

Dissociative Disorders in Women: Long-Term Consequences of Violence Against Children

KAREN HOPENWASSER, MD

Dissociative disorders, diagnosed as much as nine times more frequently in women than men, are poorly understood. The mosaic symptomatology often leads to misdiagnosis or incomplete assessment. Despite substantial research indicating the probable etiology as severe childhood abuse, many clinicians do not recognize the relationship between violence and dissociation. An emerging body of research indicates that post-traumatic memory can be distinguished neurobiologically from other forms of memory. While clinical research has given us tools for evaluating dissociative symptoms, neurobiological research is clarifying the relationship between brain development in children and adult dissociative symptoms. Once the diagnosis is made, many patients report feeling understood for the first time in their lives. This allows for stronger therapeutic alliances and the use of complex treatment techniques to manage pain and increase a sense of safety.

Everyday physicians examine women who have experienced violence as an ordinary occurrence. The awareness that they have been physically beaten and/or sexually abused is silenced in some women by unbearable shame, while for others, the context of violence within the family camouflages their awareness altogether. As children these women used methods of coping that allowed them to manage the pain, maintain emotional connections, and survive into adulthood, albeit with multiple physical and psychological problems. Few physicians have been trained to recognize the long-term consequences of early childhood abuse and

dissociative disorders, in particular. While the dissociative disorders are weighted with great controversy, this controversy has propelled much-needed research and scientific interest.

The concept of dissociation put forth within the medical community dates back to the late 19th century with the work of Jean-Martin Charcot and Pierre Janet.¹ These Salpêtrière physicians had a major influence on Sigmund Freud, who more fully developed the concept of hysteria.² As psychoanalytic thinking moved from a trauma theory of dissociation to a seduction theory of hysteria, interest in dissociation faded. Although clinicians recognized the phenomenon of “battle fatigue”³ in soldiers during both World Wars, a renewed interest in dissociation did not emerge until the late 20th century. Currently, dissociation is recognized as a neurophysiological phenomenon that develops in response to environmental influences and manifests itself in distinct physical and psychological symptoms. Recent research on the neurobiology of post-traumatic stress disorder (PTSD) and dissociation⁴⁻⁸ has supported the distinct categorization of dissociative disorders and chronic post-traumatic states. We are becoming increasingly aware that extreme stress, particularly in the form of interpersonal mistreatment, has a profound psychophysiological impact on the developing child. As we understand more about these consequences, we need to reevaluate some fundamental theories about the structure of the mind, the phenomenology of psychiatric diagnosis, and the impact of environment on brain development after birth.

Dissociation, though, remains an elusive concept. Frank Putnam defines it as: a process that produces a discernible alteration in a person’s thoughts, feelings, or actions so that for a period of time certain information is not associated or integrated with other information as it normally or logically would be.⁹

Bessel van der Kolk, et al subdivide dissociation into three categories: primary, secondary, and tertiary.¹⁰ Primary refers to sensory and emotional elements during a traumatic experience that may not be integrated into memory. Secondary refers to the separation of the experiencing and observing self, such as the feeling of floating above oneself and observing from a distance. Tertiary refers to the development of distinct identity states, characterized by particular thoughts, feelings, and behaviors. This tertiary form—the dissociative disorders—is the main subject of this paper.

Dissociation will be seen in primary care practice as a symptom of other major psychiatric illness, such as major depressive disorder, bipolar disorders, and substance abuse or withdrawal; as a psychological defense; as a psychiatric illness; and, at times, as a nonpathological experience, including its manifestation in certain non-Western rituals. It will also be seen in a variety of medical conditions, such as toxic reactions to chemicals, medication reactions, and metabolic disturbances. As a symptom of illness, there is no evidence of a sex difference in prevalence. As a *Diagnostic and Statistical Manual* (DSM-IV) diagnostic category, however, dissociative identity disorder (DID), formerly multiple personality disorder, is diagnosed three to nine times more often in women.^{9,11,12}

The dissociative disorders masquerade as a variety of illnesses and somatic disorders. A 1991 literature review found an average of seven years between a patient’s entry into treatment and a diagnosis of DID, and that each patient accumulated an average of three to four different diagnoses along the way. The author concluded that “clinicians’ general lack of familiarity, . . . skepticism, and low indices of suspicion play important roles in their failure to make the diagnosis in a timely manner.”¹³ The development of such research-based instruments as the Structured Clinical Interview for Disso-

Dr. Hopenwasser is a clinical assistant professor of psychiatry at Cornell University Medical College and is in practice in New York City.

ciative Disorders,¹⁴ the Dissociative Disorders Interview Schedule,¹² and the Dissociative Experiences Scale^{15,16} helps clinicians to make the diagnosis more quickly.

