Effect of Previous Posttraumatic Stress in the Perinatal Period

Pamela A. Geller and Emily C. Stasko

ABSTRACT

Objective: To review the extant literature on the effect of traumatic experiences that pre-date conception, pregnancy, and the postpartum period (perinatal period) and present a thematic overview of current issues in this relatively new area of inquiry.

Data Sources: Electronic databases Cochrane, CINAHL, PsychINFO, and PubMed were searched. Manual searches of reference lists supplemented the electronic search.

Study Selection: Peer-reviewed articles written in English on the role of posttraumatic stress disorder during the perinatal period were included.

Data Extraction: Key findings relevant to perinatal posttraumatic stress that were reported in primary sources and meta-analyses were organized according to themes, including The Role of Childbirth, Comorbidities With Depression and Anxiety, Risk Factors for Perinatal PTSD, High-Risk Health Behaviors, and Association With Adverse Health Outcomes.

Data Synthesis: Across studies, antenatal posttraumatic stress disorder (PTSD) rates were estimated between 2.3% and 24%, and observed prevalence rates during the postnatal period ranged from 1% to 20%; however, many researchers failed to assess PTSD that existed before or during pregnancy, and when preexisting PTSD is a controlled variable, postpartum rates drop to 2% to 4.7%. In addition to prenatal depression and anxiety and pre-pregnancy history of psychiatric disorders, history of sexual trauma, childhood sexual abuse, intimate partner violence, and psychosocial attributes are risk factors for development and exacerbation of perinatal PTSD.

Conclusion: Women’s health care providers should evaluate for PTSD in routine mental health assessments during and after pregnancy, especially with a reported history of trauma or the presence of a mood or anxiety disorder. Such screening will allow women to receive needed treatment and referrals and mitigate the potentially negative sequelae of PTSD. Future investigators must recognize the importance of subsyndromal posttraumatic stress symptoms and individual differences in responses to trauma.


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Women can experience a variety of adverse reproductive-related events during the perinatal period. For some women, achieving and maintaining pregnancy is largely uneventful, while others may confront significant challenges such as infertility, pregnancy loss, and preterm birth. Psychological responses after childbirth or adverse perinatal events and associated medical interventions can vary from no apparent reaction, to grief and mild distress, to psychiatric symptoms and disorders. Although attention has historically been focused on depression, the significance of anxiety, trauma, and anxiety-related diagnoses during the perinatal period has gained increased attention over the last decade (Agius, Xuereb, Carrikin-Sen, Sultana, & Rankin, 2016; Blackmore, Gustafsson, Gilchrist, Wyman, & O’Connor, 2016; Grekin & O’Hara, 2014).

According to the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5), the term posttraumatic stress disorder (PTSD) is used to describe the development or worsening of four types of symptoms after a stressful event (American Psychiatric Association, 2013, p. 271). Qualifying events must involve exposure to actual or threatened death, serious injury, or sexual violence to self or others. Symptom clusters include re-experiencing the event (intrusion symptoms), persistent avoidance of stimuli associated with the event (avoidance symptoms), negative mood alterations, and increased arousal and reactivity (American Psychiatric Association, 2013).
Given the high lifetime prevalence of traumatic exposures and the fact that 4 out of 5 women have children at some point in their lives, it is not surprising that many women enter pregnancy with histories of one or more traumatic events (Craig et al., 2014). Additionally, clinicians have observed that a growing number of life events can lead to posttraumatic stress, including preexisting traumas and events related to the perinatal period. There are many reasons why women may experience pregnancy as stressful (Geller, 2004), and a growing body of research indicates that many women may perceive these events as traumatic (e.g., Grekin & O’Hara, 2014; Verreault et al., 2012).

