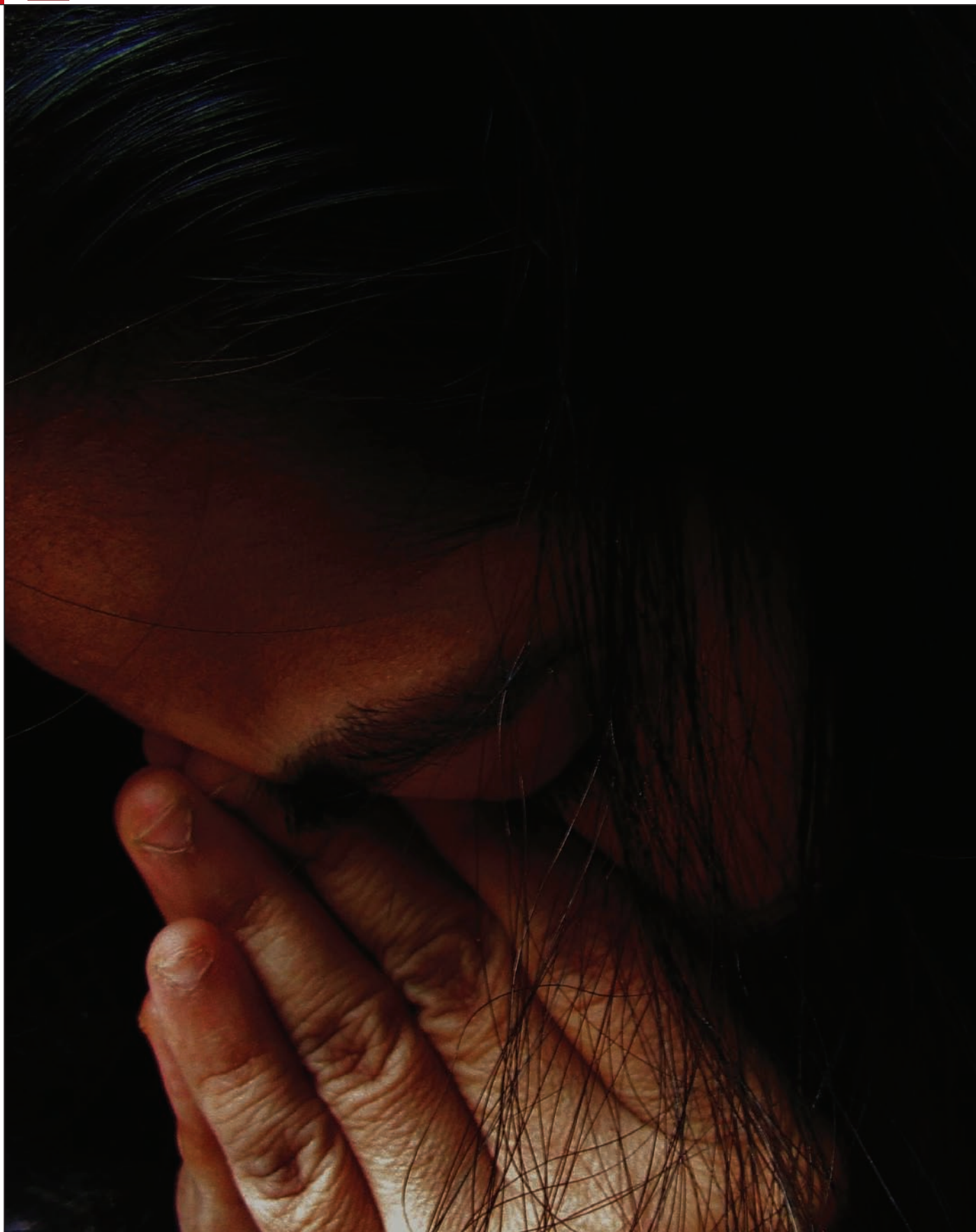




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# Recognizing risk and presence of posttraumatic stress disorder in women

*Abstract: US women who report having experienced significant trauma at some point in their lives range from 50% to 90%. Yet posttraumatic stress disorder (PTSD) goes largely unrecognized in women. This article discusses ways to monitor, screen, and intervene for PTSD in women.*

By Elizabeth Heavey, PhD, RN, CNM

**W**hile there has been an increase in awareness of posttraumatic stress disorder (PTSD) within military populations, especially returning combat veterans, we often fail to recognize PTSD in other high-risk populations, particularly women. Failure to recognize, diagnose, and treat PTSD within female populations has significant negative ramifications for those affected as well as society in general. The first steps toward identifying and assisting women who struggle with PTSD are to recognize those with the greatest risk, identify signs and symptoms early, and facilitate appropriate intervention and treatment.

