

Chapter 12

Mental Health Consequences of Intimate Partner Violence

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KEY CONCEPTS

- Intimate partner violence (IPV) has been associated with a wide range of mental health consequences, including depression and post-traumatic stress disorder (PTSD).
- For many women, these issues resolve with increased safety and support, but others may benefit from additional resources and treatment.
- Survivors' experiences of mental health symptoms will vary based on a number of factors, including their own personal strengths and resources, the duration and severity of abuse, their experience of other lifetime trauma, and their access to services and social support.
- Women who are diagnosed with a mental illness are at greater risk for abuse and for developing PTSD.
- Stigma associated with mental illness reinforces abusers' abilities to manipulate

mental health issues to control their partners, undermine them in custody battles, and discredit them with friends, family, and the courts.

- Advances in the fields of traumatic stress, child development, genetics, and neuroscience are generating new models for understanding the impact of early experience on subsequent health, mental health, and life trajectories, as well as the psychobiological impact of adult traumatic events. This emerging body of knowledge, particularly when grounded in survivor and advocacy perspectives, provides a more useful framework for understanding the range of mental health responses experienced by survivors of IPV.
- Training and practice environments that are both domestic violence (DV)- and trauma-informed can be developed to better meet the needs of survivors of IPV and other lifetime trauma.

The past 30 years have seen a substantial growth in research documenting the prevalence of intimate partner violence (IPV) and other lifetime trauma among women seen in health and mental health settings, as well as the range of mental health conditions associated with current and past abuse. More recently, advances in the fields of traumatic stress, child development, genetics, and neuroscience are generating new models for understanding the impact of early experience on subsequent health, mental health, and life trajectories, as well as the psychobiological impact of adult traumatic events. These, in turn, are changing our conceptual frameworks for understanding the effects of chronic interpersonal abuse across the lifespan, issues that research on IPV and mental health is only just beginning to reflect (1–9). This emerging body of knowledge, particularly when grounded in survivor and advocacy perspectives, provides a more useful framework for understanding the range of mental health responses experienced by survivors of IPV than do earlier approaches that failed to link social context with psychiatric symptoms and disorders.

This chapter reviews current research about the mental health consequences of IPV and other lifetime abuse and the intersection of IPV, lifetime trauma, and mental health. It also provides a critical perspective on the limits of these data for understanding women's experience of IPV and the concerns survivors have articulated about how these data are used and perceived. Finally, it offers a framework for understanding and responding to the traumatic effects of IPV and lifetime abuse and for addressing mental health issues in the context of IPV, including a number of issues not yet addressed by current research.

DOMESTIC VIOLENCE, TRAUMA, AND MENTAL HEALTH: FRAMING THE ISSUES

Addressing mental health in the context of ongoing IPV raises a number of issues for both survivors and practitioners. Domestic violence (DV) advocates and survivors have consistently voiced concerns about the ways mental health issues are used *against* battered women, not only by abusers but also by the systems in which women seek help (e.g., batterers using mental health issues to control their partners, undermine them in custody battles, and discredit them with friends, family, child protective services, and

the courts) (10,11). This has been due, in part, to the stigma associated with mental illness, historically gendered notions of psychopathology (a history of viewing women's responses to abuse in pathological terms), and a psychiatric diagnostic system that, historically, has not incorporated etiology or social context.

For survivors of IPV, abuse was often viewed as a reflection of victim "psychopathology," and symptoms were rarely seen as a *consequence* of being abused. Conscious of the need to create a public awareness that would hold abusers, not victims, accountable for their violence, advocates and survivors have been reluctant to frame women's responses to abuse in purely clinical terms. In addition, survivors of IPV were placed in greater jeopardy through their interactions with the mental health system (e.g., referrals to couples counseling when that was unsafe, involvement of batterers in treatment, use of mental health issues against women in custody battles) (12). These challenges have also been instrumental in reconfiguring clinical paradigms and underscoring the importance of framing victimization as a societal problem, not an attribute of the victim. As Brown suggests, we do not look for characteristics of other crime victims to understand why they have been victimized (13).

Over the past several decades, however, an overarching framework for understanding the impact of trauma on the human psyche has emerged through work with survivors of both civilian and combat trauma and through research on the cumulative effects of diverse childhood experiences and the developmental consequences of early abuse and neglect (7,14–22). Posttraumatic stress disorder as a diagnostic construct was initially developed to codify and formally bring attention to the disabling experiences of returning combat survivors (i.e., Da Costa's syndrome, combat neurosis, shell shock, battle fatigue) as well as survivors of sexual assault (rape trauma syndrome) and IPV (battered women's syndrome) (1,23–29). Ongoing debate continues within the traumatic stress field regarding whether the posttraumatic stress disorder (PTSD) diagnosis adequately captures the multiple domains that are affected by trauma, particularly when it is chronic, interpersonal, and/or begins early in life. The debate centers on whether the traumatic effects of abuse are best depicted by the diagnosis of PTSD in combination with common comorbidities (e.g., depression, anxiety, panic, substance abuse, eating disorders, somatization disorders, dissociative disorders, suicidality, etc.) or through the lens of

complex trauma (i.e., disorders of extreme stress not otherwise specified [DESNOS], complex developmental trauma, developmental trauma disorder, post-traumatic personality disorder) originally described by Herman in 1992 and since validated by numerous other studies (8,30–32). These newer concepts attempt to address the effects of chronic interpersonal abuse not covered by the PTSD diagnosis and provide a more nuanced way of understanding the impact of trauma across the lifespan—effects that are mediated through the interactions of many other factors in addition to the traumatic experience itself (15). Only recently have tools been available to study the interactions between genes, individual environment, and broader social conditions. These tools have contributed to a more complex paradigm for examining the role of external social factors in the development of psychiatric symptoms and disorders (33). This has led to a significant shift in the ways mental health symptoms are conceptualized and to greater awareness of the role that abuse and violence play in the development of psychological distress and psychiatric morbidity. A DV advocacy perspective provides another critical piece of this equation—one that addresses the ongoing social realities that survivors face as they try to end the violence in their lives and deal with its traumatic effects.

INTIMATE PARTNER VIOLENCE AND LIFETIME TRAUMA

For many women, abuse by an adult partner is their first experience of victimization; for others, IPV occurs in the context of other lifetime trauma. A number of studies have begun to explore the link between histories of physical and sexual abuse in childhood and the experience of partner abuse as an adult. Women who are physically or sexually abused as children or who witness their mothers being abused appear to be at greater risk for victimization in adolescence and adulthood by both intimate and nonintimate perpetrators (34–41), and women who experience adolescent IPV are more likely to experience IPV as adults (42).

Studies of battered women in both clinical and shelter settings have found high rates of childhood abuse and childhood exposure to IPV. In a 2007 study by Kimerling and colleagues, women who experienced childhood physical or sexual abuse were

almost six times more likely to experience adult physical or sexual victimization (43). Across studies, the average reported rates of childhood physical abuse and childhood sexual abuse among women in DV shelters or programs are 55.1% and 57.0%, respectively (44).

For women who have experienced multiple forms of victimization (e.g., childhood abuse; sexual assault; historical, cultural, or refugee trauma), adult partner abuse puts them at even greater risk for developing posttraumatic mental health conditions, including substance abuse (a common method of relieving pain and coping with anxiety, depression, and sleep disruption associated with current and/or past abuse). These conditions and coping strategies may, in turn, place them at risk for further abuse (29,45–53). The intersection between substance abuse and IPV is discussed in greater depth in another chapter in this text.

Socioeconomic factors can also expose women to victimization, which compounds their risk for developing the range of mental health sequelae noted earlier. For example, low-income women (those most likely to be seen in both IPV shelters and the public mental health system) have the highest risk of being victimized throughout their lives. In one study, the lifetime prevalence of severe physical or sexual assault among very-low-income women was found to be 84%; 63% of those studied had been physically assaulted as children, 40% had been sexually assaulted as children, and 60% had been physically assaulted by an intimate partner (54). Similarly, studies conducted in welfare-to-work programs have documented lifetime rates of intimate partner abuse ranging from 55% to 65% (55–58), as opposed to rates of 20% found in random population samples (59).

A body of clinical literature describes the re-traumatizing effects of more subtle forms of social and cultural victimization (e.g., microtraumatization or insidious trauma) due to gender, race, ethnicity, sexual orientation, disability, and/or socioeconomic status (60–65). Thus, although IPV itself is associated with a wide range of psychological consequences, women living in disenfranchised communities face multiple sources of stress in addition to violence, including social discrimination, poorer health status, and reduced access to critical resources, all of which can increase psychological distress (66,67). Again, many IPV survivors have experienced other forms of trauma, some of which may be ongoing, that can affect their responses to current IPV.

INTIMATE PARTNER VIOLENCE AND MENTAL ILLNESS

Although most survivors of domestic abuse do not develop long-lasting psychiatric disabilities, mental illness appears to heighten women's risk for abuse (68,69). Poverty, homelessness, institutionalization, unsafe living conditions, and dependence on caregivers exacerbate these risks, leaving individuals with psychiatric disabilities vulnerable to victimization by a range of perpetrators—within families, on the streets, in institutional and residential settings, and by intimate or dating partners. For example, a study of homeless women diagnosed with a serious mental illness found that a significant majority had been abused by a partner (70% had suffered physical abuse, 30.4% sexual abuse) (70). Rates of physical or sexual abuse in adulthood by any perpetrator were 87% and 76%, respectively. Intimate partner violence itself is often a precipitant to homelessness (54,71,72). Moreover, IPV presents particular risks for individuals with serious mental illness. Exposure to ongoing abuse can exacerbate symptoms and precipitate mental health crises, making it more difficult to access resources and increasing abusers' control over their lives. Stigma associated with mental illness and clinicians' lack of knowledge about IPV reinforce abusers' abilities to manipulate mental health issues to control their partners, undermine them in custody battles, and discredit them with friends, family, and the courts. In a series of focus groups conducted in Chicago, DV advocates and survivors described a number of these tactics. For example, abusers use strategies such as threatening to commit and/or committing their partners to psychiatric institutions; forcing their partners to take overdoses, which are then presented as suicide attempts; and withholding psychotropic medications. Other examples include asserting that accusations of abuse are simply delusions, lying outright about their partners' behaviors, and rationalizing their own (e.g., claiming their partner "needed to be restrained"). This kind of manipulation not only increases an abuser's control over his partner, but also can have a chilling affect on a woman's ability to retain custody of her children, which is often one motivation behind her partner's behavior. Although this type of phenomenon cuts across cultures, immigrant women who are isolated and do not speak English are particularly vulnerable to this type of abuse (12).

Acute symptoms of mental illness can also heighten a woman's risk for victimization (68,69). Although psychiatric crises are often precipitated by recent trauma, for a woman experiencing symptoms of acute psychosis, clinicians may interpret accusations of victimization as delusions, thus leaving her vulnerable to further victimization. Women may be at particular risk for assault when experiencing cognitive or emotional difficulties associated with psychotic disorders (68). In addition, symptoms of severe trauma, such as dissociation or flashbacks, may also mimic psychotic disorders, heightening the potential for misdiagnosis and treatment that does not address underlying issues of abuse. Responses to previous trauma, such as dissociation or potentially risky coping strategies, may also increase a woman's vulnerability to abuse (73). Trauma or mental illness in childhood or adolescence can disrupt key developmental processes, leaving women without the skills they need to negotiate power and decision-making in relationships (74). When having to manage without these skills is compounded by abuse in adulthood, the likelihood of having legitimate rights respected in any relationship may become even more remote (30,75,76).

Prevalence of Intimate Partner Violence and Other Lifetime Trauma Among Women Seen in Mental Health Settings

On average, over half of women seen in a range of mental health settings either currently are or have been abused by an intimate partner, although rates vary widely among studies (29,75). As noted earlier, many have also experienced multiple forms of abuse throughout their lives, putting them at greater risk for a range of health and mental health sequelae and affecting their ability to mobilize resources necessary to achieve safety and stability (77–80). For example, studies across a variety of mental health settings have found significant rates of *lifetime abuse* among people living with serious mental illness, with those in inpatient facilities reporting the highest rates (53%–83%) (47,70,81–86).

Recent studies of adverse childhood experiences also demonstrate the prevalence of lifetime abuse among individuals who have a mental illness. A 2007 study of people diagnosed with schizophrenia found that 86% had experienced at least one adverse childhood event and 49% had experienced three or

more (87). (In this study, adverse events included physical abuse, sexual abuse, parental mental illnesses, loss of a parent, parental separation or divorce, witnessing DV, and foster or kinship care.) The number of these events also predicted a range of adverse mental health outcomes (substance abuse, PTSD, length of hospitalization, suicidality, and poorer self-rated mental health, as well as functional status). Although no general population study uses the same definitions of adverse childhood events, a reasonable comparison can be made with the 1998 ACE study, which examined the prevalence of adverse childhood experiences within a large health maintenance organization population. It found that over half of the sample had experienced at least one category of adverse childhood experience, and approximately 25% reported experiencing two or more (1). In this study, the categories of adverse childhood experiences included physical, sexual, or psychological abuse; violence against mother; and living with household members who were substance abusers, mentally ill or suicidal, or ever imprisoned.

