Dissociative Disorders: An Overview of Assessment, Phenomonology, and Treatment

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Dissociation is a process that provides protective psychological containment of, detachment from, and even physical analgesia for overwhelming experiences, usually of a traumatic or stressful nature. Dissociation is conceptualized as analogous to the "animal defensive reaction" of freezing in the face of predation, when fight/flight is impossible.[1] Neurobiological studies have shown specific patterns of brain activation that differentiate dissociative posttraumatic reactions from hyperaroused forms of posttraumatic stress disorder (PTSD).

This article provides a brief overview of the etiology, comorbidity, prevalence, clinical features, differential diagnosis, and treatment of dissociative disorders.

CAUSES AND COMORBIDITIES

Dissociation is defined in DSM-IV-TR[2] as a disruption of the usually integrated functions of the following:

- Consciousness (eg, trance states, nonepileptic seizures, pseudodelirium)
- Memory (eg, impairment of autobiographical memory: dissociative amnesia)
- Awareness of body and/or self (depersonalization, eg, feeling numb, watching self from a distance as if in a movie)
- Awareness of environment (derealization, eg, world appears far away or "foggy"; familiar places/people seem unfamiliar or strange; tunnel vision)
- Identity (eg, confusion about one's identity; experiencing discrete and discordant behavioral states referred to as "identities")[2]

One of the strongest predictors of dissociation is antecedent trauma, particularly early childhood trauma and difficulties with attachment and parental unavailability.[3-6] The evidence for a relationship between dissociation and many types of trauma is robust and has been validated across cultures in clinical and nonclinical samples using both cross-sectional and longitudinal methodologies as well as in large population studies and in well-designed prospective, longitudinal studies.

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FACULTY DISCLOSURES

Drs Brand and Loewenstein report no conflicts of interest concerning the subject matter of this article.

This activity has been independently reviewed for balance.

TARGET AUDIENCE

This continuing medical education activity is intended for psychiatrists, psychologists, primary care physicians, nurse practitioners, and other health care professionals who seek to improve their care for patients with mental health disorders.

GOAL STATEMENT

This activity will provide participants with education on the etiology, comorbidity, prevalence, clinical features, differential diagnosis, and treatment of dissociative disorders.

ESTIMATED TIME TO COMPLETE

The activity in its entirety should take approximately 90 minutes to complete.

LEARNING OBJECTIVES

After completing this activity, participants should be able to:

- Conduct differential diagnosis in their patients
- Identify patients with dissociative disorder
- Recognize clinical features associated with dissociative disorder and distinguish between different types of the disorder
- Develop appropriate treatment strategies for their patients

COMPLIANCE STATEMENT

This activity is an independent educational activity under the direction of CME LLC. The activity was planned and implemented in accordance with the Essential Areas and policies of the ACCME, the Ethical Opinions/Guidelines of the AMA, the FDA, the OIG, and the PhRMA Code on Interactions with Healthcare Professionals, thus assuring the highest degree of independence, fair balance, scientific rigor, and objectivity.

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Exposure to multiple types of trauma over multiple developmental epochs is associated with a wide range of clinical problems that have been organized into the construct of complex PTSD.[3,5,7-9] These include the following:

- Affective dysregulation (numbness, dissociation alternating with hyperarousal and emotional flooding; problems with anger, anxiety, shame)
- Behavioral dysregulation (impulsive, self-destructive, and aggressive behavior; substance abuse; high-risk behaviors)
- Identity problems, including compartmentalization of self and/or self-fragmentation, difficulties with body image, and eating disorders
- Disruption in meaning (eg, seeing the world as traumatizing and untrustworthy and the self as damaged and blameworthy for trauma)
- Interpersonal problems (avoidance of relationships; tumultuous attachments; violent, abusive relationships)
- Somatization and somatoform disorders, including high-risk behaviors and multiple health problems, such as heart disease, liver disease, pulmonary diseases, autoimmune disorders, chronic fatigue syndrome, gastroesophageal reflux disease, irritable bowel syndrome, headaches, smoking, early and multiple pregnancies, morbid obesity, and sexually transmitted diseases, among others.[10,11]

Many patients with dissociative disorder also fit the complex PTSD construct. Epidemiological studies have found that mood, somatoform, and non-PTSD anxiety disorders and substance abuse are commonly associated with antecedent trauma, as is PTSD.[3,12] Accordingly, these are all common comorbidities of patients with dissociative disorders.

