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# Peer support and interpersonal psychotherapy groups experienced decreased prenatal depression, anxiety and cortisol

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ABSTRACT

Forty-four prenatally depressed women were randomly assigned to peer support or interpersonal psychotherapy groups at 22 weeks gestation. The peer support group participated in a 20-minute group session once per week for 12 weeks, and the interpersonal psychotherapy group met for one hour per week for 12 weeks. Assessments were conducted before and after the sessions at 22 and 34 weeks gestation. Despite the peer support group having lower socioeconomic status and higher depression scores at the beginning of the treatment period and having shorter group sessions, both groups had lower summary depression (CES-D) scores and lower anxiety (STAI) scores by the end of the treatment period. In addition, cortisol levels decreased for both groups after the last day session, although the decrease was greater for the peer support group. The groups did not differ on neonatal outcomes including gestational age and birthweight. These data suggest that peer support group sessions may be a cost-effective form of treatment for prenatal depression.


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## 1. Introduction

As many as 49% of pregnant women experience prenatal depression, especially ethnic minority [6,8], low income and unmarried women [10]. Prenatal depression, in turn, contributes to prematurity [6] and developmental delays [3] as well as behavior problems in childhood and adolescence [2], highlighting the need for prenatal intervention.

Traditional treatments for depression including antidepressants and psychotherapy have been underutilized in the case of prenatal depression for various reasons. Antidepressants have been prescribed for a very small percentage (1–5%) of prenatally depressed women because of the mixed data on fetal and neonatal outcomes [4,5]. These studies also had limitations including small sample sizes,

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uncontrolled designs and unknown long-term medication effects. In addition, women already on antidepressants have elected to discontinue antidepressants during pregnancy.

Different forms of psychotherapy including cognitive behavior therapy have also received mixed reviews [1,12] in addition to being unaffordable by most women. Interpersonal psychotherapy (IPT) was noted to have greater effect sizes as compared to control groups in a meta-analysis on various treatments for perinatal depression [15]. And, interpersonal psychotherapy has been effective in at least one study on depressed pregnant women [18]. In that study, the IPT group received 16 weeks of individual sessions, and a comparison group received the same number of sessions focused on parenting education. The IPT group showed significant improvement compared to the parenting education group on 3 depression measures including the Edinburgh Postnatal Depression Scale, the Beck Depression Inventory and the Hamilton Depression Rating Scale, and the IPT group also had a lower attrition rate. This study lacked generalizability given that all the women were immigrants from the Dominican Republic, and many of the women had been abused. The significant decreases in depression scores in this study occurred by the sixth week of the treatment period. In a study by our group, depressed pregnant women who received 6 weeks of group interpersonal psychotherapy (one hour session once per week) showed increased positive affect and social relatedness, although negative affect also increased [6]. No studies could be found on the effects of peer support groups with depressed pregnant women.

The present study was suggested by our pilot data showing positive effects of peer support group sessions and our study on interpersonal group therapy effects on depression for pregnant women including decreased anxiety and depressed mood [6]. The purpose of the present study was to compare the effects of participating in peer support versus interpersonal psychotherapy groups on prenatal depression. The effects of these interventions on anxiety and cortisol levels were also explored because both anxiety and elevated cortisol have been comorbid with prenatal depression [7]. Based on previous data on interpersonal psychotherapy effects on perinatal depression [18] and on depressed pregnant women [6], the interpersonal psychotherapy group was expected to experience greater effects than the peer support group. However, if the peer support group was as effective as the interpersonal psychotherapy group, it would be a more cost-effective prenatal depression intervention given the shorter sessions (20 versus 60 min) and the absence of a trained group psychotherapist.

## 2. Method

### 2.1. Participants

The sample was comprised of 44 depressed pregnant women recruited from two prenatal ultrasound clinics (recruitment sample = 182) at a large university medical center. The depressed pregnant women were recruited at 20–24 weeks gestation (M = 22 weeks) and randomly assigned to a peer support (n = 22) or interpersonal psychotherapy group (n = 22). The recruitment criteria were: 1)being depressed, as diagnosed on the Structured Clinical Interview for Depression (SCID); 2) being pregnant with one child; 3)having an uncomplicated pregnancy with no medical illness; 4)being younger than 40-years-old, and 5) no drug use (i.e., prescribed or illicit). Samples previously recruited at these clinics had a very low incidence (3–5%) of treatment for prenatal depression (i.e., psychotherapy or antidepressants), so previous or concurrent treatments were not exclusion criteria.

The sample included women ranging in age from 18 to 40-years-old (M = 24.9 years, SD = 5.4). The women were primarily low income (SES) and Hispanic or African-American women with a high-school education. (See Table 1 for the mean age, education, and SES, and for the distribution of ethnicity and marital status.) The peer support group had a higher SES score, meaning they were lower income, and they had a higher baseline depression (CES-D) score, suggesting they were at greater risk than the interpersonal psychotherapy group. Two women in the psychotherapy and one in the support group had attended a mental health clinic and none of the women had received antidepressants.

### 2.2. Procedures

The women in the peer support group participated in 20-minute sessions once per week for 12 weeks. The group engaged in discussions on many different topics with active participation from all members. Although a staff member was present, she was not a trained therapist and she remained silent throughout.

The interpersonal psychotherapy group sessions were held for 1 h each week for 12 weeks. They were focused on pregnancy experiences and relationship problems. The curriculum for the interpersonal psychotherapy group was based on the [19] Comprehensive Guide to Interpersonal Psychotherapy [19]. As in that guide, the therapist was active, not passive as in the peer support group. The specific techniques that were used included exploratory, encouragement of affect, clarification, communication analysis, and behavior change techniques. The therapist was trained in these techniques and received ongoing supervision from another trained therapist.

Both groups were the same size and followed the same weekly schedule at the same time. Three consecutive peer support groups (N = 8 in each group) and three consecutive interpersonal therapy groups (N = 8 in each group) to total 24 in each type of group met over a 12 week period for a total of 36 weeks. One woman dropped out of the first two peer support groups (N = 2) and one woman dropped out of the second two therapy groups (N = 2) to total 44 women across the 2 conditions (peer support and Interpersonal therapy). The groups remained the same over all sessions. Participants in both groups were paid $30 for each session to compensate for expenses related to childcare and transportation. Assessments were conducted before and after the sessions at the beginning of the treatment period (M = 22 weeks gestation) and at the end of the treatment period (M = 34 weeks gestation).

### 2.3. Measures

#### 2.3.1. Structured Clinical Interview Depression (SCID)

The women were given the SCID interview (research version) at the first assessment session for the diagnosis of depression and to rule out bipolar disorder, schizophrenia and psychotic disorders. The women were diagnosed with dysthymia or major depression on the SCID based on DSM IV symptoms. The SCID was given by research

**Table 1**
Means (and standard deviations in parentheses) on demographic variables for psychotherapy and peer support groups.

| Variable | Group | | P |
|---|---|---|---|
| | Psychotherapy | Support | |
| • Age | 25.7 (5.3) | 24.1 (5.05) | NS |
| • Education | 4.3 (1.2) | 4.0 (3.8) | NS |
| • SES | 4.1 (1.2) | 4.7 (.6) | .03 |
| • Ethnicity (%) | | | NS |
| • African American | 87 | 85 | |
| • Hispanic | 12 | 14 | |
| • Non-Hispanic White | 1 | 1 | |
| • Marital status (%) | | | NS |
| • Single | 40 | 36 | |
| • Boyfriend | 32 | 50 | |
| • Married | 28 | 14 | |