonessential exposures
- examine the impact of untreated illness on the baby
- seek a treatment with appropriately speedy response (e.g., for moderate to severe depression, medication might be a better choice than psychotherapy since the latter takes more time to yield satisfactory treatment effects)
- consider psychotherapy
- when prescribing medication, try to select one that has been previously effective for the patient

General prescribing issues

- Generally, **the more severe or refractory forms of mental illness are more likely to require medications while women with less troubling symptoms may opt for other treatments** [70, 129]. It has been recommended that antidepressant medication be seriously considered for women with moderate to severe depression. For those women who wish to discontinue medication during pregnancy, this should be done with close monitoring for recurrence of symptoms and with psychological treatment [129].

- If symptoms of psychosis are present with depression, antidepressants must be prescribed with caution as these medications can precipitate rapid mood cycling if the underlying diagnosis is bipolar disorder [66].
- The **lowest effective dosage** is recommended with frequent monitoring of its efficacy in maintaining euthymia, keeping in mind that physiological changes during pregnancy can result in lower plasma concentrations of medications [130].
- **Fewer agents** are recommended: some agents have more than one effect (e.g., antidepressant and sedation) [79].
- **Selective serotonin reuptake inhibitors (SSRIs) and serotonin and noradrenaline reuptake inhibitors (SNRIs)** are considered to be appropriate choices to treat **depression.**
- Toxicity should be a consideration if the woman is **suicidal**: **SSRIs are less toxic in overdose** than tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs) [100]. The side effect spectrum is generally more tolerable for the SSRIs, so they tend to be prescribed more often in any case.
- **Benzodiazepines** used during the first trimester of pregnancy have been associated with a very slight increase in incidence of oral cleft and major malformations in some but not all studies [131], but are considered safe after 12 weeks gestation [79]. Some authors have argued for selection of short-acting drugs if this class of medications is used [130]. Benzodiazepines can lead to withdrawal symptoms in the baby that have been described as more substantial than those from SSRIs, and may include "hypertonia, hyperreflexia, excessive crying, tremors, bradycardia, restlessness, irritability, seizures, abnormal sleep patterns, and cyanosis" p244, [131]
- Recommendations have been made to **taper the psychotropic medication** dosage a few weeks before birth, but that may be a time of heightened anxiety and some have argued against tapering [131] or for the use of anxiolytic medications to control agitation [130]. Clearly an individually-based decision would be advised.
- In the case of **antidepressants** (trycyclics, SSRIs and SNRIs), tapering of dosage might not be necessary but the infant should be observed in hospital for more than 48 hours after delivery in case of discontinuation* symptoms such as jitteriness, self-limiting respiratory difficulties, tachypnea, problems with feeding, hypotonia/hypertonia, hypothermia, and seizures [131, 132]. Short-acting SSRIs (like paroxetine which is now contraindicated in the first trimester) are more likely to cause these symptoms than long-acting ones such as fluoxetine [133].
- If **milk supply** decreases with antidepressant use, increase fluid intake and frequency of feeding [134].
- **Lithium** use in pregnancy is complex so specialist psychiatric opinion is recommended, especially in the first trimester, unless necessary in which case the fetus is very closely monitored. Other mood stabilisers—carbamazepine and valproic acid—have been associated with increases in neural tube

* Shelton (133) describes SRI discontinuation syndrome as distinct from withdrawal: the latter is associated with craving and drug-seeking behaviour whilst discontinuation is associated with a time-limited re-emergence of anxiety & depressive symptoms, flu-like symptoms and paresthesias. The discontinuation syndrome is easily managed, again differentiating it from withdrawal.

defects.
If any **Mood Stabilizer** is used in the first trimester (either inadvertently or following discussion and informed consenting) the fetus should be screened prior to 20 weeks gestation for possible congenital abnormalities

- Data are generally available for short-term effects of commonly prescribed psychotropic medications, but **long-term follow-up studies are lacking** in the offspring when they reach adulthood [74, 135, 136].

Treatment compliance

Women must be informed and reminded of the correct dosage in order to prevent poor compliance whereby they adjust the dosage to less than a therapeutic amount [137]. They need to know the potential transfer of antidepressants through breast milk and should hear this information in an individually-tailored discussion [138].

Qualitative research suggests that women report a need to talk through a range of issues, perhaps after their level of depression has improved, so referral for other forms of treatment should be discussed [139].