It is important to differentiate between distress arising from trauma that occurs before pregnancy and incident trauma related to the pregnancy or childbirth itself when considering PTSD during the perinatal period because they may have different developmental courses and implications for care. In the case of preexisting trauma, PTSD symptoms were present before pregnancy and continued into the perinatal period or resolved until childbirth-related events triggered relapse. When women experience traumatic childbirth and subsequently develop PTSD, it is often because of feelings of loss of control that can involve urgent and unanticipated medical interventions, severe pain, or humiliation (Beck, Driscoll, & Watson, 2013). The occurrence of adverse outcomes, such as perinatal loss or preterm birth that results in admission to the NICU, has also been associated with PTSD responses (Christiansen, Elkait, & Off, 2013; Daugirdaité, Van den Akker, & Purewal, 2015; R. J. Shaw et al., 2006; R. J. Shaw et al., 2009). However, women who experience perinatal loss are typically excluded from research about pregnancy and PTSD because diagnosis of PTSD can be complicated by the significant bereavement component of the loss (Grekin & O’Hara, 2014).

The purpose of the current review was to identify themes and describe the role of trauma and its association with posttraumatic stress reactions, particularly PTSD, during pregnancy and the postpartum period. The effect of preexisting trauma on pregnancy and the postpartum period is often underrecognized. It is important that perinatal nurses and other health care providers be aware of and screen for symptoms of posttraumatic stress, trauma history, and trauma reactions during pregnancy and after childbirth. We identified themes associated with the effect of traumatic experiences that pre-date conception and their effect on the pregnancy and the postpartum period rather than traumatic childbirth or pregnancy complications. Implications for perinatal nurses are provided in Table 1. Additionally, although the effects of perinatal loss are outside the scope of this review, loss of a previous pregnancy or a neonatal death may constitute a preexisting trauma for subsequent pregnancies (Forray, Mayes, Magriples, & Epperson, 2009; Hamama, Rauch, Sperlich, Defever, & Seng, 2010).

We searched Cochrane, PsychINFO, CINAHL, and PubMED electronic databases for peer-reviewed articles written in English. Articles

### Table 1: Implications for the Perinatal Nurse

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<th>Prevalence</th>
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<tr>
<td>There is a high rate of depression and anxiety comorbidity during the perinatal period.</td>
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<td>Women have high rates of trauma exposure and higher rates of PTSD than men.</td>
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<td>PTSD may be overlooked or misdiagnosed during the perinatal period.</td>
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<th>History</th>
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<td>History of preconception trauma and/or prior birth trauma or adverse birth outcomes can have a negative impact on subsequent pregnancies in terms of maternal mental health and health outcomes.</td>
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<th>Screening</th>
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<td>In addition to screening for antenatal and postpartum depression, it is critical to include assessment of trauma history and current PTSD symptoms.</td>
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<td>Use of the brief, four-item PC-PTSD is a reasonable option to screen for PTSD symptoms. The PPQ is another PTSD screening measure but is specific to women during the perinatal period.</td>
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<th>Interdisciplinary care</th>
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<td>As with depression screening, positive screening results for PTSD should be followed up with diagnostic assessment.</td>
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<td>Even subclinical levels of PTSD can impair maternal functioning and well-being.</td>
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<td>Referral to mental health professional for full evaluation and/or treatment may be necessary.</td>
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*Note: PC-PTSD = Primary Care Posttraumatic Stress Disorder screening tool; PPQ = Perinatal Posttraumatic Stress Disorder Questionnaire; PTSD = posttraumatic stress disorder.*
on the development of PTSD after a traumatic pregnancy or traumatic birth were excluded unless they addressed the effect of these traumas on subsequent pregnancies. Manual searches of reference lists supplemented the electronic search. See Figure 1 for more details on study selection. Key findings relevant to perinatal posttraumatic stress that were reported in primary sources and meta-analyses were organized according to themes, including The Role of Childbirth, Comorbidity With Depression and Anxiety, Risk Factors for Perinatal PTSD, High Risk Health Behaviors, and Association With Adverse Health Outcomes.

PTSD During the Perinatal Period

Women and Trauma

Overall, PTSD is more common among women than men. In a Danish review of 18 studies on PTSD in participants exposed to trauma, Ditlevsen and Elkit (2012) found that the prevalence of PTSD was twice as great in women (25.6%) as men (13.2%). In the United States, researchers recently observed lifetime prevalence of PTSD for women between 11.6% and 14.4% (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012; Kilpatrick et al., 2013). Although it is believed that at least some of this difference is due to the greater prevalence of exposure to trauma among women, it nonetheless indicates that women have a considerable lifetime risk for the development of PTSD.