Although attention to victimization among people receiving public mental health services initially focused on the long-term effects of *childhood abuse*, rates of *adult victimization* by acquaintances, strangers, family members, and intimate partners appear to be equal or higher. In one study, over 70% of women admitted for a first psychotic episode had experienced at least one type of abuse, and 42% reported ongoing exposure (88). Only a few studies have specifically examined rates of adult partner, family member, or caretaker abuse among individuals with serious mental illnesses. In one inpatient study, 62% had been abused by a current or former spouse (81). Of the 64% of female inpatients who reported having been physically assaulted as adults in another study, more than half were living with the perpetrator at the time of hospitalization (84). In a third study, which looked at hospitalized patients (male and female) who had ongoing relationships with partners or family members, 62.8% reported a history of physical victimization by a partner, 45.8% reported physical abuse by a family member, and 29% reported having experienced domestic abuse within the past year (89). Yet, these issues are rarely attended to. Informal focus groups with women who self-identified as consumers of mental health services indicate that the majority had experienced DV and other forms of abuse, but few had been asked about those experiences. The majority

of women were also interested in receiving information about DV and about resources they could access in their communities (90). Without formal training and policies in place, abusive partners are often included in treatment planning, and safety issues go unaddressed.

Until recently, information about specific forms of violence against women, including childhood sexual abuse, sexual assault, and IPV, was often found in separate literatures. As a result, knowledge about the cumulative effects of lifetime exposure to trauma for adult survivors of IPV and the experiences of women from diverse communities has been limited. In general, studies examining the mental health impact of IPV are designed to assess for: (a) prevalence of specific psychiatric diagnoses among survivors of IPV and/or other lifetime trauma, (b) other effects of IPV for which there are validated measurements (e.g., self-esteem, internal versus external locus of control, functional status), and/or (c) additional factors associated with the frequency or severity of these conditions. Yet, methodological problems and lack of consistency across studies limit the generalizability of much of the currently available research. Measures are not standardized across studies nor are they culturally normed. And the majority of studies are cross-sectional in design and do not identify the timing of the assessment in relationship to recent crises. Moreover, the majority of studies have been conducted in clinical or shelter settings where rates of symptomatology are likely to be higher.

It is also important to keep in mind the limits of quantitative research for conveying survivors' actual experience. For example, although complex trauma models may ultimately prove to be a more accurate way to understand the multiple effects of chronic longstanding abuse, such as IPV, even diagnoses that specifically address traumatic events do not fully capture what living in a climate of fear does to a woman's psychological landscape or what a woman has to do to reconfigure her sense of identity, her belief in herself, her connections to others, and her relationship to a world that has betrayed her. Nor do they convey the unique intersection of strengths, supports, identities, and meanings that survivors carry with them as they traverse their lives.

Despite these limitations, over the past three decades, research documenting the effects of violence across the lifespan indicates that abuse, violence, and discrimination play key roles in many of the health

and mental health problems experienced by women in the United States and throughout the world (1,25,26,28,91–93). Researchers have found that exposure to current and/or past abuse is a significant factor in the development and exacerbation of psychiatric disorders, increases the risk for revictimization, and influences the course of recovery from mental illness (87,94–104).

For many abuse survivors, symptoms abate with increased safety and social support, but for others this is not the case (91,105). Both random population studies and studies conducted in clinical settings indicate that victimization by an intimate partner places women at significantly higher risk for depression, anxiety, PTSD, somatization, medical problems, substance abuse, suicide attempts (whether or not they have suffered physical injury), and more generally for reporting unmet mental health needs (95,106–110). In a meta-analysis of mental health conditions experienced by survivors of IPV, the weighted mean prevalence across settings was 50% for depression, 61% for PTSD, and 20.3% for suicidality (44). Rates of depression were highest among women in IPV shelters (63.8%) and court-involved women (73.7%), PTSD rates were highest for women in shelters (66.9%) and drug treatment programs (58.1), and rates of suicide attempts were highest among women seen in psychiatric settings (53.6%). Somatoform disorders, eating disorders, and acute psychotic episodes have also been associated with both adult and childhood abuse.

DEPRESSION, INTIMATE PARTNER VIOLENCE, AND OTHER TRAUMA

Depression was one of the first mental health consequences of physical and/or sexual abuse to be identified in the research literature. Several factors seem to increase a woman's risk for depression, including perpetrator behavior and a history of multiple sexual victimizations. Women with histories of childhood sexual abuse and adult sexual assault show significantly higher rates of depression than do women in control groups, and these data have been extensively reviewed by Koss (111). Studies have found that the lifetime prevalence of major depressive disorder among women who have been sexual assaulted is at least twice that of women who have not, and may in fact be higher. One study of women seen in medical

settings found that those who had been raped were three times as likely to experience depression as women who had not (112). This study also found that age at first assault was of particular significance. Women who experienced multiple victimizations, and who were first assaulted during childhood, were twice as likely to experience depression as women whose first victimization occurred as an adult. In addition, depression associated with PTSD may represent a distinct phenomenon. The numbing and feelings of deadness associated with PTSD are among the most difficult symptoms to eliminate, even when intrusion and hyperarousal have improved (20).

Intimate partner violence also increases women's risk for depression. Prevalence rates for depression among women abused by an intimate partner range from 35.7% to 63% (95). In one study of a random sample of women who belonged to a health maintenance organization, women who had experienced recent partner violence were 2.3 times as likely to report any depressive symptoms and 2.6 times as likely to report severe depressive symptoms as women who had not experienced any partner violence (113). A recent study of mothers who stayed at an emergency shelter for battered women found that mothers' mean scores for depression were far above the norm for the measure, with 67% scoring above the cutoff for clinical diagnosis (114). A third study by Hegarty and colleagues (114) looked at the association between depression and partner abuse among 1,257 consecutive women seen in primary care settings (115). Multivariate analysis indicated that women who were depressed were significantly more likely to have experienced some form of partner abuse. The strongest associations were for women who had experienced severe combined abuse and/or physical and emotional abuse or harassment. Fogarty and colleagues (116) examined the synergistic effects of childhood abuse (physical and sexual) and IPV on depression in a random population sample. Using data from the National Violence Against Women Survey (NVAW) (1995), they found rates of self-reported depressive symptoms in 35.7% of women reported IPV alone, 34.9% of women reporting only childhood abuse, and 50.2% of women reporting both—rates that were twice as high as those of women not reporting either type of violence (116).

Several studies of depression and IPV have suggested that frequency and severity of violence (117–119), psychological abuse (120,121), concomitant

sexual violence (122) and lack of social support are associated with the severity of depressive symptoms, and may even be stronger predictors of depression than cultural and demographic factors or a prior history of mental illness (123,124). The study of maternal depression in an emergency shelter setting cited earlier also found higher rates of depression among women who reported more frequent sexual abuse by their partners (113).

For some women, symptoms of depression persist over time. One recent longitudinal, nationally representative study found that, among a community sample of married or cohabiting women, those who reported IPV were more likely to experience depressive symptoms 5 years later, suggesting that IPV places some women at greater risk for long-term mental health concerns (95). Bonomi and associates found that women with remote experiences of violence (experiences that occurred more than 5 years in the past) were more likely to report depressive symptoms than women who had never experienced partner violence. They also found that women with more recent experiences of violence reported more symptoms than women whose abuse experiences occurred in the past (125). In addition, experiencing ongoing abuse significantly affects the persistence of severe depressive symptoms (42). In a 14-year longitudinal study of the course of depression among adolescent mothers, findings indicated that women who had experienced IPV in both adolescence and adulthood had the highest mean depression scores (105). The authors suggest that exposure to IPV in adolescence may alter women's life trajectories, leading to both increased risk for adult IPV and for its mental health effects. For women who are able to leave the violent environment, however, symptoms are likely to decrease (126,127). In another study, the greatest reductions in rates of depression were found among women who had experienced physical/sexual and psychological abuse and for whom all three types of violence had ceased (128).

Although a handful of studies have looked at the distinct psychological effects of sexual assault in the context of IPV, research on post-rape depression may also be useful to examine. Although symptoms of anxiety predominate immediately after sexual assault, early signs of depression can be seen within a few hours. Women report sadness, apathy, and suicidal thoughts (112). Within a few weeks, moderate to severe depression may develop (43%–56%) and last up to 3 months according to some studies (129–132).

Other retrospective studies have found that post-rape depression may persist for many years (111,133). In their review of existing research, Koss and co-workers (2003) note that child sexual assault may have particularly long-lasting effects, and at least one study suggests that the impact of multiple victimizations may be cumulative (134,135).

Overall, depression appears to be a frequent consequence of IPV. Recency and severity of violence and cumulative burden of trauma, particularly sexual assault and childhood abuse, contribute to the development and severity of depression in this context. At the same time, cessation of exposure to IPV and social support are associated with a significant reduction in symptoms. However, with a few notable exceptions (136), most clinical depression studies do not factor in the role of current or past abuse, nor do current depression treatment guidelines include assessment or intervention for IPV.¹ Attention to the integration of these issues in future research and practice is warranted.

Co-occurrence of Depression and Posttraumatic Stress Disorder

More recent research on the mental health effects of IPV has begun to examine the relationship between depression and PTSD. Depression frequently co-occurs with PTSD and is increasingly viewed as a comorbid condition. Fifty percent of people who develop PTSD also develop major depressive disorder (MDD), and prior depression is associated with the development of PTSD following the experience of a traumatic event (137). Posttraumatic stress disorder has also been found to mediate the development of MDD in prospective studies of individuals following motor vehicle accidents and other non-IPV-related traumatic events, as well as among women who have been assaulted (138–142).

A number of studies have specifically examined the co-occurrence of PTSD and MDD among survivors of IPV, although the relationship between the two is not yet clear (143–145). For example, Pico-Alfonso and

¹ *Perinatal Depression: Prevalence, Screening Accuracy, and Screening Outcomes*, Structured Abstract. February 2005. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/clinic/tp/perideptp.htm>

colleagues report low rates of PTSD among women experiencing IPV, but high rates of depression, particularly among women who had experienced sexual violence (122). In this study, only a small percentage of women experienced only PTSD. Most experienced symptoms of depression alone or depression plus PTSD. In another study of immigrant Latinas seen in a primary care clinic, current IPV was predictive of PTSD, but not depression. Again, in this sample, rates of MDD were high, but rates were not significantly different between women who reported IPV and those who did not. Women who met criteria for PTSD were 10 times more likely to have MDD (146). Finally, Nixon and colleagues found that, in a sample of women residing in a battered women's shelter, PTSD and MDD frequently co-occurred. Women with comorbid PTSD and MDD experienced greater symptom severity than those with either condition alone (147).

In sum, for women experiencing IPV, both PTSD and depression are common, and depression is frequently comorbid with PTSD. This raises questions about how to best frame the range of symptoms associated with interpersonal trauma (e.g., PTSD plus comorbidities versus complex trauma) and reflects a more general shift toward viewing symptoms from a dimensional (along a continuum) rather than categorical perspective (148). Additional research is needed to determine how these factors affect survivors' experience and their ability to access safety, as well as to determine optimal approaches to treatment, particularly in the context of ongoing IPV.

POSTTRAUMATIC STRESS DISORDER AND INTIMATE PARTNER VIOLENCE

Today, the vast majority of studies on the mental health effects of violence and abuse focus on PTSD. Posttraumatic stress disorder was the first diagnosis to incorporate the role of external events in the etiology of mental health symptoms and was initially viewed as the most appropriate diagnosis for women experiencing the range of psychological sequelae associated with sexual assault, battering, and childhood sexual abuse (28,149).

Diagnostic criteria for PTSD include *exposure* to an extreme traumatic stressor (experiencing, witnessing, or learning about actual or threatened death, serious injury, or threats to the physical integrity of oneself

or others) AND *responding* with intense fear, helplessness, or horror (criterion A stressors), in addition to *symptoms* from each of three core categories. These categories include persistent: (a) *re-experiencing*: being flooded with dreams, memories, and flashbacks, and/or having intense physical and emotional responses to triggers (reminders) of the traumatic events; (b) *avoidance and numbing*: avoiding anything that reminds the individual of those experiences and/or feeling numb, shut down, or constricted emotionally; and (c) *symptoms of increased physiological arousal and hypervigilance* that affect sleep and concentration and cause irritability. Symptoms must persist for at least a month and cause significant distress and impairment. Survivors of IPV frequently experience additional layers of stress not captured by current diagnostic criteria for PTSD. In a review article on the association of chronic traumatization and PTSD in the context of IPV, Kaysen and colleagues propose the concept of "traumatic context" to account for common experiences of IPV survivors, such as the need to continually monitor for signs of danger, that do not reach the level of criterion A stressors, but nonetheless may contribute to PTSD symptoms (9).

To further complicate matters, a diagnosis of acute stress disorder (ASD) is used to describe symptoms that develop within the first month after exposure to a traumatic event and that last from 2 days to 4 weeks. Acute stress disorder symptoms overlap with those of PTSD but include a number of dissociative symptoms as well. Acute stress disorder is thought to be predictive of PTSD, but research on this question has been mixed. Some authors have argued that insufficient distinction exists between the two diagnoses, and that ASD really reflects early-onset PTSD (150,151). Although a number of studies have indicated that peritraumatic dissociation associated with ASD is one of the strongest predictors of PTSD, others have found that it is *persistent* rather than *peritraumatic* dissociation that is most predictive (152,153). These findings nonetheless have led to recommendations for early treatment interventions to prevent the development of chronic PTSD. Research on the applicability of these modalities in the presence of ongoing IPV, however, is virtually nonexistent. See Chapter 24 for a discussion of these issues.

