Update on perinatal anxiety disorders: Assessment and management

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Routine assessment for perinatal anxiety disorders, using established diagnostic criteria and standardized tools, can facilitate early diagnosis, guide management, and optimize outcomes for pregnant women and their offspring.

Key words: pregnancy, perinatal period, anxiety, generalized anxiety disorder, screening tools, perinatal anxiety screening scale

An anxiety disorder can disrupt a woman’s abilities to enjoy life and to self-care. When an anxiety disorder is present during the perinatal period—that is, during pregnancy and/or the first year postpartum—it can change how a woman experiences her pregnancy and how she interacts with and cares for her child. Limited data suggest a possible association between severe perinatal anxiety disorders and adverse pregnancy outcomes such as preterm birth, low birth weight, and postpartum depression. In addition, maternal anxiety disorders have been linked to developmental and mental health problems in offspring. Healthcare providers (HCPs) who see women during pregnancy and postpartum need to know the risk factors and signs and symptoms associated with perinatal anxiety disorders so that these disorders can be identified early and treated as needed. This article focuses primarily on the assessment and management of perinatal anxiety.

Perinatal anxiety disorder
Perinatal anxiety refers to anxiety experienced during pregnancy and/or the first 12 months after the birth of a baby.

Prevalence
Estimating the incidence of perinatal anxiety disorders (PAD) is difficult due to lack of consistent
terminology regarding definition and symptoms, treatment protocol, and research methodology. Anxiety disorders across the perinatal period have been estimated at 1 in 5 women (20.7%) meeting the diagnostic criteria for at least one of the eight categories of anxiety disorders, with a range of 7.5% to 38.8%. More than two types of anxiety disorders have been experienced by 1 in 20 women (5.5%). Additional studies report anxiety disorders affect 4% to 39% of women during pregnancy and up to 18% during the postpartum period. A population-based survey given to 4,451 mothers following delivery of a live newborn found 18% of the participants reported anxiety symptoms and 35% also reported symptoms of depression. The reported global prevalence of perinatal anxiety ranges from 10% to 24% compared to perinatal depression from 10% to 20%. In perinatal women, there is a 40% comorbidity of mood and anxiety disorders.

Risk factors
Perceived lack of partner and/or social support, a history of intimate partner violence or other abuse, a personal history of mental illness, having an unplanned or unwanted pregnancy, past or present pregnancy complications, and past pregnancy loss are risk factors for perinatal anxiety. Women experiencing a high-risk pregnancy are also at greater risk for developing anxiety. Other risk factors for perinatal anxiety include failure to complete high school, unemployment, and nicotine use.

Symptoms
Some degree of anxiety is common during pregnancy and postpartum, so HCPs should aim to differentiate between “normal” anxiety and perinatal anxiety. Persons in the general population with anxiety may report trembling, twitching, shakiness, muscle aches, sweating, nausea, diarrhea, and an exaggerated startle response. During the perinatal period, anxiety may manifest as excessive and persistent nervousness, worry, or even panic about pregnancy and childbirth, the infant’s health, and parenting. Physical features—in addition to those listed for anxiety in general—may include stomach pain, headaches, dizziness, palpitations, and shortness of breath. Anxiety can exacerbate sleep disturbances and fatigue in women during the perinatal period.

Screening for perinatal anxiety
Routine screening is essential for early recognition of anxiety, which may otherwise go undetected and untreated in pregnant and postpartum women. Some of the most common clinical features of anxiety may be attributed to normal physiologic changes of pregnancy or expected psychosocial adjustments to pregnancy and child-care. A woman may be reluctant to report signs/symptoms of anxiety for fear of bias and ridicule.

The American College of Obstetricians and Gynecologists (ACOG) advises screening women at least once during the perinatal period for anxiety and depression using a standardized, validated tool. ACOG also advises HCPs to closely monitor women who have a history of, or risk factors for, anxiety or depressive disorders.

Ongoing research is needed to develop an assessment tool with sound theoretical and psychometric properties to identify women who are at risk for perinatal anxiety disorders and women who are currently demonstrating symptoms. The assessment tool needs to distinguish the different types of anxiety disorders and the levels of anxiety. Ideally, the tool will provide information related to the severity of symptoms.