Researchers estimated that between 50% and 80% of women experience at least one potentially traumatic event in their lives (Dennis et al., 2009; Fairbank, Ebert, & Caddell, 2002). The most common traumatic events include the death of a loved one; witnessing someone being badly injured or killed; physical or sexual abuse; involvement with a fire, flood, or natural disaster; and involvement with a life-threatening accident (Alim et al., 2006; Dennis et al., 2009).

Researchers indicated that interpersonal events, such as the types of abuse more commonly reported by women, are perceived as more distressing and traumatic than other types of stressors (Fairbank et al., 2002). Moreover, sexual abuse has been associated with greater levels of distress than other types of interpersonal trauma (Wosu, Gelaye, & Williams, 2015). This exposure

![Diagram showing the number of studies selected based on abstract and whole content review.](http://jogn.org)
to trauma leaves women vulnerable to the development of PTSD.

It should be noted that most PTSD studies reported in the literature were completed before publication of DSM-5, in which substantial changes were made to diagnostic criteria (American Psychiatric Association, 2013). Investigators who re-analyzed extant data sets using criteria from the DSM-IV-TR and the DSM-5 found inconclusive results but suggested that no significant prevalence changes should be expected (Elhai et al., 2012; Kilpatrick et al., 2013); however, the removal of the required response of fear, terror, or helplessness might alter this finding for peripartum PTSD. This possibility is supported by Alcorn et al. (2010), who found that after controlling for previous PTSD symptomology, 2.3% of women who did not endorse their births as traumatic events still exhibited PTSD symptoms at 3 and 6 months postpartum. This fact may indicate that an increase in PTSD diagnoses within this population will be seen in the coming years.

The Role of Childbirth
Recently, researchers indicated that anxiety about possible birthing problems and expectations about labor predicted women who experienced childbirth as traumatic (O’Donovan et al., 2014) and women who developed postpartum PTSD (Polachek, Dultzky, Margolis-Dorfman, & Simchen, 2016). Additionally, evidence supports an association between high-risk pregnancies and development of PTSD, potentially through the increase of anxiety and fear related to antenatal health concerns (Polachek et al., 2016). Söderquist, Wijma, and Wijma (2006) found that anticipated negative outcomes and fear of childbirth during the prenatal period were associated with greater posttraumatic symptoms. Söderquist, Wijma, and Wijma (2004) also examined the theory that fear of labor and birth could act as a pre-traumatic stressor to trigger PTSD symptoms and observed that such fear triggered symptoms of traumatic stress even without the occurrence of the feared event. Furthermore, the finding by Onoye et al. (2013) that incident trauma during the follow-up period accounted for increases in PTSD and depression in a direct dose-response manner was congruent with this fundamental conceptualization of birth-related PTSD, which is supported by evidence (Alcorn et al., 2010; Ayers & Pickering, 2001; Polachek, Harari, Baum, & Strous, 2012).

Overall, PTSD rates among pregnant women were estimated to be between 2.3% and 24% (Alcorn et al., 2010; Forray et al., 2009; Hamana et al., 2010; Kim, Harrison, Godecker, & Muzyka, 2014; Onoye et al., 2013; Seng, Kohn- Wood, McPherson, & Sperlich, 2011; Seng, Low, Sperlich, Ronis, & Liberzon, 2011; Wenz-Gross, Weinreb, & Upshur, 2016). Observed prevalence rates during the postpartum period ranged from 1% to 20% (Garthus-Niegel, von Soest, Vollrath, & Eberhard-Gran, 2013; Modarres, Afrasiabi, Rahnama, & Montazeri, 2012; Polachek et al., 2012; Verreesult et al., 2012). In a recent meta-analysis of postpartum PTSD, Grekin and O’Hara (2014) found an average weighted prevalence of 3.1% (95% confidence interval [2.5, 3.9]) for community samples and 15.7% (95% confidence interval [11.1, 21.7]) for targeted at-risk samples, such as those with maternal psychiatric history and negative neonatal outcomes (e.g., preterm birth, conditions requiring admission to the NICU). Prevalence rates of postpartum PTSD are usually calculated in an attempt to categorize birth-related PTSD; however, many researchers failed to assess PTSD that existed before or during pregnancy. When PTSD is assessed and preexisting PTSD is a controlled variable, postpartum rates drop to 2% to 4.7% (Alcorn et al., 2010; Ayers & Pickering, 2001), which indicates that the incidence of PTSD due to birth-related factors is significant but that pre-pregnancy trauma contributes significantly to psychological morbidity during this time and thereby warrants clinical and research attention.