Posttraumatic stress disorder affects twice as many women as men, resulting in lifetime prevalence rates of 10.4%–18.3% and 5.4%–10.2%, respectively (137,154–157). Gender differences appear to be

related to the type of traumatic exposure women experience (158). Overall, women experience somewhat lower rates of traumatic events than men; however, women are more likely to experience those kinds of interpersonal assaults that carry the highest risks for PTSD such as rape, childhood sexual abuse, and DV (154). Rape is the traumatic event most often associated with PTSD among women (155,159), whereas for men, PTSD is more likely to be associated with physical assault or combat, particularly when it is high-stress (160). Childhood sexual abuse is also a significant risk factor for PTSD, accounting for almost a quarter of adult cases of PTSD among women. Women are more likely than men to develop PTSD subsequent to childhood sexual abuse and to develop PTSD following the experience of a nonassaultive trauma, if they have experienced assault in the past (154,161).

Some controversy still exists regarding these gender differences. A number of studies have found that, even when controlling for type of violence, women are still more likely to develop PTSD (162,163). In studies of individuals who experienced a similar traumatic event, including car accidents, natural disasters, physical trauma, and the terrorist attacks of 9/11, women developed PTSD at twice the rate of men, although other studies have not found evidence of these differences (164–166). Proposed mechanisms for these gender differences include women's younger age at first trauma exposure, stronger perceptions of loss of control, higher levels of distress at the time of the event, differences in cognitive appraisal of traumatic experience, insufficient social support, peritraumatic dissociation, and gender-specific psychobiological reactions to traumatic events (167,168). Another study conducted in a primary care setting, found preexisting trauma and previous psychiatric conditions, as well as gender, to be predictors of PTSD (169). Critiques of these studies note that collapsing traumatic events into "assaultive" and "nonassaultive" categories obscures the type of assault (sexual versus physical) and the relational context (intimate, caretaker, stranger; perceived versus actual loss of power). They also point out that lack of detailed questions about sexual assault may have led to underreporting in these studies. The debate in this arena raises questions for survivors of IPV, as well. For example, to what extent do these increased risks reflect physiological differences between women and men, the effects of gender socialization on responses to trauma and/or psychological distress, or to the types of violence women are more likely to be subjected

to (146)? More importantly, what are the implications for intervention and prevention (i.e., early treatment to prevent the development of PTSD, attention to integrating information about safety and social support into evidence-based PTSD treatment, prevention efforts to reduce the exposure of women and girls to gender-based violence)?

Rates of PTSD among women survivors of IPV are estimated to be between 33% and 84% with a weighted mean prevalence across studies of 61% (44,45,170–173). In the National Violence Against Women Study (a random population telephone survey of 8,000 women), 24% of those who reported IPV in the past year met criteria for PTSD (143). In other samples of women who reported recent IPV, rates of PTSD varied between 11.8% and 38% (91,122,145,172). And, among women using shelter services, prevalence rates of PTSD have been estimated to be as high as 75% (174). Although cross-sectional studies provide a window into symptoms that are present at a time of crisis, several longitudinal studies have begun to look at the course of PTSD among survivors of IPV. Mertin and colleagues (2001) found that while 42% of women in shelter met criteria for PTSD, only 14% did so 1 year later (175). In a 2005 community-based study of adolescents and young adults who had experienced IPV, PTSD remitted in 52% of the sample, whereas 48% showed no significant reduction of symptoms. Not surprisingly, respondents who developed chronic PTSD were more likely to have experienced additional traumatic event(s) during the 4-year follow-up period and to have higher rates of avoidant symptoms at baseline (176). Differences in these studies may also reflect differences between survivors who received shelter interventions and a community-based sample that did not. Other studies have found that approximately one-third of those who develop PTSD go on to develop a chronic course. For example, a study comparing women who were currently being abused to women who had been separated from an abusive partner for at least 2 years found that, whereas 74% of currently abused women experienced mild, moderate, or severe PTSD symptoms, 44% of women who were no longer being abused experienced comparable PTSD symptoms (177). In addition, lower levels of perceived social support have been associated with significantly higher rates of PTSD and depressive symptoms in women currently experiencing IPV. At the same time, PTSD numbing symptoms related to ongoing abuse can reduce a woman's ability to

interact with others (40,178). Overall, it appears, as with depression, that social support and cessation of exposure to IPV are likely to contribute to improvement in PTSD for many women. For others, PTSD becomes chronic and requires more intensive treatment interventions, as well as linkages to community resources and support (179). Research is still needed that specifically examines which factors (including the natural course of PTSD) are most salient for particular women.

The sexual assault literature provides additional information on the course of PTSD that may also prove relevant to survivors of IPV, particularly if sexual violence is part of the picture. For example, immediately following sexual assault, up to 95% of women will develop symptoms of ASD (180,181). Distress seems to reach its peak at 3 weeks post-assault for victims of single-episode sexual assault in adulthood, and continue at this level for the next month (25,131,132,179). Although many symptoms may resolve after 3 months, residual fear, sexual difficulties, and problems with self-esteem can persist for 18 months or longer, and nearly 25% of survivors continue to be affected for several years (133,182–184). Other studies indicate that after 3 months, approximately one-half of adult sexual assault survivors will still meet criteria for PTSD, and many will continue to have PTSD for a year or longer (131,132,179,183,185). Post-rape recovery appears to be more difficult when assault occurs at an earlier age and when women experience greater fear of being injured or killed (182,186). Sexual assault by a known assailant appears to be as (187) or more devastating (188) than rape by a stranger, but women historically have been less likely to seek help or file police reports in this situation (189). The average time to PTSD remission ranges from 25 to 29 months (155, 159). In national studies, for 36%–42% of individuals, PTSD became a chronic condition (138,159,190). Posttraumatic stress disorder attributed to assaultive versus nonassaultive events is more likely to be chronic and last for almost three times as long. Further, women are more than twice as likely as men to develop chronic PTSD and to have PTSD symptoms for almost four times the duration (138).

From a more clinical perspective, women who have been assaulted develop responses similar to victims of other types of acute trauma: shock, confusion, horror, and helplessness, as well as dissociation, nightmares, flashbacks, numbing, avoidance, and hypervigilance (14,25). Flashbacks can be visual, auditory, olfactory, tactile, or somatic and may be triggered by

a range of stimuli—subsequent abuse, hearing about someone else being assaulted, media portrayals of violence, sensory stimuli associated with the original traumatic experience(s), invasive medical procedures, or anniversaries of the trauma. They can also be cognitive (paranoid or suicidal thoughts), affective (feeling terrified or enraged), behavioral (cringing or fleeing), or relational (clinical interactions triggering abuse-related dynamics) (191).

The PTSD framework makes sense of the fluctuations trauma survivors experience between being flooded and needing to both dampen those feelings and remain vigilant to potential new dangers. Posttraumatic stress disorder may present as an extension of ASD, or it may develop after a period of dormancy (delayed PTSD). It may resolve on its own or with treatment, or it may take on a chronic form. The relative intensity of PTSD symptoms may vary over time. Although flashbacks are more prominent initially, avoidant symptoms may predominate later in the course. This symptom progression may make trauma-engendered fears less accessible to change, and thus painfully constrict women's lives, particularly in the arenas of intimacy, sexuality, and the ability to move freely in the world. Avoidant PTSD responses may also prevent a woman from taking action on her own behalf, because the emotional costs might be too great (e.g., not pursuing legal action, not obtaining needed medical procedures). The hypervigilance associated with PTSD can also constrain a woman's sense of freedom and safety. It is these adaptations that appear to have the most profound and potentially harmful long-term effects (192).

For women who are still in danger, the stress is not “post,” the trauma is ongoing, and symptoms may be an adaptive response to danger. The development of PTSD, however, can make it more difficult to mobilize resources, putting women at even greater risk for being isolated and controlled by an abusive partner. In addition, many women continue to be traumatized after they have left an abusive relationship—through stalking, prolonged divorce or custody hearings, visitation, and retraumatization by the legal or other systems.

Association of Posttraumatic Stress Disorder with Particular Forms of Intimate Partner Violence

Posttraumatic stress disorder among survivors of intimate partner abuse has been correlated with the severity

of the abuse, a history of repeated abuse (148) and/or childhood victimization (45), the presence of sexual assault (143,193–196), degree of psychological abuse, and stalking (121,197–199). The more types of intimate partner abuse (physical, psychological, or sexual) a survivor experiences, the greater her risk for developing PTSD (91,122,136,170).

Sexual and psychological abuse both appear to contribute independently to the development of PTSD. Psychological abuse is what women who are being abused often describe as the most emotionally debilitating aspect of their experiences.² This may relate both to the psychological wounds abusers inflict and survivors carry, and to the chronic stress of having to continually monitor for signs of danger (193). Specific components of psychological abuse, such as behaviors designed to induce feelings of shame or guilt, may also contribute to these responses (200). It is not just a batterer's words or acts, but also the intentions, perceptions, and feelings that are communicated by the abuser and experienced by the person being victimized that carry such long-term effects (192,201).

A number of studies have indicated that psychological abuse is as or more predictive of low self-esteem, depression, and PTSD than physical abuse and, at least in some couples, predicts future physical and/or sexual violence (121,122,197,198,202,203). In one study, psychological abuse was found to be the best predictor (37) of PTSD in abused women, although psychological abuse in conjunction with physical abuse carried a higher risk than psychological abuse alone (121). A second study by this author found no difference between the effects of psychological abuse versus psychological/physical abuse on the development of PTSD, although in this sample, PTSD rarely occurred alone (it was more likely to co-occur with depression) (122). In another study of women whose partners were in batterer treatment, certain types of psychological abuse predicted PTSD above that associated with physical violence

(what the authors referred to as “denigration and restrictive engulfment”), although the authors speculated this might have been an artifact of other categories (e.g., psychological dominance and intimidation) not being statistically distinguishable from the actual physical abuse participants experienced.

Basile, using data from the National Violence Against Women (NVAW) survey, found that in their multivariate analysis, physical and psychological violence were related to PTSD risk (sexual violence was associated in the bivariate analysis) (196). The authors speculated that this may have been an artifact of the small sample of women who reported sexual violence in their current relationship. McFarlane, on the other hand, reported a greater number of PTSD symptoms among women who had been sexually assaulted in the context of IPV (155,159,204). The likelihood of having more than four symptoms (the proxy for a PTSD diagnosis) in this context was only higher among the White women in their sample. However, adult victims of sexual assault (particularly completed rape) represent the largest single group of trauma victims affected by PTSD, a finding confirmed in the national comorbidity study and the 1996 Detroit Area Survey of Trauma (188). In a recent study by Temple and colleagues, PTSD risk was further increased if the perpetrator was a woman's partner rather than a stranger (195). Overall, this research suggests that all forms of IPV appear to place women at risk for PTSD, and the more types of IPV experienced, the greater the risk (78,155,205,206). Psychological abuse and sexual violence appear to carry independent risks.

Although questions remain about the role of specific types of intimate partner abuse in the development of PTSD, existing data suggest that the number and type of traumatic events, in general, does affect an individual's risk for developing PTSD. Epidemiologic studies examining *single-event trauma* found that episodic assaultive traumatic events including rape, sexual assault, physical assault, or being robbed, mugged, shot, or stabbed were associated with higher rates of PTSD than nonassaultive events (78,155,159,205,206). In addition, experiencing *multiple* traumatic events places women at even greater risk for developing PTSD, particularly if the trauma is ongoing (e.g., IPV and childhood abuse) (78,177,193,207–211).

Longitudinal and cross-sectional studies of chronic and often escalating trauma, including IPV and childhood physical or sexual abuse, have shown that

² Psychological abuse often takes the form of verbal intimidation and threats, ridicule and humiliation, destruction of property, threats to significant others, stalking and monitoring a woman's activities, and controlling her access to money, personal items, and contact with friends, family, and children. Accusations about sexual infidelity can be particularly humiliating. Emotional withdrawal, threats of abandonment, and threats to harm or take away the children are also used as tactics of control.

duration and severity of abuse also increase PTSD risk (155,159,176). The experience of trauma at a young age is a well-acknowledged risk factor for the development of PTSD in adulthood (212). In a study of over 3,000 women, a 23-fold increase in adult PTSD was reported among those who had experienced all three forms of child abuse—physical, sexual, and psychological (45,167,213,214). Similarly, women who experience IPV are more likely to have histories of childhood abuse, thus increasing the risk for PTSD in this group (205, 215–218). Mental illness and conditions associated with severe childhood abuse (dissociative spectrum disorders, complex trauma/DESNOS, substance use disorders) contribute to these risks, as well.