Recent research suggests that a predominantly dissociative, hypoemotional subtype of PTSD is distinguishable from a predominantly hyperaroused, hyperemotional subtype.[12,13] This distinction has important implications because of differences in etiology, clinical and neurobiological features, and response to treatment (**Table 1**). Many patients with the dissociative subtype of PTSD will meet DSM-IV-TR criteria for a dissociative disorder.

Specifically, neurobiological and neuroimaging studies in clinical and nonclinical samples that included patients with PTSD, depersonalization disorder, and dissociative amnesia, as well as healthy cohorts involved in memory suppression/retrieval studies have shown a specific pattern of findings.[13] These findings include, in clinical subjects, *increased* activation of brain regions involved in arousal/emotional modulation/regulation, such as the dorsal anterior cingulate cortex and medial prefrontal cortex in response to specific personalized trauma scripts, and/or in facial emotional recognition tasks. In turn, these dissociative responses in PTSD populations, as well as in memory suppression in dissociative amnesia patients and normal subjects, are associated with *decreased* activation of the amygdala, insular cortex, and hippocampus, respectively. This contrasts with more typical hyperaroused PTSD patients who, in response to traumatic reminders and/or masked fearful faces, show *decreased* activation of medial anterior brain regions involved in arousal/emotional modulation/regulation (eg, the ventromedial prefrontal cortex and rostral anterior cingulate cortex) and *increased* activation of the limbic system, particularly the amygdala.

Table 1

Typical differences between dissociative, hypoemotional and hyperaroused, hyperemotional PTSD[12,41]

Dissociative subtype	Hyperaroused subtype
Etiology	
Likely to be more severe, chronic, repeated, usually childhood and adult trauma	Likely to be later-occurring trauma and/or less cumulative trauma
Likely response when presented with traumatic narrative or triggers	
Dissociation, numbing; decreased, blunted autonomic arousal: decreased heart rate, delayed cortisol release, decreased skin conductance; brain areas activated that may overcontrol emotion and alter sense of self (eg, MPFC)	Terror; increased autonomic arousal: increased heart rate, rapidly increased cortisol level, increased skin conductance; brain areas activated that may undercontrol emotion
Psychotherapy	
Requires staged approach emphasizing safety, stabilization, alliance-building, and symptom management preceding exploration of traumatic memories/modified exposure therapy	Exposure therapy or cognitive processing therapy after brief stabilization
Medication	
None specifically targeting dissociation; medication may be used to stabilize PTSD and other comorbid conditions, such as depression	FDA-approved for PTSD: sertraline, paroxetine

PTSD, posttraumatic stress disorder; MPFC, medial prefrontal cortex.

PREVALENCE OF DISSOCIATIVE DISORDERS

DSM-IV-TR identifies 5 dissociative disorders: dissociative amnesia, dissociative fugue, depersonalization disorder, dissociative identity disorder, and dissociative disorder not otherwise specified (DDNOS). Epidemiological studies of dissociative disorder have been conducted in the United States, Canada, the Netherlands, Germany, Switzerland, Finland, China, and Turkey.

Dissociative amnesia is typically found to be the most prevalent dissociative disorder in general population studies, with a prevalence of up to 3%.[14] The prevalence of depersonalization disorder is estimated to be between 1% and 2%. DDNOS tends to be the most prevalent dissociative disorder found in clinical studies, with a prevalence of about 9.5% in both inpatient and outpatient samples. Across general population studies, the most severe dissociative disorder, dissociative identity disorder (formerly multiple personality disorder) has a prevalence of approximately 1% and has been found in 1% to 20% of psychiatric inpatients and outpatients, depending on the sample.

CLINICAL FEATURES

Depersonalization disorder

Depersonalization can involve feeling robotic, unreal and/or estranged, or detached or disconnected from one's self. The symptoms of depersonalization can be found in persons with a range of disorders, and also in normal adolescents, and they can be caused by substance abuse.[2,15] The typical age at onset of depersonalization disorder is in adolescence or early adulthood, and it can be acute or insidious.[15] Approximately two-thirds of patients with depersonalization disorder have a chronic course. In addition to feeling severely depersonalized/derealized, many patients report impairments in attention, memory, and occupational and interpersonal function.[15,16]

Although comorbid mood and anxiety are common, both of these disorders usually follow the onset of depersonalization and do not predict the severity of depersonalization disorder symptoms. Depersonalization disorder symptoms do not respond to typical treatments for mood/anxiety disorders. Patients with depersonalization disorder report having experienced significantly more childhood trauma, particularly emotional abuse, than controls. Reports of emotional abuse uniquely predict depersonalization severity. Simeon and colleagues[17] found that severe stress or later-life traumatic stressors are associated with the onset of depersonalization disorder in 25% of all cases.In placebo-controlled trials, patients with depersonalization disorder did not respond to fluoxetine and lamotrigine.[15]

Simeon[15] hypothesized that there is a severity

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Table 1 Office mental status interview for assessing dissociation

Blackout/time loss
- Do you ever have blackouts, blank spells, memory lapses?
- Do you lose time?

