Journal of Psychosomatic Obstetrics & Gynecology, December 2009; 30(4): 238–243

informa
healthcare

Screening for antenatal depression with the Edinburgh Depression Scale

ADOMAS BUNEVICIUS[1], LAIMA KUSMINSKAS[1], VICTOR J. POP[2], CORT A. PEDERSEN[3], & ROBERTAS BUNEVICIUS[1]

[1]*Institute of Physiology and Rehabilitation, Kaunas University of Medicine, Palanga, Lithuania,* [2]*Department of Psychology, Tilburg University, Tilburg, The Netherlands, and* [3]*Department of Psychiatry, University of North Carolina, Chapel Hill, USA*

(Received 9 April 2008; accepted 28 October 2008)

Abstract

This study aimed to evaluate how precise the Edinburgh Depression Scale (EDS) is in screening for major depressive disorder (MDD) during different periods of pregnancy. A random sample of 230 pregnant women was interviewed in the first, second, and third trimesters of pregnancy using the EDS and not-patient version of the Structured Clinical Interview for DSM-III-R (SCID-NP). We evaluated test-retest reliability of the EDS; area under the ROC curve (AUC), sensitivity, specificity, and positive predictive value (PPV) of the EDS against the SCID-NP diagnoses in the first, second, and third trimesters of pregnancy. Test–retest reliability of the EDS was 0.81 ($p < 0.001$). An optimal cutoff score of the EDS for screening current SCID-NP diagnosis of MDD was 12 and higher in the first trimester of pregnancy (AUC 0.94, sensitivity 92%, specificity 95%, and PPV 52%) and 11 and higher in the second and third trimesters of pregnancy (AUC 0.96 and 0.90, respectively; sensitivity 100% and 88%, respectively; specificity 92% and 92%, respectively; PPV 25% and 29%, respectively). The EPDS is a reliable instrument for repeated evaluations of depressive symptoms during pregnancy. It has a good sensitivity and specificity for detecting antenatal MDD with optimal cutoff of 11/12 or higher.

Keywords: *Edinburgh Depression Scale, major depressive disorder, area under the ROC curve, sensitivity, specificity*

Introduction

Depression is prevalent during pregnancy and is a major health problem [1,2]. A recent meta-analysis demonstrated that the mean prevalence rate of depression during pregnancy is 10.7% ranging from 7.4 to 12.8% in different trimesters of pregnancy [3]. The prevalence of major depression ranges from 3.1 to 4.9% at different trimesters of pregnancy, with a decrease of prevalence towards the last trimester [4].

It is well known that antenatal maternal depression is associated with poor birth outcomes including prematurity and miscarriage [5]. Moreover, if untreated, this mood disorder together with socioeconomic deprivation and with other adverse factors may increase the likelihood of postnatal depression [6,7]. Therefore, medical specialists encountering pregnant women need proper instruments for screening mood disorders. Although several diagnostic tools have been established to diagnose depressive symptoms or depressive disorders, but not all of them are appropriate to use in a population of pregnant women [8]. Useful instruments must be easily administered, highly sensitive and should avoid questions about physical symptoms, because this population is expected to have complaints concerning physical health, therefore these questions could bias the results of screening [9,10].

A number of diagnostic instruments have been tested for the screening of postpartum depression, but the Edinburgh Postnatal Depression Scale (EPDS) [11] remains the most extensively studied and most widely used instrument for this purpose [8]. The EPDS is a 10-item self-rating scale that has been developed in 1987 by Cox et al. and since then a number of studies showed its reliability and good psychometric properties for the screening for postpartum depression [12]. The EPDS has also

Correspondence: Adomas Bunevicius, Vyduno av 4, LT – 00135, Palanga, Lithuania. E-mail: a.bunevicius@yahoo.com

ISSN 0167-482X print/ISSN 1743-8942 online © 2009 Informa UK Ltd.
DOI: 10.3109/01674820903230708

Copyright Informa Healthcare 2009
Not for Sale or Commercial Distribution
Unauthorized use is prohibited.
Authorized use is limited to download, display, view and print a single copy for personal use.

been validated in a population of non-childbearing women [13] and has received new nomenclature: the Edinburgh Depression Scale (EDS). The EDS was also found to be a valid screening instrument for depressive disorders during pregnancy [14,15]. However, these studies have not evaluated the EDS performance for the screening of depression during all three trimesters of pregnancy. This evaluation is important as the prevalence of depression may fluctuate during the course of pregnancy [16].