With increased recognition of dissociative disorders, clinicians find that patients feel better understood, sometimes for the first time in their lives. This enhances the sense of trust vital to the therapeutic relationship and increases the sense of safety essential for healing.

Despite some methodological limitations, studies on long-term outcome indicate that symptoms and the cost of treatment are both reduced when patients are correctly diagnosed with DID.^{17,18} Ellason and Ross looked at 54 inpatients with DID over two years and found that with treatment, both Dissociative Experiences Scale and Dissociative Disorders Interview Scale scores decreased significantly, and other symptoms improved.¹⁷ The purpose of this review is to help clinicians understand the dissociative disorders in both individual and larger social contexts. The relationship between dissociation as a psychological defense and as a psychiatric illness affords us insight into what can be called a post-Cartesian neurophilosophy of mind/body unity.^{19,20} This shift from dualism, the separation of physical and mental, to an appreciation of the material components of consciousness, helps us to understand dissociative disorders. The nexus of symptom presentation will begin to make sense as we understand the neurophysiology of consciousness and the developmental integration of physical and psychological self.

Relationship Between Dissociation and Violence

The dissociative disorders are:

a psychobiological response to a relatively specific set of experiences occurring within a circumscribed developmental window . . . the most compelling and clinically useful model [of the genesis of DID] is based on evidence that repeated childhood trauma enhances normative dissociative capacities, which in turn provide the basis for the creation and elaboration of alter personality states over time.²¹

Repeated childhood trauma can occur within the context of such large scale social violence as the holocaust or war, or within the individual family. The overwhelming majority of US women who suffer from chronic dissociative disorders were victims of childhood physical, emotional, and/or sexual abuse starting between the ages of 2 and 12 years old.²²⁻²⁵ This abuse includes the repetitive *exposure* to violence against a parent or sibling as well as that experienced directly.

A recent epidemiological study in Ontario, Canada of nearly 10,000 residents age 15 and older found that 31.2% of men and 21.1% of women reported a history of childhood physical abuse. Childhood sexual abuse was reported by 12.8% of women and 4.3% of men. Severe physical abuse (based on the Child Maltreatment History Self-Report) was reported nearly equally by men and women (about 10%), while nearly three times as many women as men reported severe sexual abuse (11.1% versus 3.9%).²⁶ These findings support the national consensus that domestic violence against children is common, and that severe sexual abuse is more common in girls than boys and has a prevalence of more than 10%.

While not all abused children develop dissociative disorders, studies have shown a high rate of dissociative disorders in women who identify themselves as survivors of sexual abuse.^{24,27-29} One study of 98 female psychiatric inpatients found that 83% had dissociative symptom scores above what would be considered median for normal adults, and those with a history of childhood sexual abuse had the highest dissociative experience scale scores. In addition, a history of childhood sexual abuse seemed to double the risk of concurrent physical and sexual abuse in adult life.²⁴

Some clinicians have speculated that men with DID are found more often in the criminal justice system than the mental health system.^{21,30} An example can be found in the work of James Gilligan, a forensic psychiatrist, who noted case after case of severe early childhood maltreatment among male murderers in prison.³¹ In a review of records of 11 men and one woman who had committed murder,

clinical researchers were able to establish a link between early severe abuse and DID. They were able to rule out malingerers, while the evidence of early abuse was based upon corroborating information from family members, neighbors, court and hospital records. Most of the subjects had at least partial amnesia for the abuse.³²

Neurobiology of Dissociation

When abused children grow up, they often have fragmented memories of their childhood experience of violence. While physicians are aware that domestic violence is a nationwide "serious public health problem,"³³ adults with inconsistent recall are often greeted with skepticism. A number of studies of "normal" college students and untraumatized children have demonstrated that children are suggestible, and that memory is unreliable.^{34,35} These studies have been used in a media campaign that has created excessive doubt in the minds of both clinicians and patients.

The encoding of memories of trauma is subject to stress hormone influences that are different from those of nontraumatic memory. Neurobiological research, as opposed to laboratory cognitive psychological research, has demonstrated that intense overstimulation of the amygdala (as a result of a terrifying stimulus) interferes with hippocampal function. As a result, registration of sensorimotor perception may occur without symbolic or semantic coding.³⁶ The increased firing of hypothalamic-cortical pathways under stress may lead to increased facilitation of long-term memory. This could account for the eidetic (photographic) nature of flashbacks. Overstimulation may also lead to decreased sensitivity of receptors, leading to decreased registration, consolidation, and integration of memory. This accounts for both the "black holes"³⁷ of dissociation as well as errors of recall.

