Interpersonal Psychotherapy for Depressed Antepartum Women: A Pilot Study

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Objective: Antenatal depression, a substantial risk factor for postpartum depression, occurs in 10% of pregnant women, but no clinical treatment trials of antenatal depression exist. In an effort to establish treatment guidelines for depression during pregnancy, the author reports on a treatment program using interpersonal psychotherapy for antepartum depression. Method: A 16-week open pilot trial was conducted with 13 pregnant women who met DSM-III-R criteria for major depression. Results: The women's mean depression ratings decreased significantly from week 0 to week 16 of the treatment program. Conclusions: Interpersonal psychotherapy for antepartum depression appears to be an effective alternative to pharmacotherapy in pregnancy. This study served as a pilot for an ongoing controlled clinical treatment trial.

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Although 10% of pregnant women meet criteria for major or minor depression (1, 2), they often remain undiagnosed because the symptoms of depression are similar to somatic complaints of pregnancy (3). In 5% of women, antenatal depression predicts postnatal depression (4).

Predisposing factors to antepartum depression are personal or family history of depression, marital dysfunction (3), young age, minimal education, and larger number of children (1).

Pregnant women who are depressed are at risk for anorexia, use of nicotine, drugs, and alcohol (5), and failure to obtain adequate prenatal care. Other serious sequelae are higher rates of accidental injury, child abuse, neglect (6), and infanticide.

Alterations in the intrauterine climate, such as changes in maternal hormones and monoamine function, have been shown to affect the newborn's neurobehavioral function (7). Infants of depressed mothers are likely to be withdrawn, irritable, and inconsolable (5, 8).

The medical legal complications of pharmacotherapy frequently dictate what kind of treatment can be given during gestation. Treatment often remains supportive until decompensation or suicidality requires hospitalization or urgent ECT. Interpersonal psychotherapy is a noninvasive, efficacious, brief treatment for nonpsychotic major depression (9).

During initial interpersonal psychotherapy sessions, a problem area is selected as a focus of treatment. If depression is associated with loss of a loved one, grief becomes the focus and bereavement is facilitated. A focus on role transition is applicable as the new mother emotionally separates from her infant and acquires new skills (9). Patients with interpersonal deficits have a history of social isolation (9). A role dispute may involve a significant other or manifest itself as a mother-infant attachment disorder. Complicated pregnancy may be a result of illness, obstetric difficulties (10), or conflict (11).

Termination of interpersonal therapy is accomplished in the last four sessions (9) and acknowledged as a time of potential grieving as well as recognition of independent competence.

METHOD

This paper reports on an open-trial pilot study of the modification of interpersonal psychotherapy for depressed antepartum women. The hypothesis was that interpersonal psychotherapy for antepartum depression would be effective in the treatment of antenatal depression.

This trial was conducted at the Maternal Mental Health Program of the College of Physicians and Surgeons of Columbia University. After the study was explained to potential subjects and written informed consent obtained, 13 depressed pregnant women began weekly, 50-minute interpersonal psychotherapy sessions for antepartum depression.

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TABLE 1. Depression Scores of 13 Women Given an Open Trial of Interpersonal Psychotherapy for Antepartum Depression

	Score at Intake		Score at Termination of Therapy		Change in Score		Analysis (df=12)	
Depression Scale	Mean	SD	Mean	SD	Mean	SD	Paired t	p
21-item Hamilton depression scale	22.1	5.1	3.9	6.7	18.2	6.6	9.9	0.0001
25-item Hamilton depression scale	25.2	4.9	4.0	6.7	21.2	7.0	11.0	0.0001
Beck Depression Inventory	21.8	5.6	8.9	7.7	12.9	9.6	4.9	0.0004
Edinburgh Postnatal Depression Scale	17.3	3.8	7.8	7.2	9.5	7.9	4.3	0.001
Clinical Global Impression	4.3	0.6	1.7	1.1	2.6	1.4	6.8	0.0001

The subjects were 13 healthy black (N=2), Caucasian (N=4), and Hispanic (N=7) women between 6 and 40 weeks' gestation; their mean age was 30 years (range=19–40). Twelve of the 13 subjects had a personal and family history of depression. Seven were receiving public assistance, and six were of middle income status. Eight subjects were pregnant for the first time. Seven were married, all with impaired relationships. Nine subjects completed the study. Three withdrew (at weeks 3, 7, and 14) after symptom remission, and one was removed for administrative reasons.

All women met DSM-III-R criteria for a major depressive episode, and all had scores greater than 12 on the Hamilton Depression Rating Scale (12). Patients were excluded from the study for substance dependence, acute suicidality, or serious illness.

The psychiatric evaluation included the Structured Clinical Interview for DSM-III-R Axis I (13), a reliable interview to assess axis I diagnosis. The Hamilton depression scale was used to rate severity of depressive symptoms. Scores on both the 21-item and the 25-item Hamilton depression scales were used in the study; the 25-item scale includes symptoms of atypical depression. The Clinical Global Impression (CGI) (14) was used to record global ratings of symptom severity and improvement. Ratings on the Beck Depression Inventory (15), a self-rated instrument for depressive symptoms that can be used in both the general and puerperal (16) population, were available. Ratings from the Edinburgh Postnatal Depression Scale (4) were also available; this instrument is a self-rated measure of postpartum depressive symptoms used in clinical and research work with antepartum depression. Patients were assessed weekly and at week 16 or at termination of therapy. Serum thyroid function tests were performed.