Disremembered behavior
- Do you find evidence that you have said and done things that you do not recall?
- Do people tell you of behavior you have engaged in that you do not recall?

Fugues
- Do you ever find yourself in a place and not know how you got there?

Unexplained possessions
- Do you find objects in your possession (eg, clothes, groceries, books) that you do not remember acquiring? Out-of-character items? Items a child might have?
- Do you find that objects disappear from you in ways for which you cannot account?
- Do you find writings, drawings, or artistic productions in your possession that you must have created but do not recall creating?

Changes in relationships
- Do you find that your relationships with people frequently change in ways that you cannot explain?

Fluctuations in skills/habits/knowledge
- Do you find that sometimes you can do things with amazing ease that seem much more difficult or impossible at other times?
- Does your taste in food, music, or personal habits seem to fluctuate?
- Does your handwriting change frequently? A little? A lot? Childlike?
- Are you right-handed or left-handed? Does it fluctuate?

Fragmentary recall of life history
- Do you have gaps in your memory of your life? Missing parts of your memory of your life history?
- Do you remember your childhood? When do those memories start? First memory? Next? Next?

Intrusion/overlap/interference (passive influence)
- Do you have thoughts or feelings that come from inside or outside you that don't feel like yours? Are outside your control?
- Do you have impulses or engage in behaviors that don't seem to be coming from you?
- Do you hear voices, sounds, or conversations in your mind?

Negative hallucinations
- Do you ever *not* see/hear what's going on around you? Can you block out people or things altogether?

Analgesia
- Are you able to block out physical pain? Wholly? Partly? Always? Sometimes?

Depersonalization/derealization
- Do you frequently have the experience of feeling as if you are outside yourself or watching yourself as if you were another person?
- Do you ever feel disconnected from yourself or as if you were unreal?
- Do you experience the world as unreal? As if you are in a fog or daze?
- Do you ever look in the mirror and not recognize yourself?

Trauma
- Who made the rules in your family and how were they enforced?
- Did you witness violence between family members?
- Have you ever had unwanted sexual contact with anyone? As a child? Teenager? Adult?
- As a child, what made you feel safe? Was anyone kind to or supportive of you?
- Flashbacks; intrusive symptoms; sight, sound, taste, smell, touch: Do you ever experience events that happened to you before as if they are happening now?
- Nightmares: how often, since when? Do you awaken disoriented? Find yourself somewhere else?
- Are there specific people, situations, or objects that trigger you? Are these associated with time loss?
- Are you a jumpy person? Easily startled?
- Do you avoid people, situations, or things that remind you of traumatic or overwhelming events? Can you block out feelings?

Somatoform symptoms
- Do you ever get physical symptoms/pain that your doctors can't medically explain?

Adapted with permission from Loewenstein RJ. *Psychiatr Clin North Am.* 1991.[25]

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spectrum of dissociative symptoms (although not necessarily of impairment). Depersonalization disorder represents a "milder" end of the continuum, and dissociative identity disorder, which is associated with more extreme forms of early trauma, represents the "more severe" end of the continuum.

Dissociative amnesia

Patients with dissociative amnesia are unable to recall important autobiographical information, usually of a traumatic or stressful nature, that is inconsistent with ordinary forgetfulness.[2] This memory impairment is caused by a reversible psychological inhibition, rather than organic factors. Often the dissociated memories intrude in disguised forms, such as nightmares, flashbacks, or conversion symptoms.[2] The ability to learn new information remains intact, as does general cognitive functioning.

There are 2 presentations of dissociative amnesia. The first is frequently portrayed in textbooks and media accounts: the patient experiences sudden, dramatic amnesia involving extensive aspects of personal information, often with disorientation, confusion, alterations in consciousness, and/or wandering.[2] Such patients often present in emergency departments or in inpatient medical or neurology units.

