

Current considerations of the effects of untreated maternal perinatal depression and the National Perinatal Depression Initiative

P. Hall*

SAHealth, National Perinatal Depression Initiative, South Australia

Postnatal and antenatal depression present significant public health concerns. Current opinion on the use of these terms is noted. Previous research findings demonstrate that detrimental effects of untreated maternal depression/anxiety are potentially severe and impact on the whole family; longer-term effects on child development are described. Australia has responded to such overwhelming empirical evidence by the implementation of the National Perinatal Depression Initiative. Key objectives and a brief overview of the work in progress of this Initiative are offered.

Received 29 November 2011; Revised 15 December 2011; Accepted 3 January 2012; First published online 17 January 2012

Key words: antenatal depression, effects, initiative, postnatal depression

Although postnatal depression (PND) has been recognized as a significant health issue for many years now, historically, depression during pregnancy has generally received less attention in the media, research and by health professionals working with perinatal women and their families. Fortunately, ‘antenatal depression’ is now being recognized in health and political domains as the prevalence appears to be just as widespread and the detrimental effects just as significant as those commonly associated with PND. PND is generally estimated to affect ~13% of women¹ with the prevalence of antenatal depression similarly estimated as ~12%.²

In addition, comparatively neglected until recent times in policy and health service provision is the experience of anxiety in the perinatal period. When referring to the terms antenatal depression or PND, it is arguably more helpful, and akin to women’s experience, to consider symptoms wider than those associated solely with depression. It is now accepted by experts that referring to depression, anxiety and other related disorders in the perinatal period is a more useful conceptualization than a narrow focus on only depression. In much of the research that has been conducted, it is difficult to disentangle the conclusions from effects of depression *v.* anxiety, not least due to clinical co-morbidity. However, this presents clinicians with another challenge, as symptoms, diagnoses and treatment for anxiety and depression will be quite different. It can also be difficult to disentangle the effects on the infant of maternal depression/anxiety experienced antenatally *v.* postnatally.^{3,4} At present, the most useful approach may be to accept that findings from relevant research studies may be applicable to anxiety and depression in the perinatal period; however, obviously in clinical work, care

should be taken to assess and treat presenting issues appropriately, irrespective of nomenclature or time of origin.

One reason that perinatal depression and anxiety are of great concern is that despite being a fairly common experience, mothers remain reluctant to disclose that they feel depressed or anxious because of societal expectations that pregnancy and new motherhood should be a ‘happy time’, or because of fears or concerns of the consequences of disclosure (e.g. concerns that they may be labelled as mentally unwell). During pregnancy, there may also be concerns about the safety of some treatments.⁵ In turn, such reluctance to disclose and seek help can result in serious consequences. Experience of symptoms of depression and anxiety during pregnancy is associated with obstetric complications and preterm labour and impacts on the health and behaviour of the developing foetus.⁶

It has been proposed that maternal stress or anxiety during pregnancy affects neurobiological developmental programming of the foetus, which can lead to later psychopathology.³ This hypothesis has gained support from empirical research, which has found that prenatal maternal anxiety leads to increased cortisol levels in the infant⁷ and is associated with difficult infant temperament.⁸ In addition, research has reported that the longer-term consequences of maternal anxiety during pregnancy is correlated with behavioural/emotional problems in 4-year-old⁹ and 6–7-year-old children;¹⁰ with symptoms of attention deficit hyperactivity disorder in 8–9-year-old children;¹¹ and with impulsivity on testing and poorer scores on intelligence subtests in 14–15-year-old children.¹² It is therefore suggested that untreated maternal stress/anxiety during pregnancy can exert a programming effect on the developing brain of the offspring, which persists until at least adolescence.