Therefore, the aim of this study was to evaluate how precise the EDS is in screening for current diagnoses of depressive disorders in an unselected population of pregnant women during different trimesters of pregnancy.

Subjects and methods

Subjects

In a year of 2004 all pregnant women attending an obstetric clinic in Kaunas, Lithuania, were consecutively invited to participate in the study. There were no restrictions on pregnant women selection, but only those at age 18 or older were invited to the study. Three hundred seven pregnant women agreed to participate in the study and after a written informed consent 230 women (75%) completed the study, i.e., were evaluated for depressive disorders during all three trimesters of pregnancy. The mean age of the study population was 29 years (range, 18–43 years) (Table I). One hundred and forty (61%) women were pregnant for the first time, 205 (89%) women planned the current pregnancy, and 227 (99%) women were married or had a partner. Fifty-three (23%) women had a history of abortion or miscarriage. One hundred and thirteen (49%) women graduated from the university and 193 (84%) women were employed. Twenty-four (10%) women had a history of depression and 43 (19%) women reported a family history of depression. At the time of the study, no women had an established psychiatric diagnosis, nor were taking psychotropic medications.

Table I. Characteristics of the study sample of 230 pregnant women.

Characteristic	*n* (%)
Age in years (mean ± SD)	29 ± 5
Parity	
0	141 (61.3)
1	71 (30.9)
2–5	18 (7.8)
Family status	
Married	179 (77.8)
Has a partner	48 (20.9)
Single	3 (1.3)
Education	
Low	33 (14.4)
Middle	84 (36.5)
High	113 (49.1)
Employment	
No	37 (16.1)
Part time	42 (18.3)
Full time	151 (65.6)
Previous abortions or miscarriages in life	54 (23.0)
Unwanted and unplanned pregnancy	25 (10.9)
History of depression	24 (10.4)
History of depression in the family	43 (18.7)

The study and its consent procedures were approved by the Regional Committee of Ethics in Biomedical Research at the Kaunas University of Medicine, Kaunas, Lithuania.

Methods

Symptoms of depression and the presence of clinical diagnoses of current depressive disorder were evaluated in the first trimester (12th–16th weeks), in the second trimester (22nd–26th weeks), and in the third trimester (32nd–36th week) of pregnancy. Symptoms of depression were evaluated using Lithuanian version [17,18] of the EDS [11]. Though originally the EDS was designed for screening for postnatal depression, today it is widely used for evaluation of symptoms of depression throughout all periods of woman's life in clinical practice as well as in epidemiological studies [13,19,20]. The EDS is beneficial against most of the other instruments used for the screening for perinatal depressive disorders because it is easy to administer and it evaluates psychological and cognitive, but not physical symptoms of depression that are prevalent during pregnancy. The EDS is a 10-item self-rating instrument and takes 2–5 min to complete. Each item is scored from 0 to 3 to which woman responds based on her experience over the past week. Possible scoring range is from 0 to 30. The original paper indicates that the EDS cutoff point of 12.5 screens accurately for major depression in postpartum period [11]. Validation study of the Lithuanian version of the EDS in a community sample found that the EDS is an optimal screening instrument for the major depressive disorder (MDD) when cutoff score of 12 and more is used with sensitivity of 95% and area under the receiver operating characteristic (ROC) curve (AUC) of 0.94 [17].

Clinical diagnosis of depressive disorder was evaluated using Lithuanian translation [21] of the non-patient version of the Structured Clinical Interview for DSM-III-R (SCID-NP) [22]. The SCID-NP is a semi-structured clinical interview that ascertains the presence of psychiatric disorders in non-psychiatric populations using several modules. In this study, we used three modules of the SCID-NP (Model A for mood syndromes, Model D for mood disorders and Model I for adjustment disorders) to evaluate study women for the presence

of MDD, dysthymia or adjustment disorder with depressed mood. We chose the SCID-NP as a 'gold standard' because it is widely used in clinical practice as well as in research studies [23], including the validation studies of the EDS [24,25].

The EDS was administered as a paper-and-pencil questionnaire; interview for psychiatric diagnoses using the SCID-NP was performed by a trained psychiatrist (L.K). The order of administration of the EDS and the SCID-NP was changed randomly, so that the results of one evaluation could not influence the response to the other. Psychiatrist administering the SCID-NP was blind to the score on the EDS.

