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## Eating Disorders and Trauma History in Women with Perinatal Depression

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### Abstract

*Objective:* Although the prevalence of perinatal depression (depression occurring during pregnancy and postpartum) is 10%, little is known about psychiatric comorbidity in these women. We examined the prevalence of comorbid eating disorders (ED) and trauma history in women with perinatal depression.

*Methods:* A research questionnaire was administered to 158 consecutive patients seen in a perinatal psychiatry clinic during pregnancy (n=99) or postpartum (n=59). Measures included Structured Clinical Interview for DSM (SCID) IV-based questions for lifetime eating psychopathology and assessments of comorbid psychiatric illness including the State/Trait Anxiety Inventory (STAI), Patient Health Questionnaire (PHQ-9), Edinburgh Postnatal Depression Scale (EPDS), and Trauma Inventory.

**Results:** In this cohort, 37.1% reported a putative lifetime ED history; 10.1% reported anorexia nervosa (AN), 10.1% reported bulimia nervosa (BN), 10.1% reported ED not otherwise specified-purging subtype (EDNOS-P), and 7.0% reported binge eating disorder (BED). Women with BN reported more severe depression (EPDS score, 19.1, standard deviation [SD 4.3], p = 0.02; PHQ-severity 14.5, SD 7.4, p = 0.02) than the referent group of women with perinatal depression and no ED history (EPDS 13.3, SD=6.1; PHQ 9.0, SD=6.2). Women with AN were more likely to report sexual trauma history than the referent group (62.5% vs. 29.3%, p < 0.05), and those with BN were more likely report physical (50.0%, p < 0.05) and sexual (66.7%, p < 0.05) trauma histories.

*Conclusions:* ED histories were present in over one third of admissions to a perinatal psychiatry clinic. Women with BN reported more severe depression and histories of physical and sexual trauma. Screening for histories of eating psychopathology is important in women with perinatal depression.

## Introduction

**M**ENTAL HEALTH ISSUES during pregnancy and the postpartum period are of critical importance to the wellbeing of mother, child, and family. Considerable clinical and research attention has been devoted to documenting both the prevalence of perinatal depression and risk factors for its emergence during the perinatal period.<sup>1-4</sup> However, much less is known about psychiatric comorbidity in women with perinatal depression. The current study addressed the prevalence of comorbid eating disorders (ED) in these women.

EDs disproportionately affect young women of reproductive age within the general population,<sup>5,6</sup> and genetic studies have revealed a significant genetic correlation between EDs and major depressive disorder (MDD), suggesting that the two disorders may be influenced by shared genetic factors.<sup>7–9</sup> Moreover, perinatal depression is elevated in women with EDs compared to women with no ED history.<sup>10–17</sup> Thus, the overarching goal of the current article was to document the prevalence of EDs—anorexia nervosa (AN), bulimia nervosa (BN), EDs not otherwise specified-purging subtype (EDNOS-P), and binge eating disorder (BED)—in a sample of women seeking treatment at a perinatal psychiatry clinic. Our secondary goal was to examine the prevalence of a history of trauma and abuse in this population.

#### Perinatal depression

Perinatal depression, defined as depressive episodes that occur either during pregnancy or within the first 6 months postpartum, is relatively common and occurs in approximately 10% of all pregnant women.<sup>18–21</sup> Perinatal depression can have devastating consequences for the affected woman, her children, and her family<sup>22–25</sup> and has been linked to poor

<sup>1</sup>Department of Psychiatry, University of North Carolina at Chapel Hill, North Carolina. <sup>2</sup>Department of Psychiatry, University of Maryland, Baltimore, Maryland. childbirth outcomes, such as preterm delivery and low birth weight,<sup>26,27</sup> and to detrimental effects on maternal sensitivity in the postpartum period.<sup>28,29</sup> Specifically, mothers who are more sensitive and responsive to their children are more likely to have children with secure attachment.<sup>28</sup> The symptoms of maternal depression can lead to unresponsive, inconsistent, unavailable, or rejecting care by the mother toward the child (i.e., decreased sensitivity).<sup>29</sup> Consequently, depressed mothers are more likely to be intrusive and harsh with their infants,<sup>28,29</sup> less likely to use safety precautions, such as car seats and child-proof latches on cabinets,<sup>30,31</sup> and less likely to engage in enriching parenting practices, such as reading, singing, and playing games with their child.<sup>32</sup> In addition, perinatal depression can significantly impact the couple's relationship. Discord in the relationship between mother and partner has been identified as an important factor impacting both the development and outcome of postpartum depression (PPD).<sup>33,34</sup>

