

# To screen or not to screen — that is the question in perinatal depression

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DEPRESSION ACCOUNTS for the greatest burden of disease among all mental health problems, and is expected to be the second-highest of all general health problems by 2020.<sup>1</sup> Rates of depression are particularly high among women of childbearing age — especially those with children.<sup>1,2</sup>

Contact with health services for these women often begins in pregnancy. In the past 10 years, changes in obstetric care, including earlier discharge from hospital and an increased demand for midwifery and primary care support after discharge, have altered the face of perinatal care; 60% of women in Victoria were visited by a domiciliary nurse in 2000, compared with 24% in 1994.<sup>3</sup> However, these changes predominantly attend to the physical needs of women and their infants — little has been done to address *emotional* needs. Antenatal classes are one forum where the psychological issues accompanying pregnancy could be discussed, but current evidence suggests that such classes are rarely adequate to provide this support and are not accessed by all parents.<sup>4</sup>

Along with the growing recognition of the need to provide comprehensive care for mothers and infants, screening for psychosocial difficulties has been introduced in some services, with staff training in identification and management.

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## ABSTRACT

- Significant perinatal distress and depression affects 14% of women, producing short and long term consequences for the family. This suggests that measures for early detection are important, and non-identification of these women may exacerbate difficulties.
- Screening provides an opportunity to access large numbers of women and facilitate pathways to best-practice care.
- A valid, reliable, economical screening tool (the Edinburgh Postnatal Depression Scale, EPDS) is available.
- Arguments against screening pertain largely to lack of evidence about the acceptability of routine use of the EPDS during pregnancy and the postnatal period, and inadequate evidence regarding outcomes and cost-effectiveness.
- To address these concerns, the National Postnatal Depression Prevention and Early Intervention Program will evaluate outcomes of screening in terms of acceptability, cost-effectiveness, access and satisfaction with management in up to 100 000 women.

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Although such approaches appear to be successful, a controversy has emerged as to whether these are premature given our lack of knowledge about the psychological outcomes for the women screened, the cost-effectiveness of screening, and the level of consumer satisfaction.

## Screening guidelines

Key factors identified as prerequisites for the implementation of screening programs for perinatal depression have been outlined in relation to the guidelines provided by the National Screening Committee (NSC) in the United Kingdom (Box 1).<sup>5,6</sup> These provide a useful template to review the arguments for and against the routine use of screening for perinatal depression.

## The condition

There is no doubt that depression experienced during pregnancy and in the postpartum period is fairly common and can have serious implications for all family members.<sup>7–17</sup>

Despite the controversies surrounding the definition of the disorder, there is a wealth of information on its prevalence, characteristics and course.<sup>18–20</sup> A meta-analysis of 59

### 1: Summary of UK National Screening Committee guidelines<sup>5,6</sup>

The **condition** should:

- be an important health issue;
- have a well-understood history, with a detectable risk factor or disease marker; and
- have cost-effective primary preventions implemented.

The **screening tool** should:

- be a valid tool with known cut-off;
- be acceptable to the public; and
- have agreed diagnostic procedures.

The **treatment** should:

- be effective, with evidence of benefits of early intervention; and
- have adequate resources; and
- have appropriate policies as to who should be treated.

The **screening program** should:

- show evidence (from randomised controlled trials) of reduced mortality or morbidity, with benefits of screening outweighing risks;
- be acceptable to public and professionals, with adequate resources and informed consent;
- be cost effective (and have ongoing evaluation); and
- have quality-assurance strategies in place.

studies found the prevalence of depression within the first few postnatal months to be 13%.<sup>18</sup> Although this is similar to the prevalence for non-postnatal women with children, there was an increased rate of onset in pregnancy and the postpartum period.<sup>18,21-24</sup>

For many women, depression, whether antenatal or postnatal in onset, is not identified until late in the course, if at all.<sup>16,25</sup> This results in ongoing problems for women, affecting their self-esteem, relationships with their partners and children, and their ability to work. There is also a low but significant risk of suicide.<sup>26</sup>