In a study looking at brain activity during flashbacks, positron emission tomography showed increased activity in right limbic, paralimbic areas and visual cortex, while activity was remarkably decreased in left inferior frontal (Broca's area) and medial temporal cortex, the brain areas necessary for one to find words to describe these experiences.³⁸ In

addition, neuroendocrinological alterations lead to a failure in the development of a conventional linear sense of time. Instead of steady forward movement there are gaps in continuity.³⁹ Failure to experience time in a linear fashion can lead to a blurring together of memories, not unlike what would happen if several transparencies were projected on top of one another.⁴⁰ We would not be able to distinguish one from the other. Thus, the phenomenon of delayed recall will not be understood without further research in the neurobiology of traumatic stress and dissociative adaptation.

While research is clarifying the mechanisms of PTSD, much less is understood specifically about the neurophysiology of dissociation. The thalamus plays a crucial role in dissociative states, serving as a sensory gate to modulate information between brain stem, cortex, amygdala, and hippocampus.⁴¹ One current theory of the biological basis of conscious awareness is that it is dependent on oscillating connections between the thalamus and cortex.⁴² The organization of consciousness is dependent on integrated corticocortical function. Certain drugs that produce dissociation interfere with cortical integration. Much laboratory research is now focused on various neurotransmitters, including the excitatory transmitter glutamate and the NMDA (N-methyl-D-aspartate) receptor. There is hope that the study of these transmitters and receptors will someday give us insight into the pharmacologic management of severe dissociative states.⁴¹

Clinical Picture of Dissociative Disorders

The DSM-IV divides dissociative disorders into five diagnostic categories: dissociative amnesia, dissociative fugue, dissociative identity disorder, depersonalization disorder, and dissociative disorder not otherwise specified (DDNOS). DDNOS includes many women who were severely abused as children but have not developed distinct "alter" identities. The transition from the old concept of multiple personality disorder to DID represents an attempt at conceptual advancement. Alter identities are not personalities at all, but could be thought of as unintegrated or partially integrated pathways of

neural networks regulated by neurotransmitters and neurohormones.⁴⁰ As chronically traumatized children mature, they may fail to integrate affectively charged memory with cognitive functioning, and as a result, dissociated alter states (or what Putnam calls "discrete behavioral states")³⁹ may emerge. This accounts for the classic symptom of "lost time" or memory lapses. In other words, DID is a disorder of consciousness and identity integration over time.⁴⁰ One of the major tasks of psychotherapeutic treatment is the development of an integrated, subjective sense of past and present so as to distinguish between then and now.

It is my belief that this failure to distinguish between past and present is probably responsible for some of the range of psychiatric symptoms we see in dissociative patients, such as panic attacks, phobias, cycling mood changes, suicidal depression, paranoia, and even attention deficit type symptoms. The physical manifestation of this failure is seen in flashback states and somatic memory. Both somatic memory and somatic symptoms bring these patients into the primary care physician's office.

The multitude of symptoms associated with these disorders often leads to confusion about diagnosis. Many symptoms play together to create a unique picture, while individual symptoms overlap with those of other diagnoses: panic disorder, rapid cycling mood disorders, PTSD, and eating disorders.¹² There is also a certain amount of co-morbidity, particularly with chemical dependency problems, borderline personality disorder, PTSD, and mood disorders.^{28,43} Confusion between the Axis II diagnosis borderline personality disorder and Axis I diagnosis dissociative disorder is striking. The two can certainly coexist, while at times one is misdiagnosed for the other. Research on borderline personality disorder has shown an impressive correlation with early childhood abuse,⁴⁴⁻⁴⁶ and diagnostic criteria (identity disturbance, poor impulse control, self-mutilation) clearly overlap. One prospective study found that 38.6% of 44 children diagnosed with borderline personality disorder had abuse histories, compared to only 9% of 100 controls with a range of other diagnoses.⁴⁵

Failure to recognize or appreciate a history of severe early trauma can hinder understanding of such extreme behaviors as self-mutilation, which is often a pain management technique used in the service of emotional survival rather than of self-destruction.⁴⁷ When done in a state of post-traumatic numbness it can be particularly alienating for the helping professional to watch. Both clinician and patient are caught in the eddy of forgetting the function of this behavior.

Dissociative Disorders in Medical Practice

Women with dissociative disorders frequently report somatic complaints;^{12,48-50} the list is lengthy, with headache, body pain, gastrointestinal and gynecological complaints particularly common. Miller found significant variability in visual functioning, with measurable changes in refraction between alter states in two studies comparing DID patients with simulated controls.^{51,52} Electromyographic studies indicate there may be marked changes in muscle tension as switches among conscious states are made.⁵³ One recent example encountered personally was a woman who developed blisters on her feet wearing shoes that were already broken in and previously quite comfortable. A switch into another conscious state (sometimes called a part) led to a shift in posture and manner of walking.

