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Brief report

Clinical correlates of perinatal bipolar disorder in an interdisciplinary obstetrical hospital setting

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ABSTRACT

Background: Pregnancy and the postpartum period can be destabilizing for women with bipolar disorder (BD), and treatment decisions particularly complex. Yet, to date, relatively little research has focused on perinatal BD.
Method: Following IRB approval, trained raters reviewed clinical records of 334 women who had sought treatment at a specialized partial hospitalization program serving perinatal women, including demographic, clinical, and treatment history information as noted in each patient's chart by treating providers.
Results: Slightly over 10% of the perinatal sample was diagnosed with Bipolar I, Bipolar II, or Bipolar NOS Disorder. In addition, 26% of the sample, regardless of diagnostic status, reported recent, abnormally elevated mood persisting 4 or more days. Compared to women with other Axis I disorders, women with a BD diagnosis were more likely to report a substance abuse history, prior suicide attempts, and more extensive psychiatric histories, including greater use of pharmacotherapy. Pregnant women with BD were more likely to take psychotropic medications prenatally, and postpartum women with BD reported higher rates of birth complications and difficulty breastfeeding.
Limitations: This research is limited by use of retrospective data, and utilization of self-report and clinician diagnosis, rather than structured interviews.
Conclusion: Even in the context of a partial hospital sample with high levels of symptoms and impairment, the clinical features of perinatal women with BD stand out as markedly more severe in comparison to those of women seeking care for other perinatal psychiatric conditions. Risk for suicide, substance abuse, and difficulties in the mother–child relationship are concerns.

1. Introduction

Bipolar disorder (BD) is a highly recurrent and disabling illness that is often accompanied by severe symptoms and significant functional impairment (Sanchez-Moreno et al., 2009), including substantially elevated risk for suicidality (Pompili et al., 2013). With typical onset occurring between the period of late adolescence to early adulthood, BD places women – representing approximately half of all cases – at high risk for significant symptom morbidity, disability, and mortality throughout the reproductive years (Yonkers et al., 2004).

The perinatal period – spanning pregnancy through the first postpartum year – appears to be a particularly destabilizing time for women with BD. Prospective studies reveal mood episode morbidity in up to 70% of pregnant women with BD (Viguera et al., 2007). The presence of depressive and/or manic symptoms during pregnancy, in turn, predicts a 10-fold risk of continued or new mood symptoms in the postpartum period (Marsh and Viguera, 2012). Although major depressive episodes are most common among perinatal women with BD (Viguera et al., 2011), rates of new onset mania and psychosis in the weeks following childbirth have been estimated to be as high as 50% (Chessick and Dimidjian, 2010; Jones and Craddock, 2001; Heron et al., 2009). Indeed, data suggest that the presence of BD among perinatal women accounts for a substantial proportion of the risk for postpartum psychosis found in the general population (Kendell et al., 1987; Viguera et al., 2000, 2007; Sit et al., 2006). Further, in the postpartum period, women with BD are likely to experience significant impairment in

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maternal role functioning which may account for short and long-term adverse child outcomes (Wisner et al., 2006). Postpartum psychosis, frequently encountered in new mothers with BD (Harlow et al., 2007), has been associated with increased risk for infanticide, a very rare but tragic outcome (Sit et al., 2006; Spinelli, 2009). An elevated risk for poor maternal self-care and prenatal substance use, as well as numerous adverse birth outcomes (Boden et al., 2012) underscore the public health significance of adequately detecting and treating BD during pregnancy.

While the risks for mood recurrence and adverse outcomes for mothers and infants have been described, important gaps exist in our understanding of BD during the perinatal period, as well as in optimal strategies for treatment. Similar to BD in the general population (Culver et al., 2007), challenges exist in adequately recognizing and treating cases of BD among perinatal women. Cases may be missed, or misdiagnosed, for a variety of reasons, including the patient's lack of insight or underreporting of symptoms, or the failure to conduct a thorough assessment for past mania, as well as issues related to women's childbearing status (e.g. stigma regarding self-disclosure during pregnancy). Moreover, as noted above, recent data suggest that during the postpartum period, patients previously diagnosed with major depression often have new onset of hypomania or mania (Sharma et al., 2013). Diagnosis of BD for the first time during the perinatal period may be particularly challenging, as physical symptoms such as disruptions in sleep, appetite, energy can obscure accurate assessment of symptoms.