#### Eating disorders

Approximately 6%–8% of women in the general population will be affected by an ED.<sup>5</sup> AN affects approximately 1% of women,<sup>5</sup> and is marked by extremely low weight that is <85% of ideal body weight and the inability to maintain a healthy body weight.<sup>35</sup> BN affects approximately 1.5% of adult women<sup>5</sup> and is marked by both binge episodes—eating an unusually large amount of food in a discrete period of time while experiencing a loss of control—and compensatory behaviors, such as vomiting, laxative use, or fasting. BED affects 3.5% of women<sup>5</sup> and is marked by loss of control over eating in the absence of regular compensatory behaviors. EDNOS-P (also called purging disorder) affects approximately 1% of women and is marked by the presence of compensatory behaviors in the absence of binge episodes.<sup>36–39</sup>

## Eating disorders during pregnancy and postpartum

For many reasons, women with a lifetime ED history face unique challenges throughout pregnancy and the postpartum period.<sup>5,11–13,15,40</sup> Although some women experience remission during pregnancy,<sup>11</sup> others report that pregnancy exacerbates ED symptoms and can lead to greater dietary restraint, poor nutrition, and increased purging behavior.<sup>11</sup> Excessive weight and shape concerns in pregnant women have been reported in 5.6% of women during pregnancy, with approximately 0.6% of pregnant women in epidemiologic studies reporting a concurrent comorbid ED diagnosis.<sup>11,41</sup> Moreover, perinatal complications associated with a lifetime ED diagnosis include an increased risk for hyperemesis,<sup>13,42</sup> smoking during pregnancy,<sup>43</sup> lower birth weight, and birth defects such as cleft palate and neural tube defects, microcephaly, preterm delivery, and cesarean delivery.<sup>12,16,40,44–47</sup>

# Trauma and abuse history in eating disorders and perinatal depression

Women with lifetime histories of EDs are also more likely to report a history of childhood sexual abuse and physical abuse compared with women with no ED history.<sup>48,49</sup> Although both childhood sexual abuse<sup>50-55</sup> and physical abuse<sup>49,56,57</sup> occur in individuals with EDs, they are best viewed as nonspecific risk factors for the development of psycho-

pathology.<sup>58,59</sup> Similarly, trauma and abuse histories increase the risk of perinatal depression and PPD and other psychiatric comorbidity.<sup>60–64</sup> Traumatic life events are also associated with pregnancy complications, including miscarriage, highrisk pregnancy, hyperemesis, preterm contractions,<sup>65</sup> and delivery complications.<sup>66–71</sup>

## Perinatal depression and eating disorder comorbidity

Perinatal depression is common in women with an ED history.<sup>10–17</sup> In a population-based sample, Mazzeo et al.<sup>14</sup> reported that 39.1%-66.7% of women with a lifetime ED diagnosis reported experiencing depression during their pregnancy and 45.5%-70% endorsed PPD. In comparison, 36.8% of women with a lifetime MDD diagnosis and no ED endorsed experiencing depression during pregnancy, and 41.2% endorsed PPD. Therefore, women with EDs may have a similar or greater risk of developing perinatal depression and PPD as women with a history of MDD and no ED.14,72 However, much less is known about the prevalence of ED in women with perinatal depression. Although significant clinical and research attention has been paid to the course and treatment of mood disorders in the perinatal period,<sup>1-4</sup> regular screening for EDs during pregnancy or postpartum is uncommon in routine obstetrical care.<sup>73,74</sup> Therefore, we do not know what percentage of women who seek treatment for perinatal depression have an ED history. Additionally, barriers exist to screening for histories of abuse and trauma in obstetrical settings, even though the long-term negative consequences of such histories have been documented.<sup>7</sup>

## Study specific aims

To address the gaps in knowledge described above, the aims of our study were threefold: (1) to estimate the prevalence of lifetime EDs in a sample of women with perinatal depression who sought treatment at a university perinatal mood disorders outpatient clinic, (2) to assess the prevalence of trauma and abuse history in this population, and (3) to describe the relation among symptoms of maternal depression, EDs, abuse and trauma history, and other psychiatric comorbidity in this sample.

