Screening for postnatal depression: barriers to success

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There is widespread consensus that postnatal depression (PND) is a common and important mental health problem.1 A meta-analysis of 59 studies documented a 13% prevalence of depression within the first few postnatal months.2 Yet, about half of all such cases go unrecognised in routine practice.3 As a result, there have been considerable efforts to develop screening programmes that might enhance not just the detection but also the successful treatment of PND.4,5 It is also hoped that recent national recommendations might serve to reduce considerable variations in current clinical practice, but it is not clear that screening achieves its ultimate goal, namely improving outcomes and reducing the burden of PND.

National screening recommendations

In June 2002, the Scottish Intercollegiate Guidelines Network published guidelines for screening and management of PND and puerperal psychosis.6 Subsequently, a survey examining whether this policy had been successful revealed that although the majority of Scottish health boards and primary care practices offered routine initial screening 6–8 weeks following delivery, only 55% offered the recommended second assessment. Furthermore, only 26% of primary care practices offered clinical supervision to staff in relation to PND. In the USA, the American College of Obstetricians and Gynaecologists was among the first to advocate routine postnatal screening, specifically recommending the Edinburgh Postnatal Depression Scale (EPDS).7 In 2005, a more comprehensive review from the Agency for Healthcare Research and Quality (AHRQ) identified ten studies concerning the diagnostic accuracy of PND screening, but none regarding the effect of screening programmes on clinical outcomes, that is, whether implementation of screening actually improved patient outcomes (discussed below).8 There were nine studies that combined screening/routine detection with randomised treatment and of these six reported significant benefits suggesting that screening can be worthwhile under optimal conditions. However, in these studies, it was the effect of being randomly assigned to the treatment intervention, not of the screening per se that was examined. Overall, the AHRQ review concluded that depression scales were generally good at identifying uncomplicated PND, but no single scale showed clear superiority, echoing findings published elsewhere.9

In 2007, the English National Institute of Health and Clinical Excellence (NICE) released comprehensive guidance, which suggested that healthcare professionals should routinely administer two simple questions together with an additional help question ‘at a woman’s first contact with primary care, at her booking visit and postnatally (usually at 4 to 6 weeks and 3 to 4 months)’ to identify PND.10 NICE suggested reserving longer validated tools such as the EPDS or nine-item Patient Health Questionnaire (PHQ) for ‘subsequent assessment or for the routine monitoring of outcomes.’ Importantly, detection was linked with treatment with the recommendation that women requiring psychological treatment should be seen for treatment between 1 and 3 months of initial assessment. It is important to note that the three simple questions endorsed by NICE have been evaluated in primary care but not in perinatal settings.11 Using the similar two-item PHQ, Olson et al. found that 17% of mothers answered positively to at least one question, although validity was not reported.12 In 2007, Dubowitz et al. adapted the PHQ2 into the ‘Parent Screening Questionnaire’ designed for use in well-child visits.13 When a positive response to either or both of the two questions was considered, the sensitivity was 74%, the specificity 80%, and the negative predictive value 95%, but the positive predictive value was only 36% when the criterion was the longer Beck Depression Inventory II. Thus, two or three simple questions may function better as a rule out test to exclude the need for further evaluation for a possible diagnosis,
rather than a case-finding instrument, which confirms a diagnosis postnatally.

**Implementation of screening programmes**

The overall message from national guidelines appears to be that routine screening for PND should take place at least twice postnatally and that screening should facilitate access to an effective treatment. This is consistent with research from other areas showing that improvements in quality of care are difficult to achieve even when routine screening is in place.14 In other words, the conditions for the success of a screening programme extend beyond the diagnostic accuracy of a screening tool and rely on additional patient and clinician factors such as the acceptability of the screen and associated management plan.15,16

Evidence supporting the effectiveness of PND screening programmes has been disappointing, relative to the potential benefits seemingly promised by diagnostic accuracy studies. Using well-child visits to screen for PND has been linked to an increase in detection from 29 to 40% in a study of mainly single, black and Hispanic mothers in the USA,17 and similarly from 1.6 to 8.5% in a case note based study from New York.18 Most other work has focused on postnatal visits with equivocal results. The most insightful study involved comparing assisted and unassisted detection methods.19 The authors assigned 391 postpartum women in North Carolina to undergo screening with the EPDS or to have (unassisted) routine clinical care. Detection of PND using the EPDS was 35.4% compared with only 6.3% during routine assessment. Despite this encouraging result, only 60% of screen-positive women received follow-up evaluations for depression and only 35% were subsequently treated. A more modest effect was shown by Georgiopoulos et al. who found that routine administration of the EPDS increased the diagnosis of PND from 3.7 to 10.7% during postpartum care visits to the primarily Caucasian population of Olmsted County, Minnesota.20 Once again, of those with newly recognised depression, only 22% were scheduled for follow-up visits and only 5% were referred to a mental healthcare professional. The difficulties in this area are further illustrated by two recent studies. Gordon et al. administered a comprehensive programme of screening to 4322 women over a 24-month period, resulting in 11.1% of women positive screening antenatally and 7.5% postnatally.21 However, in spite of intensive efforts, only about half of all eligible women were actually screened. Armstrong and Small evaluated a PND screening programme that recommended three applications of the EPDS over a 12-month period in 267 women.22 Thirty-four percent received one of three, 28% two of three and 15% three of three screens. In fact, 22% were never screened at all. The most common reasons for this were that nurses failed to administer the tool (46%) or that the mother did not attend her appointment (23%). These studies suggest that screening programmes can bring improvements in routine postnatal care for depression, but that barriers to change should not be underestimated. Two barriers that deserve further consideration are acceptability of the screening process to staff and acceptability of the screening process to women.