The adverse effects of PND are well established and are known to affect the social, emotional, cognitive and behavioural outcomes of the infant with potential longer-term consequences

*Address for correspondence: Dr P. Hall, Mental Health Unit, SA Health, PO Box 287, Rundle Mall, Adelaide, SA 5000, Australia.
(Email Pauline.Hall@health.sa.gov.au)

on child development. Research has shown that the effects of PND include an association between PND and impairment of mother–child bonding;^{13–15} increase in the odds of developmental delay at 18 months of age;¹⁶ increased risk for behavioural/emotional problems in children;^{9,13} and affect adolescent IQ, especially in boys.⁴

Adverse effects of depression also impact upon the woman herself and her family. The experience of perinatal depression for the mother is obviously distressing. In severe cases, suicide may occur; psychiatric disorders are noted as one of leading causes of maternal mortality in Australia.¹⁷

In recent times, awareness that fathers can also be at increased risk for experiencing depression after the birth of their baby has been acknowledged, and is strongly associated with maternal depression.^{18–20} Depression in new fathers is also related to behavioural problems in children, independent of maternal depression.²¹

Therefore, despite the prevalence and consequences of depression and anxiety occurring antenatally and postnatally, many sufferers remain unidentified and untreated. If detected, depression and anxiety can be effectively treated with pharmacological or psychological interventions.

The Australian government Department of Health and Ageing has responded with the introduction of the National Perinatal Depression Initiative (NPDI; 2008–2013). \$85 million state and federal funding has been committed with a focus on the principle elements of:

- (1) routine and universal screening for perinatal depression, both antenatally and postnatally;
- (2) workforce training and development for health professionals;
- (3) clear and agreed pathways of care, and follow-up support for women assessed as being at risk of or experiencing perinatal depression;
- (4) community awareness;
- (5) research and data collection.

Each state and territory is now seeking to introduce routine screening of all women at least once in the antenatal period and postnatal period. Clinical Practice guidelines for depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period have now been released,²² which recommend that the Edinburgh Postnatal Depression Scale²³ should be administered alongside a psychosocial risk tool. Together with the other key elements of the NPDI, it is intended that this will facilitate mothers in disclosing symptoms of psychological distress and enable early identification and treatment where needed. This in turn aims to reduce the vast detrimental effects of untreated maternal perinatal depression.

Progress to date in implementation of the NPDI key objectives is observable across Australia with routine screening now occurring in many places. Achievements have been assisted by collaboration and communication across jurisdictions, as well as with the Commonwealth and ‘beyondblue: The national depression initiative’. Hundreds of health professionals

have now received training, either delivered face-to-face or via digital resources. Two e-learning packages have been developed providing free-to-use sustainable training opportunities: ‘Introduction to Perinatal Mental Health’, which may be accessed at www.wch.sa.gov.au/npdi and ‘Beyond babyblues: Detecting and managing perinatal mental health disorders in primary care’, which can be accessed at <http://thinkgp.com.au/beyondblue>.

Pathways to care are being identified on various levels and include national and local services. Federally funded national services, which offer treatment and support, such as Post and Antenatal Depression Association (PANDA) and Access to Allied Psychological Services (ATAPS), are being promoted. Community awareness is also occurring nationally, as well as locally in some places. Information resources for women and their families are available to order free of charge from beyondblue. Examples of events include Postnatal Depression week in November, which is celebrated in various ways across jurisdictions such as distribution of resources at shopping centres, baby markets and media releases.

With 2013 and the end of current NPDI funding approaching, priority must be given to data collection. Data will now need to be presented to demonstrate deliverables and effectiveness. With such compelling research foundations of the detrimental impact of untreated mental illness in the perinatal period, it seems imperative that routine screening and the other key aims should continue. In addition, current awareness now presents good arguments for the expansion of the NPDI key objectives to widen its focus to include other disorders than only depression, and to include partners/fathers within the primary focus. With continued political and fiscal support, Australia should seize the opportunity to generate empirical data; such findings from an extensive national programme could offer conclusions in this important area to ultimately benefit child development and future generations.

Acknowledgements

The author thanks SAHealth; Tracy Semmler-Booth, Principal Project Officer of NPDI in South Australia; beyondblue; and NPDI Project Officers.

References

1. O’Hara MW, Swain AM. Rates and risks of postpartum depression: a meta-analysis. *Int Rev Psychiatr.* 1996; 8, 37–54.
2. Bennett HA, Einarson A, Taddio A, Koren G, Einarson TR. Prevalence of depression during pregnancy. *Obstet Gynecol.* 2004; 103, 698–709.
3. Glover V, O’Connor T. Effects of antenatal stress and anxiety: implications for development and psychiatry. *Br J Psychiatr.* 2002; 180, 389–391.
4. Hay D, Pawlby S, Waters S, Sharp D. Antepartum and postpartum exposure to maternal depression: different effects on different adolescent outcomes. *J Child Psychol Psychiatr.* 2008; 49, 1079–1088.