Even once diagnosed, significant treatment challenges exist, as many pregnant women with BD may be reluctant to continue pharmacotherapy due to concerns about teratogenic effects of medication. Indeed, the complexity of perinatal treatment decisions has been documented (Battle et al., 2013; Patel and Wisner, 2011), including in the treatment of BD in particular (Cohen, 2007), given that many mood stabilizers have known adverse effects. Although adjunctive psychotherapy is recommended to help manage BD (Geddes and Miklowitz, 2013), specialized adjunctive therapies have not yet been developed and tested for perinatal women. Further, most studies examining perinatal bipolar disorder have consisted of analysis of health registries (Munk-Olsen et al., 2012) or prenatal care samples (Heron et al., 2009). Prospective studies of women with diagnosed BD are less common (Viguera et al., 2007). Ultimately, relatively little is known regarding the presence of BD and symptoms of mania among women who actively seek psychiatric treatment during the perinatal period, and clinical correlates of this treatment-seeking population.

In light of the relative lack of the literature examining correlates of BD diagnosis and mania symptoms among perinatal women, we conducted a retrospective chart review investigation of 334 pregnant and postpartum women who sought care at a specialized partial hospitalization program at a university-affiliated obstetrical hospital, and examined rates and clinical correlates of BD diagnoses and symptoms in this sample.

2. Method

Following IRB approval, trained research staff reviewed clinical records of all pregnant and postpartum women who had sought psychiatric care at a perinatal partial hospitalization program, including all consecutive admissions during a 28-month period. This treatment program provides specialized treatment for women experiencing psychiatric conditions during pregnancy or the first postpartum year (Howard et al., 2006; Battle and Howard, 2014). The methods used in this study have been presented previously along with general findings regarding clinical diagnoses and comorbid anxiety symptoms (Schofield et al., 2014). Chart reviewers utilized a data abstraction form to record patient demographics and maternal health characteristics, psychiatric history, and current clinician-rated diagnosis. Clinical staff who recorded patient information in the hospital record included providers from a range of mental health fields (psychiatrists, psychologists, social workers, nurse specialists) who specialize in providing mental health care for perinatal women. Research staff who abstracted data from the record were trained in study procedures as well as in human subjects protections. A portion of clinical charts (10%) were reviewed by more than one rater and inter-rater reliability was determined to be very good (Schofield et al., 2014).

In addition to clinician-recorded information, patients are asked to complete the Edinburgh Postnatal Depression Scale (EPDS) (Cox et al., 1987), a brief, validated depression screener widely used with pregnant and postpartum patients, as well as the facility's Day Hospital (DH) Screener, a self-report form designed to screen for the presence or absence of core symptoms of common psychiatric disorders, including bipolar disorder. The following two yes/no questions on the DH Screener were used to assess for the presence or absence of recent DSM-IV criterion A manic symptoms of elation and irritability, respectively: (1) *"Have you felt unusually happy or high, and this felt different from your normal self, for a period of AT LEAST 4 DAYS?"* and (2) *"Have you felt unusually irritable and quick to argue or fight for a period of AT LEAST 4 DAYS?"* Relevant data from the clinical record and self-report questionnaires were entered into SPSS version 19.0 for coding and data analysis.

3. Results

3.1. Sample characteristics

The overall sample included 334 pregnant and postpartum women ranging in age from 15 to 43 (mean 27.8; $sd=6.2$). Approximately two-thirds of the sample were postpartum ($n=224$; 67.1%), and one-third pregnant ($n=110$; 32.9%). Women came from a range of backgrounds in terms of race/ethnicity (54.2% Caucasian, 21.1% Latina/Hispanic, 12.9% Black/African-American) and educational status ($n=127$; 44.4% with high school or less education). In terms of relationship status, less than half of the sample ($n=147$; 44%) was married or partnered at the time of treatment entry. Among the pregnant women, gestational range was between 4 and 40 weeks, with a mean gestation of 21.2 weeks ($sd=8.0$). Among the postpartum women, the number of weeks postpartum ranged from 1 to 56, with a mean number of weeks 9.2 ($sd=7.9$). Forty-one percent of the sample was pregnant or postpartum with their first baby.

3.2. Demographic and clinical correlates of perinatal BD

In the overall sample, we found that approximately 10 percent of women ($n=32$; 10.2%) were assigned a BD diagnosis, including 19 women with a diagnosis of Bipolar I Disorder, 10 women with Bipolar II Disorder, and five women with Bipolar Not Otherwise Specified (NOS). In terms of self-reported criterion A manic symptoms, regardless of clinician-assigned diagnosis, slightly over one-quarter of the women reported BD symptoms of elation (26%) and over three-quarters reported symptoms of irritability (76%) lasting four or more days within the past month.

We compared women in the sample assigned a BD diagnosis to those assigned other Axis I diagnoses on a variety of demographic and clinical characteristics. Results are presented in Table 1. In terms of basic patient characteristics, we found no differences in maternal age, relationship status, educational level, status as pregnant vs. postpartum, gestation, or weeks postpartum. Women