Fluctuations in sensitivity to medications and differential expression of allergic reactions, which can be problematic for the physician prescribing medication, have been found. Clinicians should not assume the patient is misleading if she gives a history of erratic reactions to medication or is confused about whether she has had allergic reactions. In the presence of a history of early trauma, this may be indicative of dissociative state changes.

Both electroencephalographic and thyroid studies can be inconsistent.⁵⁴ In a prospective, longitudinal study of girls age 8 to 15 years, 14 sexually abused girls were compared with 13 control subjects. The sexually abused girls had twice the frequency of positive plasma antinuclear antibody titers when compared with matched controls, suggesting the possibility of alteration in immune function.⁵⁵

It is a common clinical observation that the patient with severe dissociation seems different from visit to visit. The emotional tenor, quality of voice, body posture, and affect state may change markedly.^{9,12,21} The patient may well not report awareness of any difference, unless asked directly: Do you have clothing in your closet you don't remember buying? Does your handwriting change dramatically? Do people seem to know you that you do not recall meeting? A rather subtle but serious problem is the change in cognitive ability across altered states.⁵⁶ A highly educated, intellectually capable patient may on a specific occasion not understand directions for further medical treatment and use of medication, and she may not acknowledge it because she is either ashamed or too confused to say that she does not understand. Cognitive changes will alter the relationship between doctor and patient. It can be bewildering to find that the trusting relationship one had developed with a patient is ruptured inexplicably.

Women severely abused as children frequently develop chemical dependency problems.⁵⁷ One study found that 73% of 55 women being treated for chemical dependency in an inpatient facility had been victims of sexual or physical assault, while those with concurrent PTSD were more likely to have been victims of childhood sexual abuse.⁵⁸

The Gap Between PTSD and Dissociative Disorders

Most clinicians have treated women victims of violence. PTSD syndromes are common following rape, battering, random crime, and accidents.^{59,60} Dissociation during a traumatic event increases the likelihood of ongoing post-traumatic symptoms.¹⁰ This observation has led to the development of the Peritraumatic Dissociative Experiences Questionnaire (PDEQ),⁶¹ an instrument that has been used primarily to predict PTSD following natural disasters. While some traumatized children develop chronic PTSD and others develop clear DID, there is a vast overlap of symptoms, and probably a majority do not strictly meet the criteria for either. Some have suggested complex post-traumatic stress disorder⁶² or disorders of extreme stress⁶³ as diagnoses

for adults who were victims of repeated violence in childhood. These are not yet DSM-IV diagnoses, although the criteria were used during some of the PTSD clinical field trials. These proposed diagnoses take into consideration that prolonged, repeated trauma in childhood (what Lenore Terr has called Type II trauma)⁶⁴ disrupts subsequent maturational processes and leads to a plethora of symptoms in adult life,⁶⁵ including failure to self-regulate affect, inability to comfort oneself, impaired attachment (both clinging and fear of intimacy), impaired interpersonal functioning, and mistrustful attitude toward the world.

Use of a diagnosis like disorders of extreme stress would allow us to identify a group of patients who are otherwise misdiagnosed and, consequently, sometimes treated inappropriately. It would facilitate a view of the patient as a whole person with a disorder of adaptation, rather than fragmented diagnoses to match the fragmented sense of self.

Treatment Considerations

No controlled studies have addressed the treatment of DID. Perhaps the greatest benefit of the controversy around DID has been the development of treatment guidelines. The International Society for the Study of Dissociation released *Guidelines for Treating Dissociative Identity Disorder in Adults* in May 1994. Revised in 1997 based on the available clinical and research literature, the guidelines cover diagnostic procedures, treatment planning, and an outline for psychotherapy.⁶⁶ While there are a variety of treatment approaches, the many clinicians with extensive experience seem to agree that an emphasis on pain management and creation of a sense of safety are necessary regardless of approach.^{67,68} Building the trust essential for a sense of safety starts with clearly defined boundaries within the therapeutic relationship.⁶⁹