RESULTS

Endpoint analysis demonstrated a significant decrease in mean depression scores over the course of treatment (table 1) according to 21-item Hamilton depression scale scores, 25-item Hamilton depression scale scores, CGI, Beck inventory scores, and Edinburgh Postnatal Depression Scale scores for all subjects who entered the study. Endpoint analysis was used to estimate the patient's final level of functioning at termination of therapy regardless of when in the protocol it occurred, avoiding bias created by withdrawal or treatment failures (17).

Frequency of depressive symptoms was calculated at each evaluation week and at week 16 or termination of therapy. Pretreatment and posttreatment differences in means were calculated by using two-tailed, paired t tests on all outcome measures. All subjects met criteria for recovery—a Hamilton depression scale score of 6 or less and a CGI of 2 or less. Of 10 women available 3 months postpartum, none reported depressive symptoms.

DISCUSSION

These data support the efficacy of interpersonal psychotherapy for antepartum depression. The belief that women are hormonally protected from mood disorders during pregnancy contributes to neglect in diagnosis and treatment. Physiological processes and fetal growth place a large toll on the mother's emotional life (11). The mother's pressure to achieve emotional equilibrium before birth most likely contributed to these patients' commitment to treatment.

Study limitations include the lack of a control group and small number of subjects. This study served as a basis for a controlled clinical trial of 50 women randomly assigned to either interpersonal psychotherapy for antepartum depression or to a parenting education control condition. Blind independent evaluators will meet with subjects to evaluate depression.

This study, funded by the National Institute of Mental Health, is an opportunity to determine a hierarchy of treatment guidelines for antepartum depression in women who might otherwise need medication.

REFERENCES

1. Gotlib IH, Whiffen VE, Mount JH: Prevalence rates and demographic characteristics associated with depression in pregnancy and the post partum. J Consult Clin Psychol 1989; 57:269–274
2. O'Hara M, Zekoski EM, Philipps LH, Wright EJ: Controlled prospective study of postpartum mood disorders: comparison of childbearing and nonchildbearing women. J Abnorm Psychol 1990; 99:3–15
3. Klein MH, Essex MJ: Pregnant or depressed? the effect of overlap between symptoms of depression and somatic complaints of pregnancy on rates of major depression in the second trimester. Depression 1994; 2:1994–1995
4. Green JM, Murray D: The use of the Edinburgh Postnatal Depression Scale in research to explore the relationship between antenatal and postnatal dysphoria, in Perinatal Psychiatry: Use and Misuse of the Edinburgh Postnatal Depression Scale. Edited by Cox J, Holden J. London, Royal College of Psychiatrists, 1994, pp 180–198
5. Zuckerman B, Bauchner H, Parker S, Cabral H: Maternal depressive symptoms during pregnancy, and newborn irritability. Developmental and Behavioral Pediatrics 1990; 11:190–194
6. Scott D: Early identification of maternal depression as a strategy in the prevention of child abuse. Child Abuse Negl 1992; 16: 345–358
7. Dawson G, Klinger LG, Panagiotides H, Hill D, Spieder S: Frontal lobe activity and affective behavior of infants of mothers with depressive symptoms. Child Dev 1992; 63:725–737
8. Murray L: The impact of postnatal depression on infant development. J Child Psychol Psychiatry 1992; 33:343–361

9. Klerman GL, Weissman MM, Rounsaville BH, Chevron ES: Interpersonal Psychotherapy of Depression. New York, Basic Books, 1984
10. Carr ML: Normal and medically complicated pregnancies, in Psychological Aspects of Women's Health. Edited by Stewart DE, Stotland ND. Washington, DC, American Psychiatric Press, 1993, pp 15–35
11. Raphael-Leff J: Psychotherapy and pregnancy. J Reproduction and Infant Psychol 1990; 8:119–135
12. Hamilton M: A rating scale for depression. J Neurol Neurosurg Psychiatry 1960; 23:56–62
13. Skre I, Onstad S, Torgersen S, Kringlen E: High interrater reliability for the Structured Clinical Interview for DSM-III-R Axis I (SCID-I). Acta Psychiatr Scand 1991; 84:167–173
14. National Institute of Mental Health: Rating scales and assessment instruments for use in pediatric psychopharmacology research. Psychopharmacol Bull 1985; 21:839–843
15. Beck AT: Beck Depression Inventory, in Test Critiques, vol II. Edited by Keyser DJ, Sweetland RC. Austin, Tex, PRO-ED, 1985
16. Huffman LC, Lamour M, Bryan YE, Pederson FA: Depressive symptomatology during pregnancy and the postpartum period: is the Beck Depression Inventory applicable? J Reproduction and Infant Psychol 1990; 8:87–97
17. Friedman RC, Curt DF, DeMets DL: Issues in data analysis, in Fundamentals of Clinical Trials, 2nd ed. Edited by Friedman RC, Curt DF, DeMets DL. St Louis, Mosby-Year Book, 1985, pp 241–266