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Perinatal mental health: What every neonatologist should know

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ABSTRACT

Perinatal mental disorders are common and can impact adversely both on maternal functioning and on foetal and neonatal outcomes. For the more severe disorders, such as schizophrenia, bipolar disorder and severe depression, medication may be needed during pregnancy and breastfeeding, and there is a growing but complex evidence based on the effects of psychotropic medication on the foetus and neonate. In addition, the neonatologist needs to be aware of the co-morbid problems that women with mental disorders are more likely to have as these may also impact on the neonate. Close liaison with family physicians and primary care where there are concerns about mental health is important to ensure maternal mental health is optimal for the mother and her infant.

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1. Introduction

Perinatal mental disorders are common and can impact adversely both on maternal functioning and on foetal and neonatal outcomes. For the more severe disorders, medication may be needed during pregnancy and breastfeeding, and there is a growing but complex evidence based on the effects of psychotropic medication on the foetus and neonate. In addition, the neonatologist needs to be aware of the co-morbid health problems that women with mental disorders are more likely to have as these may also impact on the neonate.

We first review the prevalence of severe and more common perinatal mental disorders, and their likely presentation in the postnatal period. We then summarise the evidence on the association between mental disorders, psychotropic medication and adverse obstetric and neonatal outcomes. Finally, we review the literature on breastfeeding whilst using psychotropic medication.

1.1. How common are maternal mental disorders on the neonatal unit and how do they present?

Perinatal mental disorders affect around 15–20% of women in the general population, [1] with a higher prevalence among mothers on

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neonatal intensive care units (up to 40%) [2]. The most common disorders are depression and anxiety, but women can present with a broad range of other disorders, including eating disorders, personality disorders, bipolar disorder, schizophrenia and other psychotic illnesses [3]. In general, the prevalence of mental illness is similar during pregnancy as at other times in a woman's life. During the postnatal period, the risk for certain conditions such as severe mood disorders and acute psychosis is increased, with most psychotic episodes occurring within the first two postnatal weeks [3,4].

1.1.1. Severe mental illness (SMI) and obstetric/neonatal outcomes

The term 'severe mental illness' (SMI) includes psychotic illnesses such as schizophrenia, bipolar affective disorder (with or without psychotic symptoms) and non-psychotic illnesses such as depression or substance misuse where there is high functional impairment and the need for psychiatric admission or other intensive psychiatric support [4].

In the postnatal period, psychosis can occur as a continuation of a chronic psychotic illness such as schizophrenia, or as an abrupt onset, rapidly developing psychotic episode starting shortly after birth [4]. It is the latter presentation, which has traditionally been called 'postpartum psychosis' (PPP) or 'puerperal psychosis', with an incidence of 1–2 per 1000. The risk of PPP is greatly elevated for women a history of bipolar disorder (incidence 20%), particularly those with a previous or family history of PPP (incidence greater than 50%), although around half of women with PPP have no known risk factors [4]. Postpartum psychosis is a psychiatric emergency, which if untreated can lead to serious harm or death for mother and infant [5]. Episodes are characterised by mood symptoms, delusions and/or hallucinations and perplexity or confusion, with a fluctuating, rapidly developing course. It is important to exclude an underlying organic cause (e.g., sepsis), particularly among women with a psychiatric history, as the misattribution of physical pathology to a psychiatric cause can lead to avoidable maternal deaths. Mothers with suspected PPP require urgent psychiatric assessment (national UK guidance from the National Institute of Clinical Excellence (NICE) recommends assessment within 4 h) [1].

Bipolar disorder, previously known as manic depression, has a prevalence of 2.4% among women of reproductive age (0.4% of women have the more severe form of bipolar disorder with psychotic symptoms) [4]. There is an elevated relapse risk in the postnatal period, with up to one in two women experiencing any mood episode and one in five women experiencing acute postpartum psychosis [4]. Those with a severe relapse will require psychiatric admission (in some countries this will be to a psychiatric mother and baby unit), but most will make a good functional recovery with no significant parenting difficulties.