The second presentation is more common but receives less attention because patients do not spontaneously report dissociative amnesia. A careful history will show lack of recall for significant aspects of the life history. This type of dissociative amnesia usually has a clear onset and offset, and the patient is aware of a gap in memory. For example, a patient may not recall being in junior high school despite memory for the other years of school. Dissociative amnesia has been documented for traumatic experiences, including combat; the Nazi and Cambodian holocausts; and sexual, physical, and emotional abuse or assault.[2,18] Many patients with dissociative amnesia have a history of depression and suicidal ideation.

Predisposing factors may include a history of personal or familial somatoform or dissociative symptoms, and/or growing up with a rigid family moral code enforced with harsh discipline. Dissociative amnesia may be related to avoidance of responsibility associated with sexual behavior or legal or financial difficulties; fear of combat; or avoidance of massively stressful situations or intolerable conflicting emotions, including shame, rage, desperation, despair, and intolerable urges (eg, sexual, suicidal, violent).

Most cases of the classic dissociative amnesia resolve within days or months, spontaneously or through psychotherapy or hypnotherapy. The second type of dissociative amnesia resolves only in the course of overall psychotherapy for complex PTSD.[2] Because dissociative fugue is thought to occur only in the course of dissociative amnesia or dissociative identity disorder, it is likely to be removed from DSM-5 as a separate disorder.

CATEGORY 1

Dissociative identity disorder and DDNOS

Extensive literature exists on the diagnosis, phenomenology, etiology, epidemiology, and treatment of dissociative identity disorder. Because presenting symptoms, history, clinical course, and treatment response are similar in patients with DDNOS and dissociative identity disorder, the two are combined here.[2]

Dissociative identity disorder is conceptualized as a childhood onset, posttraumatic developmental disorder in which the child is unable to consolidate a unified sense of self. Detachment from emotional and physical pain during trauma can result in alterations in memory encoding and storage. In turn, this leads to fragmentation and compartmentalization of memory and impairments in retrieving memory.[2,4,19] Exposure to early, usually repeated trauma results in the creation of discrete behavioral states that can persist and, over later development, become elaborated, ultimately developing into the alternate identities of dissociative identity disorder.

Because of media portrayals, clinicians may believe that dissociative identity disorder presents with dramatic, florid alternate identities with obvious state transitions (switching). These florid presentations occur in only about 5% of patients with dissociative identity disorder.[20] However, the vast majority of these patients have subtle presentations characterized by a mixture of dissociative and PTSD symptoms embedded with other symptoms, such as posttraumatic depression, substance abuse, somatoform symptoms, eating disorders, and self-destructive and impulsive behaviors.[2,10] A history of multiple treatment providers, hospitalizations, and good medication trials, many of which result in only partial or no benefit, is often an indicator of dissociative identity disorder or another form of complex PTSD.[10]

Dissociative disorder experts focus less on overt personality states than on the polysymptomatic presentation of dissociative identity disorder.[14] Some studies show that the phenomenological experience of overlap/interference/intrusions between alternate identities into patients' consciousness—which can be misdiagnosed as psychotic passive influence or Schneiderian first-rank symptoms—is more common in dissociative identity disorder than overt switching.

Assessment of these intrusions in the clinical interview is useful in the differential diagnosis. In several studies, patients with dissociative identity disorder experienced more apparent first-rank symptoms, although not thought broadcasting or audible thoughts, than did patients who had schizophrenia.[21-23] These intrusions into consciousness include those that are partially excluded from consciousness (eg, "hearing" voices of identities, thought insertion/withdrawal, "made" actions/impulses) and those that are fully excluded from consciousness (eg, time loss, fugues, being told of disremembered behaviors).[14,23]

DIFFERENTIAL DIAGNOSIS

Making the diagnosis of a dissociative disorder can be challenging because patients rarely volunteer information about dissociative symptoms or their histories of trauma. Furthermore, most clinicians have not been trained to assess dissociation. Unless a patient is asked about trauma history and dissociation, the clinician will not be able to accurately diagnose trauma-related disorders, including dissociative disorder. At times, a safe, collaborative relationship must be developed before asking about these private and often subjectively shameful experiences. Brand and colleagues[24] have reported that patients with dissociative disorder are often reluctant to report experiences that they are aware sound crazy and that they tend to avoid confronting.

Loewenstein[25] has detailed an office mental status examination for assessing dissociative symptoms (**Table 2** presents an abridged version). It reviews a wide variety of dissociative, posttraumatic, affective, and somatic symptoms as well as trauma exposure. Interviews suggestive of dissociative disorders can be supplemented with data from dissociative screening instruments and structured interviews (**Table 3**).