## Materials and Methods

#### Study sample and procedure

We collected data on 267 consecutive women patients seen in a Women's Mood Disorders Clinic at the University of North Carolina from September 2006 to April 2009. This sample was restricted to women with depression during pregnancy (n = 99) and within 12 months postpartum (n = 59), (total n = 158). We recruited participants through 12 months postpartum, as many women do not seek care for perinatal depression until many months after delivery, even though onset of symptoms may have occurred during pregnancy or the very early postpartum period.<sup>76</sup>

Women experiencing pregnancy loss, premenstrual syndrome, perimenopausal symptoms, infertility, pelvic pain, or other visit reasons were excluded (n=72). One person had two separate entries into the study (two pregnancies), and her second record was excluded from the analysis. The sample also excluded women missing information to determine an ED diagnosis (n=37). These patients represent a subgroup of

a larger ongoing survey study on psychiatric comorbidity during the perinatal period. Consecutively referred Englishspeaking women between ages 18 and 50 at the clinic were asked to complete a brief questionnaire. The questionnaire was self-administered and completed in a private area in the clinic. In the perinatal psychiatric comorbidity survey study, approximately 80% of those consecutive women approached for participation completed the survey. Of the 20% of women who did not return a survey, half refused participation in the study, and the other half left the clinic before returning their survey but after signing the consent form. The study was approved by the UNC Institutional Review Board Committee for the Protection of Human Subjects. Patients who agreed to participate gave informed consent and signed the Health Insurance Portability and Accountability Act (HIPAA) release.

#### Measures

In addition to questionnaires to assess demographic information, medical history, and obstetrical history, the following instruments were included in the postpartum patient survey and used in the present study.

Edinburgh Postnatal Depression Scale (EPDS). The EPDS was developed specifically for assessing PPD and relies much less than standard depression screens on somatic, or physical, questions.<sup>77</sup> It also has multiple questions that specifically assess for anxiety symptoms.<sup>78</sup> The EPDS is a widely validated instrument commonly used internationally to assess PPD. The 10-item EPDS is a self-report screening scale, and the response format is frequency based. A cutoff score of  $\geq$  12 on the EPDS has been consistently shown to be correlated with a clinical diagnosis of MDD when compared to a structured clinical interview.<sup>77</sup> EPDS scores of 10-12 have been associated with an accurate diagnosis of minor depressive disorder. Multiple reports in the literature have documented that the EPDS demonstrates good sensitivity and specificity in identifying women suffering from perinatal depression.<sup>20</sup> In our analysis, we used a cutoff score of  $\geq 11$  as a positive screen.

Eating disorders assessment. Questions were designed to assess all criteria for AN, BN, BED, and EDNOS-P in accordance with DSM-IV symptom guidelines of the Diagnostic and Statistical Manual of Mental Disorders.<sup>35</sup> Individual items were adapted from the Structured Clinical Interview for DSM-IV (SCID-1)<sup>79</sup> and have been used previously for studies of eating disorders in the Swedish Twin Registry.<sup>80,81</sup> Diagnostic algorithms and hierarchies were constructed from the questionnaire items to determine the lifetime history of EDs, AN, BN, ENOS-P, and BED. The hierarchy was as follows. First, all women who endorsed AN criteria except amenorrhea were categorized as AN. Second, those who endorsed BN criteria binge eating and either purging (vomiting or laxatives) or nonpurging (exercise or fasting) behaviors to compensate were categorized as BN. If not classified as AN or BN, those who endorsed purging without prior binge eating were categorized as EDNOS-P. Finally, women who endorsed BED criteria, binge eating without compensatory behaviors, were categorized as BED.

Spielberger State-Trait Anxiety Inventory (STAI). The State-Trait Anxiety Inventory Form is a commonly used instrument for measuring anxiety in adults.<sup>82</sup> The STAI differentiates between the temporary condition of state anxiety and the more general and long-standing quality of trait anxiety. The essential qualities evaluated by the STAI are feelings of apprehension, tension, nervousness, and worry. It has been widely used for >40 years and has validated norms in the general population and a variety of patient populations.

Trauma, sexual and physical abuse inventory. We adapted a structured interview from previous research.83-85 Sexual abuse included genital touching or vaginal or anal intercourse where force or threat of harm was present. In children (<13 years), the threat of force or harm was implied by the 5-year age differential between the victim and perpetrator. Physical abuse were incidents separate from sexual abuse that included life-threatening physical attack with the intent to kill or seriously injure or other physical abuse, such as being beaten, kicked, or burned. We constructed a summary measure of number of lifetime traumas by assigning 1 point for each of the following: (1) child sexual abuse, (2) adult sexual abuse, (3) life-threatening attack, (4) other physical abuse, (5) parental alcohol/drug abuse or mental illness, (6) foster care, reform school/prison before age 18, (7) lifethreatening illness or accident, (8) child having life-threatening illness or death, (9) close friend or family member killed by drunk driver or murdered, and (10) parents or sibling deaths before the subject was 18. This scale has been widely used; subjects experiencing more trauma in all categories have been shown to have higher rates of medical conditions, poorer health, and psychological dysfunction.83-86