Statistical analyses

All continuous data are presented as mean $\pm$ standard deviations, all categorical data as number and percent. Firstly, we evaluated a test–retest reliability of the EDS using the intra-class correlation coefficient (ICC). A value of the ICC varies between 0 and 1; values closer to 1 indicate stronger reliability. Portney and Watkins [26] suggested that ICCs >0.75 indicate good reliability and Anastasi [27] recommended 0.60 as the minimum acceptable ICC value.

Secondly, we addressed the issue of how well different cutoff values of the EDS predicted the SCID-NP diagnoses of MDD, dysthymia and adjustment disorder with depressive mood altogether and only a diagnosis of MDD. For each comparison we computed sensitivity (the true-positive rate), specificity (the true-negative rate), positive predictive value (proportion of subjects with positive test results who are correctly diagnosed), negative predictive value (proportion of subjects with negative test results who are correctly diagnosed), and the AUC. The AUC is an index of the amount of information the test provides over its entire scoring range. The AUC ranges from 0.5, which indicates a worthless test, to 1, which indicates a perfect test with a perfect sensitivity and specificity [28]. SPSS 12.0 for Windows (Chicago, IL) was used for data analyses.

Results

We found that the test–retest reliability assessed by the ICC was 0.81 ($p < 0.001$) indicating good reliability [26].

In all, 12 (5%), 6 (3%) and 7 (3%) women were diagnosed with MDD according to the SCID-NP in the first, second, and third trimesters of pregnancy, respectively. One woman had diagnosis of dysthymia in all three trimesters of pregnancy and one woman was diagnosed with adjustment disorder with depressed mood in the second and third trimesters of pregnancy. One woman was diagnosed with adjustment disorder with depressed mood only in the first trimester of pregnancy.

The AUC for the SCID-NP diagnosis of MDD was highest at the EDS cutoff score of 12 or more in the first trimester of pregnancy at level of 0.94 with sensitivity of 92% and positive predictive value (PPV) of 52% (Tables II and III). The AUC for the SCID-NP diagnosis of MDD was highest at the EDS cutoff score of 11 or more in the second and third trimesters of pregnancy at level of 0.96 and 0.9, respectively, with sensitivity of 100% and 88%, respectively, and PPV of 25% and 29%, respectively (Tables II and III). Other characteristics of the EDS at the optimal cutoff score diagnosing MDD are presented in Table III. The AUC for the SCID-NP diagnoses of MDD, dysthymia, and adjustment disorder with depressed mood altogether was highest at the EDS cutoff score of 12 or more in the first trimester of pregnancy, and at the cutoff score of 11 or more in the second and third trimesters of pregnancy (Table II). Other characteristics of the

Table II. Receiver-operating characteristics for any depressive disorder (including Major depressive disorder, dysthymia and adjustment disorder with depressed mood) and only for major depressive disorder using different cutoff scores of the Edinburgh Depression Scale (EDS) in the first, second and third trimesters of pregnancy.

	First trimester of pregnancy				Second trimester of pregnancy				Third trimester of pregnancy			
	Any depressive disorder		Major depressive disorder		Any depressive disorder		Major depressive disorder		Any depressive disorder		Major depressive disorder	
EDS cutoff	AUC	Sens. (%)	AUC	Sens. (%)	AUC	Sens. (%)	AUC	Sens. (%)	AUC	Sens. (%)	AUC	Sens. (%)
≥9	0.87	93	0.90	100	0.86	88	0.92	100	0.83	80	0.86	88
≥10	0.86	86	0.89	92	0.88	88	0.94	100	0.85	80	0.89	88
≥11	0.89	86	0.92	92	*0.90*	*88*	*0.96*	*100*	*0.86*	*80*	*0.90*	*88*
≥12	*0.91*	*86*	*0.94*	*92*	0.79	63	0.81	67	0.73	50	0.79	63
≥13	0.81	64	0.82	67	0.74	50	0.73	50	0.73	50	0.80	63
≥14	0.78	57	0.78	58	0.62	25	0.57	17	0.69	40	0.74	50
≥15	0.74	50	0.74	50	0.62	25	0.58	17	0.60	20	0.62	25

AUC, area under the curve; Sens., sensitivity.
Optimal characteristics in italics.

Table III. Characteristics of the Edinburgh Depression Scale (EDS) at optimal cutoff scores against the SCID diagnoses of any depressive disorder (including major depressive disorder, dysthymia and adjustment disorder with depressed mood) and only for major depressive disorder in the first, second and third trimesters of pregnancy.