## ■ Prevalence of PTSD in women

In national surveys, 50% to 90% of women report experiencing significant trauma at some point in their lives.<sup>1,2</sup> More than half of the cases of PTSD in women occur after rape or sexual assault.<sup>3,4</sup> Due to the context and types of trauma that women are more likely to experience and the genetic and hormonal factors that may also impact the risk of developing PTSD, women are two to three times as likely to develop PTSD as men (9.7% for women and 3.6% for men).<sup>5,6</sup> Pregnant women

may be at even greater risk of development of PTSD when exposed to trauma, as shown by higher PTSD prevalence than nonpregnant women.<sup>5</sup>

Common reproductive health experiences can also be potentially traumatic depending on the circumstances, interventions, and support available. Over their lifetime, up to 50% of women will experience a miscarriage or ectopic pregnancy; 29% of those women screen positive for PTSD 1 month after their loss and 18% still struggle with PTSD symptoms 9 months after an early pregnancy loss.<sup>7</sup> For other women, childbirth itself can be a traumatic experience with studies finding that 4% of women with low-risk pregnancies and 18% of women with high-risk pregnancies meet the full criteria for PTSD after childbirth.<sup>8</sup>

Women serving in active duty roles are at greater risk than the civilian female population with 32% of female veterans surveyed reporting that they have experienced military sexual trauma including 11.6% who were forced to have sexual contact against their will.<sup>9</sup> Female veterans who experience military sexual assault are nine times as likely to develop PTSD as female veterans without this history.<sup>9</sup>

**Keywords:** posttraumatic stress disorder, PTSD, trauma, traumatic event, women

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### Primary Care PTSD Screen for DSM-5<sup>24,37</sup>

Sometimes things happen to people that are unusually or especially frightening, horrible, or traumatic. For example:

- a serious accident or fire
- a physical or sexual assault or abuse
- an earthquake or flood
- a war
- seeing someone be killed or seriously injured
- having a loved one die through homicide or suicide.

Have you ever experienced this kind of event?

YES NO

If no, screen total = 0. Please stop here.

If yes, please answer the questions below.

In the past month, have you...

1. had nightmares about the event(s) or thought about the event(s) when you did not want to?

YES NO

2. tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?

YES NO

3. been constantly on guard, watchful, or easily startled?

YES NO

4. felt numb or detached from people, activities, or your surroundings?

YES NO

5. felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?

YES NO

Additional PTSD assessment instruments are available at: [www.apa.org/ptsd-guideline/assessment](http://www.apa.org/ptsd-guideline/assessment)

explained by differences in the types of trauma typically experienced by the two genders.<sup>6</sup> Experiencing intentional/assaultive trauma carries a significantly higher risk for subsequent PTSD development.<sup>15,16</sup> In addition, the age at which the trauma occurs impacts the risk of developing PTSD. Greater pain/anxiety and perceived threat to one's life during the trauma exposure increases the risk of PTSD development as do military combat, serious illness/hospitalization, refugee status, and preexisting mental health problems.<sup>6,10,15-18</sup>

Women are more likely to be exposed to the traumatic events that are associated with the highest risk for the development of PTSD including sexual assault and childhood sexual abuse.<sup>5,6</sup> Women are also more likely to experience trauma within established relationships and experience more chronic trauma than men.<sup>6</sup>

There are increased risks for developing PTSD associ-

Some women enter adulthood with PTSD from childhood events such as physical or sexual abuse, witnessing violence, war, displacement, institutionalization, severe illness, or hospitalization. These childhood experiences are additional risk factors associated with high rates of PTSD.<sup>10</sup>

Societal discrimination, devaluation, and lower socioeconomic status may increase the risk of traumatic event exposure for women from historically marginalized groups.<sup>11</sup> For example, up to 26.9% of Native American women experience PTSD in their lifetime.<sup>12</sup> Lesbian, bisexual, and transgender women also experience more potentially traumatic events, including interpersonal violence, and have higher rates of PTSD than heterosexual women and sexual minority men.<sup>13,14</sup>

### ■ Risk factors

Though men experience more incidents of trauma, they are less likely to develop PTSD, which may be partially

ated with race and ethnicity as well. Once exposed to potentially traumatic events, 12% of Black women, 9.5% of White women, and 5.4% of Hispanic women develop PTSD.<sup>11</sup>