Patient Health Questionnaire (Brief). The original Patient Health Questionnaire (PHQ) was developed as a fully self-administered version of a DSM-IV based clinician evaluation guide to common psychiatric disorders. The brief version of the PHQ covers mood and anxiety disorders.<sup>87</sup> It has been validated in many types of settings, including primary care, obstetrics and gynecology, and the general population. In primary care and obstetrics/gynecology settings, a severity score on the PHQ-9 score  $\geq 10$  had a sensitivity of 88% and a specificity of 88% for major depression when compared to a structured clinical interview.<sup>88</sup>

#### Statistical methods

Descriptive statistics included percent tabulations for categorical variables and means with standard deviations (SD) for numeric variables. Because of small group sizes for the ED subtypes (n < 20), univariate tests comparing ED subtypes to the referent with relaxed distributional assumptions and without adjustment for any confounders were used. All the univariate tests for outcomes described were done separately for each ED subtype vs. the referent, resulting in four separate tests: (1) AN vs. non-ED, (2) BN vs. non-ED, (3) EDNOS-P vs. non-ED, and (4) BED vs. non-ED. Permutation tests were used to detect differences in mean scores for EPDS, PHQ-9, STAI, and trauma inventory.<sup>89</sup> General association chi-square tests were used to test differences in dichotomous measures of sex, physical abuse, or sexual abuse across ED subtypes. The statistical significance level was set at p < 0.05. As a group, p values from all tests were adjusted using the Benjamini-Hochberg false discovery rate (FDR) method.<sup>90</sup> This method

TABLE 1. DEMOGRAPHIC CHARACTERISTICS ACROSS MATERNAL EATING DISORDER SUBTYPES

	AN (n=16)	BN (n = 16)	EDNOS-P (n=16)	BED (n=11)	<i>No ED</i> (n=99)	<i>Total</i> (n=158)
Age	31.3 (6.6)	31.4 (5.1)	28.7 (7.2)	31.8 (6.4)	30.1 (5.5)	30.2 (5.9)
Years of education	16.6 (2.3)	15.5 (3.3)	15.0 (3.1)	16.0 (2.8)	15.5 (3.0)	15.6 (3.0)
Married or living with partner $n$ (%)	13 (81.3)	11 (68.8)	10 (62.5)	7 (70.0)	84 (84.8)	125 (79.6)
Ethnicity <i>n</i> (%)						
African American	1 (6.3)	3 (18.8)	2 (12.5)	1 (9.1)	13 (13.1)	20 (12.7)
Caucasian	13 (81.3)	10 (62.5)	13 (81.3)	8 (72.7)	77 (77.8)	121 (76.6)
Other	2 (12.5)	3 (18.8)	1 (6.3)	2 (18.2)	9 (9.1)	17 (10.8)
Clinic visit reason $n$ (%)						
Perinatal depression	12 (75.0)	12 (75.0)	10 (62.5)	9 (81.8)	56 (56.6)	99 (62.7)
Postpartum depression	4 (25.0)	4 (25.0)	6 (37.5)	2 (18.2)	43 (43.4)	59 (37.3)

Reported as mean (SD) unless otherwise noted.

AÑ, anorexia nervosa; BED, binge eating disorder; BN, bulimia nervosa; ED, eating disorder; EDNOS-P, ED not otherwise specifiedpurging subtype.

was used to handle the multiple comparisons present in these analyses.

## Results

## Demographic characteristics

Demographic characteristics for the study patients are presented in Table 1. As can be seen, on average, respondents were about 30 years of age and fairly well educated (average years of education was [SD] 15.6). Approximately 80% were married or living with a partner, 76.6% were Caucasian, 12.7% were African American, and 10.8% were either Asian, Hispanic, Native American, or "Other." In this cohort, 62.7% (n=99) presented during pregnancy, and 37.3% (n=59) presented in the postpartum period.

#### Diagnosis of depression and severity

Of the women who completed the assessment measures, the mean score on the EPDS was 14.3 (SD 6.1), indicating a cohort with major depression as defined by the accepted cutoff score of  $\geq$  12 on the EPDS. Mean score on the PHQ was 10.5 (SD 6.5), consistent with accepted cutoff scores of  $\geq$  10 for major depression.