Posttraumatic Stress Disorder and Comorbid Conditions

Posttraumatic stress disorder is associated with increased rates of psychiatric and medical comorbidity, service use, and disability as well as greater healthcare costs, more so for women than for men (155,159,219). Over 80% of people with PTSD develop at least one additional psychiatric disorder, most commonly major depression (as discussed earlier), as well as generalized anxiety disorder, panic disorder, and alcohol/substance abuse and dependence (155,159). Alcohol and other substance use are also often comorbid with PTSD (155,220–222). Posttraumatic stress disorder symptoms appear to precede the use of drugs and alcohol among women but not among men, suggesting their use as self-medication for women (223–226). Women in violent relationships also report increased problem drinking and substance abuse, yet the temporal relationship to IPV or PTSD symptoms has not been well described (227). In one study of women on methadone, use of cocaine increased their risk for IPV at 6-month follow-up (226). In another sample of women who had experienced partner violence, problem drinking was related to revictimization (228). Alcohol use was related to higher rates of depression among African-American women in violent relationships; however, no relation to PTSD symptoms was investigated (229). Although use of substances may increase women's risk for IPV, coercion by an abusive partner may also increase women's risk for drug and alcohol use. The occurrence of PTSD, depression, and other comorbid conditions has important implications for prevention and treatment. These considerations are discussed at greater length in another chapter in this text.

Posttraumatic Stress Disorder and Suicide

Women in violent relationships are at increased risk for suicide, and this risk is compounded by the presence of PTSD (230). Over 90% of women hospitalized following a suicide attempt reported current severe IPV (91,145). In community samples, 23% of women experiencing IPV reported a past suicide attempt versus 3% without a history of IPV, and 36.8% of IPV survivors seriously considered suicide (122). In another study, suicidal thoughts and attempts were higher among IPV survivors experiencing both psychological and physical abuse than among women who experienced psychological abuse alone. This relationship was thought to be related in part to the presence of PTSD and depression (231). Further, comorbid PTSD and depression appears to confer a higher risk than either disorder alone (91,232–235). In fact, the prevalence of suicidal ideation and suicide attempts is significantly higher among women who are battered by their partners (196,236), women who are victims of marital rape and/or sexual assault (77,237–239), and women who have been sexually abused as children (108). A study by Kaslow reported that African-American women who attempted suicide were 2.5 times more likely to have experienced physical abuse and 2.8 times more likely to have experienced emotional abuse by an intimate partner than demographically similar women who had not been abused (240). In addition, according to a 2003 Washington State Fatality Review, 13% of women who committed suicide had a court-documented history of domestic abuse (241). Other states are reporting similar IPV fatality review findings (242).

THE NEUROBIOLOGY OF TRAUMA

Advances in research on the neurobiology of trauma have led to greater understanding of the links between biology, behavior, and psychological distress. Initial research in this area focused on PTSD among Vietnam veterans in Veterans Administration (VA) hospitals. As van der Kolk has described, people with PTSD develop “profound and persistent alterations in physiologic reactivity and stress hormone secretion, making it difficult to properly evaluate sensory stimuli and respond with appropriate levels of physiologic and neurohormonal arousal” (243).

A number of psychophysiological models have been posited to explain PTSD. These include noradrenergic dysregulation (increased sensitivity and reactivity of the sympathetic nervous system under stress), disturbances of serotonergic activity (stress resilience, sleep regulation, impulse control, conditioned avoidance, and aggression and mood), and kindling (lowering of the excitability threshold after repeated electrical stimulation).

After traumatic exposure, limbic nuclei (areas of the brain responsible for regulating emotions and fear) become sensitized, leading to excessive responsivity and increased startle and arousal responses—core features of PTSD that often persist after other symptoms resolve. Activation of the amygdala is postulated to mediate the autonomic stimulation that results from exposure to trauma, transforming sensory input into physiologic signals that, in turn, produce and modulate emotional responses. Neuroimaging studies suggest that alterations to the hippocampus, amygdala, anterior cingulate, and medial prefrontal cortex directly correlate with symptoms of PTSD (244). More specifically, emotional dysregulation is associated with reduced cortical inhibition of limbic circuitry and imbalances in γ -aminobutyric acid (GABA)-aminergic and glutamergic transmission. Some authors postulate that PTSD may best be viewed as a failure to regain physiological homeostasis after a normal response to trauma (245).

In animal models, stress reduces brain plasticity, flexibility, and new learning by increasing activity in the amygdala (increasing dendritic branching or arborization), reducing hippocampal neurogenesis, and decreasing levels of brain-derived neurotrophic factor (BDNF), a substance critical to buffering against stress and adapting to change (9,246,247). Other studies have found that PTSD treatment can counter these effects (248).

In addition, people with PTSD may exhibit alteration in basal levels of the key stress hormones (including cortisol), as well as enhanced reactivity and negative feedback inhibition of the hypothalamic-pituitary-adrenal axis (HPA)—a pattern that appears to be distinct from that found in depression and from acute and chronic stress among individuals who do not have PTSD (9). Adaptations to chronic stress result in reduced resting glucocorticoid levels, decreased secretion in response to subsequent stress, and increased concentration of glucocorticoid receptors in the hippocampus (9).

Reduced levels of basal cortisol were a consistent finding in samples of combat males with PTSD (249). However, when women—and specifically abused women—were studied, this pattern was not replicated. One small study specifically conducted with DV survivors (chronic nature, frequent comorbidity with depression) found similar results: negative feedback inhibition of the HPA axis occurred among survivors who had PTSD alone, and less cortisol suppression occurred among those who had both depression and PTSD (250,251). In several other studies of IPV survivors, IPV was associated with lower cortisol levels but not to PTSD symptoms, suggesting that HPA axis alterations were a consequence of abuse and not PTSD (100,252). In contrast, two additional studies reported that PTSD symptoms were related to cortisol in abused women. Research also indicates that HPA axis hyperreactivity among women exposed to early childhood abuse causes increased adrenocorticotrophic hormone (ACTH) and cortisol responses to stress. These changes in corticotropin releasing factor (CRF) may predispose women to the development of subsequent mood and anxiety disorders (242).

Several studies examined neurological differences among adults who were abused as children, and found that such abuse affects the development of the limbic system and cerebral cortex, particularly the left hemisphere (253), as well as connecting structures such as the corpus callosum, which is utilized to process, interpret, and integrate sensory data (2,254). Early life stress can affect brain development in ways that increase one's vulnerability to developing PTSD as an adult. Postulated mechanisms include accelerated loss of neurons (255), delays in myelination (2), abnormalities in pruning of neurons (201), or reduced levels of brain growth factors including BDNF (4). Functional magnetic resonance imaging (fMRI) studies have utilized a variety of symptom-provocation techniques (e.g., script-driven trauma imagery) to examine differences in responses between subjects with PTSD and controls (256,257). Bremner and colleagues used this technology to examine functional alterations in brain activity among women with histories of childhood sexual abuse, reporting decreased activity in the hippocampus and anterior cingulate cortex and increased activity in the dorsal lateral prefrontal cortex, posterior cingulate, and amygdala, following recall of a traumatic event (9). In another set of studies, Lanius and colleagues examined two different subtypes of

trauma response—one primarily characterized by hyperarousal and the other by dissociation. Their findings supported the concept of PTSD as a disorder of affect regulation. People who experience intrusive reexperiencing and hyperarousal activate different neural circuitry than those who experience more numbing and dissociation. One involves the reduced cortical inhibitory control over limbic fear circuitry discussed earlier. The other involves enhanced suppression of fear/arousal responses (increased cortical and reduced limbic activation compared to controls). The authors postulate that survival in the context of ongoing abuse may involve either mechanism—hypervigilance to signs of danger versus psychic numbing when other options are not available (4).

Hippocampal volume has also been reported to be reduced in women who have experienced severe childhood sexual abuse (258). These findings are similar to those of combat veterans with PTSD. Although initially thought to be a consequence of trauma (stress-induced cortisol production causing neurotoxicity), additional research has led to the view of reduced hippocampal volume as a potential risk factor for the development of psychiatric complications following exposure (242). Interestingly, the authors found no differences in memory testing between abused and nonabused groups. They speculate that these data may be better conceptualized as a dysfunction within the systems that monitor and regulate access to memory in emotionally charged contexts, potentially interfering with the processing of new stimuli (259). A study specifically focused on adult survivors of IPV found no differences in hippocampal volume from controls. Other differences were correlated with severity of childhood physical abuse, not current IPV or PTSD (260). In addition, subjects with PTSD exposed to scripts of their traumatic experiences show decreased activity in the speech areas of the left hemisphere (Broca's) necessary for the cognitive labeling and sequencing of experience. This may explain the difficulty some trauma survivors have in processing the initial trauma and subsequent triggering events, and in describing their experiences in a coherent narrative form (261). Reductions in verbal declarative memory but not differences in IQ have been found among survivors of childhood sexual abuse with PTSD as compared to childhood sexual abuse survivors without PTSD and women who had not experienced abuse (8,32,262).

COMPLEX POSTTRAUMATIC STRESS DISORDER OR DISORDERS OF EXTREME STRESS NOT OTHERWISE SPECIFIED

Although the PTSD diagnosis captures many of the psychophysiological responses to adult single-event assault, important dimensions of the impact of ongoing abuse and violence are not addressed by this diagnostic construct. The frequency of comorbidity associated with PTSD, in fact, has led to notion that “comorbidity” is a misnomer, masking a more complex form of PTSD that can develop when people have been abused over long periods of time—one that includes both axis I and axis II sequelae of abuse (8,32,235,262,263). Childhood abuse and entrapment in an abusive partner relationship are qualitatively different from many other types of trauma. As a number of authors describe, these acts are premeditated, ongoing, and most often perpetrated by someone whom the victim is attached to and dependent upon (192). There is often denial and distortion on the part of abuser, and the victim is coerced or threatened to maintain secrecy (8). When abuse occurs during childhood, it has the potential to disrupt neurobiological and social development. *Complex posttraumatic stress disorder* or DESNOS is not officially listed as a diagnosis in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR), although it is contained in the International Classifications of Disease (ICD). The symptoms that comprise DESNOS are listed as associated features of PTSD. DSM-IV field trials indicate that this construct is internally consistent and reliable and distinguishes early- from later-onset trauma (8,14,202,264). Women who are severely abused by a partner may also experience more complex posttraumatic responses, particularly if they were abused in childhood as well. For a more detailed discussion of complex trauma in relation to IPV, see the Chapter 24.

DEVELOPING A MORE COMPLEX TRAUMA FRAMEWORK

The developmental impact of prolonged exposure to abuse by a caretaker, or the effect of intimate partner abuse on a woman's sense of herself, go far beyond what are described by current psychiatric nosology—even by diagnoses that specifically address

traumatic events. The effects of abuse in childhood and/or adulthood can affect women's experiences of themselves and others throughout their lives. As noted earlier, many women who have been victimized do not develop psychiatric disorders, but few are unaffected by those experiences. *Trauma theory* provides a framework for understanding symptoms as psychophysiological survival strategies used to adapt to potentially life-shattering situations. It also allows for a more balanced approach to treatment—one that focuses on resilience and strength, as well as on psychological harm (8). For example, trauma theory has reframed borderline symptomatology adaptations to early trauma. Without a trauma framework, it is difficult to make therapeutic sense of the feelings and behaviors that can make life so stormy for survivors of severe abuse. Children who are abused or neglected and who don't have other forms of support are more likely to develop neurophysiological changes than children who are not—changes that can affect their subsequent emotional and physical functioning, including difficulty in recognizing, regulating, and integrating emotions and allowing themselves to be comforted by others (i.e., being able to use relationships appropriately to help them manage internal states), particularly when trust has repeatedly been betrayed (11,265).

Work with survivors of IPV has led to somewhat similar perspectives on viewing symptoms as both adaptations and survival strategies. For example, many women initially attempt to remedy their situations themselves, by talking, seeking help, fighting back, trying to change the conditions either that they perceive or are told cause the abuse. When those attempts fail, they may retreat into a mode that appears more passive and “compliant,” but which may actually reflect how they have learned to reduce their immediate danger. When those tactics no longer work, they may learn to dissociate from feelings that have become unbearable, perceiving that even if they can't change what is happening outside of them—or face increasing danger or death if they try to leave—they can at least try to change their own responses and “leave the situation” emotionally. For some women, substance abuse becomes another way of either “coping” or “leaving.” For those who become increasingly isolated from outside resources, suicide, or very rarely homicide, may seem like the only way to end the abuse (30).

Even a trauma framework, however, defines an overwhelming response to “minor” stimuli as part of a disorder. Viewing this heightened sensitivity as

pathological rather than as a reflection of acute social awareness runs the risk of discounting the experiences that allow a survivor to recognize the kinds of behaviors and attitudes that are potentially dangerous before they reach more serious levels. The risk of purely clinical models is in defining the problem as being “in the patient,” who then becomes the focus of intervention, particularly when this occurs at the expense of attending to issues such as immediate safety and support or to broader system and societal change.

CONCLUSION: MENTAL HEALTH APPROACHES TO INTIMATE PARTNER VIOLENCE—COMBINING TRAUMA AND ADVOCACY PERSPECTIVES

Trauma theory has evolved in ways that now make it a more useful framework for understanding the impact of chronic abuse, including IPV. Although trauma models are not a substitute for advocacy-based approaches that help survivors achieve freedom and safety and work to end IPV, trauma theory can enhance clinical work by increasing understanding of the psychological consequences of abuse and how trauma affects both IPV survivors (and their children) and the clinicians and systems that serve them. Trauma theory provides a framework for understanding the mental health effects of abuse and violence in a way that normalizes human responses to trauma and recognizes the role of external events in the generation of mental health symptoms.