	First trimester of pregnancy		Second trimester of pregnancy		Third trimester of pregnancy	
	Any depressive disorder	Major depressive disorder	Any depressive disorder	Major depressive disorder	Any depressive disorder	Major depressive disorder
Prevalence	14 (6%)	12 (5%)	8 (3%)	6 (3%)	8 (3%)	8 (3%)
EDS cutoff score	≥12	≥12	≥11	≥11	≥11	≥11
Sensitivity (%)	86	92	88	100	80	88
Specificity (%)	96	95	92	92	93	92
Positive predictive value (%)	57	52	29	25	33	29
Negative predictive value (%)	99	100	100	100	99	100
Area under the ROC curve	0.91	0.94	0.90	0.96	0.86	0.90

EDS at the optimal cutoff score for diagnosing MDD, dysthymia, and adjustment disorder with depressed mood altogether are presented in Table III.

Discussion

Results of this study indicate that the EDS is sensitive and accurate screening instrument for depressive disorders, including MDD, in all periods of pregnancy. Minimal differences of optimal cutoff scores of the EDS for screening depressive disorders exist in different trimesters of pregnancy, cutoff score of 12 and more in the first trimester of pregnancy, and cutoff score of 11 and more in the second and third trimesters of pregnancy. Su et al. [29] also reported different optimal cutoff scores of the EDS for screening MDD in the second trimester (cutoff score 13/14) and in the third trimester (cutoff score 12/13) of pregnancy. The higher cutoff scores in Su et al.'s [29] study when compared with our study might be because they used the MINI International Neuropsychiatric Interview (MINI) as a 'gold standard'. Optimal cutoff scores of the EDS found in our study correspond to findings of Adewuya et al. [15] that found an optimal cutoff score of 12 or more for screening MDD in late pregnancy. In that study, MDD diagnosis was established according to the DSM-IV criteria using the MINI. Another study in a random sample of Maltese pregnant women found an optimal cutoff score of the EDS at a level of 13/14 for identifying depression antenatally [30]. The higher cutoff score in this study [30] when compared with our study might be because in this study the diagnoses of depression were performed using the Clinical Interview Schedule in comparison to the SCID-NP used in our study. Another study performed in a sample of women with high risk pregnancies found an optimal EDS cutoff score of 11.5 for screening of MDD according to the DSM-IV criteria [14]. When the EDS was validated against the DSM-IV diagnoses for screening of postpartum depression an optimal cutoff score of the EDS varied from 6/7 [25] to 12/13 [31]. A study on a large sample ($n = 1201$) of women at 6 weeks postpartum found an optimal cutoff score of the EDS at a level of 10/11 against the SCID-NP diagnoses of major and minor depressions [32]. Optimal cutoff values of the EDS were lower in our study when compared with the cutoff value of the EPDS suggested by Cox et al. [11]. This difference might be because of different study sample, although sensitivity and specificity of the EDS found in our study were higher when compared with sensitivity and specificity of the EPDS reported in the original paper [11]. Results of validation study of the Lithuanian version of the EDS in a community sample found that the EDS is an optimal screening instrument for MDD when cutoff score of 12 and higher is used [17].

Results of our study and results of other validation studies of the EDS show that an optimal cutoff score for screening depressive disorder varies depending on the population and on the instruments used as a 'gold standard' establishing diagnoses of depression. Also, there still remains a possibility that cultural factors and differences in language may play an important role in the interpretation of the questions in the scale [12]. Indeed, variability of optimal cutoff scores occurs even when the instrument is used in the same language. Although these variations are minimal, but there is a need to perform validation of the EDS in different countries and even in different populations before it can be used in clinical practice [4]. Moreover, ethic, social and economic factors in addition to a number of other factors must be taken into consideration when using the E(P)DS in clinical practice [4].

In the present study, women under the age of 18 years were not invited to the study, because they comprise a sensitive group of patients. This is a limitation of our study because young and possibly

unmarried pregnant women might be more susceptible to depression.