## Associations between type of eating disorder and cormorbid psychiatric illness eating disorders in the Perinatal Psychiatry Clinic

In this cohort of women seeking treatment of perinatal depression, 37.3% reported a putative ED history as follows: 10% (n=16) reported lifetime AN, 10% (n=16) reported lifetime BN, 10% (n=16) reported lifetime EDNOS-P, and 7.0% reported lifetime (n=11) BED.

## Depression and anxiety

We examined the severity of depression in ED subtypes (Table 2). Women with BN reported significantly more symptoms of depression (EPDS score 19.1, SD 4.3, p < 0.05) compared with the referent group of women with perinatal depression and no ED history (EPDS score 13.3, SD 6.1). Women with BN and women with EDNOS-P reported more severe depression (BN: PHQ severity 14.5, SD=7.4, p < 0.05; EDNOS-P: PHQ severity 15.6, SD 6.5, p < 0.05) than the referent group (PHQ 9.0, SD 6.2). This statistically significant difference was not observed in women with AN or BED subtypes.

Women with EDNOS-P reported significantly higher state anxiety (STAI-S 66.9, SD 10.2, p=0.02) compared with the

TABLE 2. PSYCHOLOGIC CHARACTERISTICS	Across Maternal	. EATING DISORDER SUBTYPES
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	AN (n=16)	BN (n = 16)	EDNOS-P (n=16)	BED (n=11)	<i>No ED</i> (n=99)	<i>Total</i> (n=158)
Edinburgh Depression Scale						
Score	13.2 (4.6)	19.1 (4.3)*	17.6 (6.7)	15.0 (4.6)	13.3 (6.1)	14.3 (6.1)
Patient Health Questionnaire (P	HQ)					
Severity	10.0 (4.6)	14.5 (7.4)*	15.6 (6.5)*	11.4 (4.3)	9.0 (6.2)	10.5 (6.5)
State Trait Anxiety Inventory (S	TAI)					
State Anxiety	57.6 (10.7)	63.6 (13.2)	66.9 (10.2)*	55.2 (13.3)	57.5 (11.3)	58.9 (11.8)
Trait Anxiety	66.3 (10.9)	71.7 (12.4)	65.2 (14.8)	66.0 (7.9)	63.7 (11.2)	65.1 (11.6)
Trauma history, <i>n</i> (%)						
Number of traumas	3.8 (2.5)	4.7 (3.5)*	2.9 (2.3)	2.1 (1.7)	2.4 (2.4)	2.8 (2.6)
Sexual abuse	10 (62.5)	10 (66.7)*	6 (37.5)	2 (18.2)	29 (29.3)	57 (36.3)
Physical abuse	9 (56.3)	8 (50.0)	7 (43.8)	2 (18.2)	24 (24.2)	50 (31.6)
Physical and or sexual abuse	13 (81.3)*	12 (75.0)	8 (50.0)	3 (27.3)	41 (41.4)	77 (48.7)

Reported as mean (SD) unless otherwise noted.

\*FDR adjusted p value < 0.05.

referent group of women with no ED history (STAI-S 57.5, SD 11.3; STAI-T 63.7, SD 11.2). In women with EDNOS-P, reported measures of current anxiety (state) were very high, in the 79th percentile compared with population norms. Women with BN also reported high trait anxiety, in the 85% percentile, compared with population norms.

## Trauma history

Scores on measures of comorbid trauma histories (physical and sexual abuse) among those with an ED compared to the referent group are presented in Table 2. Overall, physical and sexual abuse were common in the sample, with 48.7% reporting a history of either physical or sexual abuse. When examined by ED subtype, women with AN and BN reported higher frequencies of both physical and sexual trauma than the referent group. In sum, 81.3% of the women with AN and 75.0% of the women with BN reported experiencing lifetime sexual or physical abuse that was higher than that of the referent group (41.4%). Women with BN reported a significantly higher number of traumas (mean 4.7, SD 3.5, p < 0.05) and were significantly more likely to report sexual trauma (66.7%) than the referent group (mean 2.4, SD 2.4, 29.3%). Women with AN tended to be more likely to report both sexual (62.5% vs. 29.3%, *p*<0.06) and physical (56.3% vs. 24.2%, *p*<0.06) trauma than the referent group. Although these differences in the AN group did not reach statistical significance, the doubling of risk is considered of clinical importance.