There are several self-report screening measures for dissociation. The most widely used is the Dissociative Experiences Scale (DES).[26] The DES has been used in more than 1000 studies and translated into more than 40 languages. The DES has 28 items that assess amnesia, absorption, identity alteration, and depersonalization/derealization. Patients rate how much of the time they experience symptoms, ranging from 0% to 100%, and an average score is calculated. An average score of 30 or higher has an 85% hit rate for severe dissociative disorders, such as dissociative identity disorder and related forms of DDNOS. However, lower scores can also be found in patients with dissociative disorder.

Screening instruments must be interpreted in the clinical context and are not a substitute for clinical judgment in the diagnosis of dissociative disorders or any other clinical diagnosis. The Multidimentional Inventory of Dissociation (MID) is a self-report, diagnostic assessment test that measures partial and full pathological dissociation.[22] Additional information on the assessment of dissociation in adults and children is

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Table 3 Additional resources for screening for dissociative disorders

Resource	Source and additional details
Self-report dissociation measures	
Dissociative Experiences Scale (DES)[26]	• Available free to ISSTD members at www.isst-d.org • DES taxon calculator available at www.isst-d.org/education/des-taxon-portal.htm
Multidimensional Inventory of Dissociation (MID)[22]	• Available free from author at Pfdell@aol.com • Available free to ISSTD members at www.isst-d.org
Somatoform Dissociation Questionnaire (SDQ)[42]	• Available free to ISSTD members at www.isst-d.org
Multiscale Dissociation Inventory (MDI)[43]	• Available from PAR, Inc
Structured clinical interviews of dissociation	
Structured Clinical Interview for Dissociative Disorders-Revised (SCID-D-R)[16]	• Available from American Psychiatric Press
Dissociative Disorders Interview Schedule (DDIS)[28]	• Available free at www.rossinst.com/sample_forms.html
Training	
International Society for the Study of Trauma and Dissociation (ISSTD)	• FAQs, conferences, online and in person therapist training courses, online webinars, study groups, DES taxon calculator, assessment measures available at www.isst-d.org
Readings for therapists	
Treatment and assessment detailed in guidelines for adults[6] and for children and adolescents[27]	• Available free at www.isst-d.org

CATEGORY 1

Table 4

Features that typically distinguish DID/DDNOS from borderline personality disorder, bipolar disorder, and schizophrenia

DID/DDNOS[1]	Schizophrenia and psychotic disorders	Bipolar disorder	Borderline personality disorder
Trauma			
Typically report early-onset, severe, chronic childhood trauma[44]; high number of traumatic intrusions on Rorschach[44]	Less likely to have severe, chronic childhood trauma; fewer traumatic intrusions on Rorschach compared with DID[44]	Less likely to have severe, chronic childhood trauma	Although may report a history of childhood trauma, less severe than for DID[45]; do not differ from DID on traumatic intrusions on Rorschach[44]
Dissociative symptoms			
Typically endorse high levels (eg, DES average score 44.6[46]) with intact reality testing; often prefer to feel numb than to have strong feelings	Endorse mildly high symptoms (eg, DES average score 17.6[46]) with poor reality testing	Lower dissociation scores expected	Endorse moderate symptoms (eg, DES average score 21.6[46]) but significantly lower than DID[45] with intact reality testing; not significantly different from DID on derealization and depersonalization, but significantly lower on amnesia, identity confusion, identity alteration[45]
May self-harm to induce a state of dissociation; when dissociating, may be involved in elaborate inner world involving identities, some of whom may be related to past traumatic experiences	Low hypnotizability		
Highest hypnotizability of any clinical group on standard scales[2]			Often find it distressing to feel numb and may self-harm to end an episode of dissociation; when dissociating, are merely "trancing" or depersonalized; do not have an inner world of identities Moderate to high hypnotizability on standard scales[2]
Transformations in identity			
May admit to transformations in identity (eg, "there's a part of me that is a scared child and another part is critical and yells like my abuser did"); endorse past and current amnesia for many types of behaviors	May admit to transformations in identity but with magical or delusional beliefs (eg, "I had to become the prophet David and then had to fight myself when I became the devil"); no current amnesia (except when recalling periods of florid psychosis)	None	May experience identity changes related to polarized mood changes (eg, "I was the loving, happy me when I was dating my boyfriend, but when he left me, the depressed, angry me took over"); little if any significant current amnesia outside of drug and alcohol use Time loss mostly when patient is "trancing"; may have less detailed recall for behavior in mood states different from the current one
Hallucinatory experiences			
Often endorse hearing voice(s) but aware of the "as if" quality ("I know they're not real but I hear a child crying as she gets yelled at by a man who sounds like the person who abused me."); voices express conflicting opinions and values[44]; hearing "thoughts that aren't mine" or "arguing thoughts"; most often, voices are experienced inside the head; may have elaborate conversations with voices, multiple conversations at the same time, or written conversations; may experience brief periods of "seeing" past traumatic events in flashback or "seeing" identities; reality testing otherwise intact; auditory and visual hallucinations relate to high dissociativity/hypnotizability	May endorse voices without awareness of the hallucinatory quality; typically voices are not involved in elaborate, ongoing, interrelated discussions and arguments; voices are not typically related to past abusers and/or hurt children; may have visual hallucinations without observing ego; hallucinations are due to psychotic process	Experience hallucinations only during episodes of psychotic mania or depression; in psychotic depression, the voices are typically solely persecutory (do not have child voices or encouraging voices); voices are not in conflict with one another	If experience hallucinations, they are brief, distressing and occur during stress; if endorse voices, they express patient's polarized thoughts, not different values and opinions[44]