Sensitivity of the EDS at optimal cutoff scores in our study ranged from 86 to 100% indicating that most women who had depressive disorders according to the SCID-NP were correctly classified by the EDS. High sensitivity of the EDS is clinically beneficial for screening instrument because it does not allow missing depressive disorder. High specificity and high negative predictive value of the EDS also fulfill requirements for a good screening instrument. Overall our results validate the EDS as a good screening tool for MDD and for other depressive disorders during pregnancy, thereby confirming the conclusion of reviews on the EDS validations for screening of postpartum depression [4,12]. PPVs were relatively low in our study, especially in the second and third trimesters of pregnancy indicating low likelihood that women with a positive score on the EDS for depressive symptoms actually have MDD. When Eberhard-Gran et al. recalculated PPVs of a number of the EPDS validation studies assuming the prevalence of postpartum depression at level of 13% they found PPVs ranging from 22 to 79% [12]. But our study sample consisted of pregnant women only and the prevalence of depressive disorders in our study was lower. Low PPVs found in our study could be explained by a small number of women with MDD, because PPV of the test decreases in population where the prevalence of the index disorder is small. In our study, the prevalence of MDD in all three trimesters of pregnancy was small with a decrease toward the end of pregnancy corresponding to findings of a meta-analyses [4].

To our knowledge this study is the first attempt to evaluate the reliability of the EDS in repeated measurements in all three trimesters of pregnancy, indicating that the EDS is a reliable instrument for repeated evaluations of depressive symptoms. Some earlier studies have also confirmed good test–retest reliability of the EDS; however they were performed in postnatal women [14] and in not pregnant women [33]. Taken together, all these data indicate that the EDS is a reliable instrument for identifying women with high risk of depression antenatally and postnatally as well as in other periods of a woman's life. Employment of the same instrument pre- and postpartum as well as in other periods of woman's life allows continuous and objective evaluation of the course of depressive disorder as well as the efficacy of antidepressive treatment if necessary.

In summary, results of this validation study of the EDS against the SCID-NP reveals that the EDS is adequate screening instrument for depressive disorder, especially for MDD during pregnancy. It should be mentioned that the EDS will miss up to 10% of patients with MDD. Therefore, whenever possible the SCID-NP or other structured diagnostic interview must be used to diagnose depressive disorder.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

References

1. Pop VJ, Wijnen HA, Lapkiene L, Bunivicius R, Vader HL, Essed GG. The relation between gestational thyroid parameters and depression: a reflection of the downregulation of the immune system during pregnancy? Thyroid 2006;16:485–492.
2. Stewart RC. Maternal depression and infant growth: a review of recent evidence. Matern Child Nutr 2007;3:94–107.
3. Bennett HA, Einarson A, Taddio A, Koren G, Einarson TR. Prevalence of depression during pregnancy: systematic review. Obstet Gynecol 2004;103:698–709.
4. Gaynes BH, Gavin N, Meltzer-Brody S, Lohr KN, Swinson T, Gartlehner G, Brody S, Miller WC. Perinatal depression: prevelance, screening accuraty and screening outcomes. Evid Rep Technol Assess 2005;119:1–8.
5. Dayan J, Creveuil C, Herlicoviez M, et al. Role of anxiety and depression in the onset of spontaneous preterm labor. Am J Epidemiol 2002;155:293–301.
6. Heron J, O'Connor TG, Evans J, Golding J, Glover V; ALSPAC Study Team. The course of anxiety and depression through pregnancy and the postpartum in a community sample. J Affect Disord 2004;80:65–73.
7. Austin MP, Tully L, Parker G. Examining the relationship between antenatal anxiety and postnatal depression. J Affect Disord 2007;101:169–174.
8. Boyd RC, Le HN, Somberg R. Review of screening instruments for postpartum depression. Arch Womens Ment Health 2005;8:141–153.
9. Kutner NG, Fair PL, Kutner MH. Assessing depression and anxiety in chronic dialysis patients. J Psychosom Res 1985;29:23–31.
10. Harris B, Huckle P, Thomas R, Johns S, Fung H. The use of rating scales to identify post-natal depression. Br J Psychiatry 1989;154:813–817.
11. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. Br J Psychiatry 1987;150:782–786.
12. Eberhard-Gran M, Eskild A, Tambs K, Opjordsmoen S, Samuelsen SO. Review of validation studies of the Edinburgh Postnatal Depression Scale. Acta Psychiatr Scand 2001;104:243–249.
13. Becht MC, Van Erp CF, Teeuwisse TM, Van Heck GL, Van Son MJ, Pop VJ. Measuring depression in women around menopausal age: towards a validation of the Edinburgh Depression Scale. J Affect Disord 2001;63:209–213.
14. Adouard F, Glangeaud-Freudenthal NM, Golse B. Validation of the Edinburgh postnatal depression scale (EPDS) in a sample of women with high-risk pregnancies in France. Arch Womens Ment Health 2005;8:89–95.
15. Adewuya AO, Ola BA, Dada AO, Fasoto OO. Validation of the Edinburgh Postnatal Depression Scale as a screening tool for depression in late pregnancy among Nigerian women. J Psychosom Obstet Gynaecol 2006;27:267–272.
16. Felice E, Saliba J, Grech V, Cox J. Validation of the Maltese version of the Edinburgh Postnatal Depression Scale. Arch Womens Ment Health 2006;9:75–80.
17. Lapkiene L, Mockute I, Nadisauskiene RJ, Gintautas V, Jakuboniene N, Pop VJM, Bunevicius R. Adaptation of the