### Discussion

Our cohort comprised women referred to a specialty perinatal psychiatry outpatient clinic for treatment of perinatal depression during pregnancy or within the first year postpartum. As expected, the women seeking treatment are a depressed group as measured by the EPDS and PHQ. We found that 37% of the sample reported a comorbid lifetime diagnosis of an ED. This ED prevalence represents a 3–4-fold higher prevalence than national general population samples (37% in our cohort compared with 6%–8% in the general population).<sup>5</sup> Women with lifetime EDs, particularly with a history of BN and EDNOS-P, also reported more severe perinatal depression than women with no ED history.

The high prevalence of sexual or physical abuse in the study sample (48.7%), particularly among women with AN (81.3%) and BN (75.0%), is noteworthy and of clinical concern. In contrast to previous research suggesting that sexual and physical trauma are more common in women with EDs whose symptom picture includes purging symptoms (BN, EDNOS-P) than those with restricting or binge eating symptoms only,<sup>53,91-94</sup> in our sample, women with comorbid perinatal depression and lifetime restricting AN were also significantly more likely to report abuse. There are several possible reasons for this discrepancy. First, women with AN may have reported more abuse in this sample because of differences in our trauma and abuse questionnaires compared to previous literature. Often, studies on EDs and abuse history attempt to establish whether physical or sexual abuse was a risk factor for the disorder and occurred before the onset of eating psychopathology.<sup>50–55</sup> In contrast, the trauma inventory used in this study only asked participants to report if abuse had ever occurred. Although women with AN may not be more likely to experience abuse before the onset of AN, they may be more likely to experience abuse after disease onset and recovery. Moreover, our sample included only women with AN who had become pregnant, which necessitates some degree of interpersonal involvement. Differences in exposure to physical and sexual abuse risk may vary depending on whether women with AN engage in relationships or remain emotionally and socially isolated.

The present study has a number of limitations. First, the sample was drawn from a referral-based perinatal psychiatry specialty clinic and, therefore, might include women at higher than average risk of perinatal psychiatric symptoms, including depression, eating psychopathology, and history of abuse, compared to a population-based study. Second, the study used a cross-sectional and correlational design. Third, the selfreport EDs and trauma inventory measures used in the current study, although widely used, have not been formally standardized. Moreover, we did not include a structured diagnostic interview, which may have yielded greater diagnostic validity and additional measures of functional impairment. Finally, the study is limited by the lack of data on other aspects of prepartum psychiatric functioning. Given that research consistently indicates that the puerperium is a sensitive period for the development of both worsening EDs and mood and anxiety problems, the next generation of studies should focus on identifying the predictors and course of these types of symptoms using prospective designs.

#### Clinical implications

Although the awareness and assessment of perinatal depression and PPD within the obstetrics and gynecology community has improved over recent years, as evidenced by the recent American College of Obstetricians and Gynecologists (ACOG) guidelines,<sup>95</sup> it is critical that the obstetrics/ gynecology community embrace the importance of adequately assessing ED history early in pregnancy in order to prevent the physical and mental health consequences of EDs during pregnancy and the postpartum period. Routine perinatal care gives obstetrics/gynecology providers a window of opportunity for mental health screening,96,97 which could facilitate improved detection of both depression and history of EDs during the vulnerable perinatal period. Effective mental health screening during perinatal care could include the following: (1) assess and document histories of depression, EDs, trauma history, and other comorbid psychiatric history in the health history forms, (2) discuss feelings about being weighed at prenatal visits with patients, and (3) referral to mental health providers, nutritionists/dietitians for treatment as appropriate. It is also critical, however, that a system of referral and support for mental health treatment be developed in order to encourage mental health screening by the obstetrics/ gynecology community.

#### Conclusions

Women with lifetime ED histories face unique challenges during the transition to motherhood, and clinicians should be mindful to assess their patient's cognitions about pregnancyrelated changes in body weight, shape, and size and their nutritional support and guidance throughout pregnancy and the postpartum. This includes both increased awareness of ED histories by both those providing obstetrical care in terms of screening and referral to mental health providers and increased awareness of psychiatric comorbidity by the perinatal psychiatrists who are treating women for depression or anxiety during pregnancy or postpartum.

In summary, the high prevalence of psychiatric comorbidity observed in our study sample indicates that it is critical for women of reproductive age seeking perinatal care to receive comprehensive mental health evaluations for histories of EDs, depression, and trauma so that differentiated treatment targeting comorbid psychopathology during pregnancy can be implemented.

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## **Disclosure Statement**

No competing financial interests exist.

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