CATEGORY 1

available.[2,6,27] There are 2 DSM-IV-TR structured interviews that can provide formal diagnoses of dissociative disorder, the Structured Clinical Interview for DSM-IV-TR Dissociative Disorders, Revised (SCID-D-R) and the Dissociative Disorders Interview Schedule (DDIS).[16,28]

Dissociative identity disorder and severe DDNOS are often confused with psychotic and affective disorders as well as with borderline personality disorder. While they can be comorbid with these disorders, they are not synonymous. Distinguishing characteristics are presented in **Table 4** to clarify the differential diagnosis.

TREATMENT

Psychological treatment

The current standard of care is that treatment of severe dissociative disorders involves a phasic, multimodal, trauma-focused psychotherapy that addresses the manifold dimensions of symptoms.[6,29] There are no randomized clinical trials of dissociative disorder to date and only 1 controlled case study. Brand and colleagues[29] recently reviewed 16 dissociative disorder treatment outcome studies and 4 case studies that used standardized measures. Data from these noncontrolled, observational trials showed that treatment based on the above model was associated with reductions in symptoms of dissociation, depression, general distress, anxiety, and PTSD. Some studies found that treatment was associated with decreased use of medications and improved work and social functioning. Eight open inpatient and outpatient studies provided sufficient data to be included in a small meta-analysis. Effect sizes, based on before and after within-patient measures, ranged from medium to large (**Table 5**).

Treatment studies have primarily focused on dissociative identity disorder; case series studies suggest that one group was successfully treated to full fusion or integration so that they no longer met criteria for dissociative identity disorder. Another group gradually showed a reduction in symptoms, while a third group showed some improvement yet continued to be chronically ill.[30] Nonrandomized open dissociative identity disorder treatment studies have found that hospitalizations that focus on trauma and/or dissociation are associated with reductions in a range of symp-

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Table 4, cont'd

Features that typically distinguish DID/DDNOS from borderline personality disorder, bipolar disorder, and schizophrenia

DID/DDNOS[1]	Schizophrenia and psychotic disorders	Bipolar disorder	Borderline personality disorder
Affect			
Typically experience a range of sometimes inexplicable, rapid mood changes that may be triggered by internal or external precipitants (eg, sad to angry to helpless and afraid); many mood shifts can occur per day; rarely complain of "emptiness"; instead, the inner world is complex, "full" of conflict, identities, and inner struggles; typically avoid affect and are obsessive, intellectualized[24]	Flat and/or inappropriate affect; affect less modulated than in DID[44]	Shifts in mood state occur more slowly (take at least 12 hours to shift mood state and usually much longer than that)	Affect is significantly less modulated than in DID[46] and shifts according to external precipitants; often the most frequent affects are emptiness and intense anger
Ability to perceive accurately and think logically			
Perceptions are generally accurate[44]; thinking is usually logical and organized despite traumatic intrusions[44]	Perception is not significantly less accurate than in DID[44]; thinking is significantly less logical and organized than in DID[44]	Disturbed only during mood episodes	Perception is significantly less accurate than in DID[44]; thinking is significantly less logical and organized than in DID[44]
Working alliance			
Capable of developing a working alliance with therapist as a result of capacity to experience others as cooperative[44]; interest in others despite fear of being hurt[44]; capacity for emotional distancing and self-reflection[44]; may have long-standing relationships and/or be avoidant and prefer to be alone because it feels "safer"	Less capable of developing a working alliance because expect others to be less cooperative than in DID[46]; significantly less interest in others than in DID[44]; less capacity for emotional distancing and self-reflection than in DID[44]	Capable of developing a working alliance	Less capable of developing a working alliance because expect others to be less cooperative than in DID[44]; about the same level of interest in others as in DID[44]; less capacity for emotional distancing and self-reflection than in DID[44]; tumultuous, chaotic relationships; difficulty in tolerating being alone
Comorbidity			
Usually meet criteria for multiple comorbid disorders, including mood disorder, PTSD and other anxiety disorders, substance abuse disorders, mixed personality disorders, and somatoform disorder, as well as multiple medical illnesses, such as headaches, fibromyalgia, and GI and gynecological problems; usually meet BPD criteria when severely decompensated or having overwhelming PTSD/dissociative disorder symptoms; most do not meet BPD criteria once stabilized	Typically meet criteria for fewer comorbid conditions, although substance abuse disorders are common	Typically meet criteria for fewer comorbid conditions	Often have a variety of comorbid disorders, but less prevalence of PTSD and somatoform disorders