Perinatal depression has broader implications: depression antenatally may impair a woman's capacity to make good decisions regarding her own health and wellbeing, as well as that of her fetus (eg, diet, smoking and substance misuse).<sup>27</sup> Many reports examining early-childhood development and maternal depression<sup>7-12,16,17,28,29</sup> demonstrate problems of attention, cognition and brain function in children whose mothers were depressed postnatally; for some children, there is evidence of persisting effects at school age.<sup>10,11</sup>

Although women are twice as likely as men to become depressed in the reproductive years, several studies have found the male partners of depressed women have higher (up to 50%) than normal rates of depression.<sup>13-15</sup> This has implications for the men's ability to support their partners, and for the viability of the relationship and wellbeing of the infant. Marital disharmony is a recognised risk factor both for depression during the couple's transition to parenthood, and for adverse child outcomes.<sup>20,30</sup>

Several controlled prospective studies have reported risk factors for postnatal depression and predictive indices based on these factors.<sup>24,31-33</sup> Although research studies largely agree on the risk factors, predictive algorithms based on these perform poorly.<sup>6,20,34,35</sup> Primary prevention strategies are only beginning to be implemented. The lack of strong

evidence regarding their efficacy<sup>36-43</sup> or cost-effectiveness should not prevent screening, provided that its introduction is monitored carefully and both these issues are evaluated.

### The screening tool

A working party (healthcare professionals, academics and researchers) convened by the UK National Health Service to examine screening for perinatal depression in the UK using NSC criteria raised concerns about the screening instruments used to date.<sup>6</sup> Problems highlighted included inconsistency in choice of screening methods; whether the scales had satisfactory psychometric properties; the acceptability of such measures to women; and the adverse consequences of false positive or false negative results, particularly the potential for stigmatising or not treating affected women.

Internationally, the Edinburgh Postnatal Depression Scale (EPDS) is the most widely accepted screening scale used internationally in the perinatal period. Other questionnaires (eg, the Postpartum Depression Screening Scale)<sup>44,45</sup> have not been used extensively.

The EPDS was developed initially to screen for postnatal depression in the primary care setting.<sup>46</sup> It is a simple, quick self-report questionnaire. Validation studies have demonstrated 68%–86% sensitivity and 78%–96% specificity,<sup>46,47</sup> and, in an Australian sample, 100% sensitivity and 89% specificity.<sup>48</sup> When studies have included the EPDS in primary care, the questionnaire has been administered by healthcare visitors (ie, maternal child health nurses,<sup>46,49,50</sup> midwives,<sup>14</sup> and psychologists<sup>48</sup>) and by researchers.<sup>51</sup> The scale has been validated for use antenatally,<sup>52</sup> and in a number of translations. Although it appears simple to use, training in administering and scoring the scale, giving women appropriate feedback, and understanding its limitations are important.<sup>53</sup>

Various studies have examined the positive predictive value of the EPDS for clinical depression at a score threshold greater than 12.<sup>47,48,50,54</sup> Most studies consistently report a positive predictive value of about 70%,<sup>46-48,54</sup> reaching as high as 91%.<sup>51</sup> A review of validation studies<sup>55</sup> suggests that a lower predictive value is likely in the general population because of aspects of study design. Whether this is acceptable is open to debate,<sup>31,32,50</sup> depending in part on whether identifying distress and minor depression is deemed to be of benefit (ie, the "false positives"). Like all screening methods, the EPDS cannot identify all women with depression,<sup>56</sup> and some women with high scores will not be clinically depressed. To minimise false positive results and detection of subsyndromal depression, for which there is less certainty about treatment, adopting a higher cut-off (ie, a score >12, rather than >10, used in much community screening) is a sound option. This would reduce the load on the public health system. However, identification of women with postnatal distress (EPDS >10) may be useful, as many of these women experience considerable dysfunction and want assistance;<sup>3</sup> this needs to be balanced against the risk of overwhelming service capacity.