Comorbid Depression and Anxiety
Perinatal mood and anxiety disorder refers to the range of mood and anxiety conditions that are elevated during the antenatal and postnatal periods (Postpartum Support International, 2016) and reflects the frequent co-occurrence of these conditions during the perinatal period. In the DSM-5, PTSD is classified as distinct from anxiety disorders, as opposed to earlier versions (e.g., DSM-IV) when a notable portion of the perinatal PTSD research was conducted. In clinical practice, PTSD is still considered part of the perinatal mood and anxiety disorder umbrella. Although evidence indicates that pregnancy and postpartum experiences confer increased risk for general anxiety symptoms and the onset or relapse of specific anxiety disorders (Austin et al., 2010; Mauri et al., 2010; O’Hara & Wisner, 2014; Ross & McLean, 2006), less attention has been paid to anxiety relative to depression and bipolar disorder.
Psychiatric morbidity may be the result of underrecognized and undiagnosed posttraumatic stress disorder.

The greater rate of comorbid depression and anxiety and the tendency for providers to overemphasize the identification and treatment of mood disorders relative to anxiety-related diagnoses may result in an underestimation of perinatal anxiety disorders in epidemiologic studies and thereby inaccurately reflect the burden of anxiety during this time period (Novick & Flynn, 2013). However, the prevalence of anxiety disorders during pregnancy and the postpartum period are notable (O’Hara & Wisner, 2014), and specific anxiety disorders, such as obsessive-compulsive disorder and panic disorder, appear to be more frequent in postnatal women than in the general population (Abramowitz, Schwartz, Moore, & Luenzmann, 2003; Heron et al., 2004; Ross & McLean, 2006; Zambaldi et al., 2009). Moreover, the prevalence of anxiety disorders has been reported to exceed that of depression during pregnancy and the early postpartum period (Fairbrother, Janssen, Antony, Tucker, & Young, 2016).

Evidence supports the association between perinatal PTSD and depression (Beck, Gable, Sakala, & Declercq, 2011; Onoye et al., 2013; Seng et al., 2013; Sumner, Wong, Schetter, Myers, & Rodriguez, 2012). In their recent meta-analysis, Grekin and O’Hara (2014) observed that postpartum depression symptoms were strongly associated with PTSD symptoms in community, \( r(4,753) = .53, p < .05 \), and targeted at-risk samples, \( r(940) = .70, p < .05 \); however, the directionality and exact nature of this relationship is still unclear. Although some researchers conceptualized depression as a risk factor for PTSD, other investigators focused on the high rates of comorbidity, and others examined susceptibility to depression stemming from PTSD symptomology. Seng et al. (2013) found that PTSD during pregnancy was associated with greater levels of postpartum depression. Sumner et al. (2012) observed that when controlling for PTSD symptoms during pregnancy, postpartum PTSD symptoms were associated with depression. In a logistic regression study, Beck et al. (2011) found that depression and physical symptoms from birth accounted for 55% of the variance in posttraumatic symptoms. Shahar, Herishanu-

Gilutz, Holberg, and Kofman (2015) studied first-time mothers and found that postpartum depression symptoms predicted development of PTSD. Similarly, Haagen, Moerbeek, Olde, Van Der Hart, and Kleber (2015) tested an ethologic model wherein antenatal anxiety and depression predicted postpartum PTSD. Given these complicated associations, it is important for future researchers to explore theoretically driven models to explain the directionality of the relationships between postpartum depression and PTSD.