DID, dissociative identity disorder; DDNOS, dissociative disorder not otherwise specified; DES, Dissociative Experiences Scale; PTSD, posttraumatic stress disorder; BPD, borderline personality disorder.

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toms, including depression, anxiety, a number of Axis I and Axis II diagnoses, and dissociation.[29,31]

The first international, naturalistic, prospective study of dissociative identity disorder and DDNOS treated by community therapists shows initial promising results. Cross-sectional results indicate that treatment is associated with a wide range of improvements.[32] Therapists (N = 292) from around the world and one of their patients with dissociative identity disorder or DDNOS (N = 280) reported on a variety of variables, including stage of therapy, symptoms, and level of adaptive functioning. Patient and therapist reports showed that the patients in the later stages of treatment had fewer symptoms of dissociation, PTSD, and general distress; fewer recent hospitalizations; and better adaptive functioning than patients in the early stages of treatment.[32] Preliminary follow-up data extend these findings.[33]

Dissociative disorders are heterogenous disorders with somewhat different treatment approaches. Detailed descriptions of treatment are available and inform the brief overview that follows.[2,6,7,34-37]

Phase-oriented treatment is the standard of care for treating dissociative disorder and complex trauma disorders. Three phases typify the course of treatment, although aspects of each phase may repeat throughout treatment.

Phase 1. The early exposure to trauma and disruptions in attachment reported by many patients with dissociative disorder are frequently reenacted in adulthood through self-injurious behaviors, suicide attempts, alcohol and drug abuse, aggression toward others, and current abusive relationships. Thus, the first phase of treatment emphasizes the stabilization of safety issues. The focus is on enhancing symptom control, containing affect and impulses, educating about trauma treatment, and establishing a collaborative working relationship. This phase is often the longest and is considered the most important. Some patients may remain in the first phase for years because of ongoing enmeshment in destructive relationships, overinvestment in the dissociative disorder, and/or debilitating psychiatric or medical comorbidity.

Phase 2. If the patient becomes sufficiently stabilized, he or she may choose to move into the second phase. It involves processing of traumatic memories by exploring the meanings and impact of traumatic experiences; identifying and resolving trauma-related cognitive distortions and reenactments; and expressing previously avoided emotions, including grief, betrayal, terror, helplessness, rage, and shame. This process enables patients to develop a coherent narrative of their nontraumatic as well as traumatic experiences and a sense of mastery over their memories. The goal is to gain a sense of self-efficacy and an identity that includes growth and strength.

Phase 3. In patients with dissociative identity disorder, integration of personality states occurs throughout the second and third phases. Phase 3 entails reintegration into life, in which the patient integrates disowned aspects of self and focuses increasingly on current and future life issues and goals.[38] Patients often develop deeper recognition that earlier trauma and attachment difficulties may have altered their development and health in ways that cannot be fully overcome. Thus, the patient's increasing sense of freedom and calm is tempered by a fuller recognition of the consequences of early trauma and related dysfunction.

Pharmacotherapy

Medication is not the primary treatment for dissociative disorder or complex PTSD, although it is commonly used to assist with stabilization and to treat comorbid conditions.[38] Medications typically result in partial improvement, so they are best thought of as "shock absorbers" rather than as curative.