### ■ Neurophysiology of PTSD

PTSD is a debilitating syndrome that can occur after exposure to psychological trauma involving an actual or threatened serious injury or sexual assault. In those with PTSD, there is increased reactivity of the amygdala, which processes emotions including fear, and diminished responsiveness of the medial prefrontal cortex, which inhibits the stress response and emotional reactivity.<sup>19</sup> Additional physiologic changes seen in the hippocampus, anterior cingulate cortex, and corpus callosum, along with alterations in neurohormonal and neurotransmitter functioning, lead to a hyperactivity of the sympathetic autonomic nervous system and an increased fear response with deficits in

**Recommended pharmacotherapy treatment for PTSD<sup>26,27,38,39</sup>****Treatment of generalized symptoms**

Drug categories	Options	Common adverse reactions <sup>^</sup>
SSRI	Sertraline* Paroxetine* Fluoxetine**	Nausea, diarrhea, anxiety, headache, sexual dysfunction, agitation, dizziness, hyponatremia, and serotonin syndrome
SNRI	Venlafaxine**	Similar to those of SSRIs; also may increase BP

**Treatment of PTSD-related nightmares**

Drug category	Options	Common adverse reactions <sup>^</sup>
Alpha-1 adrenergic blocker	Prazosin**	Hypotension, syncope, dizziness, lightheadedness, headache, drowsiness, lack of energy, weakness, palpitations, nausea

SNRI: serotonin and norepinephrine reuptake inhibitor; SSRI: selective serotonin reuptake inhibitor  
 \*FDA-approved for PTSD treatment, \*\*used off-label for PTSD treatment but with literature support

<sup>^</sup>This is not a complete list of all potential adverse reactions.

fear extinction.<sup>5,19</sup> The neurophysiologic changes that occur with PTSD are then associated with or produce the typical signs and symptoms.

### ■ Signs and symptoms of PTSD

Many individuals who experience trauma will initially exhibit some signs or symptoms consistent with PTSD. Most will successfully adapt as they experience safety and reminders of the trauma without repetition of the trauma. Significant debilitating symptoms 3 days to 1 month after the trauma are identified as acute stress disorder (ASD). For many individuals with ASD, these symptoms resolve within the first few weeks. Diagnosis and intervention for ASD may help prevent the subsequent development of PTSD.<sup>20</sup> Those who have signs and symptoms that linger and interfere with daily functioning beyond 1 month should be evaluated for PTSD.

According to the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), there are four main symptom groups associated with PTSD: 1. intrusion or reexperiencing symptoms, which can include nightmares, flashbacks, and thoughts of the traumatic event during other activities; 2. avoidance, by which patients tend to avoid triggers or reminders of a traumatic event; 3. negative changes in mood and cognition, such as distorted cognitions about the event resulting in blaming oneself or others and negative emotions including fear, shame, depression, anxiety, alienation, detachment, and emotional numbing; 4. changes in reactivity, which could include an increased startle response, hypervigilance, sleep disruption, anger,

self-destructive behavior, poor affect regulation, or impaired concentration.<sup>21</sup>

These symptoms usually occur soon after the traumatic exposure, last for more than a month, and cause significant distress or impairment. For about 25% of individuals with PTSD, there is delayed onset of the full diagnostic criteria until 6 or more months after the traumatic event.<sup>22</sup>

In women, these symptoms may not be readily apparent. The vast majority of women who screen positive for PTSD after an early pregnancy loss report significant reexperiencing of symptoms (91%) and two-thirds of them also struggle with avoidance and hyperarousal. The impact of these symptoms may be felt in their sexual desire or functioning (49%) and may interfere with the ability to function at work and enjoy leisure activities (39%).<sup>7</sup> Unfortunately, without appropriate screening, it would be easy to miss this type of presentation during a routine office visit.

### ■ Screening for PTSD

Early intervention and treatment can help prevent the progression of ASD to PTSD. Even after PTSD has developed, intervention and treatment can help mitigate symptoms and provide much-needed relief to patients, making screening for PTSD critical. Within primary care and mental health practices, providers should consider PTSD screening for all individuals with a new onset of anxiety, fear, or insomnia. In addition, providers should screen patients with a history of trauma, anxiety, social isolation, and substance use disorder.<sup>23</sup> Even with an initial negative screen,



### Trauma-informed health systems incorporate the 4 Rs<sup>40</sup>

**Realization:** All people working within the healthcare setting should be aware of the prevalence of trauma and how it can impact affected individuals and communities.