Useful sources of up-to-date prescribing information are included with the Reference list, to follow. Contact the Mother-Baby Unit at KEMH for further information on
(08) 9340 1799.

Other biological / physiological treatments

Electroconvulsive therapy (ECT): For severe cases of psychiatric illness, ECT has been demonstrated to be a safe option during pregnancy with appropriate multidisciplinary medical involvement [79, 140, 141].

For women who do not benefit from medications or who prefer more "natural" approaches, other biologically based treatments have been trialled with varying levels of success. Further research is needed in all of these areas (below), hence none can be fully recommended.

Hormonal interventions have shown some promise in improving depression in women with low levels of estradiol [142, 143].

St Johns Wort may be as effective as antidepressants in mild depression with fewer side effects, but we do not know the maximum safe dosages or long-term effects [144]. It may be less useful for more significant depression [145]. Caution: St Johns Wort interacts with many other medications [145]. Moreover, it may contain other compounds that are not recommended in pregnancy and lactation [146].

Omega-3 / n-3 polyunsaturated fatty acids ("fish oil") in perinatal depression have recently been reviewed and found to appear safe and even beneficial for the fetus and infant [147]. Although women prefer these more natural substances, investigators have cautioned that some sources of these compounds might contain mercury and other contaminants [148]. More research is needed before concluding that such alternative treatments are effective in reducing symptoms of maternal depression in comparison to placebo [149, 150], as well as what doses should be recommended [148]. There appear to be at least three plausible physiological mechanisms that relate omega-3 fatty acids to depression, so the future of this potential treatment appears optimistic [151].

Phototherapy or "light therapy" [152] and **prescribed sleep deprivation** to reset the circadian rhythm have been trialled with some successes, but again we need more research [143] and few practitioners are skilled in these treatments [146].

Psychosocial Management

Psychological treatments have been shown to have at least short-term efficacy in the treatment of PND [153], comparable to medications in mild to moderate depression [45] but few studies target or measure symptoms of anxiety*. Many studies suffer from methodological short-comings; long-term studies are needed as well as studies that highlight which treatments work for which women, framed within the biopsychosocial approach [154]. Wampold and others have cautioned that the current emphasis on evidence-based treatment is misguided in a field in which therapist effects may be more potent than the specific elements of treatments, including medication [155, 156].

Grote and Frank [157] remind us to tailor treatments to the needs and circumstances of women, noting that mothers often neglect their own emotional needs in favour of caring for others. We must understand the context in which a woman is living and modify our treatment approach (e.g., poverty, different cultural norms): if she can barely find enough money and energy to prepare a meal, how can she attend 12 sessions of therapy at a remote centre to benefit her own emotional wellbeing? Time-limited therapy that targets her main concerns must be a treatment priority.

Cognitive Behavioural Therapy (CBT)

Cognitive behavioural therapy (CBT) is based on a set of fundamental premises: cognitions affect behaviour, cognitions can be attended to and changed, and changes in cognitions can effect changes in behaviour [158]. CBT clinicians work within a broad framework in which they target a person's coping skills, problem-solving activities and/or dysfunctional thoughts in efforts to bring about improved functioning.

A recent review of meta-analyses suggests that CBT is effective for common anxiety disorders and may be "somewhat superior to antidepressants in the treatment of adult depression" p. 17, [159]. Moreover, this review concluded that the effects of CBT have been shown to be long-lasting. Moreover, research from WA supports the use of CBT for mild to moderate levels of PND [45].

Interpersonal Psychotherapy (IPT)

Interpersonal psychotherapy (IPT) is a time-limited form of psychological therapy which focuses on interpersonal functioning as a means to improve mood and interpersonal distress [160]. Goals of therapy might include improving or changing a woman's expectations about interpersonal relationships, building and using effective support networks, and improving interpersonal communication with a more flexible style of attachment.

IPT advocates reviewed recent psychotherapy research and concluded that it is an effective treatment for perinatal mood disorders [160, 161]. It is now being adapted for use in group-based interventions with success reported in pilot studies [162-164].

* An exception is a study of Australian women with postnatal depression: self-reported symptoms of depression and anxiety improved after psychological treatment (Milgrom et al, 2005).

Nondirective counselling

Nondirective counselling is a broad term encompassing good listening skills and avoidance of advice-giving with the premise that women can solve their problems through reflection and talking through issues. The counsellor might assist her to problem-solve about how to get help and gain more time to herself through the sharing of babysitting with other mothers. The counsellor might "normalise" her distress and give her permission to ask others for help.