Anxiety screening instruments used in both pregnant and postpartum women are the Generalized Anxiety Disorder-7 (GAD-7), the Perinatal Anxiety Screening Scale (PASS), and the Anxiety Disorder-13 (AD-13). The GAD-7 is a seven-item self-report questionnaire created to identify essential areas of anxiety (worry, restlessness, irritability, fear and its severity in the previous 2 weeks). The reported internal consistency of the GAD-7 is excellent (Cronbach’s alpha, .92), and its test/retest reliability is good (intraclass correlation coefficient [ICC], .83). The PASS is useful throughout the perinatal period to assess for a range of anxiety symptoms. Principal component analyses suggested a four-factor structure addressing symptoms of acute anxiety and adjustment; general worry and specific fears; perfectionism, control, and trauma; and social anxiety. The PASS is validated for use in hospital, mental health, and community samples and has excellent reliability (Cronbach’s alpha, .96) and test/retest reliability (ICC, .74). The PASS identified 68% of women with a diagnosed anxiety disorder compared to the Edinburgh Postnatal Depression Scale (EPDS) anxiety subscale that detected 36% of anxiety disorders.

The AD-13 is a self-report questionnaire that identifies core symptoms of anxiety disorders: generalized anxiety disorder, panic disorder, obsessive compulsive disorder, posttraumatic stress disorder (PTSD), and social anxiety disorder. The tool meets the standard of a clinically useful screening measure, with an AUC [area under the curve] above 0.8 based on use of related disorders and without. The Box lists various anxiety screens and provides links to them.
Anxiety screens

- Generalized Anxiety Disorder-7
- Perinatal Anxiety Screening Scale
- Postpartum Worry Scale-R
- Penn State Worry Questionnaire-10
- Anxiety Disorder-13

for easy access.

Validated anxiety screening instruments with a postpartum focus include the Postpartum Worry Scale-R (PWS-R) and the Penn State Worry Questionnaire-10 (PSWQ-10). The PWS-R was developed to identify the degree of uncontrollable worry, a major symptom of GAD in postpartum women.24 This revised format of the original PWS includes items related to the mother’s perception of the infant’s well-being in terms of health and development and the mother’s relationship with her child.25,26 The PSWQ-10 measures worry, often described as the cardinal feature of GAD.27 Although the PSWQ-10 cannot distinguish GAD from major depressive disorder, it can track worry, which may affect both treatment and recovery. The EPDS has an anxiety subscale (EPDS-3A) and can reliably differentiate between depression and anxiety.28 Research continues with another screening tool, the Postpartum Specific Anxiety Scale (PSAS). Women who currently experience anxiety and/or depression are easily identified with PSAS, but not with case findings based on preliminary ROC [receiver operating characteristic] analysis.29

Management

If perinatal anxiety is determined to be the primary problem, cognitive behavioral therapy (CBT), the first-line treatment for anxiety in the general population, is a reasonable first approach.32 Although less studied in women with perinatal anxiety, CBT has been shown to be effective in treating postpartum depression.33,34 Additional nonpharmacologic options include mindfulness-based cognitive therapy, interpersonal therapy, psychodynamic therapy, acupuncture, and massage.35,36

When nondrug therapies are ineffective or only partially effective, medication may be indicated. In these cases, HCPs and patients should weigh the risks of not fully treating the anxiety disorder, the potential risks to a fetus exposed to the medications chosen, and the potential benefits of easing the anxiety disorder.

Selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs) are first-line drugs for the treatment of moderate or severe anxiety disorders. The Table lists commonly prescribed SSRIs and SNRIs, as well as their recommended dosages and side effects. Research data are not consistent regarding risks associated with use of SSRIs and SNRIs during pregnancy. The research process is often faced with lack of significant statistical difference, resuling in varied results. Experts recommend use of SSRIs and SNRIs during pregnancy when indicated but urge consideration of risk/benefit ratio when selecting appropriate medication.37,38 More information is available on SSRIs than SNRIs because SSRIs have a longer history of use and there has been more research on SSRIs to identify risks and benefits. Risks associated with SSRI use during pregnancy include cardiac defects such as ventricular/atrial/septal defects, persistent pulmonary hypertension, and preterm birth.39-43

Traces of SSRIs and SNRIs will likely be in the woman’s breast milk and in the baby. The baby should be assessed for behavioral changes such as irritability and sedation. If these occur, the medication or breastfeeding will need to be discontinued. Assessment of the mother is imperative, because the postpartum period is high risk for anxiety and depression, an important part of the risk/benefit discussion between the woman and provider. If assessment of the baby indicates no behavioral changes, the woman may continue to breastfeed, based on outcome of the risk/benefit discussion.44 Effective treatment
of perinatal anxiety is beneficial to both women and their children.