Chronic schizophrenia has a prevalence of less than 1% and presents similarly within and outside the perinatal period. Unlike women with bipolar disorder, many women with schizophrenia have chronic functional impairment and may have significant parenting difficulties, with a third to half losing custody of their children [6]. Many highly value the parenting role and want to maintain custody of their children, and there are effective interventions that can optimise their chances of doing so [7]. Women with schizophrenia may have plans in place for parenting assessments, in health or social care settings, and neonatal admissions can delay and complicate this process, given the additional challenges for mothers of looking after an ill neonate.

Compared to the general population, women with schizophrenia are more likely to have adverse obstetric outcomes (including miscarriage, antepartum haemorrhage, pre-eclampsia and instrumental deliveries) and adverse neonatal outcomes (including congenital malformations, premature birth, foetal growth abnormalities, stillbirth, neonatal and sudden infant deaths) [8–11]. Limited evidence suggests that psychotic bipolar disorder has similar associations to those found for schizophrenia and that in both conditions much of the risks are mediated by modifiable co-morbidities such as smoking or drug misuse [9,10,12].

1.1.2. Common mental disorders and obstetric/neonatal outcomes

Common mental disorders are disorders that are primarily treated in primary care and include non-psychotic depression, anxiety disorders and the less severe forms of eating disorders and personality disorders.

Systematic reviews estimate the point prevalence of major and minor (i.e., sub-threshold symptoms) depression in the first 3 postnatal months to be 4.7% and 13%, respectively [13], with a higher prevalence in low and middle income countries than in high-income countries [14]. Anxiety is also common and often presents with depression, affecting around 13% of women during pregnancy and the postnatal period [3]. Symptoms of depression such as lack of enjoyment, severe insomnia, poor appetite and concentration, negative ruminations, excessive guilt and suicidal preoccupation can impair a woman's ability to care for her newborn. Depression and anxiety are associated with impaired mother–infant interactions, with mothers often displaying decreased ability to regulate an infant's distress, decreased warmth and more intrusive interactions with their baby [15]. However, there is only a small to moderate increase in the risk of adverse child cognitive, behavioural and emotional outcomes and additional risk factors beyond poor mother–infant interaction are usually required, such as chronic depression, social adversity and marital conflict [15]. Mothers may need reassurance that, with treatment, acute episodes of common mental disorders do not usually impact on child outcomes, as they often worry that their perinatal illness will have a long-lasting, severe impact on their child. This worry may be exacerbated by the guilt and negative ruminations that are typical of depression.

In general, antenatal common mental disorders are associated with statistically significant though modest increases in adverse neonatal outcomes and mainly of mild to moderate severity with no excess risk of neonatal admissions [16,17]. Four recent systematic reviews investigated the association between antenatal depression and adverse obstetric/neonatal outcomes [16–19]. Overall, these data suggest women with antenatal depression may have a small increased risk of pre-eclampsia and a moderately increased risk of giving birth to a baby with low birth weight (LBW: <2500 g). [16–19] The majority of studies find no association between antenatal depression and preterm birth, but there are moderate associations for certain subgroups—such as women from low income countries, women from lower socioeconomic backgrounds and women with more severe depression [16,17,19]. However, few studies adequately control for confounders such as maternal smoking, gestational age or social deprivation [16–19].

Other mental disorders are less common but may present specific challenges on neonatal units. Obsessive–compulsive disorder has a higher prevalence during the perinatal period than at other times—affecting around 2% of pregnant and postnatal women, when it commonly presents with ruminations about harming the baby or fears of contamination [20]. This may lead to avoidance of baby care or excessive and sometimes harmful hygiene rituals. Ruminations on harming the baby are rarely acted upon, in contrast to the high risk from delusions or other psychotic symptoms, but this can be difficult to establish without psychiatric assessment. Mothers often feel guilty and distressed, and are at risk of suicidal thoughts or acts [3]. Eating disorders in pregnancy are also important as they may be associated with foetal growth abnormalities [1]. Anorexia nervosa is uncommon in pregnancy (<1%), and symptoms often remit in the perinatal period, whilst binge eating disorder may worsen in pregnancy [3]. There is some evidence that eating disorders are associated with abnormal foetal growth—with anorexia nervosa being associated with low birth weight (pooled mean difference estimated at 190 g lighter) [21] and binge eating disorder with higher birth weight [22]. Personality disorders are often co-morbid with other conditions such as depression and may be associated with treatment resistance and worse child outcomes [1].