Edinburgh Postnatal Depression Scale in Lithuania. Lithuanian Obstet Gynecol 2004;7:280–284.
18. Bunevicius A, Cesnaite E, Kusminskas L, Mockute I, Bunevicius R. Antenatal mental state and anthropometric characteristics of the neonates: I. Impact of symptoms of depression and anxiety. Biol Psychiatry Psychopharmacol 2007;9:7–10.
19. Figueiredo B, Pacheco A, Costa R. Depression during pregnancy and the postpartum period in adolescent and adult Portuguese mothers. Arch Womens Ment Health 2007;10:103–109.
20. Halbreich U, Karkun S. Cross-cultural and social diversity of prevalence of postpartum depression and depressive symptoms. J Affect Disord 2006;91:97–111.
21. Bunevicius R, Lazinskiene J, Gerulaitiene D. DSM-III-R structurised clinical interview: non patient version. Lithuanian biological psychiatry association; 1995.
22. Spitzer RL, Williams JBW, Gibbon M, First MB. User's guide for the structured clinical interview for DSM-III-R. Washington, D.C.: American Psychiatric Press; 1990.
23. Lee DT, Chan SS, Sahota DS, Yip AS, Tsui M, Chung TK. A prevalence study of antenatal depression among Chinese women. J Affect Disord 2004;82:93–9.
24. Aydin N, Inandi T, Yigit A, Hodoglugil NN. Validation of the Turkish version of the Edinburgh Postnatal Depression Scale among women within their first postpartum year. Soc Psychiatry Psychiatr Epidemiol 2004;39: 483–486.
25. Pitanupong J, Liabsuetrakul T, Vittayanont A. Validation of the Thai Edinburgh Postnatal Depression Scale for screening postpartum depression. Psychiatry Res 2007;149:253–259.
26. Portney LG, Watkins MP. Foundations of clinical research: applications to Practice. Norwalk, CT: Appleton & Lange; 1993.
27. Anastasi A. Psychological testing, 6th ed. New York, NY: Macmillan; 1998.
28. Hanley JA, McNeil BJ. The meaning and use of the area under a receiver operating characteristic (ROC) curve. Radiology 1982;143:29–36.
29. Su KP, Chiu TH, Huang CL, Ho M, Lee CC, Wu PL, Lin CY, Liau CH, Liao CC, Chiu WC, et al. Different cutoff points for different trimesters? The use of Edinburgh Postnatal Depression Scale and Beck Depression Inventory to screen for depression in pregnant Taiwanese women. Gen Hosp Psychiatry 2007;29:436–441.
30. Felice E, Saliba J, Grech V, Cox J, Calleja N. Antenatal psychiatric morbidity in Maltese women. Gen Hosp Psychiatry 2007;29:501–505.
31. Teng HW, Hsu CS, Shih SM, Lu ML, Pan JJ, Shen WW. Screening postpartum depression with the Taiwanese version of the Edinburgh Postnatal Depression scale. Compr Psychiatry 2005;46:261–265.
32. Garcia-Esteve L, Ascaso C, Ojuel J, Navarro P. Validation of the Edinburgh Postnatal Depression Scale (EPDS) in Spanish mothers. J Affect Disord 2003;75:71–76.
33. Nyklicek I, Scherders MJ, Pop VJ. Multiple assessments of depressive symptoms as an index of depression in population-based samples. Psychiatry Res 2004;128: 111–116.

Current knowledge on this subject

- Depression is prevalent during pregnancy. Therefore medical specialists need valid and reliable instruments for screening of depressive disorders. A number of studies found that the Edinburgh Depression Scale (EDS) is a valid instrument for screening of depressive disorders during pregnancy. However the performance of the EDS for screening of depressive disorders in all three trimesters of pregnancy has not been evaluated.

What this study adds

- The EDS is a reliable instrument for repeated screening of depressive disorders, especially major depressive disorder, in all three trimesters of pregnancy with the cut-off score of 11/12.