Use of benzodiazepines should be reserved for acute anxiety on a short-term basis because of the multiple associated risks: worsening of depressive symptoms, possible dependence, and possible overdose. Some data show a small increased risk for preterm birth, low birth weight, and floppy infant syndrome (hypotonia) in infants whose mothers used benzodiazepines during pregnancy. Data are inconclusive in terms of any teratogenic effect. If benzodiazepines are considered for women who are breastfeeding, those with a shorter half-life such as lorazepam and oxazepam are preferred because they are reported to result in low levels in breast milk and because they do not cause adverse effects in breastfed infants. Alprazolam and diazepam, with longer half-lives than some of the other benzodiazepines, should be avoided because of reports of infant sedation.

Psychosocial assessment completed at the initial prenatal visit and updated throughout pregnancy and postpartum provides a foundation for decision making. Clinical judgment is essential in determining the correct diagnosis and creating a plan of care supported by the best available evidence. Protocols require input of an interdisciplinary team of providers. Improved models of care that not only treat but also reduce risk need to be developed and implemented.

The Council on Patient Safety in Women's Health Care convened an interdisciplinary work group and developed an evidence-based patient safety bundle to address maternal mental health. The Consensus Bundle on Maternal Mental Health describes four areas to be implemented in every clinical setting to identify maternal mental health issues and create effective treatment plans. The four areas include: readiness; recognition and prevention; response; reporting system and systems learning.

The readiness area includes identification of mental health screening tools; a response protocol that includes a referral system of existing maternal mental healthcare providers and resources; education of clinicians and office staff; and identification of a key person who is responsible for initiating and maintaining the system. Recognition and prevention promotes a complete comprehensive prenatal intake, use of validated mental health screening on a scheduled sequence, and education to pregnant women and their support structures. Response consists of a stage-based management system that includes family, friends, and community; an emergency referral for women who experience suicide or homicide ideation or psychosis; creation of support for client and support systems; support for staff; and seamless transitions among providers. The reporting system and systems learning involves establishing a nonjudgmental culture of safety, an interdisciplinary review of adverse mental health outcomes, and establishment of local standards for recognition and response to measure compliance, understand individual performance, and track outcomes.

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**Table. Medications used to treat perinatal anxiety**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Daily dose</th>
<th>Common side effects</th>
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<tbody>
<tr>
<td>Selective serotonin reuptake inhibitors</td>
<td></td>
<td>Decreased appetite, nausea, constipation, dry mouth, sedation, agitation, tremors, headache, dizziness; may be activating for individuals with undiagnosed bipolar or psychotic disorder</td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>20–80 mg</td>
<td>Headache, nervousness, insomnia, sedation, nausea, diarrhea, decreased appetite, hyponatremia, increase in blood pressure (dose dependent)</td>
</tr>
<tr>
<td>Sertraline</td>
<td>50–200 mg</td>
<td>Nausea, diarrhea, decreased appetite, dry mouth, constipation, insomnia, sedation, dizziness, sweating, urinary retention, increase in blood pressure</td>
</tr>
<tr>
<td>Citalopram</td>
<td>20–40 mg</td>
<td>Insomnia, sedation, anxiety, dizziness, nausea, vomiting, constipation, decreased appetite, hyponatremia, increase in blood pressure</td>
</tr>
<tr>
<td>Paroxetine</td>
<td>20–50 mg</td>
<td></td>
</tr>
<tr>
<td>Serotonin–norepinephrine reuptake inhibitors</td>
<td></td>
<td></td>
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<tr>
<td>Venlafaxine</td>
<td>75–225 mg</td>
<td></td>
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<tr>
<td>Duloxetine</td>
<td>40–60 mg</td>
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</tr>
<tr>
<td>Desvenlafaxine</td>
<td>50–100 mg</td>
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Note: For information on teratogenicity, readers are referred to LactMed@NIH (https://www.ncbi.nlm.nih.gov/books/NBK501922/) and Clinical Teratology Web: A Resource Guide for Clinicians (http://depts.washington.edu/terisdb/terisweb/).
Implications for practice
Perinatal anxiety is common, and, when severe, has been linked to adverse pregnancy outcomes and to developmental and mental health problems in offspring. Early identification of and intervention for perinatal anxiety can help alleviate signs and symptoms, improve the perinatal experience, and reduce the risk for adverse outcomes. HCPs need to screen women for anxiety both during pregnancy and postpartum. When anxiety is identified, HCPs should conduct further assessment to determine whether the patient has a coexisting psychiatric disorder that merits referral and collaboration with a mental health specialist. Nonpharmacologic treatments such as CBT should be considered as first-line treatment. Some women may require medication to manage symptoms adequately. Risks and benefits of using medications to treat anxiety during the perinatal period should be considered on an individualized and ongoing basis.

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