Validity of two case finding questions to detect postnatal depression: a review of diagnostic test accuracy

Mann R, Gilbody S

CRD summary
This review concluded that there was limited evidence on the accuracy of the two question case-finding approach for detecting postnatal depression (recommended for use in UK postnatal populations); further research was needed to inform UK policy. The authors' conclusion reflects the very limited data identified, but review search restrictions mean that additional relevant studies may have been missed.

Authors' objectives
To assess the accuracy of case-finding questions to detect postnatal depression.

Searching
The authors stated that MEDLINE, PsycINFO, Medion, and ARIF were searched from 1997, although start dates before 1997 were reported for some databases. Search terms were reported. A cited reference search was conducted on the Web of Science. The full search strategy was reported in an appendix. Only publications in English were included.

Study selection
Eligible studies were prospective cohort, cross-sectional studies and randomised trials. Eligible trials had to use the index test as a method of recruitment. Eligible participants were women who were assessed for non-psychotic depressive disorder (postnatal depression) using of the two case finding question recommended by the NICE 2007 guidance (see Other Publications of Related Interest) within one year of a live birth.

The two case finding questions originated from the PRIME-MD study (see Other Publications of Related Interest); they were framed to recall symptoms of low, depressed mood and anhedonia over the previous month, and elicited a simple 'yes' or 'no' answer. Included studies were required to apply one of the following 'gold standard' criteria to confirm diagnosis: DSM-IV (Diagnostic and Statistical Manual of mental disorders-IV); ICD-10 (International Classification of Diseases-10); RDC (Research Diagnostic Criteria). Full details of the 'gold standard' diagnostic criteria were reported in an appendix.

The review included only one study of a cohort of women derived from an RCT to assess the impact of stepped-care treatment on postnatal depression. Women were recruited from four family medicine clinics in the USA. Women were required to be English literate, 12 years or older, have an infant aged zero to one month old, and be registered for postnatal well-child visits. Included women had a mean age of 29.3 years (±6.2) and 67% were white. The reference test was Structured Clinical Interview for DSM-IV (SCID) in all cases.

The authors did not report how many reviewers assessed studies for inclusion.

Assessment of study quality
The reporting quality of the included study was assessed using the STARD (Standards for Reporting of Diagnostic Accuracy) criteria. The methodological quality of included study was assessed using the QUADAS (Quality Assessment of Diagnostic Accuracy Studies) tool. Item 12 of the QUADAS tool (clinical review bias) was omitted and item 13 (reporting of indeterminate results) was modified to include unclear/missing responses on the index test.

The authors did not state how many reviewers performed the quality assessment.

Data extraction
Data were extracted on the numbers of true positive, false negative, false positive, and true negative test results and estimates of sensitivity and specificity; 95% confidence intervals (CIs) were calculated.

The authors did not state how many reviewers performed the data extraction.
Methods of synthesis
Results were summarised in text and tables.

Results of the review
One study, including 506 women, met the inclusion criteria for the review. The study did not follow STARD reporting guidelines. The QUADAS assessment indicated the possibility of incorporation bias and test review bias.

At zero to one month (438 women), the estimates for the case-finding questions for postnatal depression were 100% (95% CI 79 to 100) for sensitivity and 62% (95% CI 57 to 66) for specificity.

At zero to nine months (506 women), the estimates for the case-finding questions for postnatal depression were 100% (95% CI 90 to 100) for sensitivity and 44% (95% CI 39 to 48) for specificity.

These data indicate that case-finding questions are likely to be useful for ruling out, but not for confirming postnatal depression.

Authors’ conclusions
There was limited evidence on the accuracy of the two question case-finding approach to detect postnatal depression, which was recommended for use in UK postnatal populations. Further research is needed to inform UK policy.

CRD commentary
The review reported a clear objective and defined appropriate inclusion criteria. A range of sources were searched for relevant studies, but the restriction to English language publications may have resulted in relevant studies being missed and raised the possibility of language and/or publication bias. Reporting of the review methods was limited and it was not clear whether any measures were taken to minimise error and/or bias at any stage in the process.

The methodological quality of the only included study was assessed using an appropriate tool. The results were reported in full, along with a summary of the test accuracy results.

The authors conclusions, that more primary research is needed, reflected the very limited data identified, but language restrictions and limitations in the review process mean that it is possible that additional relevant studies were missed.

Implications of the review for practice and research
Practice: The authors did not specify any recommendations for practice.

Research: The authors stated that further test accuracy studies of the two case-finding question approach, plus the third “help” question (as recommended by NICE guidance) are needed. Studies should be conducted in a postnatal population in the UK and should use a “gold standard” psychiatric diagnosis. Studies of antenatal populations should also be considered.

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