Not only does a trauma framework help destigmatize vulnerability that stems from responses to earlier trauma, it also provides a more nuanced developmental understanding of how individuals come to be who and where they are in their lives that reflects the complex interplay of neurobiology, relationships, environment/social conditions, and experience. A trauma model also fits with peer support recovery approaches (i.e., if the harm occurs in a relationship, then healing often takes place through relationships as well; people can develop new skills to address the capacities that were disrupted or derailed). Both trauma models and advocacy perspectives recognize the resilience and strength of survivors in dealing with both individual abuse and social disenfranchisement.

Trauma models also offer guidance on creating services that are sensitive to the experiences of

survivors of chronic abuse and that incorporate an understanding of how those experiences can affect one's ability to regulate emotions, process information, and attend to one's surroundings. They provide tools for responding skillfully and empathically to individuals for whom trust is a critical issue, without having one's own reactions interfere. Trauma-informed service environments offer emotional as well as physical safety and are consistent with DV advocacy and mental health peer support models in their focus on empowerment, collaboration, and choice. They are also designed to ensure that services themselves do not retraumatize survivors and that they provide strategies to attend to the impact on clinicians.

Adapting trauma theory to create more comprehensive and attuned practice environments and treatment models holds promise for creating services that are more responsive to survivors' experiences and needs. Although existing trauma models need to be adapted and reframed to address the particular issues faced by survivors of IPV, ongoing exploration is necessary to address the applicability of these models for a diverse range of communities and to develop alternate models for healing that may be more community-based. Whether it is partnering with IPV programs in ways that enhance their ability to respond to trauma-related mental health issues, or ensuring that survivors are able to access culturally relevant, trauma-specific mental health care, issues of philosophy, resources, training, and collaboration are vitally important.

IMPLICATIONS FOR POLICY, PRACTICE, AND RESEARCH

Policy

- Policies need to be developed and implemented within the private and publicly funded mental health systems that incorporate attention to ongoing IPV and other lifetime trauma, including routine assessment, attending to physical and emotional safety, and supporting the use of treatment models that are culture, trauma, and IPV-informed.

- Policy initiatives on peripartum depression should include assessment and intervention for current and past abuse.
- State and federal policies should address the needs of people living with mental illness who may be at greater risk for experiencing violence and abuse.

Practice

- Standards of mental health training and practice should incorporate an understanding of the role of abuse and violence in the development of psychiatric symptoms and disorders, as well as the ways abusers use mental health issues to control and undermine their partners.
- Attention to the specific issues faced by survivors of ongoing IPV should be incorporated into professional mental health training and practice, including initiatives to create trauma-informed services.
- Treatment for the mental health effects of IPV should incorporate recognition of the complexities of survivors' lives and the need to develop flexible, multimodal approaches to addressing trauma in the context of ongoing IPV.

Research

- Researchers examining the mental health effects of IPV should incorporate an understanding of IPV as a social condition with a range of mental health effects, and should be cognizant of the ways decontextualized approaches can promote stigma and reinforce the ability of abusers and public systems to use mental health issues against survivors of IPV.
- A need exists to develop and utilize standardized measures that better reflect survivors' experience and that are both culturally relevant and culturally normed, taking care to contextualize findings, to not overgeneralize from women in crisis, and to examine the range of survivors' responses, not just the mean. In designing research, potential consequences to survivors should always be kept in mind.
- Research on mental health and IPV should begin to integrate newer findings from the fields of child development and neuroscience in ways that help destigmatize the psychophysiological consequences of abuse

and violence and promote both safety and recovery.

- Research is needed to examine the interactions between ongoing abuse and a range of mental health effects and their implications for both treatment and advocacy interventions. This should include survivors of IPV who are also experiencing other coexisting psychiatric conditions and chronic mental illness.
- Research should also be designed to examine the range of factors that affect survivors' experience and their ability to access safety, as well as to determine optimal approaches to treatment, particularly in the context of ongoing IPV.

References

1. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med.* 1998;14(4):245–258.
2. De Bellis MD, Van Dillen T. Childhood post-traumatic stress disorder: An overview. *Child Adolesc Psychiatr Clin N Am.* 2005;14(4):745–772, ix.
3. Classen CC, Pain C, Field NP, Woods P. Post-traumatic personality disorder: A reformulation of complex posttraumatic stress disorder and borderline personality disorder. *Psychiatr Clin North Am.* 2006;29(1):87–112, viii-ix.
4. Lanius RA, Bluhm R, Lanius U, Pain C. A review of neuroimaging studies in PTSD: Heterogeneity of response to symptom provocation. *J Psychiatr Res.* 2006;40(8):709–729.
5. Lyons-Ruth K, Dutra L, Schuder MR, Bianchi I. From infant attachment disorganization to adult dissociation: Relational adaptations or traumatic experiences? *Psychiatr Clin North Am.* 2006; 29(1):63–86, viii.
6. McEwen BS. Protective and damaging effects of stress mediators: Central role of the brain. *Dialogues Clin Neurosci.* 2006;8(4):367–381.
7. Nemeroff CB. Neurobiological consequences of childhood trauma. *J Clin Psychiatry.* 2004;65 (Suppl 1):18–28.
8. van der Kolk BA, Roth S, Pelcovitz D, et al. Disorders of extreme stress: The empirical foundation of a complex adaptation to trauma. *J Trauma Stress.* 2005;18(5):389–399.
9. Yehuda R. Advances in understanding neuroendocrine alterations in PTSD and their therapeutic implications. *Ann N Y Acad Sci.* 2006; 1071: 137–166.
10. Warshaw C, Gugenheim AM, Moroney G, Barnes H. Fragmented services, unmet needs: Building collaboration between the mental health and domestic violence communities. *Health Aff (Millwood).* 2003;22(5):230–234.
11. Warshaw C, Pease T, Markham DW, et al. *Access to advocacy: Serving women with psychiatric disabilities in domestic violence settings.* Chicago: Domestic Violence & Mental Health Policy Initiative, 2007.
12. Warshaw C, Moroney G, Barnes H. *Report on mental health issues and service needs in Chicago-area domestic violence programs.* Chicago: Domestic Violence & Mental Health Policy Initiative, 2003.
13. Brown LS. Not outside the range: One feminist perspective on psychic trauma. In: Caruth C, ed. *Trauma: Explorations in memory.* Baltimore: Johns Hopkins University Press;1995:100–112.
14. Herman JL. *Trauma and recovery: The aftermath of violence: Domestic abuse to political terror.* New York: Basic Books, 1992.
15. Anda RF, Felitti VJ, Bremner JD, et al. The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. *Eur Arch Psychiatry Clin Neurosci.* 2006;256(3):174–186.
16. Putnam FW. Dissociative phenomena. In: Tasman A, Goldfinger S, eds. *Review of psychiatry*, Vol. 10. Washington, DC: American Psychiatric Association Press, 1991:145–160.
17. Schore AN. Dysregulation of the right brain: A fundamental mechanism of traumatic attachment and the psychopathogenesis of posttraumatic stress disorder. *Aust N Z J Psychiatry.* 2002;36(1):9–30.
18. Shonkoff J, Phillips D. *From neurons to neighborhoods: The science of early childhood development.* Washington, DC: National Academies Press, 1997.
19. Teicher MH, Andersen SL, Polcari A, et al. Developmental neurobiology of childhood stress and trauma. *Psychiatr Clin North Am.* 2002;25(2): 397–426, vii-viii.
20. van der Kolk B, McFarlane A, Weisaeth C, eds. *Traumatic stress: The effects of overwhelming experience on mind, body, and society.* New York: Guilford, 1996.
21. Bloom S. *Creating sanctuary: Toward an evolution of sane societies.* New York: Routledge, 1997.
22. Horowitz MJ. *Stress response syndromes*, 2nd ed. Northvale, NJ: Jason Aronson, 1986.
23. Burgess AW, Holmstrom LL. Rape trauma syndrome. *Am J Psychiatry.* 1974;131(9):981–986.
24. Walker LE. *The battered woman syndrome.* New York: Springer, 1984.
25. Crowell NA, Burgess AW. Prevention and intervention. In: Crowell NA, Burgess AW, eds. *Understanding violence against women.* Washington, DC: National Academy Press;1996:93–141.
26. Garcia-Moreno C. *WHO multi-country study on women's health and domestic violence against women: Initial results on prevalence, health outcomes, and women's responses.* Geneva: World Health Organization, 2005.

27. Heise LL, Pitanguy J, Germain A. *Violence against women: The hidden burden*. Washington, DC: The World Bank;1994:255.
28. Koss MP, Goodman LA, Browne L, et al. *No safe haven: Male violence against women at home, at work, and in the community*. Washington, DC: American Psychological Association, 1994.
29. Mowbray CT, Oyserman D, Saunders D, Rueda-Riedle A. Women with severe mental disorders: Issues and service needs. In: Levin BL, Blanch AK, Jennings A, eds. *Women's mental health services: A public health perspective*. Thousand Oaks, CA: Sage;1998:175–200.
30. Harris M, Fallot RD, eds. *Using trauma theory to design service systems*. San Francisco: Jossey-Bass, 2001.
31. Herman JL. Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *J Trauma Stress*. 1992;5:377–391.
32. Roth S, Newman E, Pelcovitz D, et al. Complex PTSD in victims exposed to sexual and physical abuse: Results from the DSM-IV Field Trial for Posttraumatic Stress Disorder. *J Trauma Stress*. 1997;10(4):539–555.
33. Weaver IC, La Plante P, Weaver S, et al. Early environmental regulation of hippocampal glucocorticoid receptor gene expression: Characterization of intracellular mediators and potential genomic target sites. *Mol Cell Endocrinol*. 2001;185(1–2):205–218.
34. Lang AJ, Stein MB, Kennedy CM, Foy DW. Adult psychopathology and intimate partner violence among survivors of childhood maltreatment. *J Interpers Violence*. 2004;19(10):1102–1118.
35. Stermac L, Reist D, Addison M, Miller G. Childhood risk factors for women's sexual revictimization. *J Interpers Violence*. 2002;17(6):647–670.
36. Wenzel SL, Tucker JS, Elliott MN, et al. Physical violence against impoverished women: A longitudinal analysis of risk and protective factors. *Womens Health Issues*. 2004;14(5):144–154.
37. Bensley L, Van Eenwyk J, Wynkoop Simmons K. Childhood family violence history and women's risk for intimate partner violence and poor health. *Am J Prev Med*. 2003;25(1):38–44.
38. Classen CC, Palesh OG, Aggarwal R. Sexual revictimization: A review of the empirical literature. *Trauma Violence Abuse*. 2005;6(2):103–129.
39. Cloitre M, Tardiff K, Marzuk PM, et al. Childhood abuse and subsequent sexual assault among female inpatients. *J Trauma Stress*. 1996;9(3):473–482.
40. Coker AL, Watkins KW, Smith PH, Brandt HM. Social support reduces the impact of partner violence on health: Application of structural equation models. *Prev Med*. 2003;37(3):259–267.
41. Desai S, Arias I, Thompson MP, Basile KC. Childhood victimization and subsequent adult revictimization assessed in a nationally representative sample of women and men. *Violence Vict*. 2002;17(6):639–653.
42. Lindhorst T, Oxford M. The long-term effects of intimate partner violence on adolescent mothers' depressive symptoms. *Soc Sci Med*. 2008;66(6):1322–1333.
43. Kimerling R, Alvarez J, Pavao J, et al. Epidemiology and consequences of women's revictimization. *Womens Health Issues*. 2007;17(2):101–106.
44. Golding JM. Unpublished manuscript. Chicago: Domestic Violence and Mental Health Policy Initiative, 2000.
45. Astin MC, Ogland-Hand SM, Coleman EM, Foy DS. Posttraumatic stress disorder and childhood abuse in battered women: Comparisons with maritally distressed women. *J Consult Clin Psychol*. 1995;63(2):308–312.
46. Briere J, Runtz M. Symptomatology associated with childhood sexual victimization in a nonclinical adult sample. *Child Abuse Negl*. 1988;12(1):51–59.
47. Bryer JB, Nelson BA, Miller JB, Krol PA. Childhood sexual and physical abuse as factors in adult psychiatric illness. *Am J Psychiatry*. 1987;144(11):1426–1430.
48. Burstow B. Toward a radical understanding of trauma and trauma work. *Violence Against Women*. 2003;9(11):1293–1317.
49. Danieli Y, ed. *International handbook of multi-generational legacies of trauma*. New York: Plenum Press, 1998.
50. Duran B, Duran E, Yellow-Horse Braveheart M. Native Americans and the trauma of history. In: Thornton R, ed. *Studying Native America: Problems and prospects in Native American Studies*. Madison: University of Wisconsin Press, 1998.
51. Epstein JN, Saunders BE, Kilpatrick DG. Predicting PTSD in women with a history of childhood rape. *J Trauma Stress*. 1997;10(4):573–588.
52. Langeland W, Hartgers C. Child sexual and physical abuse and alcoholism: A review. *J Stud Alcohol*. 1998;59(3):336–348.
53. Wilsnack SC, Vogeltanz ND, Klassen AD, Harris TR. Childhood sexual abuse and women's substance abuse: national survey findings. *J Stud Alcohol*. 1997;58(3):264–271.
54. Bassuk EL, Buckner JC, Weinreb LF, et al. Homelessness in female-headed families: Childhood and adult risk and protective factors. *Am J Public Health*. 1997;87(2):241–248.
55. Browne A. Family violence and homelessness: The relevance of trauma histories in the lives of homeless women. *Am J Orthopsychiatry*. 1993;63(3):370–384.
56. Allard MA, Albelda R, Colten ME, Costenza C. *In harm's way? Domestic violence, AFDC receipt, and welfare reform in Massachusetts*. Boston: University of Massachusetts, McCormack Institute, 1997.
57. Lloyd S. *The effects of violence on women's employment*. Chicago: Joint Center for Poverty Research, 1996.
58. Raphael J. *Domestic violence: Telling the untold welfare-to-work story*. Chicago, IL: Taylor Institute, 1995.