**Recognition:** Healthcare workers should be familiar with and able to help identify signs and symptoms associated with trauma. This includes the implementation and interpretation of appropriate screening measures.

**Response:** The healthcare team should ensure access to providers trained to appropriately evaluate patients with a history of trauma while promoting a culture of healing, recovery, and resilience.

**Resisting retraumatization:** Within the practice environment, providers and staff should be sensitive to common triggers and work to create a safe and supportive environment for those with a history of trauma. All people working within the healthcare setting should be aware that patients with a history of trauma may exhibit maladaptive behaviors. These externalized and internalized behaviors may serve as coping mechanisms to overcome significant adversity regardless of their success in doing so.

rescreening when there is a clinical indication such as identified mental health concerns or before sensitive physical exams is appropriate.

Screening can be completed with a self-administered tool such as the Primary Care PTSD Screen for DSM-5, which begins by asking if the patient has been exposed to a traumatic event.<sup>24</sup> Patients who answer yes are asked five additional questions, which relate to symptoms and the impact of symptoms on their lives. A score of 3 or higher is considered a positive screen and should be followed by further evaluation with a provider-administered structured interview to determine if a PTSD diagnosis is warranted.<sup>24</sup> A score of 1 or 2 on the screen does not rule out PTSD and indicates a history of trauma with subsequent symptoms, which should be monitored closely (see *Primary Care PTSD Screen for DSM-5*). Also, healthcare teams should keep in mind that individuals with a history of trauma, particularly those for whom the trauma is ongoing, may not be willing to disclose this history, thus a negative screen does not rule out the potential for trauma and PTSD as an ongoing issue.

### ■ Complications of PTSD

PTSD in women is strongly associated with alcohol and substance use disorders, comorbidities including obesity, major depression, endometriosis, interstitial cystitis, migraines, cardiometabolic disease, adverse birth outcomes, and suicide.<sup>5</sup> Keep in mind that

women with PTSD are more likely to report experiencing internalizing comorbidities like anxiety and depression, sexual dysfunction, and somatic symptoms.<sup>6</sup> Particularly in young women with a history of trauma, sexually inappropriate behavior may be exhibited.<sup>25</sup> During an exam, patients with PTSD may also exhibit dissociative behaviors such as shutting down or becoming mentally absent from the experience because they are experiencing a flood of feelings associated with the event.

### ■ Management

Ideally, patients who screen positive for PTSD would be seen and evaluated by a psychiatric team well versed in trauma-specific care. Unfortunately, lack of readily available psychiatric and mental health services is a consistent challenge in many primary care settings. The initial screening and management may fall to primary care providers but a comprehensive trauma informed team approach is the most effective when available.<sup>26</sup>

The American Psychiatric Association makes a strong recommendation for individual trauma-focused psychotherapy as the first-line treatment for PTSD. It can also be helpful during ASD to prevent PTSD. In addition, when trauma-focused psychotherapy is not available, not adequate, or the patient is not willing to participate, the American Psychiatric Association and the U.S. Department of Veterans Affairs both recommend antidepressants (particularly certain selective serotonin reuptake inhibitors [SSRIs] and serotonin and norepinephrine reuptake inhibitors [SNRIs]) as first-line pharmacotherapy for PTSD (see *Recommended pharmacotherapy treatment for PTSD*).<sup>26,27</sup> It is important to remember that SSRIs and SNRIs have a boxed warning for suicidal ideation and behaviors in patients age 24 and younger. All patients with PTSD should be monitored closely for suicidal thoughts or actions.<sup>26</sup> In the event that a patient becomes a danger to herself or others, inpatient care may be necessary.

Patients with sleep disturbances related to PTSD may benefit from prazosin at bedtime; however, this is an off-label indication. Therapeutic doses are associated with decreased nightmares and increased normal dreaming patterns, which can be a tremendous relief to women struggling with regular nightmares and the anxiety that goes with anticipating the occurrence of nightmares.<sup>28,29</sup> Benzodiazepines are not recommended for PTSD and may prolong the course of PTSD.

Studies have also found that cannabis use for PTSD carries more risk than benefit.<sup>30</sup> It is also important to note that there is limited information about gender differences in treatment outcomes for therapeutic interventions for PTSD, as many studies have involved largely male samples.<sup>6</sup> As further studies unfold, differences may be detected, which should inform clinical guidelines for treating women with PTSD.