Perinatal PTSD shares a number of diagnostic features with depression and anxiety, such as sleep and concentration difficulty, diminished interest, feelings of detachment, and hyperarousal (Agius et al., 2016; American Psychiatric Association, 2013). Depression during the postpartum period is a well-recognized problem; however, the prevalence of traumatic stress reactions during this time period suggests that a certain amount of psychiatric morbidity may in fact be the result of unrecognized and undiagnosed PTSD (Grekin & O’Hara, 2014). Agius et al. (2016) recently examined the prevalence of comorbid PTSD, anxiety, and depression and observed a 2% to 3% prevalence rate of postnatal triple comorbidity. They noted that this rate was similar to the overall perinatal PTSD rate for community samples, which may indicate that multiple morbidity had been previously overlooked and underdiagnosed.

Two research teams found that controlling for symptoms of depression and anxiety during pregnancy resulted in a reduction of the estimated postpartum PTSD rate (0.6%–2.8%; Alcorn et al., 2010; Ayers & Pickering, 2001). Although the variable control for depression and anxiety may result in an underestimation of PTSD rates given the overlap in symptoms, it illustrated the strong relationship between prenatal anxiety and postnatal symptomology. This association was supported by the estimation that 50% to 70% of postpartum anxiety and depression were comorbid and that the emergence of symptoms began during the antenatal period (Agius et al., 2016). Although not specific to PTSD, Wisner and colleagues (2013) conducted a large-scale, postpartum screening study with follow-up diagnostic evaluations; they found that 66% of women diagnosed with major depression in the postpartum period also had comorbid anxiety disorders.
Risk Factors for Perinatal PTSD

In addition to prenatal depression and anxiety and pre-pregnancy history of psychiatric disorders, childhood sexual abuse, intimate partner violence (IPV), and psychosocial attributes are risk factors for perinatal PTSD. Childhood sexual abuse is an important risk factor for PTSD during the perinatal time period (Seng, Low, et al., 2011; Sumner et al., 2012; Wosu, Gelaye, & Williams, 2015) and seemed to confer the greatest risk of prenatal PTSD of any single variable for studies that included this factor (Lev-Wesel & Daphna-Tekoa, 2007; Seng, D’Andrea, & Ford, 2014; Seng et al., 2013). This increased risk is not confined to the prenatal period, and Verreault et al. (2012) found that a history of sexual trauma was associated with a 2.81-times greater risk for PTSD at 1 month postpartum, even after controlling for prenatal PTSD. Although they did not limit the question to childhood sexual abuse, Cohen Anasarca, Schei, Stuckless, and Stewart (2004) observed that a history of two or more traumatic events was associated with greater levels of posttraumatic symptoms. Similarly, Wosu et al. (2015) observed a fivefold greater likelihood to have experienced childhood rape in pregnant women with PTSD than in those without childhood rape. Onoye et al. (2013) found moderate levels of posttraumatic symptomology during the prenatal and postpartum periods and observed that increases in PTSD and depression were positively related to incident trauma during the study period (between 7 weeks gestation and 6 weeks postpartum).

Investigators have also examined the association between IPV and perinatal PTSD. Rodriguez and colleagues (2008) observed that among a population of Latina women seeking prenatal care, significantly more women who reported IPV had positive screening results for PTSD than those who did not report IPV. However, Stampfel et al. (2010) examined the difference in IPV and PTSD between pregnant and nonpregnant women and observed that although IPV rates did not vary by pregnancy status, pregnant women were less likely to express PTSD symptoms. The researchers hypothesized that this finding was due to increased social support during the perinatal period that mitigated the pernicious effects of abuse. Other researchers supported these findings and indicated that lack of family support and high levels of family stress were risk factors for perinatal PTSD (Doddson, Oneha, & Choi, 2014).