59. Tjaden P, Thoennes N. Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the National Violence Against Women Survey. *Violence Against Women*. 2000;6(2):142–161.
60. Brown LS, Root MP, eds. *Diversity and complexity in feminist therapy*. New York: Haworth, 1990.
61. Espin OM, Gawelek MA. Women's diversity: Ethnicity, race, class, and gender in theories of feminist psychology. In: Ballou M, Brown LS, eds. *Personality and psychopathology: Feminist reappraisals*. New York: Guilford;1992:88–107.
62. Greene B. African American women. In: Comas-Diaz L, Greene B, eds. *Women of color: Integrating ethnic and gender identities in psychotherapy*. New York: Guilford;1994:10–29.
63. Krieger N. Inequality, diversity, and health: Thoughts on "race/ethnicity" and "gender." *J Am Med Womens Assoc*. 1996;51(4):133–136.
64. Root MP. Women of color and traumatic stress in "domestic captivity": Gender and race as disempowering statuses. In: Marella A, Friedman M, Gerity E, Scuffled R, eds. *Ethnocultural aspects of posttraumatic stress disorder: Issues, research and clinical applications*. Washington, DC: American Psychological Association, 1996.
65. Weskott M. *The feminist legacy of Karen Horney*. New Haven: Yale University Press, 1986.
66. Ruzek SB, Olesen VL, Clarke A, eds. *Women's health: Complexities and differences*. Columbus: Ohio State University Press, 1997.
67. Warshaw C. Women and violence. In: Stotland NL, Stewart DE, eds. *Psychological aspects of women's health care: The interface between psychiatry and obstetrics and gynecology*, 2nd ed. Washington, DC: American Psychiatric Press;2001: 477–548.
68. Briere J, Woo R, McRae B, et al. Lifetime victimization history, demographics, and clinical status in female psychiatric emergency room patients. *J Nerv Ment Dis*. 1997;185(2):95–101.
69. Goodman LA, Dutton MA, Harris M. The relationship between violence dimensions and symptom severity among homeless, mentally ill women. *J Trauma Stress*. 1997;10(1):51–70.
70. Goodman LA, Salyers MP, Mueser KT, et al. Recent victimization in women and men with severe mental illness: Prevalence and correlates. *J Trauma Stress*. 2001;14(4):615–632.
71. Caton CL, Shrout PE, Dominguez B, et al. Risk factors for homelessness among women with schizophrenia. *Am J Public Health*. 1995;85 (8 Pt 1):1153–1156.
72. Shinn M, Weitzman BC, Stojanovic D, et al. Predictors of homelessness among families in New York City: From shelter request to housing stability. *Am J Public Health*. 1998;88(11):1651–1657.
73. Alexander MJ, Muenzenmaier K. Trauma, addiction, and recovery: Addressing public health epidemics among women with severe mental illness. In: Levin BL, Blanch AK, Jennings A, eds. *Women's mental health services: A public health perspective*. Thousand Oaks, CA: Sage;1998:215–239.
74. Carmen EH. Inner-city community mental health: The interplay of abuse and race in chronic mentally ill women. In: Willie CV, Rieker PP, Kramer BM, eds. *Mental health, racism and sexism*. Pittsburgh, PA: University of Pittsburgh;1995:217–236.
75. Friedman SH, Loue S. Incidence and prevalence of intimate partner violence by and against women with severe mental illness. *J Womens Health (Larchmt)*. 2007;16(4):471–480.
76. Gearon JS, Bellack AS. Women with schizophrenia and co-occurring substance use disorders: An increased risk for violent victimization and HIV. *Community Ment Health J*. 1999;35(5):401–419.
77. Gladstone GL, Parker GB, Mitchell PB, et al. Implications of childhood trauma for depressed women: An analysis of pathways from childhood sexual abuse to deliberate self-harm and revictimization. *Am J Psychiatry*. 2004;161(8):1417–1425.
78. Mezey G, Bacchus L, Bewley S, White S. Domestic violence, lifetime trauma and psychological health of childbearing women. *BJOG*. 2005;112(2): 197–204.
79. Ramos BM, Carlson BE, McNutt L-A. Lifetime abuse, mental health, and African American women. *J Fam Violence*. 2004;19(3):153–164.
80. Renner LM, Slack KS. Intimate partner violence and child maltreatment: Understanding intra- and intergenerational connections. *Child Abuse Negl*. 2006;30(6):599–617.
81. Carmen EH, Rieker PP, Mills T. Victims of violence and psychiatric illness. *Am J Psychiatry*. 1984;141(3):378–383.
82. Craine LS, Henson CE, Colliver JA, MacLean DG. Prevalence of a history of sexual abuse among female psychiatric patients in a state hospital system. *Hosp Community Psychiatry*. 1988;39(3): 300–304.
83. Cusack KJ, Grubaugh AL, Knapp RG, Frueh BC. Unrecognized trauma and PTSD among public mental health consumers with chronic and severe mental illness. *Community Ment Health J*. 2006;42(5):487–500.
84. Jacobson A, Richardson B. Assault experiences of 100 psychiatric inpatients: Evidence of the need for routine inquiry. *Am J Psychiatry*. 1987;144(7): 908–913.
85. Lipschitz DS, Kaplan ML, Sorkenn JB, et al. Prevalence and characteristics of physical and sexual abuse among psychiatric outpatients. *Psychiatr Serv*. 1996;47(2):189–191.
86. Lombardo S, Pohl R. Sexual abuse history of women treated in a psychiatric outpatient clinic. *Psychiatr Serv*. 1997;48(4):534–536.
87. Rosenberg SD, Lu W, Mueser KT, et al. Correlates of adverse childhood events among adults with schizophrenia spectrum disorders. *Psychiatr Serv*. 2007;58(2):245–253.

88. Neria Y, Bromet EJ, Sievers S, et al. Trauma exposure and posttraumatic stress disorder in psychosis: Findings from a first-admission cohort. *J Consult Clin Psychol.* 2002;70(1):246–251.
89. Cascardi M, Mueser KT, DeGiralomo J, Murrin M. Physical aggression against psychiatric inpatients by family members and partners. *Psychiatr Serv.* 1996;47(5):531–533.
90. Sajdak L. Personal communication. 2005.
91. Coker AL, Davis KE, Arias I, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med.* 2002;23(4):260–268.
92. Mueser KT, Rosenberg SD, Goodman LA, Trumbetta SL. Trauma, PTSD, and the course of severe mental illness: An interactive model. *Schizophr Res.* 2002;53(1–2):123–143.
93. Plichta SB, Falik M. Prevalence of violence and its implications for women's health. *Womens Health Issues.* 2001;11(3):244–258.
94. Bebbington PE, Bhugra D, Brugha T, et al. Psychosis, victimisation and childhood disadvantage: Evidence from the second British National Survey of Psychiatric Morbidity. *Br J Psychiatry.* 2004;185:220–226.
95. Bonomi AE, Thompson RS, Anderson M, et al. Intimate partner violence and women's physical, mental, and social functioning. *Am J Prev Med.* 2006;30(6):458–466.
96. Chapman DP, Whitfield CL, Felitti VJ, et al. Adverse childhood experiences and the risk of depressive disorders in adulthood. *J Affect Disord.* 2004;82(2):217–225.
97. Dube SR, Anda RF, Whitfield CL, et al. Long-term consequences of childhood sexual abuse by gender of victim. *Am J Prev Med.* 2005;28(5):430–438.
98. Edwards VJ, Holden GW, Felitti VJ, Anda RF. Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: Results from the adverse childhood experiences study. *Am J Psychiatry.* 2003;160(8):1453–1460.
99. Garo JL, Goldberg JF, Ramirez PM, Ritzler BA. Impact of childhood abuse on the clinical course of bipolar disorder. *Br J Psychiatry.* 2005;186:121–125.
100. Heim C, Nemeroff CB. The role of childhood trauma in the neurobiology of mood and anxiety disorders: Preclinical and clinical studies. *Biol Psychiatry.* 2001;49(12):1023–1039.
101. Kessler RC, Chiu WT, Demler O, et al. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry.* 2005;62(6):617–627.
102. Logan TK, Shannon L, Cole J, Walker R. The impact of differential patterns of physical violence and stalking on mental health and help-seeking among women with protective orders. *Violence Against Women.* 2006;12(9):866–886.
103. McCauley J, Kern DE, Kolodner K, et al. Clinical characteristics of women with a history of childhood abuse: unhealed wounds. *JAMA.* 1997;277(17):1362–1368.
104. Read J, Perry BD, Moskowitz A, Connolly J. The contribution of early traumatic events to schizophrenia in some patients: A traumagenic neurodevelopmental model. *Psychiatry.* 2001;64(4):319–345.
105. Kernic MA, Holt VL, Stoner JA, et al. Resolution of depression among victims of intimate partner violence: is cessation of violence enough? *Violence Vict.* 2003;18(2):115–129.
106. Graffunder CM, Noonan RK, Cox P, Wheaton J. Through a public health lens. Preventing violence against women: An update from the US Centers for Disease Control and Prevention. *J Womens Health (Larchmt).* 2004;13(1):5–16.
107. Lipsky S, Caetano R. Impact of intimate partner violence on unmet need for mental health care: Results from the NSDUH. *Psychiatr Serv.* 2007;58(6):822–829.
108. Kaslow NJ, Thompson MP, Okun A, et al. Risk and protective factors for suicidal behavior in abused African American women. *J Consult Clin Psychol.* 2002;70(2):311–319.
109. Kovac SH, Klapow JC, Kroenke K, et al. Differing symptoms of abused versus nonabused women in obstetric-gynecology settings. *Am J Obstet Gynecol.* 2003;188(3):707–713.
110. McCauley J, Kern DE, Kolodner K, et al. Relation of low-severity violence to women's health. *J Gen Intern Med.* 1998;13(10):687–691.
111. Koss MP, Bailey JA, Yuan NP, et al. Depression and PTSD in survivors of male violence: Research and training initiatives to facilitate recovery. *Psychol Women Q.* 2003;27(2):130–142.
112. Dickinson LM, deGruy FV, 3rd, Dickinson WP, Candib LM. Health-related quality of life and symptom profiles of female survivors of sexual abuse. *Arch Fam Med.* 1999;8(1):35–43.
113. Jarvis KL, Gordon EE, Novaco RW. Psychological distress of children and mothers in domestic violence emergency shelters. *J Fam Violence.* 2005;20(6):389–402.
114. Hegarty K, Gunn J, Chondros P, Small R. Association between depression and abuse by partners of women attending general practice: Descriptive, cross sectional survey. *BMJ.* 2004;328(7440):621–624.
115. Zlotnick C, Johnson DM, Kohn R. Intimate partner violence and long-term psychosocial functioning in a national sample of American women. *J Interpers Violence.* 2006;21(2):262–275.
116. Fogarty CT, Fredman L, Heeren TC, Liebschutz J. Synergistic effects of child abuse and intimate partner violence on depressive symptoms in women. *Prev Med.* 2008;46(5):463–469.
117. Campbell JC, Kub J, Belknap RA, Templin TN. Predictors of depression in battered women. *Violence Against Women.* 1997;3(3):271–293.