Because symptoms are broad and multisystem, an informal treatment team—psychotherapist or psychiatrist, primary care physician and/or gynecologist, and adjunctive social supports—is most productive. Someone who is chemically dependent cannot learn to manage intense affect and integrate this with cognitive function, so the use of 12-step programs

is essential to maintain sobriety. While numerous inpatient programs around the country treat adults with the dual diagnosis of chemical dependency and dissociative problems, the majority of treatment occurs in an outpatient setting. Even severe symptoms can be managed on an outpatient basis with pharmacological agents, within the context of psychotherapeutic support. Antidepressants relieve some depressive symptoms, though alter switching may create the impression that medication has stopped working.⁷⁰ Flashbacks can often be managed with the long-acting benzodiazepine clonazepam. Anecdotal reports indicate that the alpha adrenergic agonists clonidine and guanfacine diminish flashbacks, while case reports have shown the efficacy of propranolol.³⁹ Because propranolol can have substantial side effects and drug-drug interactions, I have tried the beta blocker pindolol, also useful in treating resistant depression, with some success. Carbamazepine, valproic acid, and low-dose new generation neuroleptics have also been helpful. As mentioned above, neurobiological research on dissociation suggests a theoretical role for anti-glutamate drugs, yet to be developed.

Psychotherapeutic treatment requires flexibility and versatility. Cognitive restructuring, the modification of long-held beliefs,⁷¹ must be done within a careful exploratory context. This is usually facilitated through the use of such adjunctive therapeutic tools as journal writing, art work, poetry, yoga, meditation, and sometimes body work. In addition to traditional individual and group psychotherapy, many adult victims of childhood abuse benefit from nonverbal treatment approaches, such as art and movement therapy.⁷²

How much one has to remember in order to heal is a matter of debate, but it appears that one must remember enough to validate one's experience and to mourn what was lost by or stolen from the traumatized child.^{67,68} Speaking the unspeakable and having others bear witness to it has allowed many women to move on in their lives. The process is exquisitely painful, and we have few tools to ameliorate that pain. I approach dissociative symptoms as a form of memory. Treatment needs to support the integration of

these memories as long as they persist, especially since dissociation seems to increase the risk of revictimization, described by Kluft as a "sitting duck syndrome."⁷³ When dissociation diminishes and no longer interferes with functioning, then remembering is determined by individual strengths and other subjective traits. Many women find that spiritual connection is the only way to hold and tolerate their memories of utter helplessness and despair.

One very new therapeutic tool for diminishing fear, enhancing safety, and decreasing pain is eye movement desensitization and reprocessing (EMDR).⁷⁴ Originally developed to treat PTSD, it can be incorporated into the overall treatment of dissociative disorders.^{75,76} Clinical evidence indicates that EMDR allows the patient to downregulate the intensity of affect and process traumatic memories in clusters, rather than individually. It also allows for the processing of somatic memory in the absence of visual images. EMDR is not a hypnotic technique and does not involve suggestion. In the course of an EMDR session, the brain is stimulated through alternating left and right perception either through eye movement, auditory or tactile stimulation. Prior to the eye movements, the patient is encouraged to generate an authentic, positive cognition, even if it is difficult to believe in the thought. The alternating stimulation seems to allow for the rapid integration of cognitive and emotional information. While research has not yet explained the mechanism or efficacy of EMDR, "the absence of theory or a conceptual foundation is not sufficient to dismiss totally the preliminary findings of the technique."⁷⁷ In the hands of a skilled and competent therapist, EMDR can be an additional useful tool. The use of hypnosis in treatment and the risks of suggestibility have generated considerable controversy. In response to concerns about pseudo-memories, the American Society of Clinical Hypnosis released a 1995 task force report concluding that memories may be recovered later in life, that hypnosis may facilitate recovery of memories, and that pseudo-memories may occur in and out of therapy, with or without hypnosis.⁷⁸ Dissociation is a

form of auto-hypnosis, and it is impossible to avoid auto-hypnotic states in treating dissociative patients. The use of hypnosis allows for carefully controlled management of severe symptoms.^{79,80}

Conclusion

In summary, dissociative disorders are almost always a result of severe, repeated childhood maltreatment. They appear much more commonly in women, possibly because of the higher incidence of sexual abuse in girls than boys, and possibly because they are recognized more in women than men.

Many patients with dissociative disorders are misdiagnosed and mistreated by clinicians who misunderstand their disguised and multifarious symptoms. As Judith Herman says,

The ordinary response to atrocities is to banish them from consciousness. Certain violations of the social compact are too terrible to utter aloud: this is the meaning of the word unspeakable.^{67(p1)}

When we recognize and identify dissociative disorders in our patients we are forced to acknowledge the consequences of chronic violence on individuals and families. Clinicians who allow patients to speak about atrocities they have experienced are challenged to hold the awareness that this suffering was inflicted by other human beings and not a random act of nature. While dissociation helps children to survive, in adults it interferes with mature adaptation.