Nicolson [165] has highlighted the need to assist new mothers to overcome the many losses associated with having a baby that have been uncovered through qualitative research. These include the loss of autonomy and time to oneself, plus loss of one's appearance, femininity, sexuality, and occupational identity.

Home visiting programs have been shown to be helpful in the treatment of depression [166, 167] and are often a cost-effective way to intervene for mild to moderate levels of depression and probably for anxiety.

Voluntary support

The PND Support Association (PNDSA) provides telephone and group support to the women of Western Australia. They also develop brochures and engage in community events that highlight their services.

A Canadian pilot study has suggested that peer support by means of telephone contacts to new mothers might decrease depressive symptoms in women who scored > 12 on the EPDS at 8 weeks postpartum [168]. The peers—mothers themselves who had experienced PND—completed a 4-hour training session after volunteering to participate in the study.

Face-to-face counselling in individual or group sessions has also be shown to be effective in reducing symptoms of depression and parenting stress in a Scottish study in which the therapy was eclectic and tailored to the needs of the woman within a holistic framework [169]. Because this study lacked a control group and failed to define what training the counsellors had, it is difficult to draw generalisations from it.

A Cochrane review of the use of paraprofessionals in the treatment of anxiety and depressive disorders has concluded that the limited evidence available justifies continued interest in the use of volunteers in the treatment of these disorders in women [170]. However, only three fairly good studies could be found in the literature, one of which was the Canadian study mentioned above [168].

Practical Advice for mothers

Virtually all people who work with perinatal women have a range of pragmatic suggestions that they provide to mothers, which may include the following:

- Taking care of oneself is necessary so the mother can take care of her baby: she needs time for herself without guilt and stress
- Mothers should try to accept offers of practical support even if the tasks will not be done perfectly
- Make sleep a priority [58, 93] especially if she has a history of bipolar disorder [171]. Relaxation and "time out" are critical to recharge the energy stores.
- Sleep hygiene should be reviewed (e.g., a bedtime routine helps to unwind; if cannot sleep in 20 minutes get up and do something boring, watch TV or read a book; avoid caffeine or vigorous exercise late in the day)
- Socialisation must be another priority [172, 173]; attend mothers groups, playgroups even if arriving "late"
- Eat nutritious snacks and eat regularly
- Exercise regularly [146, 172]
- Encourage the father to be responsible for some daily tasks without mother's supervision [173]
- If milk supply decreases with antidepressant use, increase fluid intake and frequency of feeding [134]

Debriefing or "birth review"

- Women should be offered the opportunity to talk about any negative aspects of their birth experiences, but not pushed to do so. Call this activity a "birth review" [174].
- Do listen empathically, see the problems from the patient's perspective, identify problems in the service, and provide feedback to staff members [175].

In the general literature on debriefing for preventing PTSD, a Cochrane review indicated that single-session debriefing has shown no efficacy [176]. However, some Australian clinicians have argued that in their extensive experience in providing debriefing by an obstetric consultant or midwife, most women were satisfied with the intervention and felt that it should be offered before discharge to all women following a complicated delivery [175]. Formal debriefing may not reduce psychological morbidity as evidenced by another group of Australian researchers who confirmed similar earlier findings [174], even though it may be rated positively by most women. They recommended the term "birth review" as it has a less dramatic connotation. Staff should document on the mother's health record(s) that a birth review has been undertaken to prevent repeated reminders of the negative events.

Groups: Therapy and Peer Support

Depressive and anxiety disorders may be treated successfully by group therapy, often using a combination of approaches such as Cognitive Behavioural Therapy (CBT) (including problem-solving) and Interpersonal Psychotherapy (IPT). Benefits of group therapy include the provision of peer support with a wide range of exposure to other people's problems and solutions and the opportunity to socialise.

Typical groups for women are community based and may be informal (e.g., Playgroups, Nursing Mothers Association, drop-in coffee mornings) to more formally structured (e.g., PNDSA, those offered at Child Health Centres, women's health care houses and at Department of Psychological Medicine, King Edward Memorial Hospital). Some might be more therapeutically oriented whilst others might be primarily psycho-educational [177]. Many include the father for at least one session to promote better understanding and to help generalise communication skills to the couple relationship.