118. Cascardi M, O'Leary KD, Schlee KA. Co-occurrence and correlates of posttraumatic stress disorder and major depression in physically abused women. *J Fam Violence*. 1999;14(3):227-249.
119. Dienemann J, Boyle E, Baker D, et al. Intimate partner abuse among women diagnosed with depression. *Issues Ment Health Nurs*. 2000;21(5):499-513.
120. Koopman C, Ismailji T, Palesh O, et al. Relationships of depression to child and adult abuse and bodily pain among women who have experienced intimate partner violence. *J Interpers Violence*. 2007;22(4):438-455.
121. Pico-Alfonso MA. Psychological intimate partner violence: The major predictor of posttraumatic stress disorder in abused women. *Neurosci Biobehav Rev*. 2005;29(1):181-193.
122. Pico-Alfonso MA, Garcia-Linares MI, Celdanavarró N, et al. The impact of physical, psychological, and sexual intimate partner violence on women's mental health: Depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *J Womens Health (Larchmt)*. 2006;15(5):599-611.
123. Kocot T, Goodman LA. The roles of coping and social support in battered women's mental health. *Violence Against Women*. 2003;9(3):323-346.
124. Mitchell MD, Hargrove GL, Collins MH, et al. Coping variables that mediate the relation between intimate partner violence and mental health outcomes among low-income, African American women. *J Clin Psychol*. 2006;62(12):1503-1520.
125. Campbell JC, Soeken KL. Women's responses to battering over time: An analysis of change. *J Interpers Violence*. 1999;14(1):21-40.
126. Astin MC, Lawrence KJ, Foy DW. Posttraumatic stress disorder among battered women: Risk and resiliency factors. *Violence Vict*. 1993;8(1):17-28.
127. Campbell R, Sullivan CM, Davidson WS. Women who use domestic violence shelters: Changes in depression over time. *Psychol Women Q*. 1996;19(2):237-255.
128. Ruch LO, Amedeo SR, Leon JJ, Gartrell JW. Repeated sexual victimization and trauma change during the acute phase of the sexual assault trauma syndrome. *Women Health*. 1991;17(1):1-19.
129. Frank E, Stewart BD. Depressive symptoms in rape victims. A revisit. *J Affect Disord*. 1984;7(1):77-85.
130. Neville HA, Heppner MJ. Contextualizing rape: Reviewing sequelae and proposing a culturally inclusive ecological model of sexual assault recovery. *Appl Prev Psychol*. 1999;8:41-62.
131. Rothbaum B, Foa EB, Riggs SA. A prospective examination of post-traumatic stress disorder in rape victims. *J Trauma Stress*. 1992;5:455-475.
132. Rothbaum BO, Foa EB. Symptoms of posttraumatic stress disorder and duration of symptoms. In: Davidson JR, Foa EB, eds. *Posttraumatic Stress Disorder: DSM-IV and beyond*. Washington, DC: American Psychiatric Association Press;1993:23-26.
133. Resick PA. The psychological impact of rape. *J Interpers Violence*. 1993;8(2):223-255.
134. Brett K, Barfield, W., Williams, C. Prevalence of self-reported postpartum depressive symptoms:17 states, 2004-2005. *MMWR*. 2008 57(14):361-366.
135. Nemeroff CBH, Thase ME, Klein DN, et al. Differential responses to psychotherapy versus pharmacotherapy in patients with chronic forms of major depression and childhood trauma. *Proc Natl Acad Sci*. 2003;100(24):14293-14296.
136. Fedovskiy K, Higgins S, Paranjape A. Intimate partner violence: How does it impact major depressive disorder and post traumatic stress disorder among immigrant Latinas? *J Immigr Minor Health*. 2008;10(1):45-51.
137. Hapke U, Schumann A, Rumpf HJ, et al. Posttraumatic stress disorder: The role of trauma, pre-existing psychiatric disorders, and gender. *Eur Arch Psychiatry Clin Neurosci*. 2006;256(5):299-306.
138. Breslau N, Davis GC, Peterson EL, Schultz LR. A second look at comorbidity in victims of trauma: The posttraumatic stress disorder-major depression connection. *Biol Psychiatry*. 2000;48(9):902-909.
139. Galea S, Vlahov D, Tracy M, et al. Hispanic ethnicity and posttraumatic stress disorder after a disaster: Evidence from a general population survey after September 11, 2001. *Ann Epidemiol*. 2004;14(8):520-531.
140. O'Campo P, Kub J, Woods A, et al. Depression, PTSD, and comorbidity related to intimate partner violence in civilian and military women. *Brief Treat Crisis Interv*. 2006;6(2):99-110.
141. O'Donnell ML, Creamer M, Pattison P, Atkin C. Psychiatric morbidity following injury. *Am J Psychiatry*. 2004;161(3):507-514.
142. Shalev AY, Freedman S. PTSD following terrorist attacks: A prospective evaluation. *Am J Psychiatry*. 2005;162(6):1188-1191.
143. Coker AL, Weston R, Creson DL, et al. PTSD symptoms among men and women survivors of intimate partner violence: The role of risk and protective factors. *Violence Vict*. 2005;20(6):625-643.
144. Lipsky S, Field CA, Caetano R, Larkin GL. Posttraumatic stress disorder symptomatology and comorbid depressive symptoms among abused women referred from emergency department care. *Violence Vict*. 2005;20(6):645-659.
145. Seedat S, Stein MB, Forde DR. Association between physical partner violence, posttraumatic stress, childhood trauma, and suicide attempts in a community sample of women. *Violence Vict*. 2005;20(1):87-98.
146. Nixon RDV, Resick PA, Nishith P. An exploration of comorbid depression among female victims of intimate partner violence with posttraumatic stress disorder. *J Affect Disord*. 2004;82(2):315-320.
147. First MB. *A research agenda for DSM-V: Summary of the DSM-V Preplanning White Papers*: APPI, 2002.

148. Kaysen D, Resick PA, Wise D. Living in danger: The impact of chronic traumatization and the traumatic context on posttraumatic stress disorder. *Trauma Violence Abuse*. 2003;4(3):247–264.
149. Chalk RA, King PA. *Violence in families: Assessing prevention and treatment programs*. Washington, DC: National Academies Press, 1998.
150. Birnes P, Brunet A, Carreras D, et al. The predictive power of peritraumatic dissociation and acute stress symptoms for posttraumatic stress symptoms: A three-month prospective study. *Am J Psychiatry*. 2003;160(7):1337–1339.
151. Brewin CR, Andrews B, Rose S. Diagnostic overlap between acute stress disorder and PTSD in victims of violent crime. *Am J Psychiatry*. 2003;160(4):783–785.
152. Briere J, Scott C, Weathers F. Peritraumatic and persistent dissociation in the presumed etiology of PTSD. *Am J Psychiatry*. 2005;162(12):2295–2301.
153. Ozer EJ, Best SR, Lipsey TL, Weiss DS. Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychol Bull*. 2003;129(1):52–73.
154. Breslau N, Davis GC, Andreski P, et al. Sex differences in posttraumatic stress disorder. *Arch Gen Psychiatry*. 1997;54(11):1044–1048.
155. Kessler RC, Sonnega A, Bromet E, et al. Posttraumatic stress disorder in the national comorbidity survey. *Arch Gen Psychiatry*. 1995;52(12):1048–1060.
156. Olf M, Langeland W, Draijer N, Gersons BP. Gender differences in posttraumatic stress disorder. *Psychol Bull*. 2007;133(2):183–204.
157. Stein MB, Walker JR, Forde DR. Gender differences in susceptibility to posttraumatic stress disorder. *Behav Res Ther*. 2000;38(6):619–628.
158. Turner JB, Turse NA, Dohrenwend BP. Circumstances of service and gender differences in war-related PTSD: Findings from the National Vietnam Veteran Readjustment Study. *J Trauma Stress*. 2007;20(4):643–649.
159. Breslau N, Kessler RC, Chilcoat HD, et al. Trauma and posttraumatic stress disorder in the community: The 1996 Detroit Area Survey of Trauma. *Arch Gen Psychiatry*. 1998;55(7):626–632.
160. Liebschutz J, Saitz R, Brower V, et al. PTSD in urban primary care: High prevalence and low physician recognition. *J Gen Intern Med*. 2007;22(6):719–726.
161. Walker JL, Carey PD, Mohr N, et al. Gender differences in the prevalence of childhood sexual abuse and in the development of pediatric PTSD. *Arch Womens Ment Health*. 2004;7(2):111–121.
162. Breslau N AJ. Gender differences in the sensitivity to posttraumatic stress disorder: An epidemiological study of urban young adults. *J Abnorm Psychol*. 2007;116(3):607–611.
163. Perkonig A, Kessler RC, Storz S, Wittchen HU. Traumatic events and post-traumatic stress disorder in the community: Prevalence, risk factors and comorbidity. *Acta Psychiatr Scand*. 2000;101(1):46–59.
164. Baker CK, Norris FH, Diaz DM, et al. Violence and PTSD in Mexico: Gender and regional differences. *Soc Psychiatry Psychiatr Epidemiol*. 2005;40(7):519–528.
165. Holbrook TL, Hoyt DB, Stein MB, Sieber WJ. Gender differences in long-term posttraumatic stress disorder outcomes after major trauma: Women are at higher risk of adverse outcomes than men. *J Trauma*. 2002;53(5):882–888.
166. Pulcino T, Galea S, Ahern J, et al. Posttraumatic stress in women after the September 11 terrorist attacks in New York City. *J Womens Health (Larchmt)*. 2003;12(8):809–820.
167. Seedat S, Stein DJ, Carey PD. Post-traumatic stress disorder in women: Epidemiological and treatment issues. *CNS Drugs*. 2005;19(5):411–427.
168. Tolin DF, Foa EB. Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychol Bull*. 2006;132(6):959–992.
169. Cortina LM, Kubiak SP. Gender and posttraumatic stress: Sexual violence as an explanation for women's increased risk. *J Abnorm Psychol*. 2006;115(4):753–759.
170. Dutton MA, Goodman LA, Bennett L. Court-involved battered women's responses to violence: The role of psychological, physical, and sexual abuse. *Violence Vict*. 1999;14(1):89–104.
171. Kemp A, Rawlings EI, Green BL. Post-traumatic stress disorder (PTSD) in battered women: A shelter sample. *J Trauma Stress*. 1991;4(1):137–148.
172. Kubany ES, McKenzie WF, Owens JA, et al. PTSD among women survivors of domestic violence in Hawaii. *Hawaii Med J*. 1996;55(9):164–165.
173. Woods SJ, Wineman NM. Trauma, posttraumatic stress disorder symptom clusters, and physical health symptoms in postabused women. *Arch Psychiatr Nurs*. 2004;18(1):26–34.
174. Mertin P, Mohr PB. A follow-up study of posttraumatic stress disorder, anxiety, and depression in Australian victims of domestic violence. *Violence Vict*. 2001;16:645–654.
175. Woods SJ. Prevalence and patterns of posttraumatic stress disorder in abused and postabused women. *Issues Ment Health Nurs*. 2000;21(3):309–324.
176. Perkonig A, Pfister H, Stein MB, et al. Longitudinal course of posttraumatic stress disorder and posttraumatic stress disorder symptoms in a community sample of adolescents and young adults. *Am J Psychiatry*. 2005;162(7):1320–1327.
177. Krause ED, Kaltman S, Goodman L, Dutton MA. Role of distinct PTSD symptoms in intimate partner reabuse: A prospective study. *J Trauma Stress*. 2006;19(4):507–516.
178. Glass N, Perrin N, Campbell JC, Soeken K. The protective role of tangible support on post-traumatic stress disorder symptoms in urban

- women survivors of violence. *Res Nurs Health*. 2007;30(5):558–568.
179. Resnick H, Aciermo R, Waldrop AE, et al. Randomized controlled evaluation of an early intervention to prevent post-rape psychopathology. *Behav Res Ther*. 2007;45(10):2432–2447.
 180. Katz BL. The psychological impact of stranger versus nonstranger rape on victims' recovery. In: Parrot A, Bechhofer L, eds. *Acquaintance rape: The hidden crime*. New York: John Wiley;1991:251–269.
 181. Koss MP, Dinero TE, Seibel C, Cox S. Stranger and acquaintance rape: Are there differences in the victim's experience? *Psychol Women Q*. 1988;12(1):1–24.
 182. Hanson RK. The psychological impact of sexual assault on women and children: A review. *Ann Sex Res*. 1990;3(2):187–232.
 183. Resick PA. Psychological effects of victimization: Implications for the criminal justice system. *Crime Delinq*. 1987;33:468.
 184. Ullman SE, Filipas HH, Townsend SM, Starzynski LL. Trauma exposure, posttraumatic stress disorder and problem drinking in sexual assault survivors. *J Stud Alcohol*. 2005;66(5):610–619.
 185. Filipas HH, Ullman SE. Child sexual abuse, coping responses, self-blame, posttraumatic stress disorder, and adult sexual revictimization. *J Interpers Violence*. 2006;21(5):652–672.
 186. Kilpatrick DG, Saunders BE, Veronen LJ, et al. Criminal victimization: Lifetime prevalence, reporting to police, and psychological impact. *Crime Delinq*. 1987;33.
 187. Golding JM, Siegel JM, Sorenson SB, et al. Social support sources following sexual assault. *J Community Psychol*. 1989;17(1):92–107.
 188. Temple JR, Weston R, Rodriguez BF, Marshall LL. Differing effects of partner and nonpartner sexual assault on women's mental health. *Violence Against Women*. 2007;13(3):285–297.
 189. Elliott DM, Briere J. Transference and countertransference. In: Classen CC, Yalom I, eds. *Treating women molested in childhood*. San Francisco: Jossey Bass;1995:187–226.
 190. Kessler RC. Posttraumatic stress disorder: The burden to the individual and to society. *J Clin Psychiatry*. 2000;61(Suppl 5):4–12; discussion 13–14.
 191. Norris FH, Kaniasty K. Psychological distress following criminal victimization in the general population: Cross-sectional, longitudinal, and prospective analyses. *J Consult Clin Psychol*. 1994;62(1): 111–123.
 192. Rieker P, Carmen EH. The victim-to-patient process: The disconfirmation and transformation of abuse. *Am J Orthopsychiatry*. 1986;56(3):360–370.
 193. Basile KC, Arias I, Desai S, Thompson MP. The differential association of intimate partner physical, sexual, psychological, and stalking violence and posttraumatic stress symptoms in a nationally representative sample of women. *J Trauma Stress*. 2004;17(5):413–421.
 194. Bennice JA, Resick PA, Mechanic M, Astin M. The relative effects of intimate partner physical and sexual violence on post-traumatic stress disorder symptomatology. *Violence Vict*. 2003;18(1):87–94.
 195. Cole J, Logan TK, Shannon L. Intimate sexual victimization among women with protective orders: Types and associations of physical and mental health problems. *Violence Vict*. 2005;20(6):695–715.
 196. McFarlane J, Malecha A, Watson K, et al. Intimate partner sexual assault against women: Frequency, health consequences, and treatment outcomes. *Obstet Gynecol*. 2005;105(1):99–108.
 197. Arias I, Pape KT. Psychological abuse: Implications for adjustment and commitment to leave violent partners. *Violence Vict*. 1999;14(1):55–67.
 198. Coker AL, Smith PH, McKeown RE, King MJ. Frequency and correlates of intimate partner violence by type: Physical, sexual, and psychological battering. *Am J Public Health*. 2000;90(4):553–559.
 199. Mechanic MB, Uhlmansiek MH, Weaver TL, Resick PA. The impact of severe stalking experienced by acutely battered women: An examination of violence, psychological symptoms and strategic responding. *Violence Vict*. 2000;15(4):443–458.
 200. Street AE, Arias I. Psychological abuse and post-traumatic stress disorder in battered women: Examining the roles of shame and guilt. *Violence Vict*. 2001;16(1):65–78.
 201. Smith PH, Earp JA, DeVellis R. Measuring battering: Development of the Women's Experience With Battering (WEB) Scale. *Women's Health: Research on Gender, Behavior, and Policy*. 1995;1(4):273–288.
 202. Dutton MA, Kaltman S, Goodman LA, et al. Patterns of intimate partner violence: Correlates and outcomes. *Violence Vict*. 2005;20(5):483–497.
 203. Sackett LA, Saunders DG. The impact of different forms of psychological abuse on battered women. *Violence Vict*. 1999;14(1):105–117.
 204. Foa EB, Rothbaum BO, Riggs DS, Murdock TB. Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive-behavioral procedures and counseling. *J Consult Clin Psychol*. 1991;59(5):715–723.
 205. Breslau N. Gender differences in trauma and posttraumatic stress disorder. *J Gen Specif Med*. 2002;5(1):34–40.
 206. Breslau N, Chilcoat HD, Kessler RC, Davis GC. Previous exposure to trauma and PTSD effects of subsequent trauma: Results from the Detroit Area Survey of Trauma. *Am J Psychiatry*. 1999;156(6): 902–907.
 207. Campbell JC, Webster D, Koziol-McLain J, et al. Assessing risk factors for intimate partner homicide. *Natl Instit Justice J*. 2003;250:14–19.
 208. Kaplow JB, Dodge KA, Amaya-Jackson L, Saxe GN. Pathways to PTSD, part II: Sexually abused children. *Am J Psychiatry*. 2005;162(7):1305–1310.
 209. Noll JG. Does childhood sexual abuse set in motion a cycle of violence against women? What we know