The clinical presentation of dissociative disorders needs to be taught to every medical student, every health professional in training, and every mental health trainee. While the fractured bones and the bruises of physical abuse in childhood are no longer obvious in adult women, the symptoms of dissociation are carried into adulthood and seen by medical professionals routinely. ■

References

1. Krippner S, Powers SM. *Broken Images, Broken Selves*. Washington, DC: Bruner/Mazel; 1997.
2. Breur J, Freud S. Studies on hysteria. In: Strachey J, ed. *The Standard Edition of the Complete Psychological Works of Sigmund Freud*. Vol 2. London: Hogarth Press; 1955:1-305.
3. Kardiner A. *The Traumatic Neuroses of War*. New York, NY: Hoeber; 1941.
4. van der Kolk BA. *Psychological Trauma*. Washington, DC: American Psychiatric Press; 1987.

5. Brown P. Toward a psychobiological model of dissociation and post-traumatic stress disorder. In: Lynn SJ, Rhue JW, eds. *Dissociation*. New York, NY: Guilford; 1994:95-122.
6. Friedman MJ, Charney DS, Deutch AY, eds. *Neurobiological and Clinical Consequences of Stress: From Normal Adaptation to Post-Traumatic Stress Disorder*. Philadelphia, Pa: Lippincott-Raven; 1995.
7. van der Kolk BA, McFarland AC, Weisaeth L, eds. *Traumatic Stress*. New York, NY: Guilford; 1995.
8. Yehuda R, McFarlane AC. Psychobiology of posttraumatic stress disorder. *Ann N Y Acad Sci*. 1997;821: .
9. Putnam FW. Dissociative phenomena. In: Tasman A, Goldfinger S, eds. *Review of Psychiatry*. Vol.10. Washington, DC: American Psychiatric Press; 1991:145-160.
10. van der Kolk BA, van der Hart O, Marmar CR. Dissociation and information processing in posttraumatic stress disorder. In: van der Kolk BA, McFarlane AC, Weisaeth L, eds. *Traumatic Stress*. New York, NY: Guilford; 1995:303-327.
11. *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Washington, DC: American Psychiatric Association; 1994.
12. Ross C. *Multiple Personality Disorder: Diagnosis, Clinical Features and Treatment*. New York, NY: Wiley; 1989:316-334.
13. Kluft R. Multiple personality disorder. In: Tasman A, Goldfinger S, eds. *Review of Psychiatry*. Vol 10. Washington, DC: American Psychiatric Press; 1991:161-181.
14. Steinberg M. *Structured Clinical Interview for DSM-IV Dissociative Disorder*. Washington, DC: American Psychiatric Press; 1993.
15. Bernstein E, Putnam F. Development, reliability and validity of a dissociation scale. *J Nerv Ment Dis*. 1986;174:727-735.
16. Carlson E, Putnam F, Ross C, et al. Validity of the Dissociative Experiences Scale in screening for multiple personality disorder: A multicenter study. *Am J Psychiatry*. 1993;150:1030-1036.
17. Ellason J, Ross C. Two-year follow-up of inpatients with dissociative identity disorder. *Am J Psychiatry*. 1997;154:832-839.
18. Loewenstein R. Diagnosis, epidemiology, clinical course, treatment, and cost effectiveness of treatment for dissociative disorders and multiple personality disorder: Report submitted to the Clinton administration task force on health care financing reform. *Dissociation*. 1994;7:3-11.
19. Dennett D. *Consciousness Explained*. Boston, Mass: Little, Brown; 1991.
20. Churchland P. *Neurophilosophy*. Cambridge, Mass: MIT Press; 1986.
21. Putnam F. *Diagnosis and Treatment of Multiple Personality Disorder*. New York, NY: Guilford Press; 1989:45.
22. Kluft R, ed. *Childhood Antecedents of Multiple Personality Disorder*. Washington, DC: American Psychiatric Press; 1985.
23. Ross CA, Miller SD, Bjornson L, Reagor GA, Fraser GA. Abuse histories in 102 cases of multiple personality disorder. *Can J Psychiatry*. 1991;36:97-101.
24. Chu JA, Dill DL. Dissociative symptoms in relation to childhood physical and sexual abuse. *Am J Psychiatry*. 1990;147:887-892.
25. Kirby JS, Chu JA, Dill DL. Correlates of dissociative symptomatology in patients with physical and sexual abuse histories. *Compr Psychiatry*. 1993;34:258-263.
26. MacMillan HL, Fleming JE, Troome N, et al. Prevalence of child physical and sexual abuse in the community. *JAMA*. 1997;278:131-135.
27. Bryer JB, Nelson BA, Miller JB, Krol P. Childhood sexual and physical abuse as factors in adult psychiatric illness. *Am J Psychiatry*.