Studies of **antenatal groups** to prevent PND suffer from methodological problems, and so it has been suggested that participants in such studies should be selected who already exhibit symptoms of distress, including both depressive and anxiety symptoms [178]. Such targeted research is likely to achieve larger statistical effect sizes.

Groups for fathers: "Hey Dad" at Ngala and "Involved Dads" at SJOG Raphael Centre are two groups operating in WA to support men in their adjustments to fatherhood.

Qualitative research conducted in the Peel region of Western Australia [179] highlights the potential success of men's groups: the researchers conducted focus groups to describe the experiences of male partners of women with PND who attended a men's therapeutic group. The men reported that the group helped them to understand and support their partners, and reduced their own stress levels. They appeared very interested in trying new strategies to implement change. The authors concluded that "men are eager and enthusiastic about being included" in the treatment of women with PND and that the men wanted the broader community to become better acquainted with facts about PND to reduce the stigma for women and their families (e.g., through discussion of PND at antenatal classes).

Couples &/or family counselling

Because poor social support is a key risk for developing perinatal depressive and anxiety disorders, improving social relationships through counselling involving the partner or family is often recommended. Counsellors might work within a variety of models already described, as well as models that focus on improving the constellation of relationships impacting upon a woman and her family.

Grief counselling

O'Leary [124] gives an excellent overview of grief issues as they relate to pregnancy loss and subsequent pregnancies. She contends that society fails to guide grieving parents and sometimes people collude to deny the reality of the loss, perhaps because of their own difficulties in understanding or facing death.

A subsequent pregnancy and even the birth of a healthy baby bring back feelings of what “might have been” had the previous loss not occurred. Validation and discussion of mixed emotions and fears can go a long way to supporting a couple who will never forget their lost child. More frequently scheduled medical visits and monitoring might allay anxiety. In some instances a profound psychological need drives the desire to see the fetus on an ultrasound image on more occasions than in conventional pregnancies.

Treatment of Mother and Baby

Mother and baby unit

Mother and baby units are psychiatric hospital facilities designed specifically for admission of mothers and their babies in a small, home-like unit.

Psychiatric admission of a mother diagnosed with a moderate to severe mental illness is made less traumatic if her baby is admitted with her. Moreover, joint admission affords a good opportunity to observe and intervene in the mother-baby dyad. Typical treatments include biological, psychological, mothercrafting, parenting education and support, couple therapy and supportive counselling [180].

Mental health Hospital at Home (H@H)

An alternative to psychiatric hospital admission is the Hospital at Home service currently being piloted in the North Metro region of WA. The patient is treated in her familiar home surroundings with intensive support, education and guidance provided to her and her family by community mental health staff. Most hospital services are provided, as well as liaison with community services as indicated to provide extra supports for the individual with their day to day activities, thus minimising the burden on carers.

Community Child Health Nurses and Child Development Services

Child Health Centres are staffed by registered nurses with qualifications in maternal, child and family health. They provide a range of services in partnership with parents and carers of babies and young children up to the age of 4 years. Community Child Health Nurses can assess children's health and development, as well as provide information about many aspects of parenting, maternal and family health and healthy lifestyles. There are 310 Child Health Centres across Western Australia.

In Perth and larger country areas, Child Development Centre health professionals, such as clinical psychologists and social workers, provide specialist support and counselling for carers who have perinatal depressive and anxiety disorders. They also focus on enhancing the quality of parent-child interaction to support normal child development and secure attachment.

Community Child Health Nurses facilitate parenting groups for first-time mothers over a number of weeks to provide an opportunity for new parents to meet with others and share experiences. Other parenting groups support stress and depression of women in the postpartum period, in conjunction with Child Development Centre health professionals.

Community Child Health Nurses offer the EPDS to all mothers with new babies at 6-8 weeks, 3-4 months and 8 months postpartum. Fathers are also offered the EPDS if required. Depending on the results of the EPDS, the Nurse will:

- provide relevant information about services and routine care, including parenting and support groups for parents with no mental health issues
- monitor the mother's mental health status using strategies such as 'listening visits'
- make referrals to the GP and other services such as PND Support groups and the Best Beginnings intensive home-visiting program
- refer for specialist perinatal mental health assessment
- make direct referrals for emergency mental health treatment

This can be initiated at any point when the Community health professional has a concern regarding the mental health and wellbeing of women.