- and what we need to learn. *J Interpers Violence*. 2005;20(4):455-462.
210. Varma D, Chandra PS, Thomas T, Carey MP. Intimate partner violence and sexual coercion among pregnant women in India: Relationship with depression and post-traumatic stress disorder. *J Affect Disord*. 2007;102(1-3):227-235.
 211. Woods AB, Page GG, O'Campo P, et al. The mediation effect of posttraumatic stress disorder symptoms on the relationship of intimate partner violence and IFN-gamma levels. *Am J Community Psychol*. 2005;36(1-2):159-175.
 212. Schneider R, Baumrind N, Kimerling R. Exposure to child abuse and risk for mental health problems in women. *Violence Vict*. 2007;22(5):620-631.
 213. Bradley R, Schwartz AC, Kaslow NJ. Posttraumatic stress disorder symptoms among low-income, African American women with a history of intimate partner violence and suicidal behaviors: Self-esteem, social support, and religious coping. *J Trauma Stress*. 2005;18(6):685-696.
 214. O'Keefe M. Posttraumatic stress disorder among incarcerated battered women: A comparison of battered women who killed their abusers and those incarcerated for other offenses. *J Trauma Stress*. 1998;11(1):71-85.
 215. Solomon SD, Davidson JR. Trauma: Prevalence, impairment, service use, and cost. *J Clin Psychiatry*. 1997;58(Suppl 9):5-11.
 216. Walker EA, Katon W, Russo J, et al. Health care costs associated with posttraumatic stress disorder symptoms in women. *Arch Gen Psychiatry*. 2003;60(4):369-374.
 217. Kimerling R. An investigation of sex differences in nonpsychiatric morbidity associated with post-traumatic stress disorder. *J Am Med Womens Assoc*. 2004;59(1):43-47.
 218. Dobie DJ, Kivlahan DR, Maynard C, et al. Post-traumatic stress disorder in female veterans: Association with self-reported health problems and functional impairment. *Arch Intern Med*. 2004;164(4):394-400.
 219. Creamer M, Burgess P, McFarlane AC. Post-traumatic stress disorder: Findings from the Australian National Survey of Mental Health and Well-being. *Psychol Med*. 2001;31(7):1237-1247.
 220. Reynolds M, Mezey G, Chapman M, et al. Comorbid post-traumatic stress disorder in a substance misusing clinical population. *Drug Alcohol Depend*. 2005;77(3):251-258.
 221. Milliken CS, Auchterlonie JL, Hoge CW. Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *JAMA*. 2007;298(18):2141-2148.
 222. Chilcoat HD, Breslau N. Investigations of causal pathways between PTSD and drug use disorders. *Addict Behav*. 1998;23(6):827-840.
 223. Carbone-Lopez K, Kruttschnitt C, Macmillan R. Patterns of intimate partner violence and their associations with physical health, psychological distress, and substance use. *Public Health Rep*. 2006;121(4):382-392.
 224. Weinsheimer RL, Schermer CR, Malcoe LH, et al. Severe intimate partner violence and alcohol use among female trauma patients. *J Trauma*. 2005;58(1):22-29.
 225. El-Bassel N, Gilbert L, Witte S, et al. Intimate partner violence and substance abuse among minority women receiving care from an inner-city emergency department. *Women's Health Issues*. 2003;13(1):16-22.
 226. White HR, Chen PH. Problem drinking and intimate partner violence. *J Stud Alcohol*. 2002;63(2):205-214.
 227. El-Bassel N, Gilbert L, Wu E, et al. Relationship between drug abuse and intimate partner violence: A longitudinal study among women receiving methadone. *Am J Public Health*. 2005;95(3):465-470.
 228. Paranjape A, Heron S, Thompson M, et al. Are alcohol problems linked with an increase in depressive symptoms in abused, inner-city African American women? *Womens Health Issues*. 2007;17(1):37-43.
 229. Sareen J, Cox BJ, Stein MB, et al. Physical and mental comorbidity, disability, and suicidal behavior associated with posttraumatic stress disorder in a large community sample. *Psychosom Med*. 2007;69(3):242-248.
 230. Heru AM, Stuart GL, Rainey S, et al. Prevalence and severity of intimate partner violence and associations with family functioning and alcohol abuse in psychiatric inpatients with suicidal intent. *J Clin Psychiatry*. 2006;67(1):23-29.
 231. Oquendo M, Brent DA, Birmaher B, et al. Post-traumatic stress disorder comorbid with major depression: Factors mediating the association with suicidal behavior. *Am J Psychiatry*. 2005;162(3):560-566.
 232. Sato-DiLorenzo A, Sharps PW. Dangerous intimate partner relationships and women's mental health and health behaviors. *Issues Ment Health Nurs*. 2007;28(8):837-848.
 233. Sansone RA, Chu JA, Wiederman MW. Suicide attempts and domestic violence among women psychiatric inpatients. *Intern J Psychiatry Clin Pract*. 2007;11(2):163-166.
 234. Thompson MP, Kaslow NJ, Kingree JB. Risk factors for suicide attempts among African American women experiencing recent intimate partner violence. *Violence Vict*. 2002;17(3):283-295.
 235. Stark E, Flitcraft A. Killing the beast within: Woman battering and female suicidality. *Int J Health Serv*. 1995;25(1):43-64.
 236. Weaver TL, Allen JA, Hopper E, et al. Mediators of suicidal ideation within a sheltered sample of raped and battered women. *Health Care Women Int*. 2007;28(5):478-489.

237. Talbot NL, Duberstein PR, Cox C, et al. Preliminary report on childhood sexual abuse, suicidal ideation, and suicide attempts among middle-aged and older depressed women. *Am J Geriatr Psychiatry*. 2004;12(5):536–538.
238. Anderson PL, Tiro JA, Price AW, et al. Additive impact of childhood emotional, physical, and sexual abuse on suicide attempts among low-income African American women. *Suicide Life Threat Behav*. 2002;32(2):131–138.
239. Briere J, Runtz M. Suicidal thoughts and behaviors in former sexual abuse victims. *Can J Behav Sci*. 1986;18:413–423.
240. Mitchell C. Personal communication; 2007.
241. Starr K, Fawcett J. *If I had one more day: Findings and recommendations from the Washington State Domestic Violence Fatality Review 2006*. Washington State Coalition Against Domestic Violence, 2006.
242. van der Kolk BA. The psychobiology of posttraumatic stress disorder. *J Clin Psychiatry*. 1997;58 (Suppl 9):16–24.
243. Davidson JR, van der Kolk B E. The psychopharmacological treatment of posttraumatic stress disorder. In: van der Kolk BE, Weisaeth L, eds. *Traumatic stress: The effects of overwhelming experience on mind, body, and society*. New York, NY: Guilford Press, 1996.
244. Yehuda R, LeDoux J. Response variation following trauma: A translational neuroscience approach to understanding PTSD. *Neuron*. 2007; 56(1):19–32.
245. Charney DS. Life stress, genes, and depression: Multiple pathways lead to increased risk and new opportunities for intervention. *Sci STKE*. 2004:225.
246. Yehuda R, Kahana B, Binder-Byrnes K, et al. Lower urinary cortisol excretion in Holocaust survivors with posttraumatic stress disorder. *Am J Psychiatry*. 1995;152:982–986.
247. Yehuda R, McFarlane A, eds. Psychobiology of posttraumatic stress disorder. *Ann N Y Acad Sci*. 1997; 821.
248. Bremner JD, Elzinga B, Schmahl C, Vermetten E. Structural and functional plasticity of the human brain in posttraumatic stress disorder. *Prog Brain Res*. 2008;167:171–186.
249. Griffin MG, Resick PA, Yehuda R. Enhanced cortisol suppression following dexamethasone administration in domestic violence survivors. *Am J Psychiatry*. 2005;162(6):1192–1199.
250. Pico-Alfonso MA, Garcia-Linares MI, Celda-Navarro N, et al. Changes in cortisol and dehydroepiandrosterone in women victims of physical and psychological intimate partner violence. *Biol Psychiatry*. 2004;56(4):233–240.
251. Seedat S, Stein MB, Kennedy CM, Hauger RL. Plasma cortisol and neuropeptide Y in female victims of intimate partner violence. *Psychoneuroendocrinology*. 2003;28(6):796–808.
252. Heim C, Newport DJ, Heit S, et al. Pituitary-adrenal and autonomic responses to stress in women after sexual and physical abuse in childhood. *JAMA*. 2000;284(5):592–597.
253. Cicchetti D, Blender JA. A multiple-levels-of-analysis perspective on resilience: Implications for the developing brain, neural plasticity, and preventive interventions. *Ann N Y Acad Sci*. 2006;1094: 248–258.
254. Sapolsky RM, Romero LM, Munck AU. How do glucocorticoids influence stress responses? Integrating permissive, suppressive, stimulatory, and preparative actions. *Endocr Rev*. 2000;21(1):55–89.
255. Dunlop SA, Archer MA, Quinlivan JA, et al. Repeated prenatal corticosteroids delay myelination in the ovine central nervous system. *J Matern Fetal Med*. 1997;6(6):309–313.
256. Bremner JD, Mletzko T, Welter S, et al. Effects of phenytoin on memory, cognition and brain structure in post-traumatic stress disorder: A pilot study. *J Psychopharmacol*. 2005;19(2):159–165.
257. Bremner JD, Vythilingam M, Vermetten E, et al. MRI and PET study of deficits in hippocampal structure and function in women with childhood sexual abuse and posttraumatic stress disorder. *Am J Psychiatry*. 2003;160(5):924–932.
258. Stein MB, Koverola C, Hanna AC, et al. Hippocampal volume in women victimized by child sexual abuse. *Psychol Med*. 1997;27:951–959.
259. Fennema-Notestine C, Stein MB, Kennedy CM, et al. Brain morphometry in female victims of intimate partner violence with and without posttraumatic stress disorder. *Biol Psychiatry* 2003;53(7):632.
260. Bremner JD, Vermetten E, Afzal N, Vythilingam M. Deficits in verbal declarative memory function in women with childhood sexual abuse-related posttraumatic stress disorder. *J Nerv Ment Dis*. 2004;192(10):643–649.
261. Pitman RK SL, Rauch SL. Investigating the pathogenesis of posttraumatic stress disorder with neuroimaging. *J Clin Psychiatry*. 2001;62(Suppl 17): 47–54.
262. van der Kolk BA, Courtois CA. Editorial comments: Complex developmental trauma. *J Trauma Stress*. 2005;18(5):385–388.
263. Carmen EH. Victim to patient to survivor processes: Clinical perspectives. Paper presented at: Dare to vision: Shaping the national agenda for women, abuse, and mental health services, Holyoke, Massachusetts, 1994.
264. Gondolf EW, Fisher ER. *Battered women as survivors: An alternate to treating learned helplessness*. Lexington, MA: Lexington Books, 1988.
265. Dutton MA. *Empowering and healing the battered woman: A model for assessment and intervention*. New York: Springer, 1992.