Psychiatric medications should target the hyperarousal and intrusive symptoms of PTSD and comorbid conditions such as affective disorders and obsessive-compulsive symptoms (a surprisingly common comorbidity to dissociative disorders and complex PTSD).[2,6,38] Patients with dissociative disorder may have frequent symptom and mood fluctuations; thus, experts recommend adjusting medications to attend to the patient's overall emotional climate rather than trying to medicate the day-to-day psychological changes.

A poor medication response despite adequate trials of many different medications may provide a clue that dissociative disorder should be assessed. Affective symptoms are among the most responsive to medication in dissociative disorder, although less robustly than in primary affective disorders.[2] Intrusions and hyperarousal symptoms of PTSD are often partially responsive to medication.

Clinicians report some success in reducing anxiety with the medications found useful for PTSD; these include SSRI, tricyclic, and monoamine oxidase inhibitor (MAOI) antidepressants; β-blockers; clonidine; prazosin; anticonvulsants; and benzodiazepines.[2] (Tricyclic, MAOI, all SSRI/serotonin-norepinephrine reuptake inhibitor antidepressants except paroxetine and sertraline; β-blockers; clonidine; prazosin; anticonvulsants; and neuroleptics may be used off-label for the treatment of PTSD.) Although neuroleptics are typically ineffective for apparent or pseudopsychotic symptoms, such as hearing voices, in dissociative disorder, low doses—particularly of the atypical neuroleptics—can be beneficial in patients with severe anxiety, intrusive symptoms of PTSD, and/or entrenched illogical thinking.[2]

Table 5

Effect sizes for improvements associated with treatment of dissociative disorders[29]

Outcome	Effect size comparing pretreatment and posttreatment data
Overall outcomes	.71
Anxiety	.94
Borderline personality disorder symptoms	.95
Depression	1.12
Dissociation	.70
General distress	1.09
Somatoform symptoms	.83
Substance abuse symptoms	.78

THE COSTS OF DISSOCIATIVE DISORDER

A nationwide study of the use of mental health services among wives of active-duty servicemen found that those with dissociative disorders had a higher number of mental health visits per person than any other psychiatric disorder.[39] Kessler,[9] citing data from the National Comorbidity Study, estimated that the cost of PTSD is $40 to $50 billion per year and that the average duration of active PTSD symptoms is more than 2 decades. Given that dissociative disorders are typically associated with not only PTSD but also a variety of other medical and psychiatric conditions, it is likely that the cost of dissociative disorders and the duration of symptoms are significantly higher than for PTSD alone. Cost-effectiveness studies have shown a substantial reduction in costs over time with the treatment model described above.[40]

In summary, dissociative disorders exact a high social, psychological, and occupational cost to patients, as well as a high economic cost to our society. Accurate diagnosis and treatment have been shown to reduce morbidity, cost, and mortality in this severely ill patient population.

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Category 1 Posttest

1. In DSM-IV-TR, dissociation is defined as a disruption of the usually integrated functions of which of the following:
   A. Consciousness
   B. Memory
   C. Identity
   D. All of the above
   E. None of the above
2. Which of the following is a strong predictor of dissociation:
   A. Early childhood trauma
   B. Chronic depression
   C. A first-degree biological relative with a psychotic disorder
   E. All of the above
   F. None of the above
3. Which of these are frequently comorbid with dissociative disorder?
   A. Depression
   B. Somatoform disorders
   C. Substance abuse
   D. All of the above
   E. None of the above
4. How many dissociative disorders are identified in DSM-IV-TR?
   A. 2
   B. 5
   C. 7
   D. 10
5. Feeling detached or disconnected from one's self describes which of the following dissociative disorders?
   A. Depersonalization disorder
   B. Dissociative amnesia
   C. Dissociative identity disorder
   D. None of the above
6. Presenting symptoms, clinical course, and treatment response are similar in dissociative identity disorder and depersonalization disorder.
   A. True
   B. False
7. Dissociative identity disorder almost always presents with dramatic, florid alternate identities with obvious state transitions.
   A. True
   B. False
8. What is of foremost importance in being able to diagnose a dissociative disorder in a patient?
   A. An office mental state examination for assessing dissociative symptoms
   B. Self-report screening measures
   C. A safe, collaborative relationship between patient and clinician
   D. All of the above
   E. None of the above
9. A phasic, multimodal, trauma-focused psychotherapy is the standard of care for severe dissociative disorders.
   A. True
   B. False
10. Although neuroleptics are typically ineffective for apparent or pseudopsychotic symptoms, in dissociative disorder low doses can be beneficial in which of the following cases:
    A. Severe anxiety
    B. Hearing voices
    C. Entrenched illogical thinking
    D. B and C
    E. A and C

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