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Postpartum depression: A comparison of screening and routine clinical evaluation

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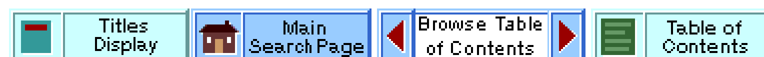

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Abstract

Objective: This study compared the efficacy of routine clinical evaluation with that of screening with the Edinburgh Postnatal Depression Scale for the detection of postpartum depression in a residency training program practice.

Study Design: Three hundred ninety-one patients during a period of 1 year were assigned according to delivery date to screening for postpartum depression with the Edinburgh Postnatal Depression Scale or to a control group who had only spontaneous detection during routine clinical evaluation. The incidences of postpartum depression detection and demographic characteristics were compared between 79 patients in the Edinburgh Postnatal Depression Scale group and 96 patients in the clinical evaluation group by means of $[chi]^2$ analyses.

Results: The incidence of postpartum depression detection with the Edinburgh Postnatal Depression Scale was significantly higher than the incidence of spontaneous detection during routine clinical evaluation (35.4% and 6.3%, respectively; $P = .001$).

Conclusions: The Edinburgh Postnatal Depression Scale is an effective adjunct to clinical interview for diagnosis of postpartum depression and should be considered in residency training. (Am J Obstet Gynecol 2000;182:1080-2.)

Postpartum depression is a term used to describe a heterogeneous group of depressive disorders specific to the postpartum period. Onset is usually within 6 weeks after childbirth, and symptoms last from 3 to 14 months. The reported prevalence of postpartum depression ranges from 3.5% to 33%, depending on definition, assessment, and time since delivery. [1-3] Women with a history of postpartum depression have a 50% risk for recurrence, and 30% of women with a history of depression not related to childbirth have postpartum depression. [4]

In the absence of screening, however, postpartum depression is underdiagnosed by primary care providers, including obstetricians. Once diagnosed, postpartum depression is susceptible to secondary prevention and safe, effective treatment. Screening for postpartum depression can be cost-effective if an acceptable, convenient, standardized screening instrument such as the Edinburgh Postnatal Depression Scale is used. [5] With administration of the Edinburgh Postnatal Depression Scale between 6 and 8 weeks post partum, rates of postpartum depression (Edinburgh Postnatal Depression Scale score >10) ranged from 14% to 21% in low-risk population screening studies. [6,7]

The purpose of this project was to compare the rate of postpartum depression detected by the Edinburgh Postnatal Depression Scale with the spontaneous detection rate from routine clinical evaluations by physicians and midlevel health care providers in a collaborative community-based residency program. We also sought to establish the incidence of postpartum depression in our patient population.

Material and methods

Consenting patients who were delivered at Mission St Joseph's Hospital on even days for 1 year through July 1998 were assigned to the Edinburgh Postnatal Depression Scale group. Patients who were delivered on odd days during the same period were assigned to the clinical evaluation group. A sufficient number of patients' 6-week follow-up records were reviewed between July and November 1997. This project was approved by the Mission St Joseph's institutional review board.

The Edinburgh Postnatal Depression Scale included 10 statements that described feelings reflective of postpartum depression symptoms during the past 7 days rated on a scale from 0 (never) to 3 (quite often). The Appendix illustrates the instrument used; for convenience the responses are lettered *a,* representing a score of 0, through *d,* representing a score of 3. A clinical threshold of 10 on a 30-point scale was considered to represent high risk for postpartum depression and defined postpartum depression incidence in that group. The Edinburgh Postnatal Depression Scale was previously validated with the Research Diagnostic Criteria as the criterion standard. [5] Sensitivity, specificity, and positive predictive values of the Edinburgh Postnatal Depression Scale among community samples have been measured at 84%, 88%, and 48%, respectively. [8]

Patients assigned to the Edinburgh Postnatal Depression Scale group received the screening instrument and a demographic questionnaire by mail. Patients returned the completed Edinburgh Postnatal Depression Scale at the 6-week postpartum visit or completed the forms in examination rooms. Patients at high risk for postpartum depression were referred to the social worker for assessment. Demographic data and postpartum depression diagnoses for unscreened patients were gathered by review of the postpartum record.

Our power analysis was based on an incidence rate difference of 15.5% between published postpartum depression rates [6,7] and the resident clinic rate. A sample size of 190 subjects was required ([alpha] = .05; 2-sided test; power, 80%).

Statistical analyses included the Pearson $[chi]^2$ test to examine group differences in demographic data and postpartum depression rates. The Student *t* test and Pearson correlation were used to examine differences in time since delivery and the relationship with the Edinburgh Postnatal Depression Scale scores.

Results

Among 212 consenting patients 79 returned or completed the Edinburgh Postnatal Depression Scale at the 6-week postpartum visit (37% return rate; follow-up rate was not obtained). Ninety-six of 179 patients (54%) in the clinical evaluation group attended the 6-week postpartum visit. Results are presented as mean ± SD.