Parenting services

Centres such as Ngala, Meerilinga, Child Health Centres, and women's health care houses offer a wide range of parenting supports, including assistance with feeding and sleeping problems. One promising avenue of research suggests that group-based parenting programs may improve the psychosocial health of mothers [181]. Australian research suggests that preparation for parenting might be useful in the short-term primarily, for women with low self-esteem [182].

Treatment of an unsettled infant is often the entry into assessment and treatment of a maternal mood disorder [183] since infant problems and maternal mood disorder often occur together.

Some have called for more attention and therapy for the **parent-infant dyad** in treatment models following their observations that some depressed mothers may be either distant or intrusive in their interactions with their infants [184]. Patterns of mismatched interchanges of communication between mother and infant that are not effectively "repaired" could have lasting effects on the emotional and cognitive development of the child, according to these authors.

Attachment can be monitored and facilitated. Several WA maternal health professionals have taken specialised training in this area.

Baby massage has been trialled with good effect in improving the baby's sleep and temperament, the mother's anxiety level, and the mother-infant interaction [145, 185].

MORE INFORMATION CAN BE FOUND

Websites

www.nps.org.au The National Prescribing Service has newsletters and links regarding diagnosis, prescribing medication and special topics

www.tg.com.au TGA: Therapeutic Guidelines Limited (2006)

www.beyondblue.org.au The national depression initiative *beyondblue* website has a section devoted to perinatal issues

www.yourzone.com.au/perinatalhealth designed for consumers, but can assist professionals to identify local resources

www.community.wa.gov.au/onlineresourceguide/ Domestic Violence online resources

www.community.wa.gov.au/Resources/Child+Protection/ Child Protection resources

www.community.wa.gov.au/Publications/FactSheetsAndGuides/Courses_Guide.htm Community-based courses on parenting, PND and other topics, sponsored by DCD

www.health.wa.gov.au/services/category.cfm?Topic_ID=18 or http://intranet.health.wa.gov.au/royalstreet/content/directorate.cfm?divID=93&dirID=99
State Child Health Nurse locations and timetable

www.relationshipsaustralia.org.au Relationship counselling

www.mhcs.health.nsw.gov.au/mhcs/topics/Pregnancy_and_Post_Natal.html A range of topics including EPDS in English and other languages

www.sign.ac.uk Scottish guidelines #60 refer to Puerperal Depression and Psychosis

www.psychology.org.au/psych/referral/_service to locate clinical psychologist registered with Medicare

Telephone

Mother-baby unit at KEMH	9340 1799	
KEMH Department of Psychological Medicine - duty officer	9340 1521 Mon-Fri 8.30 – 4.30	Perinatal and postnatal mental health services for KEMH patients & duty calls
KEMH Pharmacy	9340 2723	Obstetric Drug Information Line
Pregnancy Loss Service at KEMH	9340 2128	
SJOG Raphael Centre	9382 6828	Perinatal and postnatal mental health services
Ngala	9368 9368 / 1800 111 546	www.ngala.com.au
PNDSA	9340 1622	Volunteer support association
Mental Health Services		See whitepages.com.au and search for "mental health services" for complete listing
Mental Health Emergency Response Line previously known as Psychiatric Emergency Team	East Perth: 1300 555 788 Rural FREECALL: 1800 676 822 TTY: 1800 720 101	

Books & Other Resources

Beck CT, Driscoll JW. Postpartum mood and anxiety disorders: a clinician's guide. Boston: Jones and Bartlett Publishers; 2006.
Case examples bring the issues to life, with practical advice about measurement tools and treatment.

Cohen LS, Nonacs RM, editors. Mood and anxiety disorders during pregnancy and postpartum. Washington DC: American Psychiatric Publishing; 2005. Review of Psychiatry Series Vol. 24.
Practical and evidence-based information on prescribing medications is reviewed with specific chapters on antenatal issues, postnatal issues, bipolar disorder, and breast-feeding considerations.

Department of Health, Government of Western Australia. Using the Edinburgh Postnatal Depression Scale (EPDS): translated in languages other than English: State Perinatal Mental Health Reference Group; 2006.
36 translated copies of the EPDS. For a copy telephone (08) 9340 1795.

Kendall-Tackett KA. Depression in new mothers: causes, consequences, and treatment alternatives. New York: Haworth Press Inc; 2005.
With quotes from mothers, this book brings to life the many common issues confronting a clinician who struggles to help. Sensible and evidence-based management options are clearly outlined.