There appears to be sufficient support for use of the EPDS to enhance recognition (ie, case finding) of potential depression in both the antenatal and postnatal periods.<sup>57</sup> In addition, an agreed pathway of care, where diagnosis can be confirmed and treatment initiated if appropriate, is required. To date, most obstetric services have done this on an informal basis, with no consensus among providers in different regions.

### The treatment

Studies of antenatal depression tend to be limited to reports about effects, or potential effects, of medication on the fetus.<sup>58,59</sup> Treatment studies of depression in the perinatal literature are focused mainly on postnatal depression, and cover a range of biological and psychological interventions.<sup>49,60-63</sup> Studies have clearly shown benefits of the interventions compared with placebo, and the data are similar to published results of treatment trials for major depression occurring at other life stages. The many published randomised controlled trials (RCTs) in depression can potentially be generalised to postnatal depression, even though presentation may differ subtly. One study suggested that postnatal depression may take longer to respond pharmacologically, possibly because of higher comorbid anxiety associated with the ongoing stresses of parenthood.<sup>64</sup>

The major difference between treatment for depression generally and perinatal depression is that women usually have the main responsibility for childcare. Although standard treatment for depression decreases maternal symptoms, it appears to have less direct benefit on parenting stress and the mother–infant relationship,<sup>65</sup> and the effect on infant outcome is unclear.<sup>66</sup> Furthermore, pharmacological treatment raises other issues, particularly the effects of medication on breastfed infants.<sup>67</sup> Currently, clinicians must help women to weigh up the potential benefits and risks for themselves and their infants with regard to antidepressant medication, as existing data are inadequate.

The evidence for the effectiveness of both psychological and pharmacological treatment appears to be sufficient to suggest we have “best practice” methods available. Although these can be refined, the 2001 WHO report on prevention and promotion highlighted that, although RCTs are the “gold standard” of evidence for treatments, we can implement treatments with less solid evidence if they are consistent with community standards and expectations.<sup>68</sup> That is, management of mothers with depression can be accepted using “best practice care”.

Another concern about screening is whether women would access treatment and whether screening would dramatically increase the requirement for treatment.

One report concluded that appropriate interventions could be disseminated by access to general practitioners.<sup>66</sup> Currently, 56% of patients in general practice with common mental disorders go unrecognised,<sup>69</sup> and 50% of depressed people do not seek help.<sup>70</sup> Ninety-one per cent of women already consult their GP at least once postnatally,<sup>71</sup> and more often if their GP is in a shared-care program. Screening, rather than increasing the burden of care, could bring

about a change in focus, with early detection of women who otherwise might not have been treated until later in their illness. In Australia, recent and impending changes to Medicare rebates relating to mental healthcare will help encourage healthcare professionals interested in providing psychological support to develop skills more fully and to know when to refer to specialist services. However, it follows that additional training for GPs would necessarily be an important component of a screening program for perinatal depression.

The implementation of routine screening would also need to ensure that healthcare professionals involved in screening are able to deal sensitively with distress<sup>6,72</sup> and to refer appropriately. Some women will not need referral, and may simply benefit from knowing that help is available should they require it; other women will exercise their right not to seek help even when they are depressed.

### The screening program

Although sound research is lacking in perinatal depression,<sup>6,66</sup> an extensive review of RCTs of screening for depression in adult populations concluded that the overall evidence suggests screening reduces the risk of persistent depression.<sup>73</sup> The US Preventive Services Task Force recommended its routine use, on the basis that the potential benefits outweigh the risks.<sup>74</sup>

Clinical experience suggests that women find the EPDS easy to complete, and that it is acceptable to patients and healthcare professionals.<sup>72</sup> There are few reports of difficulties.<sup>6</sup> In our experience, women readily complete the EPDS, and often report relief that their distress is acknowledged. A program of integrated antenatal identification and treatment has already had success.<sup>43</sup>

Stigma has been raised as a concern.<sup>6,66</sup> Women who score as a “false positive” may become anxious. There is no evidence that an intervention for the mother will improve child outcomes, and could conceivably increase her guilt and bring about worse outcomes.<sup>66</sup> This can be minimised if the EPDS is correctly described as a screening tool and not a diagnostic tool; identification of distress can be followed by an offer of support, and accurate diagnosis can follow.<sup>46,63</sup>