- 1987;144:1426-1430.
28. Saxe GN, van der Kolk BA, Berkowitz R, et al. Dissociative disorders in psychiatric inpatients. *Am J Psychiatry*. 1993;150:1037-1042.
29. Anderson G, Yassenik L, Ross CA. Dissociative experiences and disorders among women who identify themselves as sexual abuse survivors. *Child Abuse Negl*. 1993;17:677-686.
30. Klufft RP. The natural history of multiple personality disorder. In: Klufft RP, ed. *Childhood Antecedents of Multiple Personality*. Washington, DC: American Psychiatric Press; 1985:198-238.
31. Gilligan J. *Violence: Our Deadly Epidemic and Its Causes*. New York, NY: Grosset/Putnam; 1996.
32. Lewis DO, Yeager CA, Swica BA, Pincus JH, Lewis MB. Objective documentation of child abuse and dissociation in 12 murderers with dissociative identity disorder. *Am J Psychiatry*. 1997;154:1703-1710.
33. Wilt S, Olson S. Prevalence of domestic violence in the United States. *J Am Med Womens Assoc*. 1996;51:77-82.
34. Loftus EF, Donders K, Hoffman HG, Schooler JW. Creating new memories that are quickly accessed and confidently held. *Mem Cognit*. 1989;17:607-616.
35. Loftus EF, Hoffman HG. Misinformation and memory: The creation of new memories. *J Exp Psychol Gen*. 1989;118:100-104.
36. van der Kolk BA. The body keeps the score. *Harv Rev Psychiatry*. 1994;1:253-65.
37. Pitman R, Orr S. The black hole of trauma. *Biol Psychiatry*. 1990;27:469-471.
38. Rauch S, van der Kolk BA, Fislser R, et al. A symptom provocation study of posttraumatic stress disorder using positron emission tomography and script-driven imagery. *Arch Gen Psychiatry*. 1996;53:380-387.
39. Putnam F. *Dissociation in Children and Adolescents: A Developmental Perspective*. New York, NY: Guilford; 1997:267.
40. Hopenwasser K. Listening to the body: Somatic representations of dissociated memory. In: Aron L, Anderson FA, eds. *Relational Perspectives on the Body*. New York, NY: The Analytic Press. In press.
41. Krystal JH, Bennett AL, Bremner JD, Southwick SM, Charney DS. Toward a cognitive neuroscience of dissociation and altered memory functions in post-traumatic stress disorder. In: Friedman MJ, Charney DS, Deutch AY, eds. *Neurobiological and Clinical Consequences of Stress*. Philadelphia Pa: Lippincott-Raven; 1995.
42. Crick F. *The Astonishing Hypothesis: The Scientific Search for the Soul*. New York, NY: Scribners; 1994.
43. Klufft R. Clinical presentations of multiple personality disorder. *Psychiatr Clin North Am*. 1991;10:605-629.
44. Herman JL, Perry JC, van der Kolk BA. Childhood trauma in borderline personality disorder. *Am J Psychiatry*. 1989;146:490-495.
45. Goldman S, D'Angelo E, DeMaso D, Mezzacappa E. Physical and sexual abuse histories among children with borderline personality disorder. *Am J Psychiatry*. 1992;149:1723-1726.
46. Shearer SL, Peters CP, Quayman MS, Ogden RL. Frequency and correlates of childhood sexual and physical abuse histories in adult female borderline patients. *Am J Psychiatry*. 1990;147:214-216.
47. van der Kolk BA. The complexity of adaptation to trauma. In: van der Kolk BA, McFarlane AC, Weisaeth L, eds. *Traumatic Stress*. New York, NY: Guilford; 1995:182-213.
48. Putnam FW, Guroff JJ, Silberman EK, Barban L, Post RM. The clinical phenomenology of multiple personality: 100 recent cases. *J Clin Psychiatry*. 1986;47:285-293.
49. Braun BG. Neurophysiologic phenomena in multiple personality disorder. *Am J Clin Hypn*. 1983;26:124-137.
50. Coons PM. Psychophysiological aspects of multiple personality disorder: A review. *Dissociation*. 1988;1:47-53.
51. Miller S. Optical differences in cases of multiple personality disorder. *J Nerv Ment Dis*. 1989;177:480-486.
52. Miller SD, Blackburn T, Scholes G, White GL, Mamalis N. Optical differences in multiple personality disorder. *J Nerv Ment Dis*. 1991;179:132-135.
53. Putnam FW. Recent research on multiple personality disorder. *Psychiatr Clin North Am*. 1991;14:489-502.
54. Hunter M. Multiple personality disorder and the family physician. *Dissociation*. 1993;6:119-125.