### ■ Implications for practice

Healthcare systems should be built on trauma-aware principles and infused with trauma-informed care throughout all levels (see *Trauma-informed health systems incorporate the 4 Rs*). All patients with PTSD should have regularly scheduled noninvasive visits to monitor for safety and PTSD exacerbations including the emergence of suicidal ideation and substance use disorders. PTSD is associated with accelerated aging, overall poor physical health, and earlier mortality.<sup>31</sup> Many women with PTSD will avoid routine health encounters and may miss opportunities for routine screening and preventive care. Regularly scheduled noninvasive visits allow for the development of trust as well as ensure that that appropriate screening and treatment for other comorbidities is occurring.

It is particularly important to encourage shared decision-making for women who have experienced trauma so they can make informed choices and direct their own healthcare.

For many women with PTSD, invasive gynecologic exams/procedures can be a trigger and should be avoided unless absolutely necessary. If transvaginal examination is necessary, the provider should obtain clear consent and the patient should have the option to assist or observe at any level with which she is comfortable. This includes self-insertion of a speculum or device and watching with a mirror or on an electronic screen if desired. During the procedure, the patient should be kept as informed as she would like to be about details of the exam and specimen collection. This helps avoid retraumatization.

It may be necessary to delay certain invasive or difficult procedures until the patient feels a level of trust that would make these experiences more psychologically safe. Being able to decline the procedure may increase the patient's sense of agency and may facilitate

future acceptance of the procedure.<sup>32</sup> It is important to explain and discuss all exams and procedures before they occur and reinforce that the patient may choose to stop the exam at any point in time regardless of the status of specimen collection. In the event that a patient dissociates during an exam, the exam should stop and the patient should be reoriented to the present time with reassuring communication about who is there and the safety of the patient in the present moment.<sup>32</sup>

Some women with PTSD will feel more comfortable having a support person with them for healthcare appointments while others will prefer to interact with the healthcare team privately. Either option should be supported. Women with a history of sexual trauma are likely to seek out female providers and support staff

*Healthcare systems should be built on trauma-aware principles and infused with trauma-informed care throughout all levels.*



and may wish to be cared for by women exclusively. If possible, these wishes should be honored, though the patient should be informed that in an emergent situation this may not be possible. If a female provider is not available, a female chaperone should always be present for the exam.

Whenever possible, a woman with PTSD should be allowed to position herself within both the exam room and for any procedures that involve handling her body. For example, during a mammogram, a woman may be allowed to place her own breast on the mammography machine with a technician directing her with regard to repositioning or asking her permission before repositioning the patient's breast, if necessary.

Women who have recovered from PTSD may experience a relapse with subsequent trauma and are more likely to develop PTSD again after additional traumatic exposures. It is not uncommon for a patient with an undisclosed history of trauma and recovery to suddenly respond with intense anxiety, anger, and fear during childbirth or a gynecologic procedure.<sup>33</sup> This may be the first time the healthcare team becomes aware of the history. Every effort should be made to screen for these concerns; however, in the event that they arise during a procedure, it is important to immediately support the patient, ensure the patient has

as much agency as possible over decision-making, and reinforce that the patient is a survivor with strength and resilience.<sup>34</sup> Every effort should be made to avoid retraumatization and to support survivorship skills. For patients with previously identified PTSD, a trauma-specific healthcare plan or birth plan can be developed to facilitate communication with the healthcare team, help avoid triggers, and identify support that is helpful during unavoidable triggers such as active labor.<sup>35</sup>

NPs are in a key position within the healthcare system to increase awareness and sensitivity about the risk of women developing PTSD after experiences like sexual assault, sexual abuse, domestic violence, traumatic childbirth, miscarriage, and ectopic pregnancy. During these experiences, minimizing wait time for assessment/treatment and accurate, timely, empathetic communication are critical.<sup>7</sup> Whenever possible, healthcare teams should ensure women with these experiences have access to specialists (Sexual Assault Nurse Examiner [SANE], obstetrician-gynecologist, women's health NP or nurse-midwife, obstetrics social worker) who are aware of the potential psychological impact of sexual assault or reproductive trauma and can help to assess, treat, and arrange for appropriate supportive services.<sup>7,36</sup>

With appropriate detection, assessment, and treatment, women with PTSD can have significant improvement. Patients are tremendously relieved when debilitating symptoms diminish and eventually resolve. Seeing this progress is rewarding to the astute healthcare team that detected the disorder and created the treatment plan and environment that helped promote resilience and healing. Staying aware of hidden PTSD in a practice will aid the healthcare team members and their patients to partner more effectively; in doing so, outcomes will improve as well. **NP**

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The author and planners have disclosed no potential conflicts of interest, financial or otherwise.

DOI-10.1097/01.NPR.0000751792.54634.46

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