Aspects of pregnancy identified as risk factors for PTSD in the postpartum period include high-risk pregnancy, fear of childbirth, expectations of pain during birth (Polacheck et al., 2016), subjective distress in labor and obstetric emergencies (Grek & O’Hara, 2014), and previous perinatal trauma (Forray et al., 2009; Hamama et al., 2010). Psychosocial risk factors for PTSD include African American race, low income, and low educational attainment (Dodgson et al., 2014, Modares et al., 2012; Song, Kohn-Wood, et al., 2011; Seng et al., 2009; Sumner et al., 2012). After they observed significantly elevated rates of housing instability, depression, and drug use among women seeking prenatal care at federally qualified health care centers, Kim and colleagues (2014) proposed the possibility of identification of the greatest-risk population based on psychosocial factors without asking questions specific to the disorder.

The increased prevalence of trauma exposure and resource scarcity at the individual (i.e., personal traumatic experiences), family (i.e., perceived social support and family stress), and community levels (i.e., living in a dangerous neighborhood) among these sociodemographic groups may account for the increased risk of PTSD (Grekin & O’Hara, 2014). Indeed, Doddson et al. (2014) identified exposure to violence at the neighborhood level as an added risk for development of PTSD among Native Hawaiian/Pacific Islander women and possibly other populations.

Perinatal PTSD and High-Risk Health Behaviors

Posttraumatic stress disorder during pregnancy has been correlated with high-risk behaviors that were previously associated with poor pregnancy outcomes, such as inadequate prenatal care and excessive weight gain (Morland et al., 2007). Women with significant trauma symptoms during pregnancy were more likely to report alcohol and substance use during this period (Kim et al., 2014; Morland et al., 2007; Smith, Gotman, & Yonkers, 2016). Researchers also found that prenatal tobacco use was more common among women with PTSD (Lopez, Konrath, & Seng, 2011; Morland et al., 2007), possibly as a method to cope with trauma-related symptoms. Lopez and Seng (2014) found that smoking and PTSD each have unique contributions to increases in cortisol levels in pregnant women; this finding indicates that smoking cessation interventions specific to this population may be needed.
Health care providers should be aware of and screen for symptoms of posttraumatic stress disorder, trauma history, and trauma reactions during pregnancy and after childbirth.

Perinatal PTSD and Adverse Health Outcomes

PTSD during pregnancy was associated with adverse pregnancy outcomes, such as lower-birth-weight infants and shorter gestations (Michopoulos et al., 2015; Seng, Low, et al., 2011; Smith et al., 2016). Additionally, in a review of medical records of women with clinically diagnosed PTSD and those with no mental health diagnoses, women with PTSD had greater rates of pregnancy complications, including eclampsia, pregnancy, spontaneous abortion, hyperemesis, preterm contractions, and excessive fetal growth (Seng et al., 2001). Women with antenatal depression and PTSD were at risk for preterm birth and preeclampsia (Grigoriadis et al., 2013; J. G. Shaw et al., 2014; Yonkers et al., 2014).

Posttraumatic stress disorder during pregnancy confers health risks for the fetus, such as neuroendocrine dysregulation and cross-generational transmission of PTSD risk (Michopoulos et al., 2015). Because previous perinatal trauma was associated with increased levels of posttraumatic symptoms, adverse health outcomes from one pregnancy have the potential to serve as preexisting trauma exposures for subsequent pregnancies; in this way, stressful or traumatic pregnancy may lead to a self-reinforcing cycle.

The repercussions of PTSD during the postpartum period are varied. Some researchers found that women with greater symptomology reported fear of having more children and avoidance of sex (Agius et al., 2016). More general psychosocial changes, such as impaired quality of life and changes in mood, well-being, and quality of partner relationship have also been observed (Onyie et al., 2013; Polachek et al., 2012). Additionally, PTSD may affect infant development, mother–infant interaction and attachment, and parenting problems and has been related to reduced initiation and duration of breastfeeding (Agius et al., 2016; Ayers et al., 2006; Oh et al., 2016; Peeler, Chung, Stedmon, & Skirtom, 2013).