Murray L, Andrews, L. The social baby, understanding babies' communication from birth. London: CP Publishing; 2000.
D Murray says the book was written "to help parents understand more about difficult infant behaviour and to help health care professionals give appropriate support"

APPENDICES

People involved in writing and review of these guidelines

Primary author: Delphin Swalm, PhD (Specialist Clinical Psychologist), with support from Statewide Obstetric Support Unit (SOSU) & Department of Psychological Medicine, King Edward Memorial Hospital

Others closely involved in writing include:

- the chair of the Psychological Medicine Clinical Care Unit—Dr Jonathan Rampono
- the Obstetrics Director of SOSU—Dr Cliff Saunders

Those who provided feedback about drafts included:

- Christina Down, coordinator of the State Perinatal Reference Group, and other members of the Group including Dr Jann Marshall
- Members of the Department of Psychological Medicine, King Edward Memorial Hospital including Ms Liz Oxnam

Consumer feedback has been solicited from the Postnatal Depression Support Association of Western Australia

Edinburgh Postnatal Depression Scale (EPDS)

J. L. Cox, J.M. Holden, R. Sagovsky
From: *British Journal of Psychiatry* (1987), 150, 782-786.

The **EPDS** was developed for screening postpartum women in outpatient, home visiting settings, or at the 6 –8 week postpartum examination. It is now used antenatally as well, and is available in many translated versions. The **EPDS** consists of 10 questions that can usually be completed in less than 5 minutes.

Responses are scored 0, 1, 2, or 3 according to increased severity of the symptom. Items marked with an asterisk (*) are reverse scored (i.e., 3, 2, 1, and 0). The total score is determined by adding together the scores for each of the 10 items.

The **EPDS** is only a screening tool. It does not diagnose depression – that is done by appropriately licensed health care personnel. Users may reproduce the scale without permission providing the copyright is respected by quoting the names of the authors, title and the source of the paper in all reproduced copies.

Instructions for users

1. The mother is asked to underline the response which comes the closest to how she has been feeling the previous 7 days.
2. All ten items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

Name: **Date:**
Address: **Baby's Age:**

As you have recently had a baby, we would like to know how you are feeling. Please UNDERLINE the answer which comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

Here is an example, already completed.

I have felt happy:

Yes, all the time
Yes, most of the time
No, not very often
No, not at all

This would mean: "I have felt happy most of the time" during the past week. Please complete the other questions in the same way.

In the past 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	*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, most of the time I have coped quite well No, have been coping as well as ever
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	*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
*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	*8. I have felt sad or miserable Yes, most of the time Yes, quite often Not very often No, not at all
4. I have been anxious or worried for no good reason No, not at all Hardly ever Yes, sometimes Yes, very often	*9. I have been so unhappy that I have been crying Yes, most of the time Yes, quite often Only occasionally No, never
*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	*10.The thought of harming myself has occurred to me Yes, quite often Sometimes Hardly ever Never

Cox JL, Holden J, Sagovsky R. Detection of postnatal depression. British Journal of Psychiatry. 150:782-6;. 1987.

Posttraumatic Stress Disorder (PTSD) Questions

from Alder, J, Stadlmayr, W, Tschudin, S, Bitzer, J (2006). Post-traumatic symptoms after childbirth: What should we offer? *Journal of Psychosomatic Obstetrics & Gynecology, 27 (2)*, 107-112.

Table I. Assessment of birth experience in the postpartum.

Domain	
Overall experience	How did you experience your birth? Were there any circumstances which were problematic during labor?
Pain	What was your experience of pain during labor and the possibilities to deal with the pain?
Care	Were you satisfied with the care you received during labor from midwife and obstetricians? Were there any situations in which you missed the support from your partner or the team? Is there anything which you still don't understand of what happened during birth?
Obstetric procedures	Do you have any questions regarding the interventions and procedures which were necessary during labor? How well did you feel informed and involved in decision making processes?

Table II. Assessment of post-traumatic symptoms in the postpartum.

Domain	
Avoidance	Do you avoid thinking about birth? Have you avoided people, buildings etc. which remind you of the birth?
Intrusions	Have you had negative dreams about your childbirth? Do you sometimes think about the birth without really wanting to think about it? Have you had images about the birth coming up or the experience of reliving aspects of the birth?
Arousal	Have you had difficulties falling asleep in the last weeks? Do you experience negative bodily sensations when you remember birth? Have you been more tense, nervous, irritable or anxious?

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