55. Bellis MD, Burke L, Trickett PK, Putnam FW. Antinuclear antibodies and thyroid function in sexually abused girls. *J Trauma Stress*. 1996;9:369-378.
56. Braun BG. The BASK model of dissociation. *Dissociation*. 1988;1:4-23.
57. Swett C, Halpert M. High rates of alcohol problems and history of physical and sexual abuse among women inpatients. *Am J Drug Alcohol Abuse*. 1994;20:263-272.
58. Brady KT, Killeen T, Saladin ME. Comorbid substance abuse and posttraumatic stress disorder. *Am J Addict*. 1994;3:160-164.
59. Foa EB, Riggs DS. Posttraumatic stress disorder and rape. In: Oldham JM, Riba MB, Tasman A, eds. *Review of Psychiatry*. Vol 12. Washington, DC: American Psychiatric Press; 1993:273-303.
60. Briere JN. *Psychological Assessment of Adult Post-traumatic States*. Washington, DC: American Psychological Association; 1997.
61. Marmar CR, Weiss DS, Metzler TJ. The Peritraumatic dissociative experiences questionnaire. In: Wilson JP, Keane TM, eds. *Assessing Psychological Trauma and PTSD*. New York, NY: Guilford Press; 1997.
62. Herman JL. Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. In: Everly G, Lating J, eds. *Psychotraumatology*. New York, NY: Plenum Press; 1995:87-100.
63. Peclovitz D, van der Kolk B, Roth S, et al. Development of a criteria set and a structured interview for disorders of extreme stress (SIDES). *J Trauma Stress*. 1997;10:3-16.
64. Terr L. Childhood traumas: An outline and overview. *Am J Psychiatry*. 1991;148:10-20.
65. Zlotnick C, Zakriski AL, Shea MT, et al. The long-term sequelae of sexual abuse: Support for a complex posttraumatic stress disorder. *J Trauma Stress*. 1996;9:195-205.
66. *Guidelines for Treating Dissociative Identity Disorder in Adults*. Skokie, Ill: The International Society for the Study of Dissociation; 1994.
67. Herman JL. *Trauma and Recovery*. New York, NY: Basic Books; 1992.
68. Briere JN. *Child Abuse Trauma: Theory and Treatment of the Lasting Effects*. Newbury Park, Calif: Sage; 1992.
69. Klufft RP, Fine CG. *Clinical Perspectives on Multiple Personality Disorder*. Washington, DC: American Psychiatric Press; 1993.
70. Barkin R, Braun BG, Klufft RP. The dilemma of drug therapy for multiple personality disorder. In Braun BG, ed. *Treatment of Multiple Personality Disorder*. Washington, DC: American Psychiatric Press; 1986:107-132.
71. Fine CG. A tactical integrationalist perspective on the treatment of multiple personality disorder. In: Klufft RP, Fine CG, eds. *Clinical Perspectives on Multiple Personality Disorder*. Washington, DC: American Psychiatric Press; 1993:135-153.
72. Cohen BM, Cox CT. *Telling Without Talking*. New York, NY: Norton; 1995.
73. Klufft RP. Incest and subsequent revictimization: The case of therapist-patient sexual exploitation, with a description of the sitting duck syndrome. In: Klufft RP, ed. *Incest-Related Syndromes of Adult Psychopathology*. Washington, DC: American Psychiatric Press; 1990:263-287.
74. Shapiro F. *Eye Movement Desensitization and Reprocessing: Basic Principles, Protocols, and Procedures*. New York, NY: Guilford Press; 1995.
75. Young WC. EMDR treatment of phobic symptoms in multiple personality disorder. *Dissociation*. 1994;7:129-133.
76. Schwarz R. The supportive use of EMDR in working with patients with dissociative identity disorder. *EMDR/IA Newsletter*. 1997;3:21-23.
77. Keane TM. Psychological and behavioral treatments for post-traumatic stress disorder. In: Nathan P, Gorman J, eds. *Treatments That Work*. New York, NY: Oxford University Press; 1998:403.
78. *Clinical Hypnosis and Memory: Guidelines for Clinicians and for Forensic Hypnosis*. Des Plaines, Ill: American Society of Clinical Hypnosis Press; 1995.
79. Maldonado JR, Spiegel D. Using hypnosis. In: Clssen C, ed. *Treating Women Molested in Childhood*. San Francisco, Calif: Jossey-Bass; 1995:163-186.
80. Maldonado JR, Spiegel D. Treatment of post-traumatic stress disorder. In: Lynn SJ, Rhue JW, eds. *Dissociation*. New York, NY: Guilford; 1994:215-241.