Strengths and Limitations

Several limitations should be considered with respect to the current review. Most of the research reported herein was conducted using the outdated diagnostic criteria for PTSD of the DSM-IV-TR. Multiple measurements were used to assess PTSD symptoms and diagnosis, such as interview-based assessments and self-report measures. Screening and/or diagnostic measures were used. This variation introduced error in drawing conclusions about the prevalence for PTSD in the perinatal period, because the variation may have represented actual population differences or simply reflect differences in the screening and diagnostic tools. Additionally, different instruments were designed to assess slightly divergent diagnostic criteria. The study measurements were correlated to four different sets of diagnostic criteria: DSM-III, DSM-IV, DSM-IV-TR, and DSM-5 criteria. These limitations indicate that the study of perinatal PTSD is still nascent. Much of the research on this topic is descriptive and exploratory without consensus on standardized measures or control variables. Although the research is generally well executed, this lack of standardization makes it difficult to draw conclusions when comparing studies with conflicting results.

Although beyond the scope of this article, a population of women who experience partial or subsyndromal PTSD during pregnancy or after childbirth should be examined. A notable portion of women do not qualify for a full PTSD diagnosis, although they exhibit most symptoms required to meet criteria (Alcorn et al., 2010; Ayers & Pickering, 2001). Subsyndromal PTSD presentation may confer significant psychosocial morbidity for women during the perinatal period because symptoms are likely to affect parenting skills, interpersonal relationships, and other aspects of daily functioning and well-being. The postpartum period necessitates a number of behavioral changes and role shifts; symptoms that cause reduced functioning in everyday life and psychological rigidity are likely to be particularly pernicious during this period of major transition. Posttraumatic stress symptoms that do not reach full diagnostic criteria are likely to be conflated with depression and anxiety and thus overlooked or misdiagnosed or treated. It is essential that health care providers screen and attend to such symptoms during pregnancy and the postpartum period.
Clinical Application and Future Research Directions

Screening and Referral
As suggested by Muzik and colleagues (2016), screening for modifiable risks such as ongoing interpersonal trauma exposure and labor anxiety during pregnancy may promote postpartum maternal well-being. Given their frequent and important contact with women during prenatal care, perinatal nursing professionals are well positioned to implement such screenings. Because nurses often identify psychosocial risk factors of women during the perinatal period, nurses are uniquely positioned to ensure continuity of care around the assessment of psychosocial issues. Incorporation of a protocol to screen for and address trauma symptoms may help perinatal nurses best identify the psychosocial needs of women and support the medical team by alerting them to the symptoms and articulating a procedure to be followed should nurses identify a problem.

The four-item Primary Care PTSD screening tool can be used to identify clinical and subthreshold PTSD among low-income pregnant women (Wenz-Gross et al., 2016). The 14-item Perinatal Posttraumatic Stress Disorder Questionnaire has been tested for screening and monitoring changes in distress across time (Callahan, Borja, & Hynan, 2006). Both of these screening tools can be used to assess cardinal PTSD symptoms, such as nightmares, intrusive thoughts, and avoidance behavior, but the Perinatal Posttraumatic Stress Disorder Questionnaire can be used to assess some symptoms specifically related to childbirth. These tools may be useful in tracking the effectiveness of interventions geared to improve maternal and fetal outcomes by targeting perinatal PTSD. Women who are identified as at risk for perinatal PTSD during screening should receive appropriate referrals and follow-up. As with depression screening, positive screening results for PTSD should be followed up with diagnostic assessment, evaluation, and treatment as needed.

Conclusion
Perinatal mental health is an important public health concern (Craig et al., 2014). Three-fourths of American women may be exposed to traumatic events that leave them vulnerable to the development of PTSD during the perinatal period (Fairbrother, Janssen, Antony, Tucker, & Young, 2016; Kessler, Chiu, Demler, & Walters, 2005). Women are at increased need of mental health screening and services during the perinatal period, particularly with the prevalence of mood disorders, anxiety, and psychosocial morbidity associated with PTSD that affects maternal functioning and health outcomes. The use of routine screening will allow women to receive needed treatment and mitigate the potentially negative sequelae of this disorder. With ongoing research on trauma and perinatal PTSD, best practices can be established for screening, diagnosis, treatment, and collaboration within the interdisciplinary team.

REFERENCES