Subjects in the 2 groups were similar with respect to age, gravidity, parity, race, education, insurance status, and clinic. Patients' mean age was 24 ± 6 years; median gravidity and number of children were both 2. Patients

were primarily white (84%), and most had a high school education (43%) or greater (31%). Resident patients composed 71% of the sample, and 78% were Medicaid recipients.

Only two significant demographic differences were found between the 2 groups, time since delivery and marital status. Patients screened with the Edinburgh Postnatal Depression Scale were closer to delivery than were those assessed through clinical evaluation (mean, 5.6 ± 1.6 vs 6.2 ± 1.1; $P < .001$). There were 13% fewer partnered women among interviewed patients than among screened patients ($P < .009$); however, rates of depression did not differ significantly between women with and without partners. Rates of depression were not related to site of completion or to time since delivery.

Scores on the Edinburgh Postnatal Depression Scale ranged from 0 to 24, with a mean of 8.8 ± 5.96. There was a statistically significant difference in the rate of postpartum depression detection between the 2 groups. The postpartum depression detection rate in the Edinburgh Postnatal Depression Scale group was 35.4%, versus a rate of 6.3% among patients in the routine clinical evaluation group ($P < .0001$).

Comment

Screening for postpartum depression is warranted because postpartum depression is a commonly occurring disorder amenable to secondary prevention. It has a predictable onset, marked by childbirth, and effective treatment modalities exist. Undetected postpartum depression can have devastating effects on the patient, child, family, and society. The Edinburgh Postnatal Depression Scale is an inexpensive, convenient, and accurate screening tool.

The primary objective of this study was to examine the incidence of postpartum depression when assessed with a standardized screening instrument as opposed to clinical evaluation. The Edinburgh Postnatal Depression Scale detected significantly more women with postpartum depression symptoms than did clinical evaluation. This was true even though screened patients were closer to delivery than were those evaluated clinically; screening closer to delivery tends to underestimate rates of postpartum depression. [4]

The incidence of postpartum depression in the clinic was considerably higher than previously reported rates of postpartum depression. [6,7] Diagnoses for screened women were not obtained from the social worker, but the expected rate of postpartum depression according to published positive predictive values would be 17%. Inflated detection rates of postpartum depression with the Edinburgh Postnatal Depression Scale may be related to patient attrition, demographic characteristics, or prevalence of risk factors for postpartum depression. Patients with greater awareness of depressive symptoms may be more likely to seek follow-up services. Elevated risk for emotional disorders related to low levels of support and resources is consistent with the demographic status of the clinic population. Psychiatric history may also confound results.

In the era of managed care, obstetrician-gynecologists will serve in a gatekeeper capacity. In light of time constraints, limited resources, minimal training regarding postpartum depression, and the potential tendency to emphasize physical rather than mental health, diagnostic capabilities can be significantly enhanced by the use of the Edinburgh Postnatal Depression Scale as an adjunct to routine clinical evaluation.

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Appendix

Edinburgh Postnatal Depression Scale

How are you feeling? Because you have recently had a baby, we would like to know how you are feeling now. Please underline the answer that comes closest to how you have felt in the past 7 days, not just how you feel today. Here is an example, already completed:

S. I have felt happy:

A. Yes, most of the time
B. <u>Yes, some of the time</u>
C. No, not very often
D. No, not at all

This would mean, “I have felt happy some of the time during the past week.” Please complete the other questions in the same way.

In the past 7 days:

1. I have been able to laugh and see the funny side of things:
A. As much as I always could
B. Not quite so much now
C. Definitely not so much now
D. Not at all
2. I have looked forward to enjoyment in things:
A. As much as I ever did
B. Rather less than I used to
C. Definitely less than I used to
D. Hardly at all
3. I have blamed myself unnecessarily when things went wrong:
A. Yes, most of the time
B. Yes, some of the time
C. Not very often
D. No, never
4. I have felt worried and anxious for no very good reason:
A. No, not at all
B. Hardly ever
C. Yes, sometimes

D. Yes, very often
5. I have felt scared or panicky for no very good reason:
A. Yes, quite a lot
B. Yes, sometimes
C. No, not much
D. No, not at all
6. Things have been getting on top of me:
A. Yes, most of the time I haven't been able to cope at all
B. Yes, sometimes I haven't been coping as well as usual
C. No, most of the time I have coped quite well
D. No, I have been coping as well as ever
7. I have been so unhappy that I have had difficulty sleeping:
A. Yes, most of the time
B. Yes, sometimes
C. Not very often
D. No, not at all
8. I have felt sad or miserable:
A. Yes, most of the time
B. Yes, quite often
C. Not very often
D. No, not at all
9. I have been so unhappy I have been crying:
A. Yes, most of the time
B. Yes, quite often
C. Only occasionally
D. No, never
10. The thought of harming myself has occurred to me:
A. Yes, quite often
B. Sometimes
C. Hardly ever
D. Never

Key words: Edinburgh Postnatal Depression Scale; postpartum depression; prevalence; screening

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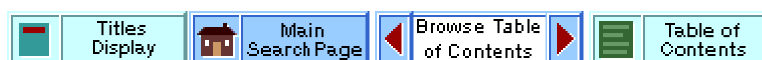

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