A screening program may open up areas of significant need; however, the alternative of not identifying distressed women will not bring a satisfactory resolution either. Each of these options raises ethical concerns, but it is surely better to identify distress and attempt to deal with it than to deny its existence and suffer the potential long term consequences. We argue that alerting women that there *may* be a problem and providing them with information about resources is empowering rather than unethical. The stigma of mental illness is of concern, but will not be overcome by ignoring the existence of mental illness. If women want help, we have the knowledge and a growing infrastructure to assist them to access a range of options. Only by actively working with women, acknowledging their needs and those of healthcare workers, and lobbying governments for change as

## 2: The Australian Postnatal Depression Program (2001–2005)

1. Assess public and professional attitudes and knowledge, sampled at commencement and after four years.
2. Assess professional load and attitude to screening, at commencement, six months (to ensure no major strain on services), and four years.
3. Antenatal screening (97 000 women across five States).
  - Demographics (with psychosocial risk factors) and EPDS: subsamples at 12, 28 and 36 weeks of pregnancy to evaluate the most effective time to screen.
  - Subsample: other screening tools.
4. Postnatal screening (same women).
  - EPDS at 6–8 weeks postpartum: mood evaluation on screening across time.
  - Subsample at 12 weeks postpartum: as above, plus evaluation of services, screening tools, and implementation of screening by midwives, GPs, maternal child health nurses and research assistants.
5. Professional Education Program on depression and screening, including information to GPs with screening results on management, including guidelines for medication in pregnancy and lactation.
6. State-specific interventions.
  - VIC: Mother–infant focus
  - NSW: Multicultural focus
  - WA: Couple focus
  - SA: Partner focus
  - QLD: Rural and Indigenous women focus

necessary, can we advance psychological care within obstetric services.

Finally, any screening program must be cost effective. In assessing “value for money”, the long term cost implications of marital separation and the social, educational and mental health difficulties of children affected by parental depression are all relevant. Attempts to evaluate costs in adult depression have put savings at US\$10 000 to \$35 000 per depressed person per year.<sup>75,76</sup> In comparison, the cost of the screening, if introduced into routine care, is significantly lower.

Although the test is freely available, and can be included in the normal workload, there are inevitable cost implications, such as follow-up assessment and further treatment if warranted.<sup>66</sup> Nevertheless, most women with postnatal depression do not need specialist care, and the GP workload may not increase dramatically, as many of these women are already seeing their GP.<sup>71</sup>

## Conclusions

Screening for depression in both antenatal and postnatal periods is likely to be useful because of the high prevalence of depressive disorders at both times and because of evidence that depression can be effectively treated. Early intervention may also have substantial benefits for the woman’s partner, infant and older children. We have argued that the case for screening outweighs that *against*.

This is not to downplay the major challenges inherent in implementing such a program, and the need to evaluate outcome.

The contributors to this article are all active researchers in perinatal depression, from a variety of disciplines. We are currently collaborating on a national perinatal depression program across five Australian States, funded by *beyondblue: the national depression initiative* (Box 2).<sup>77</sup> This public health initiative includes the introduction of screening into antenatal and postnatal care, aims to facilitate pathways to care, and will allow many of the questions raised in the UK report to be answered. Discussions with relevant parties (including the Royal Australian College of General Practitioners, Divisions of General Practice, obstetric staff, and maternal child health nurses) have taken place during the past year to ensure cooperation and communication across the health sector. The screening program uses a common methodology, but allows flexibility in each State in order to provide “best practice care” to women and to fulfil our duty of care through adapting to the style and needs of participating services. Many healthcare workers are involved, and women and healthcare professionals will evaluate the feasibility and utility of screening. We believe we have a unique opportunity to increase holistic care in obstetric and postnatal practice, linked with a research program that will properly evaluate the benefits and difficulties of screening for antenatal and postnatal depression.

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