5. Yonkers KA. New recommendations managing depression during pregnancy. *Physicians Weekly*, January 11, 2010, no. 2, 2010. Accessed on-line at http://www.physiciansweekly.com/pw02_10.html.
6. Alder J, Fink N, Bitzer J, Hosli I, Holzgrove W. Depression and anxiety during pregnancy: a risk factor for obstetrics, fetal and neonatal outcome? A critical review of the literature. *J Matern Fetal Med*. 2007; 20, 189–209.
7. Grant KA, McMahon C, Austin M-P, *et al*. Maternal prenatal anxiety and infants' cortisol responses to the still-face procedure. *Dev Psychobiol*. 2009; 51, 625–637.
8. Austin M-P, Hadzi-Pavlovic D, Leader L, Saint K, Parker G. Maternal trait anxiety, depression and life event stress in pregnancy: relationships with infant temperament. *Early Hum Dev*. 2005; 81, 183–190.
9. O'Connor TG, Heron J, Glover V, Alspac Study Team. Antenatal anxiety predicts child behavioural/emotional problems independently of postnatal depression. *J Am Acad Child Adolesc Psychiatr*. 2002; 41, 1470–1477.
10. O'Connor T, Heron J, Golding J, Glover V. Maternal antenatal anxiety and behavioural/emotional problems in children: a test of a programming hypothesis. *J Child Psychol Psychiatr*. 2003; 44, 1025–1036.
11. Van den Berg BRH, Marcoen A. High maternal antenatal anxiety is related to ADHD symptoms externalizing problems and anxiety in 8 and 9 year olds. *Child Dev*. 2004; 75, 1085–1097.
12. Van den Bergh BRH, Mennes M, Oosterlaan J, *et al*. High antenatal maternal anxiety is related to impulsivity during performance on cognitive tasks in 14- and 15-year-olds. *Neurosci Biobehav Rev*. 2005; 29, 259–269.
13. Murray L. The impact of postnatal depression on infant development. *J Child Psychol Psychiatr*. 1992; 33, 543–561.
14. Martins C, Gaffan EA. Effects of early maternal depression on patterns of infant–mother attachment: a meta-analytic investigation. *J Child Psychol Psychiatr*. 2000; 41, 737–746.
15. Moehler E, Brunner R, Wiebel A, Reck C, Resch F. Maternal depressive symptoms in the postnatal period are associated with long-term impairment of mother–child bonding. *Arch Women's Ment Health*. 2006; 9, 273–278.
16. Deave T, Heron J, Evans J, Emond A. The impact of maternal depression in pregnancy on early child development. *BJOG*. 2008; 115, 1043–1051.
17. Austin M-P, Kildea S, Sullivan E. Maternal mortality and psychiatric morbidity in the perinatal period: challenges and opportunities for prevention in the Australian setting. *Med J Aust*. 2007; 186, 364–367.
18. Goodman JH. Paternal postpartum depression, its relationship to maternal postpartum depression, and implications for family health. *J Adv Nurs*. 2004; 45, 26–35.
19. Areias ME, Kumar R, Barros H, Figueiredo E. Correlates of postnatal depression in mothers and fathers. *Br J Psychiatr*. 1996; 169, 36–41.
20. Ballard C, Davies R. Postnatal depression in fathers. *Int Rev Psychiatr*. 1996; 8, 65–72.
21. Ramchandani P, Psychogiou L. Paternal psychiatric disorders and children's psychosocial development. *Lancet*. 2009; 374, 646–653.
22. Beyondblue. *Clinical Practice Guidelines for Depression and Related Disorders – Anxiety, Bipolar Disorder and Puerperal Psychosis – in the Perinatal Period. A Guideline for Primary Care Health Professionals*, 2011. beyondblue: The National Depression Initiative, Melbourne.
23. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatr*. 1987; 150, 782–786.