**Is screening acceptable to health professionals?**

Tully et al. looked at the practice of midwives in screening for PND.23 Twenty-five percent undertook some formal screening to identify depression antenatally and 57% undertook screening for depression postnatally. No explanation was given why some health professionals chose to screen and others did not. Seehusen et al. surveyed 298 members of the Washington Academy of Family Physicians who saw postpartum women.24 70.2% said that they ‘always or often’ tried to detect PND at postpartum examinations, and 46% ‘always or often’ screened mothers at well-child visits, a remarkably high rate. However, of those who tried to detect PND, only 30.6% reported doing so using a validated method. Agreement that screening takes too much effort was associated with less frequent screening. Buist et al. surveyed almost 2000 health professionals including GPs, maternity and child health nurses (MCHNs) and midwives as part of the ‘beyondblue’ National Australian Depression Initiative across 43 health services in Australia.25 Ninety percent of MCHNs, 69% of midwives and 54% of GPs screened for perinatal depression in their routine practice, and across all groups, 98% of these health professionals supported ongoing screening. The majority of health professionals using the EPDS were comfortable and found it useful. However, midwives rated their skills with the EPDS as being less adequate and felt less comfortable than GPs or MCHNs. Massoudi et al. also examined predictors of willingness to screen in 499 nurses based in child health services in Sweden regarding detection of PND.26 About half used the EPDS. Having the appropriate training, access to regular supervision and pathways to care increased the likelihood of using the EPDS.

**Acceptability of screening to women**

In trials of screening programmes, about 50% of women in primary care decline to participate in clinic screening interviews conducted by researchers or clinic nurses.27,28 In general, short questionnaires have higher acceptability than longer ones.29 Shakespeare et al. conducted a qualitative study of 39 women interviewed at 11–19 months after delivery about completing the EPDS in the first 3 months. Fifty-four percent found screening for PND unacceptable.30 Their main
reasons for resistance were that the process of screening was viewed as simplistic, the women were anxious about the consequences, there was inadequate time and privacy, they saw no medical solution to their distress and they did not want to admit to depression. This study provides valuable insights into why some people with depression are missed even when a screening programme is in place. Matthey et al. studied the acceptability of routine psychosocial assessments in an antenatal clinic of a public hospital in Sydney, Australia. Most of the multicultural sample considered the questions to be appropriate and acceptable. Gemmill et al. asked 479 women with postnatal depression about the acceptability of the ten-item EPDS. 81.2% indicated that they were ‘comfortable’ or ‘very comfortable’ with the instrument and 97% agreed that that screening was desirable. The authors also asked women ‘Do you think it is a good idea to screen all mothers for postnatal depression?’ 96.6% said yes. Buist et al. surveyed a large group of postnatal women as part of the beyondblue (see above). Over 90% of women found the EPDS easy to complete after a brief explanation and 85% had no difficulties completing it. Yet, discomfort with screening was higher in those with more severe depression. Sixty-four percent of those with elevated EPDS scores were uncomfortable with the screening process. Importantly, not all women agreed with their screening results. Of the 216 women told they might be depressed, only 154 women made further contact, and of these, 18% disagreed that they were depressed.

Conclusions

Routine screening has the potential to improve on low detection rate of PND and hence is recommended by national guidelines. Yet, questions remain unanswered about what instrument to use in culturally diverse settings and, importantly, how to translate improvements in detection into improvements in quality of care and depression outcomes. In mainstream clinical practice, the implementation of screening programmes into perinatal settings (largely at postnatal visits and then well-child visits) has only had modest success. There seems to be a substantial gap between completion of a screen and uptake of services, with only a minority of eligible women accepting treatment. We suggest that acceptability of the programme (to both patients and staff) and engagement in follow-up care may be the critical rate-limiting steps. Acceptability of a screening programme concerns not simply the format of the screening instrument but also the complexity of scoring, ease of interpretation, willingness to offer follow up and willingness of the women to accept further help. Indeed, screening using brief instruments (comprising ten items or less) is acceptable to patients and clinicians, and length of the instrument predicts likelihood of adoption into clinical practice. Sadly, the briefer the screen, the less accurate it is, at least in terms of case finding. From observations of actual screening data, only about one in six women would be likely receive three of three scheduled PND screens. Of those who screen positive, not all wish to engage. In one study of screening in Germany, only 18% of mothers identified as depressed and offered help, actually accepted one or more treatment options. Similarly in the Australian beyondblue programme, 30% identified as ‘probably depressed’ did not take advice to seek help. Thus, acceptability of screening extends to include acceptability of the linked treatment.

Screening for PND has a large evidence base from diagnostic validity studies but only limited evidence of tangible benefits involving clinical outcomes. Calls for the implementation of routine screening for PND need to be evaluated in the context. In primary care, there is consensus that screening on its own is not enough and that collaborative care is needed. Therefore, direct engagement with mental health professionals may be needed to translate improved detection into improved care for PND. Future studies are already underway to discover what additional elements beyond detection alone lead to improvements in the quality of care for PND. Yet, we should not be surprised if a reduction in the burden posed by PND through screening and increased detection requires infusion of considerable clinical resources and even the reorganisation of what is now routine care for PND.

References


