EDITORIAL

What is the role of the Edinburgh Postnatal Depression Scale?

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THE OPTIMAL CUT-OFF SCORE OF THE EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS) IS 11, a systematic review and meta-analysis has found.[1] However 7-8 women out of 10 with a positive screen will not have major depression.

Studies were identified from electronic databases, citations from eligible reviews and information provided by authors of published studies. Inclusion criteria were: EPDS administered and diagnostic interview carried out within 2 weeks of each other; use of DSM and ICD criteria for major depression based on a validated semi- or fully structured interview; and assessments completed during pregnancy or the 12-month postpartum period.

Overall, 58 studies were included in the analysis and original research data for each participant were obtained. There were 15,557 participants, 2,069 with major depression. Separate analyses were performed for the 3 reference standard categories: semi-structured interview, fully structured interview and Mini International Neuropsychiatric Interview.

A total of 36 studies, with 9,066 participants (1,330 with major depression) compared the EPDS with a semi-structured interview. Sensitivity and specificity values for the EPDS were: 0.85 (95% CI: 0.79-0.90) and 0.84 (95% CI: 0.79-0.88) for a cut-off value ≥ 10; 0.81 (95% CI: 0.75-0.87) and 0.88 (95% CI: 0.85-0.91) for a cut-off value ≥ 11; and 0.66 (95% CI: 0.58-0.74) and 0.95 (95% CI: 0.92-0.96) for a cut-off value ≥ 13, respectively. The optimal cut-off score was defined as that with the highest combined sensitivity and specificity. For all 3 reference categories the optimal cut-off score was 11.

The point prevalence of major depression is 3.8% at the end of the first trimester and 5.7% at 2 months postpartum.[2] Using the recommended cut-off of 11, the EPDS positive predictive value (PPV) will be 21% and 29% respectively; the negative predictive value (NPV) is 99% in both cases. The false-positive rates will be 79% and 71% respectively: 7-8 women out of 10 with a positive screen will not have major depression.

The authors suggest that 'to identify pregnant and postpartum women with higher symptom levels, a cut-off of 13 or higher could be used.' At 2 months postpartum, the PPV for major depression will be 44% and 51% with cut-off values of 13 and 15 respectively. The NPV will be 98% and 97% respectively. The authors have produced an online tool for calculating false positives and false negatives based on the estimated point prevalence (depressionscreening100.com/epds).

NICE recommends asking the two Whooley screening questions 'as part of a general discussion about a woman's mental health and wellbeing' at the first antenatal appointment and early in the postnatal period. This recommendation is based on just two studies, both of which reported a sensitivity of 100% but a low specificity, hence 'a substantial number of false positives.' NICE states the Whooley questions 'could provide a simple approach to ruling out depression.'[2] It recommends further assessment if a woman responds positively to either question, is at risk of developing a mental health problem, or there is clinical concern. The EPDS should be considered as part of a full assessment but NICE cautions that a positive screen is not the same as a diagnosis of depression.[3]

'Trials are needed to determine if screening with the EPDS could improve mental health outcomes'

The UK National Screening Committee recommended against screening for postnatal depression due to the high false-positive rate.[4] SIGN agrees there is 'insufficient evidence to recommend the use of the EPDS or Whooley questions as tools with sufficient accuracy in either the antenatal or postnatal period.' However, it says they may be used 'as an aid to clinical monitoring and to facilitate discussion of emotional issues.'[5]

The study authors conclude that: 'Well conducted trials are needed to determine if screening with the EPDS could improve mental health outcomes and minimise harms.'

Screening for postnatal depression has not been shown to improve maternal and infant outcomes.[4] Unless all false positives are recognised immediately, there is a risk of overdiagnosis and overtreatment of depression. The role of the EPDS in clinical assessment is also unclear as it is neither a diagnostic tool nor an accurate measure of depression severity.

REFERENCES
1 Levis B, Negeri Z, Sun Y et al. Accuracy of the Edinburgh Postnatal Depression Scale (EPDS) for screening to detect major depression among pregnant and postpartum women: systematic review and meta-analysis of individual participant data. *BMJ* 2020;371:m4022
2 National Institute for Health and Care Excellence. CG192. Antenatal and postnatal mental health (update). Full guideline. NICE. London. 2018
3 National Institute for Health and Care Excellence. Depression – antenatal and postnatal. Clinical Knowledge Summaries. NICE. London. 2020
4 Hill C. An evaluation of screening for postnatal depression against NSC criteria. National Screening Committee. 2010
5 Scottish Intercollegiate Guidelines Network. SIGN 127. Management of perinatal mood disorders. SIGN. Edinburgh. 2012